

Integrated Report of Economic,
Environmental and Social Sustainability

POSCO REPORT 2017

posco

About This Report

Integrated Report

The POSCO REPORT(hereafter "Report") is an integrated report which contains POSCO's economic, social, and environmental performance in 2017.

History of Reporting

1995-2003	Environmental Report
2004-2011	Sustainability Report
2010-2013	Carbon Report(Focusing on climate change issues)
2012-2013	POSCO REPORT (Annual Report combined with Sustainability Report)
2014-Present	POSCO REPORT(Combined with Carbon Report)

Reporting Standard

This Report was prepared in accordance with POSCO's own reporting process with reference to the following reporting guidelines.

- GRI(Global Reporting Initiatives) Standard
- The 10 Principles of the UN Global Compact

Financial Information Standard

The reporting framework and definition of the financial information are based on K-IFRS(Korea-International Financial Reporting Standards).

Reporting Cycle

The Report has been published every year since 2004.

Reporting Period

This report includes the relevant information from January 1 to December 31, 2017. Quantitative data for the latest three fiscal years are provided for a better understanding of our performance, while the scope of some qualitative data is extended to April 2018. The corporate governance section is based on the decisions made by the Board of Directors at the meeting held on March 9, 2018.

Scope of Reporting

This Report contains economic, social, and environmental performance of Pohang Works, Gwangyang Works, Pohang Head Office, and Seoul Office. POSCO's 2017 performances and 2018 management plans include consolidated financial data and the Integrated Sustainability Performance Index covers POSCO and its major seven subsidiaries. Information on fair trade, quality management, safety, and health refers to POSCO's overall supply chain such as our domestic and overseas subsidiaries and outsourcing partners.

Assurance

To ensure the reliability of reporting process and information, the Report was assured by Samil PwC, an independent external assurance provider in accordance with the ISAE3000 and AA1000AS Type II. For more details, please refer to the assurance statements below.

- Independent Assurance Report _ page 144
- Independent Assurance Report On Carbon Reporting _ page 146

Feedback

This Report was published in Korean and English, and can be downloaded at POSCO's website. We also receive feedback from stakeholders via e-mail, telephone, and other diverse channels.

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Cover Image

POSCO is pushing to materialize a Smart Steelworks by introducing Artificial Intelligence (AI) into its production process. Our plan is to bring together the advanced manufacturing know-how that POSCO has accumulated over many years with AI and Big Data technology to create the optimal manufacturing environment. Later, we will expand its scope of application beyond equipment and manufacturing to the fields of energy, environment and logistics to secure our future competitive power and lead the fourth industrial revolution.



POSCO REPORT <http://www.posco.co.kr>

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CEO Message



Dear stakeholders of POSCO:

The year 2018 marks the 50th anniversary of the founding of POSCO. Since its inception in 1968, POSCO has stood at the forefront of Korean economy’s industrialization efforts. POSCO now stands at a watershed moment of becoming a centennial company, with the grand mission of pursuing a new growth paradigm that seeks to create social values and business profits at the same time. As POSCO braces itself for this new challenge, the 2017 POSCO Report presents our plans for the next leap in 2018, along with our 2017 performances in business operation, and environmental and social value creation that are the result of all our employees’ concerted efforts.

In 2017, POSCO successfully achieved all management goals. We have stayed atop the global steel industry with unrivalled competitiveness. We also completed internal restructuring efforts as part of our “IP (Innovation POSCO) 2.0” initiative and solidified the basis for future growth. As a result, consolidated operating profits exceeded four trillion Korean won for the first time in six years, and our corporate value improved significantly as well. Such outstanding performance was attributable to a number of factors; development and increased sales of high value-added WP (World Premium) and WP+ (World Premium Plus) products, continuous cost-saving efforts and dynamic solution marketing activities. At the same time, we were able to achieve more than we expected by carrying out smart projects in each division in order to realize the “Smart Factory” initiative.

POSCO’s such efforts have gained worldwide recognition. For example, POSCO has been named the world’s most competitive steelmaker for eight consecutive years by the World Steel Dynamics. POSCO is also the first steel company to be selected as one of the Global 100 Most Sustainable Corporations for four consecutive years by the World Economic Forum in Davos. As a member of the UN Global Compact, POSCO has been listed on the global Dow Jones Sustainability Index for 13 consecutive years. “POSCO Steel Village” project, one of POSCO’s major corporate social responsibility (CSR) activities, was registered on the United Nations Sustainable Development Goals (UN SDG) website as an exemplary model of CSR programs.

POSCO’s achievements over the past half century have been made possible with the wholehearted support and cooperation of our shareholders, customers, suppliers, partners and local communities. As we stand at the beginning of another 50 years ahead, POSCO seeks to find a new path of growing together with the society based on the renewed recognition that a sound society is the very foundation of our sustainable growth. As such, we plan to consistently design and implement innovative programs for creating social values.

In particular, we will methodically upgrade activities organized by POSCO 1% Foundation, that are undertaken by the committed and dedicated employees of POSCO, POSCO affiliates and partners.

We also aim to make sophisticated corporate culture that values compassion, co-existence and co-prosperity an integral part of the new POSCO brand. In order to ensure that all POSCO employees have true sense of corporate citizenship that cares for others with passion and commitment in addition to professional expertise, we will engage in efforts to innovate our HR development system. At the same time, we will establish safe working environment and cost-effective production system by adopting smart technologies at our operation sites.

Furthermore, POSCO will make sure our energy plans are aligned with the Korean government’s policy of transitioning to renewable energy by proactively pursuing renewable energy business including photovoltaic power. We will also actively participate in the efforts to reduce CO2 emissions and fine dust in the air, and commit ourselves to air quality improvement whose impact can be truly felt by the local residents. Our efforts to monitor environmental risks on a regular basis, and prevent foreseeable accidents from contamination will continue at our major facilities. We are also dedicated to making the entire product lifecycle greener with less carbon emissions. By acquiring more global certification for our high value-added products, namely WP and WP+, we intend to better meet the needs of our stakeholders and make inroads into new markets.

Based on the new management vision of “With POSCO,” we aspire to play a leading role in creating social values across all phases of our business. To that end, we have established three key management directions; “Business With POSCO,” creating values together with business partners, “Society With POSCO,” shaping a better tomorrow with the community, and “People With POSCO,” building a culture of trust and creativity. These directions will guide us in charting a new path together for POSCO.

I would like to ask for our stakeholders’ continued interest and support.

Thank you.

CEO Jeong-Woo Choi

A handwritten signature in black ink that reads "Jw Choi". The signature is written in a cursive, flowing style.

01

Overview

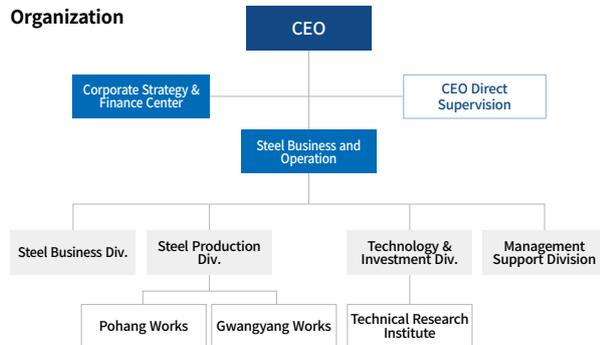
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About POSCO

Corporate Profile

POSCO is the largest steel producer, based on the crude steel production, in Korea which was incorporated on April 1, 1968, to manufacture and distribute steel rolled products and plates in the domestic and overseas markets. The company was listed on the Korea Exchange on June 10, 1988, and is currently operating two steelworks(Pohang and Gwangyang), with one office in Korea and six overseas offices as of April 2018. The company consists of the Corporate Strategy & Finance Center and CEO directly-controlled organizations under the CEO and the steel business and operation which include 4 divisions; Steel Business division, Steel Production Division, Technology & Investment Division, and Management Support Division.

Organization



Company Name	POSCO
Head Office	6261, Donghaean-ro, Nam-gu, Pohang-si, Gyeongsangbuk-do, Korea
Steelworks and Offices	Pohang Works: 6262, Donghaean-ro, Nam-gu, Pohang-si, Gyeongsangbuk-do, Korea Gwangyang Works: 20-26, Pokposarang-gil, Gwangyang-si, Jeollanam-do, Republic of Korea Seoul Office: 440, Teheran-ro, Gangnam-gu, Seoul, Republic of Korea

Steelworks and Offices	Overseas Offices: Six offices to support global business (Dubai, Iran, Europe, Rio de Janeiro, Western Australia, Argentina)
Business Content	Iron making, steel making, production and sale of rolled materials
Major Products	Hot rolled products, cold rolled products, stainless steel, etc.
President	Choi, Jeong-Woo; Oh, In-Hwan; Chang, In-Hwa
Establishment	April 1, 1968

Financial Performance(Consolidated Financial Statement Basis)

Classification	Unit	2015	2016	2017
Crude steel production	Thousand tons	42,027	42,199	42,193
Sales	KRW 1 billion	58,192	53,084	60,655
Operating profit	KRW 1 billion	2,410	2,844	4,622
Operating profit rate	%	4.1	5.4	7.6
Assets	KRW 1 billion	80,409	79,763	79,025
Liabilities	KRW 1 billion	35,339	33,925	31,561
Capital	KRW 1 billion	45,070	45,838	47,464
Debt ratio	%	78.4	74.0	66.5
ROE	%	△0.2	2.3	6.4

Integrated ESG Performance¹⁾

Classification	Unit	2015	2016	2017		
Innovation	R&D expenditure ²⁾	KRW 1 million	513,006	482,150	520,382	
	R&D expenditure to sales ratio	%	0.88	0.91	0.86	
Employee	Training hours per capita	Hours	92.1	47.8	103.8	
	Training expenses per capita	KRW	868,141	742,608	1,049,931	
	Employee satisfaction	Points	71.8	74.0	74.9	
	Turnover rate	%	4.0	5.1	2.5	
	Continuous service	Years	12.6	12.9	13.7	
	Ratio of contract workers	%	5.0	5.1	4.9	
	Rate of return from parental leave(male)	%	90	71	68	
Safety	Rate of return from parental leave(female)	%	98	88	93	
	Operations halt frequency rate	Per million hours	0.19	0.31	0.26	
Environment	Number of accidents(average)	Cases	5.6	7.8	6.5	
	Energy consumption ³⁾	TJ	961,464.0	484,225.7	509,177.7	
	GHG emissions	SCOPE1(direct)	Thousand tons CO ₂ e	82,741.3	81,309.8	81,282.6
		SCOPE2(indirect)	Thousand tons CO ₂ e	4,430.7	3,715.7	3,239.7
	Water consumption	Water usage	Thousand m ³ /year	160,944.1	160,900.7	190,597.7
		Wastewater discharge	Thousand m ³ /year	82,742.6	87,277.2	107,223.1
	Waste ⁴⁾	Waste generated	Ten thousand tons/year	2,339.8	2,299.9	1,167.0
		Waste volume(disposed)	Ten thousand tons/year	57.5	53.7	73.2
		Waste volume(recycled)	Ten thousand tons/year	2,282.1	2,246.2	1,093.8
	Society	Volunteering hours per capita	Hours	26.4	29.0	27.9
Social contribution expenditure		KRW 1 million	67,654	46,831	95,750	

1) The integrated ESG performance index applies to eight companies: POSCO, POSCO DAEWOO, POSCO E&C, POSCO ENERGY, POSCO CHEMTECH, POSCO ICT, POSCO M-TECH, POSCO C&C.

2) R&D expenditure was prepared based on a POSCO consolidated basis.

3) The amount of energy used in 2016 was revised from 481,458.6TJ to 484,226TJ due to calculation error.

4) Waste volumes recalculated based on domestic waste reporting standard(excluding volume of blast furnace slag).

* Parameters related to the number of employees including rates per capita, turnover rate, and ratio of contract workers are based on what is specified in the business report. However, the number of employees for POSCO E&C excludes contract workers who are employed on-site.

Corporate Governance

To ensure the independence of the Board of Directors(BOD) and the rights of shareholders, POSCO has been continuously improving its corporate governance based on the “Corporate Governance Charter” which expresses the vision and principles of corporate governance. The BOD consists of directors with vast experience and expertise in various areas ranging from industrial and financial to academic, legal, accounting, and public affairs fields so as to assist in the management’s rational decision-making process without being influenced by special interests. Up to eight outside directors and five inside directors can be appointed to ensure the independence of the BOD.

Also we have been established the Board operation system of centralized on outside directors by appointing a chairman of the BOD and the head of sub-committees among the outside directors. We operate regular meetings, which is only attended by outside directors, to provide an institutional guarantee for the gathering of the independent outside director’s opinions, while plenary strategy sessions are separately operated in order to strengthen the strategic

role of the BOD such as determining the strategic direction of Group management.

Introducing the concentrated vote system and the voting in writing system greatly strengthened the rights of shareholders, and the operation of the Financial Affairs and Internal Transaction Committee contributes to securing transparency in transactions with special concerned parties.

Since 2006, the role of CEO and chairman has been split to secure the independence of the BOD and strengthen monitoring function of management. The CEO Candidate Recommendation Committee was also organized in 2007 and operating regulations were established and are being adhered to so that CEOs can be elected in an independent and transparent manner.

In 2010, POSCO adopted the Code of Ethics for outside directors to heighten their sense of responsibility and transparency in regards to their activities, as well as introduced a system to evaluate the activities of the BOD and specialized committees. Regular meetings of each committee enhance the functions and roles of committees.

Outside Directors

<p>Kim, Joo-Hyun(Chairman)</p> <ul style="list-style-type: none"> • Current CEO of Financial News • Former CEO of Hyundai Research Institute • Former Senior Researcher at Goryeo Economic Research Institute • B.A. in English at Sogang University/Ph.D. in Finance at Arizona University 	<p>Lee, Myoung-Woo</p> <ul style="list-style-type: none"> • Current CEO of Dongwon Industries • Former Special Duty Professor of Business Administration at Hanyang University • Former CEO of SONY Korea • B.A. in Philosophy at Seoul National University/MBA at University of Pennsylvania 	<p>Bahk, Byong-Won</p> <ul style="list-style-type: none"> • Former Chairman of Korea Employers Federation • Former President of Woori Financial Group • Former Vice Minister of Finance and Economy • B.A. in Laws at Seoul National University/M.A. in Economics at Washington University 	<p>Kim, Shin-Bae</p> <ul style="list-style-type: none"> • Former Vice Chairman of SK Group • Former CEO of SK Telecom • Former Chairman of Korea IoT Association • B.A. in Industrial Engineering at Seoul National University/MBA at University of Pennsylvania
<p>Chung, Moon-Ki</p> <ul style="list-style-type: none"> • Current Associate Professor of Business Administration at Sungkyunkwan University • Former Accounting Deliberation Committee Member of Financial Supervisory Service • Former Senior Executive of PwC • B.A. in Trade at Sungkyunkwan University/MBA at Sungkyunkwan University 	<p>Jang, Seung-Hwa</p> <ul style="list-style-type: none"> • Current Professor of Law at Seoul National University • Current Arbitrator of ICC(International Court of Arbitration of International Chamber of Commerce) • Former Judge of WTO Appellate Body • B.A. in Law at Seoul National University/Ph.D. in Law at Harvard University 	<p>Kim, Sung-Jin</p> <ul style="list-style-type: none"> • Former President of Hankyong National University • Former Oceans and Fisheries Minister • Former Commissioner of Small and Medium Business Administration • B.A. in Economics at Seoul National University/Ph.D. in Economics at Kansas State University 	

Inside Directors

<p>Choi, Jeong-Woo</p> <ul style="list-style-type: none"> • Current Chairman and CEO of POSCO • Former President, POSCO ChemTech • Former President & CFO, Head of Corporate Strategy & Finance Center, POSCO • B.A. in Economics, Pusan National University 	<p>Oh, In-Hwan</p> <ul style="list-style-type: none"> • Current President of POSCO • Former Senior Executive Vice President of POSCO • Former Senior Executive of POSCO P&S • B.A. in Sociology at Kyungpook National University/M.A. in Economics at Yonsei University 	<p>Chang, In-Hwa</p> <ul style="list-style-type: none"> • Current President of POSCO (Chief Operating Officer / Head of Steel Business and Operation) • Former Management Director of RIST • B.A. in Shipbuilding&Marine Engineering at Seoul National University/Ph.D. in Marine Engineering at MIT
<p>Yu, Seong</p> <ul style="list-style-type: none"> • Current Vice President of POSCO (Head of Technology Investment Division) • Former Head of POSCO-Japan • B.A. in Civil Engineering at Korea University/M.A. in Information Technology at POSTECH 	<p>Chon, Jung-Son</p> <ul style="list-style-type: none"> • Current Vice President of POSCO (Head of Corporate Strategy&Finance Center) • Former CEO of POSCO C&C • B.A. in Law at Korea University 	

Board of Directors

BOD Composition

At POSCO, inside directors are elected at a general meeting of shareholders. Candidates for inside directors are recommended by the board of directors after the candidates' qualifications are reviewed by the Director Candidate Recommendation and Management Committee. As for outside directors, the Outside Director Candidate Recommendation Advisory Group, comprised of five prestigious professionals, suggests a roster of three candidates, after which the Director Candidate Recommendation and Management Committee strictly verifies their qualifications. Final candidates are then recommended for appointment at the shareholders' meeting. At the 50th general shareholders' meeting on March 9, 2018, Kim, Sung-Jin, the Former Minister of the Ministry of Oceans and Fisheries, was newly appointed, while Bahk, Byong-Won, the Former Chairman of Korea Employers Federation, and Kim, Joo-Hyun, the CEO of Financial News, were reappointed as outside directors. As inside directors, Chon, Jung-Son, the Vice-president of POSCO, was newly appointed Oh, In-Hwan, the President of POSCO was reappointed as well as Chang, In-Hwa and Yu, Seong, both of which were the Vice-presidents of POSCO. The outside director Kim, Joo-Hyun was nominated as the BOD Chairman at the BOD meeting. In 2017, the BOD meeting was held seven times and the attendance rate of both inside and outside directors was 100%. Major agendas decided at the BOD meeting in 2017 included the divestment, supplementation of facilities at Gwangyang 4 hot rolling factory, mid to long-term management strategies and business plans for 2018, and donations to the year-end charity campaign.

Major Agendas in 2017

Jan. 25	<ul style="list-style-type: none"> Approval of the 49th business report and financial statements and convening of the general shareholders' meeting Recommendation of inside director candidates (Chairman and CEO candidate)
Feb. 17	<ul style="list-style-type: none"> Agendas to be submitted to the 49th general shareholders' meeting Recommendation of inside director candidates
Mar. 10	<ul style="list-style-type: none"> Appointment of BOD Chairman Appointment of specialized committee members Appointment of CEO and position assignment to inside directors
May 12	<ul style="list-style-type: none"> Divestment Investment in the POSCO Educational Foundation, etc.
Aug. 1	<ul style="list-style-type: none"> Issuance of 2Q cash dividend Improvement of BOD management, etc.
Nov. 3	<ul style="list-style-type: none"> Issuance of 3Q cash dividend Agreement on lease contract for lime calcinations plant Supplementation of facilities at Gwangyang 4 hot rolling factory, etc.
Dec. 8	<ul style="list-style-type: none"> Mid to long-term management strategies and business plans for 2018 Donations to year-end charity campaign

Director's Remuneration

Remuneration limit	Total amount paid
KRW 10 billion	KRW 9 billion

Specialized Committees

At the 50th general shareholders' meeting held on March 9, 2018, POSCO restructured to integrate the six specialized committees of the BOD into five in order to improve the efficiency of specialized committee management. Four specialized committees are chaired by outside directors, excluding the Management Committee responsible for reviews and deliberations on investments in steel businesses. The Audit Committee and Compensation Evaluation Committee are composed of only outside directors to ensure the independent decision-making of the board.

Major Roles and Composition of Specialized Committees

Director Candidate Recommendation Committee

(Three outside directors, one inside director/Chairman: Bahk, Byong-Won)

Major deliberations/decisions in 2017: Screening and recommendation of outside director candidates, screening of inside director candidates, appointment of subcommittee members, operation of the Outside Director Candidate Recommendation Advisory Group, etc.

Evaluation and Compensation Committee

(Four outside directors/Chairman: Lee, Myoung-Woo)

Major deliberations/decisions in 2017: Evaluation on companywide operating performance in 2016, prior review for directors' remuneration limit setting for 2017

Financial and Internal Transaction Committee

(Three outside directors, one inside director/Chairman: Kim, Shin-Bae)

Major deliberations/decisions in 2017: Divestment, plan for NMC payment guarantee, launch of year-end charity campaign donation, approval of short-term borrowings limit for 2017, launch of POSCO Educational Foundation, limestone calcination equipment lease contract conclusion, etc.

Audit Committee

(Three outside directors/Chairman: Chung, Moon-Ki)

Major deliberations/decisions in 2017: Operation of internal accounting management system in 2016, internal audit results of 49th meeting financial statements, etc.

Management Committee

(Five inside directors/Chairman: Choi, Jeong-Woo)

Major deliberations/decisions in 2017: Disposal of treasury shares with rewards, rationalization of Pohang 2FINEX, replacement of deteriorated facilities at Gwangyang 4 cold rolling factory 1CAL, supplementation of facilities at Gwangyang 4 hot rolling factory, etc.

* The members of each specialized committee are as of March 9, 2018.

<ul style="list-style-type: none"> Corporate Governance Charter and Code of Ethics for Outside directors <p>posco.co.kr/governance charter</p>	<ul style="list-style-type: none"> Information about the Board of Directors <p>posco.co.kr/board</p>
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Interview with Executives

This report includes interviews with management to share the company's policies and business plans with stakeholders. The interviews were conducted in April by Samil-PwC, our assurance provider, with results as follows.



Oh, In-Hwan
President

Q1 POSCO has introduced the position of Steel Business and Operation for the advancement of the steel business, one of the four promotional strategies. Please share with us the performance of POSCO in 2017, along with the opportunities, risk factors, and key strategies for 2018.

A1 Recently, the steel industry faces a risk of further decrease in steel demand as a result of the delayed recovery of domestic market conditions. Under the circumstances, steel products imported from emerging countries are continuously being brought into the market. In addition, while global protectionism is spreading, global competitors are strengthening their power through M&A posing a threat to us with high value-added products. As such, there is growing uncertainty within our management environment. In 2017, Chinese steel products maintained high prices and we created profits by focusing on World Premium products in the domestic market. POSCO had been preparing for external factors that would affect the steel industry, such as the Trade Expansion Act for tariffs imposed on steel imports. As a result, by focusing on the domestic market, we were able to maintain sales without any significant setbacks. What we need to prepare for, more thoroughly than the apparent difficulties, is the Fourth Industrial Revolution that will change the paradigm in the steel industry. In response, driven by innovative technologies including IoT, AI, and big data, POSCO will reinforce our competitive advantage in both steel and non-steel businesses and focus on securing new growth engines.

Q2 POSCO is operating the Smart Factory by integrating IoT, big data, and AI technologies with field experience and accumulated expertise. With regards to production, I would like to ask the plans which is about the system transformation of combining hardware and software.

A2 POSCO strives to resolve difficult problems in manufacturing sites and further reinforce our fundamental competitive advantage by promoting 'smartization', which involves the integration of our expertise with the latest smart technologies. For this purpose, we are promoting the development of PosFrame®, a Smart Factory platform, and the spreading of smartization to our affiliates. The ultimate goal of smartization is to secure quality competitiveness, reduce manufacturing cost, improve productivity, prevent facility failures, and ensure our future competitive advantage accident-free operations. In line with the changes of the Fourth Industrial Revolution, POSCO has implemented AI technologies accumulated at our production sites and office spaces. This has improved production quality, ensured safety, and increased operational productivity. AI is now an indispensable part of POSCO's business. However, although the necessary machinery and tools have been secured, it is the role of the people to determine which machinery and tools are to be used in the application of AI technologies. I believe that we have reached the present stage in AI advancement through a series of trials and errors amid efforts made for the innovation grounded in the accumulated data over several decades. It is not something that is achieved simply with a vast amount of data. We have achieved this because we became accustomed to innovation and successfully established smartization adequate with our environment. In the future, we will be able to extend the application of hardware and software integration to marketing and the fields of new technologies beyond production.



Chang, In-Hwa
Head of Steel Business and Operation

Q1 POSCO is dedicating efforts to improving customer satisfaction by introducing WP(World Premium) and WP+(World Premium Plus) as part of the efforts for advancement of the steel business. Please share with us the strategies of the Steel Production Division in 2018, including the expansion of sales of high value-added products.

A1 The steel business is currently facing the problem of excessive supply. POSCO's first strategy to resolve this situation and continuously maintain our steel business is to expand the sales of high value-added products, including WP and WP+ products. In 2017, WP products accounted for 53.4% of POSCO's steel production. We recently introduced the concept of "Plus" to WP in an attempt to promote further differentiation. Our second strategy is to secure R&D capabilities to develop high value-added products. In recent years, due to the steel industry's difficulties, many companies have stopped research of environmental technology. However, POSCO has been continuously strengthening R&D capabilities as a key factor in gaining a competitive edge. Ultimately, I believe that we will be able to continue forward by overcoming environmental problems. Our third strategy is the smart factory. In manufacturing products of excellent quality, such as high value-added products, a precision process is a must. We can accumulate data through the smart factory thus increasing predictability in manufacturing new products and facilitating the manufacturing process. We also need to reinforce the smart factory by implementing AI.

Q2 With making safety a top priority in management, POSCO is striving to create a safe and healthy workplace for our employee. What is POSCO's direction for safety activities through the advancement of safety management?

A2 In the past, POSCO had placed more focus on productivity and quality than on safety. However, we realized that there is nothing more important than safety as we encountered a series of safety-related accidents. In response, we modified the existing four core values of our vision, which had not included safety, to include safety as the top priority. Under this value system, if safety is not fundamentally guaranteed, we are changing the system to disable progressing to the next stage of operation. For example, we had previously established a management plan for repairing a facility and reflected any failure to adhere to the time line of the plan in the performance evaluation of the head of the department in charge. However, by changing the concept of safety, we are now able to reschedule a work date and order to stop works if safety is not guaranteed. We are striving to ensure safety as top-priority of management.



Yu, Seong
Head of Technology and Investment Division

Q1 A steady increase in demand has been expected in the steel industry as of late, according to the growth trends of emerging countries. However, uncertainties in the management environment are increasing, such as the proliferation of protectionism in key countries and an accelerated industrial paradigm shift. What is POSCO's mid-to-long term technological strategy to secure future competitive advantage in response to such changes in the management environment?

A1 The demand for steel is consistent. However, we do expect that the needs of customers will change. In the end, the most important thing is how we will respond to customers. POSCO's first goal is to respond to customer needs through technological competencies. We will establish a system for technological development in order to create a more superior, innovative product, such as giga steel, to stay ahead of our competitors. Striving to solve the question of "what is necessary in addition to the products that we are creating now", we will maintain the added value of our products by preemptively providing solutions to meet customer needs. We will also promote smartization, which is the ability to actively respond to any situation. In overseas countries, the Fourth Industrial Revolution is also referred to as digitalization. For production technology and quality control, we can produce better results through integration with AI and big data technologies. Our goal therefore is to operate smart factories that are suitable for each field. All of POSCO's functional production information is gathered on a central server. I believe that the difference in scale of accumulated data is POSCO's point of differentiation. When an AI system is established, we can conveniently utilize this vast amount of data, while our competitors who are starting to build smart factories will need to invest relatively greater amounts of time and resources. POSCO's competitive advantage will be thus further reinforced. Smartization is POSCO's growth engine in the new era.

Q2 Please share with us POSCO's performance and business plan for the secondary cell material business, which is one of the new businesses promoted by POSCO and is presently receiving much attention.

A2 POSCO is actively promoting the secondary cell material business as our new growth engine for the future. The key components of a secondary cell are the cathode and anode materials, which are comprised of lithium, nickel, cobalt, and needle cokes. POSCO is currently engaged in the business of lithium, nickel, and needle cokes, as well as cathode and anode materials. As for lithium, we started a commercial-level lithium carbonate production facility in February 2017, the first in Korea. We achieved remarkable results in the new business area based on our own technologies, such as the commencement of commercial lithium carbonate production within seven years following the independent technological development for lithium extraction. In the past, the lithium extraction process took a long time and the recovery rate was generally less than 50%. However, with POSCO's independently developed technology, the lithium extraction period was shortened to three months while the recovery rate was also improved up to 80%. In addition, we are capable of stable lithium production from a range of raw materials including saline water, ore, and recycled lithium. We are also promoting the business for cathode and anode materials. The anode is a key constituent that accounts for more than 30% of the battery cost. We succeeded in developing PG-NCM, a high-capacity anode material with considerably improved lifespan and stability. The center and surface compositions were designed differently, thus increasing the nickel content up to 80%. As for the cathode material, we succeeded in mass-production of a high-capacity cathode material for electric vehicles developed with the technological competency of POSCO CHEMTECH in 2011. Since then, we have grown to the largest natural graphite manufacturer in Korea, with a current annual production volume of 15,000 tons. We believe that we have contributed to localizing and stably supplying high-performance products to large-scale battery makers in Korea. We will continuously promote the vertical integration strategy for the secondary cell material business.



Chon, Jung-Son
Head of Corporate Strategy & Finance Center

Q1 The Corporate Strategy & Finance Center establishes the POSCO Group's mid-to-long term strategies by reflecting changes in the management environment. Please explain the direction of POSCO's future strategies in 2018, marking the 50th anniversary of POSCO's founding, to develop into a 100-year company in the future.

A1 POSCO has established a new mission and vision in order to achieve continuous growth by seizing new opportunities amid the constantly changing management environment of the future. In order to promote our new mission, "Unlimit the Limit: Steel and Beyond" and the vision, "POSCO the Great," we have established four strategies. First, we will reinforce our future growth structure through a Portfolio Shift. From the existing one-core business structure focusing on the steel business, we will reinforce the second core, which is the infrastructure business. We will also foster new growth engine businesses and develop them as the third core. Second, we will solidify our global presence especially in strategic countries. We will select strategic countries by considering the geopolitical conditions and long-term growth potentials of our overseas businesses and optimize steel, infrastructure, and new growth engine businesses. Third, we will innovate our business model through convergence with soft infrastructure. It is to create new businesses by integrating the POSCO Group's business expertise and ICT knowledge. By promoting this, we will create a platform-based smart solution business. Lastly, we will foster creative and convergence-type human resources, develop a smart decision-making system, and promote work-life balance by establishing a smart management infrastructure based on creative culture.

Q2 What were the key risk factors that the Corporate Strategy & Finance Center managed in 2017 and how did you respond to them? Also, were there any new risks and how do you plan to manage them?

A2 POSCO completed the restructuring in 2017, which started in 2014 with the aim of preemptively responding to the Group's internal business risk. Sell-offs, mergers, liquidation and other fiscal activities amounted to a cumulative 150 cases, essentially helping us achieve solidification of our business structure. KRW 5.7 trillion in profits from sell-off payment and KRW 1.3 trillion earned from the reduction of loans combined for a total profit gain of KRW 7 trillion, while the potential loss from high-risk project financing amounting to KRW 1.2 trillion was successfully avoided. In the future, we aim to actively respond to trade risks, such as anti-dumping, in line with the global proliferation of protectionism. Internationally, we will expand outreach activities in cooperation with the government. In cooperation with the government, we will share the performance results of local economic contributions to local statesman and corporate body state governments of countries where companies are currently active and expand upon outreach activities that demand support. Internally, we will reinforce 'Glocalization' for each overseas subsidiary. We will pursue the expansion of the local domestic market where overseas subsidiaries are currently active by improving upon the relationships with local businesses following the examination of a complete system of supply, manufacturing and sales within the local community. In the case of upstream process, we will not pursue to directly enter into overseas business. However, we plan to strength the alliance with local companies. At the same time, we will accelerate trade risk hedging by developing substitute export markets.



Jeong, Tak
Head of Steel Business Division

Q1 To mark the 50th year since its founding, POSCO has declared target profit shares per business sector in the future as 40% for steelmaking, 40% for infrastructure, and 20% for new growth business. Steel making will continue to play a key role in leading the company's growth and generating profits. What are the strategic direction and current competitiveness of the steel business?

A1 First, we will focus on differentiated and high-quality steel products, such as our World Premium products. Products of ordinary quality are easily exposed to the threat of trade pressure. It is important to secure business competitiveness by placing a focus on products that cannot be manufactured by local companies. Second, we will preemptively identify and prepare for the industrial trends. POSCO is capable of supplying all steel parts and materials for electric vehicles. In addition to chassis, we are selling electrical steel for the motors. We have also secured the capability of materials manufacture. Another market on which we focus is that of steel products for architecture. As architectural structures are increasing in height, the ability to shorten the construction period has become a key competitive point for construction companies. Meanwhile, the extent of steel material use plays an important role in reducing the construction period. POSCO has high expectations for the market of premium steel products for architecture in this regard. Last is the shipbuilding industry. In general, bunker fuel oil C is used as a fuel for ships but contains environmental pollutants. With ships that use eco-friendly fuels, such as LNG, becoming more popularized as of late, high manganese steel can be used as a material for the fuel tank. In terms of price competitiveness, high manganese steel can replace nickel and aluminum materials. In the end, the key to the success of the steel industry is how fast it can respond to future industrial trends through convergence. In this regard, we believe that we can maintain our competitive advantage into the future.

Q2 POSCO has been implementing solution marketing since 2014 with a goal to help customers use POSCO products more conveniently and economically. What were the results of Solution Marketing 2.0 in 2017 and what are your plans for the future?

A2 POSCO has been striving to develop and provide solutions that reflect customer needs. Solution marketing is a series of services to provide each customer with the most optimized and specialized products. The series of services was established as solution marketing and has increased customer loyalty while, ultimately, bringing about marketing stability. In 2017, we promoted Solution Marketing 2.0 in order to swiftly respond to the rapidly changing industrial trends, while simultaneously reflecting customer needs, and to provide greater value to customers with further differentiated strategies from those of our global competitors. POSCO is striving to enhance our competitive advantage along with that of the customer by strengthening customized care as well as ensuring revolutionary service speed, providing support for client's marketing, and actively utilizing IT equipment. To resolve problems occurring from our production, we have collected process data and information on the materials of our products and analyzed them using AI technology. We share information on temperature control, cooling method, and design time, to name a few. Solution marketing ultimately aims to produce results through which both POSCO and our customers can jointly develop a competitive advantage.



Han, Sung-Hee
Head of Management Support Division

Q1 POSCO is promoting a relationship of co-prosperity by discussing various issues to achieve joint development for the company and its employees through the Labor-Management Council, which is comprised of employee representatives and management. What were the key activities of the Labor Management Council in 2017?

A1 The Labor Management Council is a representative body for POSCO employees. The members appointed through direct election perform roles as employee representatives. So far, the Labor Management Council has been promoting a relationship of co-prosperity by sharing their thoughts regarding how to contribute to the country in addition to the issues of employee personal welfare and working conditions. As for the Labor Management Council's key activities in 2017, first, we discussed and resolved the issue of female employee career discontinuity as a result of childbirth and childcare. POSCO preemptively introduced various systems through this process, such as the setup and operation of childcare centers in the workplace. Employees are also provided with medical leave for issues concerning infertility while parental leave is awarded to male employees. Second, we established a system for co-prosperity of the company and employees through wage agreement. Taking this as an opportunity, we were able to share the performance made so far with the employees of POSCO and outsourcing partners in celebration of POSCO's 50th anniversary. Third, we promoted GWP(Great Work Place) activities in order to improve employee immersion in their jobs, create a safer work environment, and establish an enjoyable organizational culture. The Labor Management Council contributes considerably to improving the company's competitive advantage by taking the lead in enhancing the work environment. Safety activities and the organization of campaigns take place as well in order to share gratitude among employees.

Q2 POSCO has recognized the importance of securing the competitive advantage of suppliers, and thus is performing activities for co-prosperity under the vision of Win-Win for the Great. Please tell us about the key activities performed in 2017 to improve the competitive advantage of suppliers and their outcomes.

A2 POSCO has been promoting various activities for shared growth in order to improve the competitive advantage of our suppliers under the belief, "the competitiveness of the supply chain is our competitiveness." In 2017, we applied market price competitive bidding and lower limit price bidding systems to sourcing groups vulnerable to quality risks due to excessive competition among suppliers during bidding. We also adjusted the unit price contract period from one year to two or three years in order to ensure supplier selection strictly through bidding. This essentially can promote a stable supply of raw materials while bettering supplier competitive advantages through quality improvement. Moreover, in order to improve the customary practice where primary suppliers facing difficult fiscal circumstances are allowed payments through promissory notes, we raised interest-free, funding worth KRW 50 billion to further support the changes. In addition, we also expanded the qualifiers for cash payment of the entire supply cost to include both SME's and mid-sized companies. Meanwhile, we supported the productivity improvement of SMEs by actively participating in the "industrial innovation campaign" led by the government and by promoting the QSS activities, POSCO's innovation methodology, to 153 SMEs. In particular, for 31 SMEs, we supported smart factory establishment in their manufacturing sites.

Vision and Strategy

Performance Highlights in 2017

In 2017, the global economy recorded a stable growth rate of over 3% as a result of the economic recovery in developed countries, such as the U.S., Europe and Japan, as well as the expansion of growth trends in emerging countries and increasing global trade volume.

In line with the global economic recovery, the economy in Korea also grew by around 3% as a result of increased exports centering on the IT and semiconductor field and increased investment in facilities. However, as private consumption is yet to pick up due to the continuous increase in household debt and decrease in household real incomes, the gap between export and domestic business conditions was considerably widened.

Meanwhile, global steel market conditions were more robust than expected, as a result of the increase in stable demand thanks to the global economic recovery and the price increase following Chinese steel industry restructuring. Nevertheless, competition in the major markets deepened with the strengthened protectionism of the U.S. and a sharp increase in exports of emerging countries, such as India. In Korea's steel market, the trend of recovery was delayed as a whole due to the stagnant performance of the shipbuilding and automobile industries, despite a favorable trend in the construction industry. Additionally, the successive import regulations by major countries resulted in a limit on export expansion, adding to the difficulties of steelmakers in Korea.

Despite the difficult conditions that surrounded us, we have dedicated our utmost efforts to strengthening of the competitive advantage of our steel business, improving profitability of non-steel business areas, producing results from new growth engine businesses and achieving smartization. As a result, POSCO recorded an operating income of KRW 2.9 trillion and an operating margin of 10.2%, achieving a double-digit figure for two consecutive years. On the consolidated basis, our operating income was KRW 4.6 trillion, the highest in six years.

The highlights among our major management activities last year are as follows:

First, we actively promoted steel business profitability improvement by advancing steel businesses based on our own technologies.

We enhanced our global technological leadership by developing next-generation innovative products including giga steel (ultra high-strength steel) and high manganese (Mn) steel, and in doing so, we were able to adjust to the rapidly changing market environment. We also secured a differentiated competitive edge by promoting the further upgraded "Solution Marketing 2.0", which involves the improvement of customer communication regarding IT while providing customized package solutions.

As a result, we increased domestic sales along with the sales of high value-added World Premium products by 6.1% over the previous year to 53.4%.

We also improved our operational competitive advantage by optimizing low cost base production and enhancing production efficiency in major processes. At the same time, we advanced our facilities to expand World Premium production, internalized facility investment through independent engineering, and thus further solidified the low-cost/high-efficiency production system.

As for the overseas steel business, POSCO promoted the strategy of product advancement using solution marketing based on stable operations, resulting in improved operating profits and a turnaround in net profits. In particular, PT KRAKATAU POSCO in Indonesia expanded local market share and increased the sale of highly profitable products, and thus turned a profit. As for ZPSS in China, it recorded an operating income of more than USD 100 million.

Second, we completed business restructuring, thus further solidifying the business structure and financial structure of the POSCO Group.

We effectively improved finances to a scale of KRW 1.2 trillion by selling off non-essential assets and restructuring low-profit businesses. As a result, we successfully completed around 150 cases of restructuring, a goal set in 2014, and achieved financial improvement by approximately KRW 7 trillion over the last four years.

We continued activities for financial structure improvement, improvement in particular, such as securing approximately KRW 1 trillion in cash through the timely sale of non-essential investment assets including investment stocks.

The E&C business group restructuring and steel distribution and processing business restructuring, started in 2016, were also completed successfully, thus improving the performance of POSCO key affiliates, such as POSCO E&C and POSCO DAEWOO.

As a result, our debt ratio and new borrowings were reduced to their lowest since our foundation establishing a strong financial structure.

Third, we prepared a base for the dissemination of "smartization" and produced visible results from new growth engine businesses.

POSCO is promoting the establishment of smart factories in our operation sites in line with the paradigm shift towards the era of the Fourth Industrial Revolution. We are attempting to apply smart technologies, such as IoT, big data, and AI, to steel production sites by using PosFrame, an independently developed smart factory platform, and through these efforts, we are strengthening the competitive advantage of our steel business.

We are actively discovering Group-level smart solution businesses, such as smart factory, smart B&C, and smart energy, and are leading the smart industry by cooperating with major affiliates including POSCO E&C, POSCO Energy, and POSCO ICT.

In relation to future growth, we have completed PosLX(POSCO Lithium extraction) and a lithium production plant with an annual production volume of 2,500 tons through independent technological development in the secondary cell material field. We have commenced commercial production of lithium carbonate for the first time in Korea. POSCO ESM developed PG-NCM(POSCO Gradient-Ni/Co/Mn), a large-capacity anode material, and has commenced mass-production and product sales. POSCO CHEMTECH, the only cathode material manufacturer in Korea, has established a cathode material production system with an annual production volume of 8,000 tons.

Fourth, we promoted the innovation of training programs, the way of work and the Human Resource Management System for the cultivation of creativity and talent that will lead “Smart POSCO.”

To integrate new IT with our expertise in the steel business, we opened a new smartization training program and prepared a foundation to foster innovative human resources through the operation of the “Smart POSCO Forum.”

Using POSTIM(POSCO Total Innovation Methodology), we also enabled employees’ creative ideas to be developed into projects that lead to financial results.

At the same time, we strengthened the dual-ladder personnel fostering system for management and professional positions so as to improve the expertise of our employees and help them exhibit their specialized capacity to the fullest. We have also enhanced the performance-based corporate culture in relation to employee assessment and reward.

The management performance of the POSCO Group affiliates in Korea have also been considerably improved.

POSCO DAEWOO further strengthened the base steel sales by restructuring the steel distribution and processing business, and acquired the exploration and management license for the DS-12 mining lot in Bangladesh following the acquisition of a gas field in Myanmar. POSCO Daewoo has also promoted diversification of its business model by establishing an office for grain supply in Ukraine.

POSCO E&C has succeeded in turnaround through efforts to restructure poorly performing business areas, sale of non-essential assets, focusing its competencies on core business areas, and reinforcing technological and cost competitiveness.

POSCO Energy considerably improved its income over that of the previous year as a result of the efforts for LNG power system improvement and cost reduction. A base was also secured for future profitability by promoting renewable energy businesses including overseas IPP business, such as Quynh Lap2 in Vietnam, and the offshore wind power generation business.

POSCO CHEMTECH expanded the sale of cathode material, which is used in secondary cell manufacturing, and improved profitability for the needle business profitability, and thus significantly increased corporate value.

POSCO ICT achieved sustainable growth in both sales and operating income based on smartization performance including expansion of solution business in the SOC field and smart factory business.

Based on improved management performance through the key management activities highlighted above, POSCO’s credit rating outlook was adjusted up to “stable” by S&P, an international credit rating organization, on February 16. Moody’s also adjusted POSCO’s long-term corporate credit rating outlook to “positive” on October 26. The company’s stock price has also risen by approximately 30% over the past year.

With recognition for our performance in applying smart technologies to the steel business, POSCO won the “Innovation of the Year” award from the World Steel Association and the “Presidential Award for the Korea Knowledge Awards” in Korea. POSCO has strengthened its position as a leading global steelmaker.

POSCO has also become the first steel company to enter the DJSI(Dow Jones Sustainability Index) for 13 consecutive years. We were also named the most competitive steel company by WSD(World Steel Dynamics) for eight years in a row, and thus further solidified our status as a global steelmaker with the strongest competitive advantage worldwide.

POSCO's Strategic Direction for 2018

As POSCO is set to begin the next half of its journey towards becoming a centennial company, POSCO faces many new challenges in its surrounding environment marked by intensifying global trade war, the sweeping wave of digital transformation and the ever-changing inter-Korean relations. Furthermore, at a time when all corporate activities are shared with relevant stakeholders on a real-time basis, companies are increasingly expected to play a more significant role other than simply generating profits. Therefore, it is time for POSCO to find a new path of growing together with the society based on the renewed recognition that a sound society is the very foundation of our sustainable growth.

POSCO now stands at a watershed moment with the grand mission of pursuing a new growth paradigm that seeks to create social values and business profits at the same time. The past 50 years have been centered on the mission of contributing to the development of the Korean economy by manufacturing quality steel products.

This enabled POSCO to grow into a world-leading steel producer that imbues Koreans with pride. Now, the next 50 years will be about POSCO growing into a true Corporate Citizen that seeks not only business profits but also co-existence and co-prosperity. Such aspirations have been reflected in our new corporate vision of "With POSCO" which was declared recently. To that end, we have concretized three key management directions; "Business With POSCO," creating values together with business partners, "Society With POSCO," shaping a better tomorrow with the community, and "People With POSCO," building a culture of trust and creativity.

In order to successfully achieve the new vision, POSCO will engage in the following activities:

New Value System for POSCO



First, we will reform our businesses so that we can grow together with our partners.

With an aim to continuously offer world-class premium products and services in steel business, we plan to innovate R&D focusing on product development and cost-saving technologies, and expand development of differentiated solutions. Alongside such efforts, we will establish effective smart technologies to be adopted in the entire business ecosystem, and streamline technologies and processes that have little possibility of commercialization. At the same time, we aim to firmly secure global competitive edge by focusing on building safe and cost-effective production system. Another area of priority would be to play a leading role in the steel industry's efforts in fostering small but strong players and undertaking structural improvement, with the ultimate goal of raising competitiveness of the overall industry. In overseas markets, we will address the challenges of trade protectionism by partnering and cooperating with local steelmakers, customers and suppliers to ensure self-sufficiency.

As for POSCO Group business, we will find and reorganize businesses with strong synergy among affiliates, and constantly restructure weak businesses into new growing ventures. In materials business, cathode and anode material businesses will be integrated to raise synergy in marketing and R&D. In trading business, we seek to counter the effects of rising trade disputes by pioneering new steel markets and expanding exports of high-quality materials. Trading business will continue to take the lead in developing new overseas markets for the entire Group. In energy business, we will actively pursue efforts to enhance competitiveness of LNG power generation and explore LNG midstream businesses both at home and abroad. In E&C business, we intend to secure global competitiveness by reorganizing businesses based on core competencies and focusing on strategic countries.

Second, we will upgrade our corporate social responsibility (CSR) activities to create social values and grow together with the society.

Through meaningful CSR activities to address social issues regarding education, environment and low fertility rate, POSCO seeks to contribute to the growth of individual members of our society and improving their quality of life. In the local communities of Pohang and Gwangyang, we will support the organic growth of new industrial ecosystems such as the creation of a business venture cluster.

At the same time, we seek to contribute to vitalizing the local economy and finding new growth engine by creating venture funding worth one trillion Korean won. We will also expand the "Benefit Sharing" scheme that shares the fruits of innovation with small and medium-sized suppliers. Furthermore, we are committed to improving the working conditions of our partners by sharing the use of our welfare facilities.

Third, we will establish corporate culture of trust and creativity.

For starters, we will boost employee morale by putting in place a fair evaluation system that is strictly based on individual competencies and performance, while preventing any possibility of discrimination and favoritism based on family, hometown or school affiliation, or certain factions inside the company. In order to ensure that all POSCO employees have true sense of corporate citizenship that cares for others with passion and commitment in addition to professional expertise, we will engage in efforts to reform our HR training system as well. To spearhead future growth of new businesses, we plan to facilitate employee exchange programs among Group affiliates and place top talents at the frontlines of businesses by adopting a more flexible HR system in terms of promotion and compensation. Furthermore, in order to help employees bring out their full potential, POSCO will establish a new corporate culture with focus on openness, equality, cooperation, autonomy, creativity and action for the next 50 years. At the same time, we will prioritize substance over formality, execution over reporting and practicality over cause, so that we can find pragmatic solutions to our challenges.

2018 is the year when we take the first step on the "New POSCO Road" with the new vision of "With POSCO" seeking to grow together with our shareholders, customers, suppliers, partners and local communities.

Even amid the challenging business environment, all POSCO employees are committed to growing together with the society for the future and its generation, and making sophisticated corporate culture that values compassion, co-existence and co-prosperity an integral part of the new brand of POSCO, as we become a centennial company with true Corporate Citizenship.

Sustainability Management Policy

POSCO is well aware that we can grow as a sustainable company through the sustainable development of society. As a steel company, we will establish and implement policies for sustainable growth, performing responsible management activities based on trust with our stakeholders and providing sustainable solutions to help both our customers and society. As a member of the UN Global Compact, we will also fulfill our responsibilities with regards to labor, human rights, the environment, and anti-corruption as a corporate citizen, while at the same time actively participating in the UN SDGs(Sustainable Development Goals) adopted in 2015.

UN SDGs

The UN SDGs are a promise made by the global community that must be fulfilled by all members in order to achieve sustainable development and growth. POSCO empathizes with the intent and objective of the UN SDGs in which the entire world participates and believes that the innovation and change of all businesses begin with solving various issues faced by the global society. We have been dedicating particular efforts to providing differentiated competitive advantage to customers and local communities based on our steel making competencies built over a long period of time. POSCO intends to promote activities through which we can contribute to fulfilling the UN SDGs in line with our policy for sustainable management to build trust relationships with stakeholders, ensure responsible management, and provide solutions for sustainable development. In particular, we aim to perform various activities to fulfill the UN SGDs in cooperation with our stakeholders including our Supplier and Customer/Society relations. In 2018, POSCO will listen to expert opinions regarding the specific SDGs in which we can display our competencies and broaden the scope of our activities.

Sustainable Management Policy

POSCO defines sustainability as achieving economic performance based on environmental and social responsibility. To this end, POSCO promotes its sustainability policy aimed at conducting responsible management activities to win stakeholders' trust and providing sustainable solutions for both our customers and society.

Building Trust with Stakeholders

POSCO recognizes that corporate sustainability can be ensured when a trust relationship with stakeholders, such as the community, investors, partners, customers and employees, is built in the long-term. We are proactive in communicating with internal and external stakeholders to identify ways to heighten their value in each division of the company in an effort to create values that stakeholders will find more practical.

Responsible Management

As a corporate citizen, POSCO strives to adhere to responsible management. We strictly comply with the sustainability policies, such

as the code of ethics, the safety and health policy, and the human rights policy. We also strive to make such regulations satisfy global standards. In this regard, POSCO respects and supports globally recognized sustainability standards such as the UN Global Compact, OECD Guidelines for Multinational Enterprises, and ISO26000. Moreover, our business sites at home and abroad are taking the lead in ethical standards, by not only prohibit child labor and forced labor, but also support regulations related to international human rights, such as the Universal Declaration of Human Rights and the UN Guiding Principles on Business and Human Rights.

- The 10 principles of the United Nations Global Compact (joined May 31, 2012)
- The OECD Guidelines for Multinational Enterprises
- The Universal Declaration of Human Rights and United Nations Covenants on Human Rights
- ISO26000(Guidance on Social Responsibility)

Providing Sustainable Solutions

POSCO is committed to developing innovative products to deliver higher corporate value. We focused on solution marketing to reinforce our fundamental competitiveness in 2017 and aim to secure a competitive edge in the global market with the pursuit of shared growth with customers in 2018. For this, we plan on achieving both the development of the World Premium products, which provide high values to customers, and improvement of profitability and competitive power through evolved solution marketing. We will continuously promote the research and development of eco-friendly and highly energy-efficient products and technologies to contribute to global sustainable development.

Corporate Governance for Sustainability Management

POSCO is operating specialized committees in the fields of environment, safety and shared growth. Our sustainable management office activities are handled by the Corporate Audit Department, Procurement Office, Regional Cooperation Section, and Safety Planning Section. POSCO's sustainable management activities are supervised by the Environment & Energy Department.

Classification	Meeting	Chairman	Participants	Main Issues
Environmental Management Committee	Once a Year	CEO	POSCO's executives, CEOs of POSCO Family companies	Environmental management strategy Environmental risk Environmental control
Shared Growth Conference	Twice a year	CEO/Associate President	POSCO's executives, CEOs of POSCO Family companies, affiliate president	Shared growth activities Shared growth performances Grievances in cooperation
POSCO Family Safety Committee	Twice a year	CEO/Head of Steel Production Division	POSCO's executives in charge, CEOs of POSCO Family companies	Safety activities and performances Plans for driving safety management activities
Fair Trade Compliance Council	Twice a year	Head of Corporate Audit Department	Executives of relevant departments (marketing, procurement, etc.)	Report on CP (Compliance Program) activities and planning

The UN Sustainable Development Goals and POSCO's Efforts

	Supplier	Operations	Customer/Society
UN SDGs Goal			
POSCO Commitments	<p>12 Ensure sustainable consumption and production patterns</p> <p>POSCO is striving to prevent risks to sustainable management that can occur in the supply chain and to establish a healthy supply network ecosystem by promoting shared growth with SMEs.</p> <ul style="list-style-type: none"> - Prepare code of conduct for suppliers (human rights, labor, environment, health and safety) - Assess supplier performance(including sustainable management elements) - Operate programs for technological cooperation, partnership with SMEs and financial support for them 	<p>6 Ensure availability and sustainable management of water and sanitation for all</p> <p>POSCO recognizes the global risk of short water, and thus strives to reduce this risk by increasing water recycling and developing replacement water sources.</p> <ul style="list-style-type: none"> - Participate in "Water Management Project" led by World Steel Association - Continuously improve water management programs by using the "WBCSD(World Business Council for Sustainable Development) tool" - Participate in CDP Water Disclosure project 	<p>4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</p> <p>POSCO provides various opportunities for performance and exhibitions to underprivileged neighbors, local residents and rising artists.</p> <ul style="list-style-type: none"> - Organize POSCO Center Music Concert, POSCO Concert and music concerts in the company building - Operate POSCO Art Museum/POSCO Museum - Operate POSCO Hyoja Art Hall/Baekun Art Hall - Operate POSCO Youth Volunteer Corps, "Beyond" - Implementation of Do Dream, Ream Bridge, and Chin Chin Rainbow Projects - Operate POSCO Educational Foundation and POSCO TJ Park Foundation
	<p>16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels</p> <p>POSCO strives to conform to the Fair Trade Act and free market competition.</p> <ul style="list-style-type: none"> - Introduce CP(compliance programs) - Declare POSCO Code of Ethics 	<p>7 Ensure access to affordable, reliable, sustainable and modern energy for all</p> <p>POSCO strives to increase the use of recycled energy and its energy efficiency improvement rate.</p> <ul style="list-style-type: none"> - Recover by-product gas generated from the steelmaking process and use it for in-house power generation - Develop pulsating combustion technology for direct-heating burners to increase combustion efficiency - Develop waste heat power generation technology using low to medium-temperature waste heat 	<p>8 Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all</p> <p>POSCO provides stable jobs to people in unstable employment conditions and employment opportunities and vocational training to the youth living near our overseas plants.</p> <ul style="list-style-type: none"> - Employ migrant women by operating Café O Asia - Employ senior citizens through the Silver Home Care program - Provide jobs and vocational training through social enterprise in Indonesia - Employ people with disabilities by operating social enterprises, such as POSCO HUMANS, Songdo SE and POSPLATE
		<p>13 Take urgent action to combat climate change and its impacts</p> <p>POSCO is striving to minimize its impact on the environment due to climate-related corporate activities.</p> <ul style="list-style-type: none"> - Increase energy efficiency by using high-strength steel sheets for automobiles and high-efficiency electrical steel - Reduce social GHG by recycling blast furnace slag 	<p>11 Make cities and human settlements inclusive, safe, resilient and sustainable</p> <p>POSCO takes the lead in establishing safe and resilient residential culture in local communities based on our steel making and construction expertise.</p> <ul style="list-style-type: none"> - Bring change to residential spaces with steel houses - Promote safety and economic activities of residents with steel bridges - Provide space for safe outdoor activities to local students with steel domes
		<p>14 Conserve and sustain use of the oceans, seas and marine resources for sustainable development</p> <p>POSCO is leading the way in restoring marine ecosystems by utilizing steel slag.</p> <ul style="list-style-type: none"> - Promote sea forest development project using Triton products - Collect marine waste by operating the Clean Ocean Volunteer Group 	<p>17 Reinforce the means of implementation and for revitalizing a global partnership for sustainable development</p> <p>POSCO strives to comply with the principles of labor, human rights, environment and anti-corruption as a member of the UN Global Compact and also to fulfill the UN SDGs. POSCO is also dedicating efforts to creating a sustainable society through partnership with the World Steel Association and sustainable management organizations in Korea.</p> <ul style="list-style-type: none"> - UN Global Compact - World Steel Association - Business Institute for Sustainable Development of the Korea Chamber of Commerce & Industry, Korea Business Council for Sustainable Development

Risk Management

In the era of permanent crisis such as rising global protectionism, low growth in the steel industry, and increasing risk in macro economy, POSCO makes a concerted effort to preemptively detect and respond to different types of risks. By doing so, we efficiently cope with rapidly changing business environment to prevent risks in advance and maintain an amicable relationship with stakeholders, laying the foundation for sustainable growth.

Risk Management Overview

To effectively and proactively respond to the uncertain management environment, POSCO set up an operational base for ERM(Enterprise Risk Management) by preparing risk management policies, establishing regulations, and launching a responsible organization in 2010. Since then, our risk management has adopted flexible development in response to internal and external environmental changes. When domestic and overseas investments started to grow in 2011, the IRM(Investment Risk Management) Department was launched to reinforce risk management on new growth engine businesses. In 2012, we reinforced risk management processes that include risk monitoring, detection, diagnosis, and improvement by connecting management diagnosis and risk management competences. Since 2015, risk management duties have been comprehensively performed by the Corporate Strategy & Finance Center instead of being controlled by individual ERM departments, in order to reinforce our preemptive risk management at the Group level. Thus, we have completed preemptive restructuring by 2017 to reduce financial risks through liquidation of insolvent affiliates around the world and prevented the occurrence of ethical risks by operating the Clean POSCO system in order to strengthen the effectiveness and responsiveness of the Group's risk management competences.

In 2018, we will put our top priority on carrying out substantial risk reduction practices for enhancing our corporate value while constantly looking out for global risks that may prevent us from reaching our management goals.

Group Risk Management System and Governance

At POSCO, risk management is conducted by the individual department responsible for each risk. We classify risks into “business risk,” “non-business risk,” and “disaster and crisis.” Business risk is controlled by four offices of Corporate Strategy & Finance Center: strategy and investment risk by the Management Strategy Office; financial risk such as foreign exchange rate and capital by the Finance Office; major affiliates-related risk by the Domestic Business Office; and overseas steelmaking subsidiaries-related risk by the Overseas Business Office.

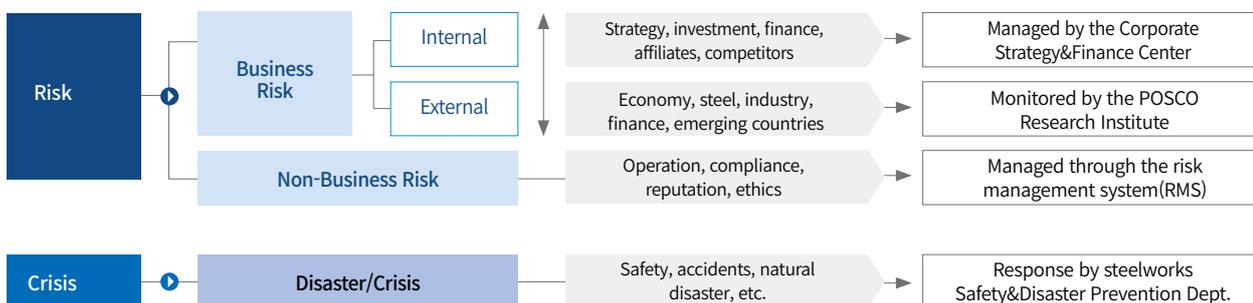
The POSCO Research Institute regularly monitors external risks relevant to steel business, financial market, raw materials, and competitors’ strategies. Monitoring results are reported to POSCO and the GIH(Global Information Hub) to be shared throughout the Group. The Corporate Audit Department is responsible for managing non-business risks such as ethics, compliance, and reputation.

Meanwhile, disaster and crisis are controlled by the Safety & Disaster Prevention Dept. at steelworks.

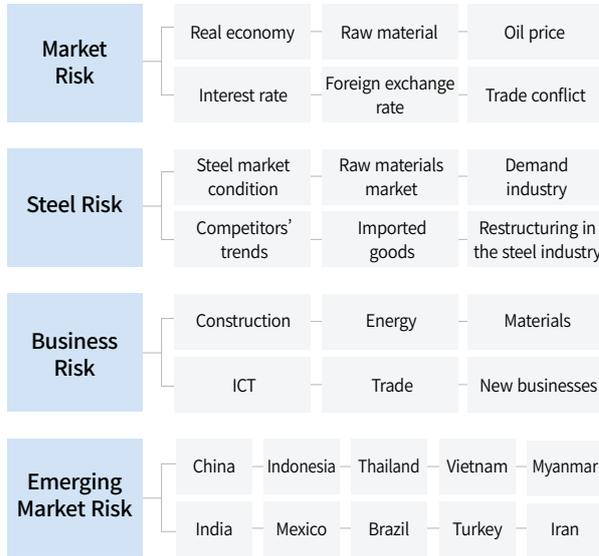
Monitoring of External Economic Risks

Regular monitoring of economy, steel, and raw materials market conditions is necessary in consideration of the steel industry’s high sensitivity to changes in the external market. For POSCO, control of risks in a particular country has become increasingly important due to continual global expansion. Thus, external economic risks are regularly monitored by the POSCO Research Institute. We publish a monthly magazine called “Global Steel Market Outlook,” which covers raw materials price trends and market environment as well as the present forecast of steel prices for every quarter. Monitoring of foreign exchange rate and market trends of raw materials such as coal and nickel is performed on a weekly basis, while monitoring and analysis results are reflected in our quarterly and midterm management strategies. We also collect daily information about major industries, global economy, and trends of competitors and technology through the GIH. Key issues are compiled into a special report to reinforce monitoring of external economic risks. Starting in 2016, we have adopted big data and AI based methods to predict raw materials and steel prices, raising the accuracy of risk management.

POSCO Group’s Risk Management System



External Risk Monitoring System



Sensitivity Analysis on Major Risk Factors and Scenario Management

Foreign exchange rates and prices of oil, iron ore, and coal have some of the most significant effects on our operating performance. In response, POSCO and its affiliates monitor the effects on sales, costs, and profits at least once a month. Each member company promptly prepares and executes a response plan when a major business risk is expected to occur according to the changes in indicators.

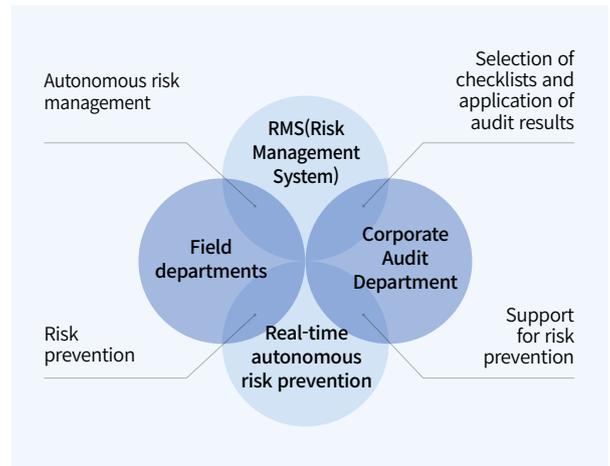
In approving investment projects, we analyze sensitivity according to the fluctuations in exchange rates, selling prices and the prices of key materials, followed by the reflection of our finding in the investment decision-making process. After investment approval, we regularly monitor major indicators as well in order to preemptively respond to changes caused by fluctuations until project completion. As for management planning, we have established three scenarios: “gradual recovery,” “continuation of low growth,” and “double-dip.” We are currently establishing business goals according to the scenario of “consistent low growth” to reflect the delayed recovery of steel market conditions, and thus analyze monthly performance and report the results at the POSCO Group operating meetings.

Autonomous Risk Prevention System

Since 2004, POSCO has been operating the RMS(Risk Management System) in order to control company process risks more systematically. The RMS methodically classifies all processes including finance, purchasing, marketing, investment and production/facility management across the company, for the risk selection and assessment, prior to grade-categorized management. It has also been upgraded by linking risk management and internal auditing activities while incorporating feedback of field departments. We have also pursued an organic risk management system between field departments and internal audit departments by helping field departments to confirm and examine risks at all times. Starting in 2013, we have built a real-time autonomous risk prevention system where data is collected in real time through the ERP(Enterprise Resource Planning) system and utilized for risk evaluation, and field departments are notified of issues for identification. In 2017, we created an advanced smart autonomous inspection system using big data analysis method to enable the field departments to autonomously administer inspection immediately upon detection of abnormalities.

The Corporate Audit Department plays a key role in establishing the autonomous risk prevention system by sharing best practices as well as supporting steady updates of risks through selection, assessment, audit, and monitoring of diverse risk factors.

Framework for Autonomous Risk Prevention



Internal Regulation of Financial Reporting

As a global company listed on the KRX and NYSE, POSCO established a system to evaluate the internal regulation of the financial reporting process in December 2003 and has been conducting self-evaluations since 2004. The system includes a CEO/CFO authorization procedure on disclosure and internal regulation, in addition to the operation of the Disclosure Committee. In March 2005, a group-wide internal regulation evaluation system was built and external audit has been made mandatory since 2006 in accordance with the SOx Act¹⁾, improving the reliability of financial reporting and disclosure. We also commissioned a consultation firm to document company-wide and divisional processes that can affect financial statements for job risk evaluation and to internally regulate consolidated financial statements in accordance with the New COSO²⁾ Framework amended in 2014. We also ensure internally whether regulated items are suitably designed to satisfy regulated targets by each job process and to prevent and find critical misstatements in financial statements. Furthermore, we assess whether they are operated as designed through various testing procedures such as inquiry and evidential inspection. The operational status of the internal accounting regulatory system is reported to the Audit Committee and BOD for every business year in accordance with the Act on External Audit of Stock Companies.

1) SOx(Sarbanes-Oxley) Act: The Public Company Accounting Reform and Investor Protection Act of the United States enacted in July 2002, imposing strong penalties for accounting fraud.

2) COSO(Committee of Sponsoring Organizations of the Treadway Commission): A joint initiative of the United States that evaluates corporate internal regulatory systems.

Internal Regulatory Process for Financial Reporting



Definition of Stakeholders and Engagement Principles

POSCO classifies stakeholders by six groups—society, partners, shareholders & investors, customers, employees, and environment—and is proactive in communicating with them at all times. We not only conduct stakeholder interviews but also listen to the opinions of Social Responsible Investment(SRI) experts, NGOs, sustainability ratings agencies, and academia regarding our major sustainability issues. Accordingly, their opinions are reflected in the sustainability report.

Charter of the Firm Admired by Stakeholders

POSCO has striven to become a great company with unrivaled global competitiveness through commitment to growth and development. Moving beyond becoming a great company, POSCO is now prepared to take another leap toward becoming a firm that is admired by all stakeholders and contributes to sustainable growth of the society and the welfare of humanity. To this end, POSCO is committed to living up to its philosophy and putting balanced emphasis on business, people, society, and environment.

 Customer	 Employee	 Partner Firm	 Environment	 Investor	 Community
Bringing success to customers	Respecting humanity and encouraging self-actualization	Attaining shared growth as one family	Pursuing harmony between humanity and environment	Giving shareholders a sense of pride for investing in POSCO	Serving as a corporate citizen to support the growth of local communities
<ul style="list-style-type: none"> Satisfying customers with customer-oriented marketing and a trust-based relationship Creating customer value by facilitating client competencies and competitiveness Pursuing the development of the market ecosystem and sustainable growth with customers 	<ul style="list-style-type: none"> Cultivating top-tier personnel by developing skills and individual talents Ensuring fair compensation and work-life balance to improve employees' quality of life Respecting employees and supporting their growth and self-actualization based on autonomy and trust 	<ul style="list-style-type: none"> Ensuring fair trade through mutual trust and communication Reinforcing the competitiveness and growth potential of suppliers via mutually beneficial cooperation Enhancing competitiveness of the business ecosystem by forming a virtuous circle of sustainable shared growth 	<ul style="list-style-type: none"> Pursuing sustainable environmental protection and green environment through low-carbon green growth Leading the eco-friendliness of the industry by raising energy efficiency and developing clean technology Developing new materials and energy sources to improve the ecosystem and promote eco-friendly lifestyles and culture 	<ul style="list-style-type: none"> Building shareholder trust through transparent management and active communication Protecting shareholder interests by increasing corporate value Increasing future shareholder value through sustainable growth 	<ul style="list-style-type: none"> Fulfilling social responsibilities to support the development of local communities Leading the way toward a fair society in cooperation with civic groups and the government Contributing to creating social value and culture as a corporate citizen
Key Issues					
<ul style="list-style-type: none"> Enhancement of customer satisfaction 	<ul style="list-style-type: none"> Work-life balance Improvement of employee satisfaction Acquisition of outstanding talent Fair performance evaluation 	<ul style="list-style-type: none"> Securing reliable suppliers Quality improvement 	<ul style="list-style-type: none"> Compliance with regulations Environmental management Reduction of GHG emissions Development of eco-friendly products 	<ul style="list-style-type: none"> Stock price Stable corporate governance Economic performance 	<ul style="list-style-type: none"> Contribution to local communities Enhancement of local capabilities Cultivation of local talent
Communication Channels					
<ul style="list-style-type: none"> Customer relationship management system (CRM) Customer satisfaction survey Joint research (EVI: Early Vendor Involvement) Thank you event for customers 	<ul style="list-style-type: none"> Labor-Management Council(union body) Young Board Employee satisfaction survey POSCO Today Operational meeting 	<ul style="list-style-type: none"> Supplier relationship management(SRM) Shared Growth Council Information exchange conference for POSCO Family suppliers Meeting with PHPs(POSCO Honored Partners) Information exchange conference for partners Other information exchange conferences 	<ul style="list-style-type: none"> Environmental Improvement Council(Pohang, Gwangyang) Environmental information system Steel conference 	<ul style="list-style-type: none"> CEO Forum(annual) Company presentation(quarterly) Disclosure(website) Face to face meeting (on demand) Regular consultations on credit ratings 	<ul style="list-style-type: none"> Pohang/Gwangyang Community Cooperation Team Corporate image survey Exchange with NGOs Interview with sustainability specialists

Stakeholder Engagement Around Business Sites

We strive to reinforce our relations with local institutions and civic groups in Pohang and Gwangyang where our steelworks are located, delivering proper corporate information and pursuing co-prosperity with local communities. These community and stakeholder participation activities are handled by the Administration and Liaison Group at each steelworks, the main organ of external cooperation activities.

Classification of Major Stakeholders Around Business Sites

Local Institution	Local members of the National Assembly, City Hall, City Council, Pohang and Gwangyang's Chamber of Commerce and Industry, Pohang branch office of Daegu District Court, etc.
Local Civic Group	Pohang Root Group, Pohang Local Youth Group, Pohang Junior Chamber, Pohang Regional Development Council, civic groups in Gwangyang, etc.

Communication with Stakeholders Around Business Sites

Presentations	Delivering correct information within the area when company-related issues arise(when necessary)
Meeting	Strategically sharing information and communicating with stakeholders by establishing networks related with POSCO's stakeholders at diverse levels

Local Stakeholder Activities

1 Contribution to Local Economic Growth

POSCO contributes to the vitalization of local economies by investing in employee labor cost and construction orders in the area of Pohang, as well as holding the Pohang International Fireworks Festival.

Construction orders for local companies in Pohang

Classification	2015	2016	2017
Construction cost (KRW in 100 million)	850	1,033	1,214
Ratio(%)	31.6	52.2	50

Pohang international fireworks festival

Classification	2015	2016	2017
No. of visitors ¹⁾ (10 thousand persons)	58	80	85
Economic effect ²⁾ (KRW in 100 million)	500	250	200

1) Estimated by Pohang City and police 2) Estimated by Pohang City

Investments in local communities (2005~2016)	Annual average investment
KRW 13.61 trillion	KRW 1.04 trillion

2 Nurturing Local Talents

The POSCO Education Foundation, established in 1995, operates 12 elementary schools, middle schools and high schools in Pohang and Gwangyang, the main business areas, to nurture local talent and provide education for its employees' children.

Pohang	POSCO High School, Pohang Jecheol Technical High School, POSCO Middle School, Pohang Jecheol Dong Elementary School, Pohang Jecheol Seo Elementary School, Pohang Jecheol Jigok Elementary School, Pohang Jecheol Kindergarten	
Gwangyang	Gwangyang Jecheol High School, Gwangyang Jecheol Middle School, Gwangyang Jecheol Elementary School, Gwangyang Jecheol Nam Elementary School, Gwangyang Jecheol Kindergarten	
Support for free Hangul classrooms (from 1994)	Target	Low-income illiterates in Pohang
	No. of students	4,438 persons(1994 to 2017)
	Sponsor	Pohang YWCA
	Support fund	KRW 192 million(1994 to 2017)

3 Junior Engineering School

The Junior Engineering School, a project in which corporate employees offer science lab courses, has been operated by the National Academy of Engineering of Korea and supported by the Ministry of Trade, Industry and Energy since 2004. Pohang Works, since 2004, and Gwangyang Works, since 2015, have been participating in this project to nurture the future talents of science and technology and strengthen their ties with the local community.

Participant schools	Eight elementary schools around Pohang and Gwangyang Works
Period	Twice a year
Instructors	Around 50 persons(researchers, engineers, and the faculty of technical education group)
Contents	Applied science education
Our support	All materials for lab(1 kit/person)
Students	17,451 persons(2004 to 2017)

4 Support for the Underprivileged

We perform a wide array of activities to help marginalized classes in local communities enjoy a happy life.

Operation of free meal place (from 2004)	Target	Elderly and disabled residents in local communities
	Locations	4 places(Pohang 2 places, Gwangyang 2 places)
	Visitors	749 persons/day(529 in Haedo, 220 in Songdo)
	Costs(2017)	KRW 501 million
Mentoring services for the elderly who live alone (from 2004)	Target (2017)	43 persons living alone around work sites
	Activities	Become friends, go shopping, and lend an ear
	Visits	At least once a week
Implementation of free nursing projects¹⁾	Target	Underserved populations around the mills(elderly and disabled)
	Activities	Visiting elderly residents in the region and providing care and nursing services to other elderly people with reduced mobility
	Nursing assistants	30 persons(cumulative 223 persons)
	Beneficiaries	3,306 persons(2006~2017)
	Funding	KRW 3.2 billion(2006~2017)

1) The project that provided services through caregivers changed to Home Care for the Seniors in September 2015(Elderly people in the region providing care and nursing service to other elderly people with reduced mobility)

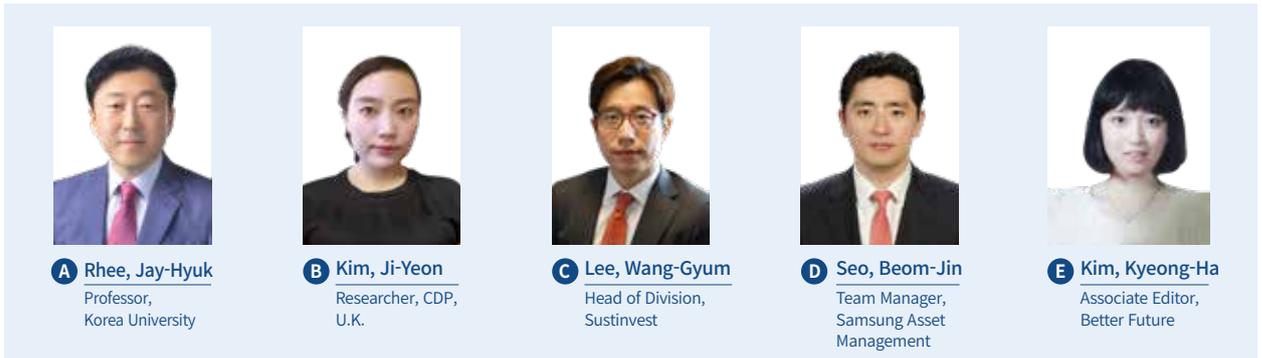
Interview with Stakeholders

Every year, when releasing its annual reports, POSCO carefully listens to the voices of experts in diverse fields such as investment institutions, evaluation institutions, the academia, and the press, and reflects their opinions its sustainability management plans.

Interview with Stakeholders and Utilization of Results

In 2017, we collected feedback from academia, evaluation agencies, investors, and the press by conducting individual interviews in cooperation with Samil-PwC, our assurance provider. The interview was conducted individually, however, the results were expressed in a group discussion format in order to enhance readability. Results were also incorporated into the analysis of importance regarding the main issues referred to by specialists.

Interviewees



History of the Stakeholder Interviews

2003-2009	Survey of domestic and overseas stakeholders
2010-2011	Stakeholder interviews with professionals on sustainability management, Event to communicate with university students - the leaders of the future generation
2012	Interviews with stakeholders on society, partnerships, investors, customers, employees, and the environment
2013-2017	Interviews with sustainable management experts from the academia, investment organizations and NGOs

Q1 POSCO discloses the company's ESG results by publishing the annual "POSCO Report." Do the investors actually use this report in their decision-making process? Also, do you have any advice to improve of the POSCO report?

C Lee, Wang-Gyum Global ESG evaluation agencies ask many questions about corporate governance issues in Korea. Compared to other companies, the stakeholders' interest in the governance issues of POSCO is particularly high. It is very positive that POSCO Family's ESG information is comprehensively reported. However, in the case of POSCO Daewoo, I think it would be better to deal with sustainability management issues in overseas worksites or stakeholder policies in more detail. Also, by additionally disclosing details of the management of female personnel by position or policy-related considerations to foster female leaders, it would become possible to manage and disclose ESG performance on a wider scope.

D Seo, Beom-Jin Throughout society, the level of interest in and the demand for corporate ESG activities are heightening. During decision making on investment in an ESG-related fund, we carefully examine the ESG scores of external evaluation agencies or issues relating to the company's dividend payout, shareholder-friendly policies and governance. In this process, the company's sustainability management report is used as an important channel of information. In providing information to investors, a summary on POSCO's activities in a couple of pages along with important sustainability management evaluation elements, such as environmental, social and governance elements, would be helpful

to improve the effectiveness of communication with a wide range of stakeholders. In addition, for PR purposes, transparently disclosing and actively sharing negative issues in addition to positive results would provide useful information to investors.

E Kim, Kyeong-Ha From the standpoint of an investor or an ESG evaluator, the corporate sustainability management report is the most representative channel for information disclosure. For POSCO's report to advance further, both positive and negative issues must be reported in balance. Negative information on a company cannot be kept hidden from stakeholders considering the current media environment. POSCO must also use the report as a channel for transparently disclosing negative information and delivering detailed improvement plans.

Q2 The level of social interest in the introduction of a stewardship code is increasing as of late. What impact does a stewardship code have on investors and the company?

C Lee, Wang-Gyum Basically, a stewardship code is a soft rule, and in principle, it is to be implemented autonomously. The main purpose of introducing a stewardship code is for an institute to sincerely protect the value of money it has been entrusted based on self-reflection because it failed to fulfill its role as an investor. The key to stably managing entrusted assets and protecting them in the long term is to actively practice voting rights. Social discussion will be further activated when the National Pension Service introduces its stewardship code

this year. However, at the moment, a stewardship code is an autonomous regulation and it does not cover details. Therefore, companies can respond to stewardship code introduction according to the guidelines announced by the policy-making authorities. In line with stewardship code introduction, the level of interest in undisclosed information has also increased. Although discussion is still in progress, a company must think about the level of information disclosure it can implement and examine the impacts of disclosure from various angles. Likewise, policy-making authorities need to clearly decide the level and scope of information disclosure through consultation with companies and relevant organizations.

D Seo, Beom-Jin In overseas countries which adopted stewardship codes, such as the U.K. and Taiwan, the value of companies improved within 1 or 2 years. In Korea, when the public pension and funds introduce stewardship codes preferentially, the overall level of social interest will increase and I also believe the value of companies that invest aggressively in ESG and manage the related risks will improve.

Q3 The number of companies that link the UN SDGs to their sustainability management activities has been increasing recently. POSCO has also been carrying out reports on SDGs since 2015. Which direction do you think POSCO must pursue in order to contribute to the fulfillment of the SDGs?

A Rhee, Jay-hyuk I believe we can effectively promote sustainability management by analyzing and achieving the social values required in our time and age through the SDGs. POSCO must also match its sustainability management activities to the SDGs and continuously manage related outcomes. POSCO must select the SDGs it can effectively fulfill by using its competencies, establish internal goals and promote related activities. In particular, considering the characteristics of POSCO's business and its competitive edge in the market, POSCO must establish goals that reflect the demands of the local communities where it performs business activities. The entity that establishes the SDGs is a company. However, local communities are more clearly aware of what they need. So, it is important to identify the needs of the local community and establish goals accordingly. Through this, POSCO must ultimately be able to clearly answer the question of "what is POSCO's competitive advantage in the sustainability management field?"

B Kim, Ji-Yeon POSCO has announced its goal of reducing its dependence on surface water through the expansion of water recycling by 2017. It is necessary to establish improvement plans by reexamining the status of fulfillment of expired goals, and furthermore, to establish advanced quantitative goals in a long-term perspective to look beyond year 2030. In particular, I would like to advise POSCO to examine a link to the UN SDGs number 6, which is to provide clean water to all by 2030.

Q4 POSCO participates in CDP information disclosure in the climate change and water sectors and is striving to advance its management system. In which areas does POSCO need improvement in order to achieve more active climate change response?

B Kim, Ji-Yeon It can be seen that POSCO has reached a stage where it is equipped with internal capabilities to identify climate change-related risks and opportunities that exert impacts on the company and to effectively manage them. As reflected in the CDP evaluation results, POSCO's climate change information disclosure is advancing each year and this is evaluated to be very positive. It is necessary in the future to establish long-term and more advanced goals for GHG emission reduction. In particular, I would like to advise POSCO to establish "science-based targets" according to the guidelines suggested by each sector in order to keep the temperature increase caused by climate change within 2°C.

Q5 Finally, would you tell us what you want POSCO to do or what we have to pursue to create a sustainable future?

C Lee, Wang-Gyum POSCO's corporate value tends to be evaluated slightly lower than that of other companies in the industry because of governance issues, although POSCO's management performance is good. The reality is that shareholders and investors are highly concerned about the governance risks, such as the appointment of pre-regime personnel, reappointment of previously appointed personnel, embezzlement and malpractice. To solve these issues, POSCO needs to think about how to deliver its internal activities to reinforce the soundness of governance through reports and IR activities. In addition, as POSCO has comprehensively delivered the ESG results of its family companies, it will be good to comprehensively report governance-related results.

A Rhee, Jay-Hyuk It is an unchanging fact that POSCO is in a socially important position. As it has done so far, I would like to ask POSCO to continuously lead sustainability management activities in the future. Additionally, I would like to see more activities that reflect the company's characteristics so that anyone can readily associate them with POSCO even if the names of the activities are hidden.

D Seo, Beom-Jin I feel that POSCO's governance has not yet become fully transparent. I think POSCO needs to make efforts to improve the transparency of its governance including the POSCO Family. To achieve this, POSCO needs to secure stakeholders' trust by disclosing in detail how the organizations and consultative bodies that keep management in check are formed and operated.

E Kim, Kyeong-Ha It is necessary for POSCO to clearly brand which social issues it can solve. In selecting social issues to be solved, it is important to connect them with the company's competencies. However, what is more important is how much the company has thought about and studied the social issues in question. In this process, the company may need to cooperate with external partners. I wish for POSCO's continued development while bringing about a positive impact to society by effectively providing a solution to social issues after having accurately identifying the problem that POSCO is able to solve.

Materiality Analysis

POSCO reports content centered on key issues by identifying priority in terms of sustainability management. To this end, we have implemented a materiality analysis process based on the interests of stakeholders and business impacts since 2008. Particularly, we reorganized the issue pool in 2017 to adopt

changes in sustainability management trends and international guidelines. POSCO would like utilize this integrated report to communicate the significance of identified core issues and the performance of and exhibited efforts toward sustainable management practices over the course of the year.

Features of Our Materiality Analysis

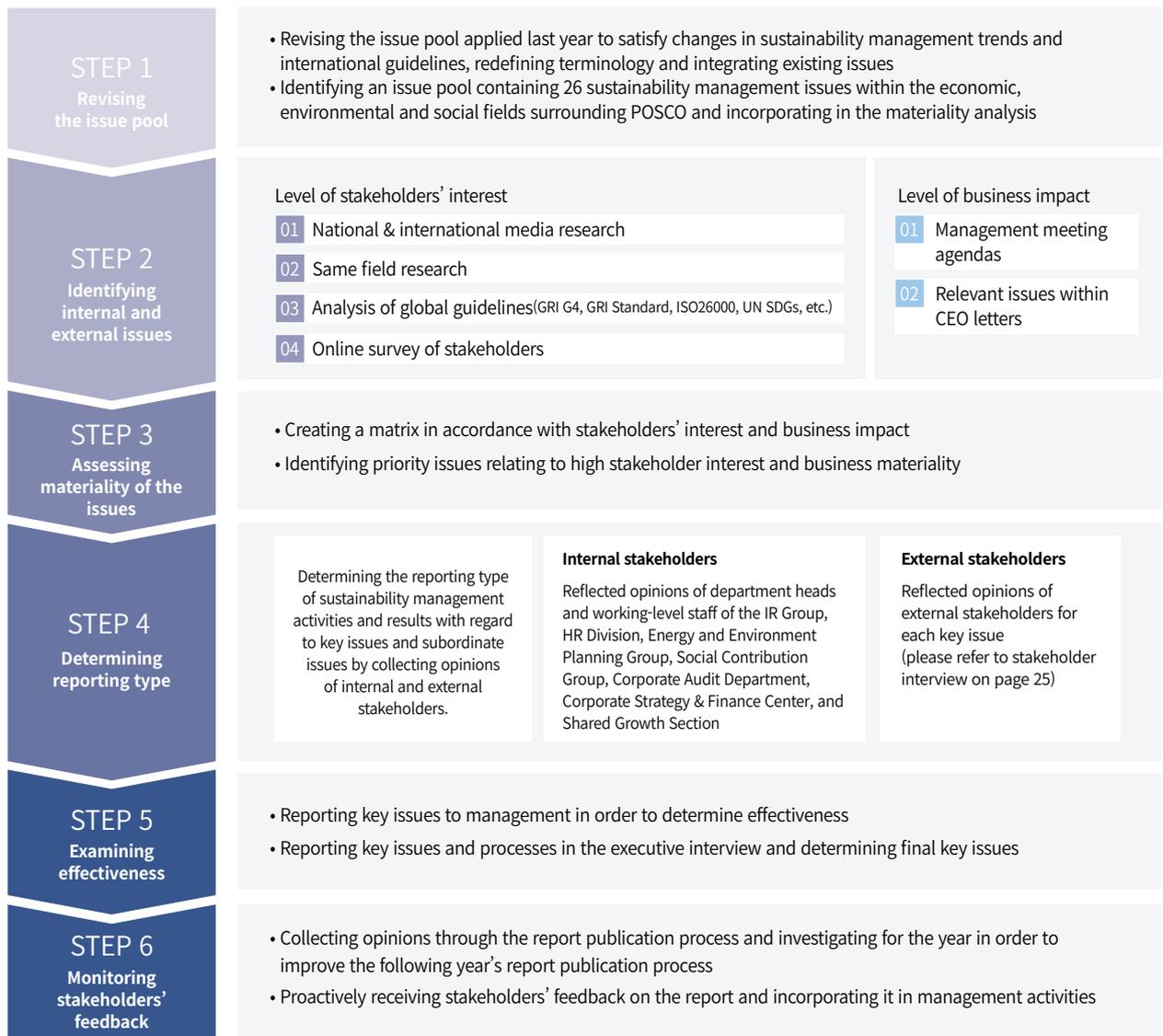
Case report on key issues

We intended to apply diverse cases to provide stakeholders with detailed information on what they are interested in and want to know. The stakeholders' major inquiries and the key issues of 2017 were presented in the form of a case report.

Reflection of stakeholders' opinions on materiality analysis

Stakeholders' opinions collected through interviews were reflected in the materiality analysis process. To this end, we interviewed sustainability management professionals, ESG evaluation agencies, and Social Responsible Investment(SRI) experts, and listened to their opinions in a balanced manner.

Materiality Analysis Process



Materiality Analysis Results

10 key issues were selected through the evaluation of stakeholders' interests and business impact.

Rank	Sustainability Issue	POSCO's Activity	Page in Report
1	R&D enhancement	Developing World Premium products and applying solutions Producing technological innovation and key technology development results	40~43, 47~48
2	Safety and health activities	Obtaining KOSHA18001 and OHSAS18001 certifications Providing safety training and education	98~101
3	Climate change response activities	Establishing climate change response system Setting GHG reduction target and performing reduction activities	82~89
4	Compliance with laws and global regulations	Practicing fair trade, environmental management and corporate ethics	53~54, 68, 103~105
5	Contribution to economic vitalization in society	Contributing to local economic vitalization, performing shared growth activities, providing venture business support program(POSCO Idea Marketplace)	24, 64~65
6	Energy efficiency	Activities to improve energy efficiency(using by-product gas, smart factory)	91~93
7	Expansion of the company's competence in solving customer issues	Producing key solution marketing results for each industry Providing marketing education to improve solution marketing competency	42~43
8	Product quality enhancement	Obtaining quality management system certification Strengthening the quality management systems of POSCO and overseas subsidiaries	44~46
9	Water management	Participating in CDP Water Disclosure Increasing wastewater reuse and developing replacement water sources	66, 69~70
10	BOD composition and transparency in operation	Holding 2017 BOD and subcommittee meetings	10

Materiality Analysis Matrix



02

Activities and Performance

Investors		Safety and Health	
Investor Information	30	Safety	98
Performance in 2017	32	Health	101
Performance Highlights	38		
Customers		Business Ethics	
World Premium Products	40	Business Ethics	103
Solution Marketing	42	Global Human Rights Management	106
Quality Management	44		
Innovation		Employees	
Technological Innovation	47	Organizational Culture	108
Business Innovation	49	HR Development	111
		Global Talent Cultivation	112
		Employee Data	117
Supply Chain Management		Social Contribution	
Fair Trade	53	Strategic Direction and Focus Areas	118
Shared Growth Policies and Programs	55	Sustainable Community	119
Enhancing Suppliers' CSR		Quality Education	126
Competitiveness	62	Economic Empowerment	129
Venture Support Program	64		
Environmental and Climate Change			
Environmental Management	66		
Environmental Performance	69		
Biodiversity Policy and Activities	75		
Stakeholder Engagement	77		
New Eco-friendly Products in 2017	79		
Carbon Management	82		
Climate Change Response Activities	90		
Climate Change Partnership	97		

Investor Information

Credit Rating

International credit rating agencies upgraded the credit ratings of POSCO in view of the improvement of its operating performance and financial soundness. S&P upgraded our credit rating to BBB⁺ (Stable) from BBB⁺(Negative) in February 2017, and Moody's also upgraded it from Baa2(Stable) to Baa2(Positive) in October 2017.

Changes in Credit Rating

Classification	2015	2016	2017
S&P	BBB ⁺ (Stable)	BBB ⁺ (Negative)	BBB ⁺ (Stable)
Moody's	Baa2(Stable)	Baa2(Stable)	Baa2(Positive)

Dividends

POSCO is maintaining long-term stable cash dividends in order to improve shareholder value. We have been implementing a quarterly dividend payout since the second quarter of 2016.

In 2017, POSCO issued an annual dividend of KRW 8,000 per share, including a quarterly dividend of KRW 1,500 per share from the first to the third quarters and end-of-term dividend of KRW 3,500 per share. Accordingly, we recorded a dividend payout ratio of 25.1% and dividend yield of 2.4%.

Classification		2015	2016	2017
Per share	Cash dividend(KRW)	8,000	8,000	8,000
	Quarterly(interim) dividend(KRW)	2,000	2,250	4,500
Total dividends(KRW in billion)		640	640	640
Dividend payout ratio(%)		48.5	35.9	25.1
Dividend yield(%)		4.5	3.1	2.4

1) Quarterly dividend started in 2016. KRW 1,500 and KRW 750 per share were paid in 2Q and 3Q, respectively.

2) Dividend payout ratio was based on non-consolidated net profit.

3) Dividend yield was calculated by dividing cash dividend per share by the average closed share prices for a week before the date of dividend payout.

Domestic and Overseas Awards in 2017

Overseas	2018.01	Listed on the "2017 Global 100 Most Sustainable Corporations in the World" at the Davos Forum 2017
	2017.12	Ranked 1 st in Asia CSR Ranking from Better Future of the Chosun Ilbo
	2017.09	Recognized as the best company in DJSI for 13 consecutive years
	2017.06	Recognized as the most competitive steelmaker in the world for eight consecutive years(evaluation by WSD)
	2017.01	Won the 2016 & Award grand prize in the digital advertising category
Domestic	2018.01	Winner of the 2017 & Award digital advertising category
	2017.12	Awarded "100 Million US dollar Export Tower" by KITA
	2017.10	Won the grand prize at 2017 Korea IR Award
	2017.10	Won the presidential award at the 6 th Korea Knowledge Forum
	2017.01	Won the best business award from the Australian Chamber of Commerce in Korea
	2017.01	Won the Green Innovation Award(Minister Prize of the Environment) in the Korea Green Car Award

Corporate Value and External Evaluation

Despite the difficult conditions surrounding us, POSCO dedicated the utmost efforts to strengthening competitive advantage of our steel business. As a result, we recorded KRW 2.9025 trillion in operating income and a margin of 10.2% on a non-consolidated basis, in addition to our stock price raised by 30% last year. Furthermore, as our performance to apply smart technologies to steel business earned recognition, POSCO was awarded "the Innovation of the Year from the World Steel Association and the Presidential Award for Knowledge Excellence in Korea." in Korea. As such, POSCO has strengthened its position as a leading global steelmaker. POSCO has also become the first steel company in the world to be included in the DJSI(Dow Jones Sustainability Index) for 13 consecutive years. We were also named the most competitive steel company by WSD (World Steel Dynamics) for eight years in a row, and thus further solidified our status as a global steelmaker with the strongest competitive advantage in the world.

Most Competitive Steelmakers(2015~2017)

Rank	2015	2016	2017
1 st	POSCO(Korea)	POSCO(Korea)	POSCO(Korea)
2 nd	Nucor(USA)	NSSMC(Japan)	Severstal(Russia)
3 rd	NSSMC(Japan)	Nucor(USA)	Nucor(USA)
4 th	Gerdau(Brazil)	SDI(USA)	NLMK(Russia)
5 th	Severstal(Russia)	NLMK(Russia)	NSSMC(Japan)

1) Source: WSD(World Steel Dynamics)

2017 SAM DJSI evaluation result

Classification	Economy	Environment	Society	Total
Posco(point)	58	89	65	70.6
Steel industry	Average (point)	44	42	44
	Highest (point)	61	86	67

CASE REPORT

Major Questions of Investors for 2017 SRI(Socially Responsible Investment)

Q What is the company's position about the POSCO Turkey Assan TST employees' unionization and dismissal?

A POSCO, as a member of the UN Global Compact, respects the freedom of association and the right of collective bargaining specified in the international guidelines and complies with international standards that are related to the labor acts of each country where we operate our business. POSCO Assan TST, located in Turkey, is also operated in compliance with local laws, and the case of dismissal that took place last November was legitimately handled in compliance with labor laws of Turkey. As for the lawsuit on the case of dismissal currently under way, we are waiting for the court's final decision.

Q In relation to the accident that occurred in January 2018 at the POSCO oxygen plant, how is the external communication going and what is the company's plan for accident prevention in the future?

A Immediately after the accident, POSCO issued an official apology through press report. We are also promoting plans to prevent reoccurrence of the accident by starting the operation of an emergency handling team simultaneously with the accident occurrence. Moreover, we are establishing the "POSCO Safety General Plan" in order to significantly improve the POSCO Health and Safety Management System for the related organizations such as human resources as well as the facilities.

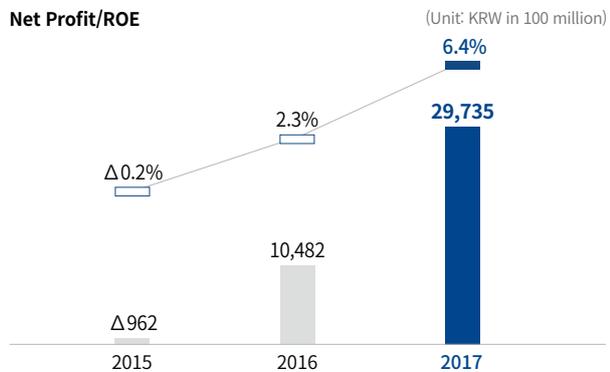
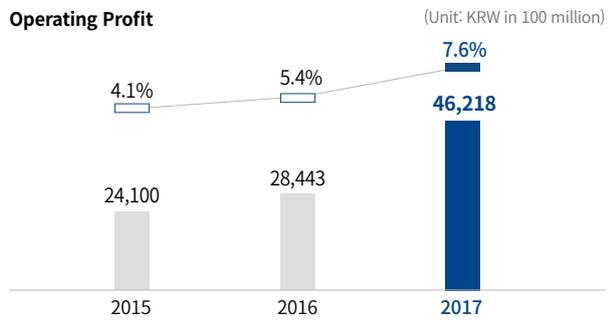
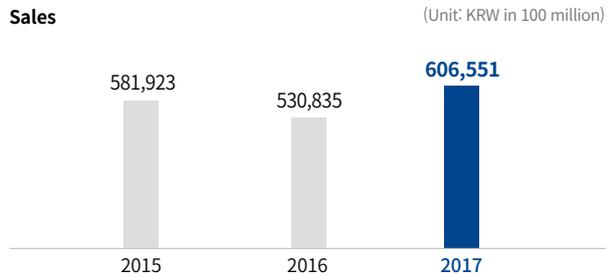
Following the accident, we consoled the bereaved by organizing a negotiation table as swiftly as possible and arranged for them to visit the accident site where they were provided with explanations about the accident, along with an apology. We actively listened to the requests by the bereaved family organizations while regularly meeting with them. Also we provided them legal counseling services. As the result of these efforts, we reached an agreement for injury compensation in a short period of time. Since the agreement, we have been taking follow-up actions, such as delivering condolatory gifts to the bereaved so as to help them recover their routine as soon as possible. We explained the series of accident response activities, as such, to the National Assembly twice (Jan. 31, Mar. 15). We also visited the competent authority (Daegu Regional Office of Employment and Labor) on April 5th and explained the progress of the "POSCO Safety General Plan" establishment. The POSCO Safety General Plan was established last April. The plan was explained to the competent authority (Ministry of Employment and Labor, April 5) and then presented to the National Assembly (Environment and Labor Committee, May 9). We plan to announce it to the press.

Performances in 2017

In 2017, the global economy recorded a stable growth rate by over 3% as a result of the economic recovery in advanced countries, such as the U.S., Europe, and Japan, expanded growth trends in the emerging countries, and increased global trade volume. In line with the global economic recovery, the economy in Korea also grew by around 3% as a result of increased exports centering on the IT and semiconductor fields, and expanded facility investment. However, as private consumption is yet to pick up due to the continuous increase in household debts and decrease in household real incomes, the gap between export and domestic business conditions was considerably widened.

Despite the difficult conditions surrounding us, POSCO dedicated the utmost efforts to strengthening competitive advantage of our steel business, improving profitability of non-steel business areas, producing results from new growth engine businesses, and achieving smartization. As a result, we recorded KRW 28.55 trillion in sales, KRW 2.90 trillion in operating income, and an operating margin of 10.2% on a non-consolidated basis.

We achieved an increase in consolidated sales by KRW 7.58 trillion, to KRW 60.66 trillion from the previous term following the favorable performance of our steel sector at home and abroad based on the global steel price increase. As for the consolidated operating income and operating margin, the improvement of profitability in non-steel business sectors, including construction, energy and trade, as well as the upgraded performance in the steel sector, brought about a recorded increase of KRW 1.78 trillion, or 7.6%, in comparison with the previous term for a total of KRW 4.62 trillion. Our consolidated net profit was KRW 2.97 trillion, which increased by KRW 1.93 trillion from the previous term as a result of an increase in the consolidated operating income and gain on disposition of investment shares. Our consolidated assets and liabilities were KRW 79.03 trillion and KRW 31.56 trillion respectively, with our debt-to-equity reducing by 7.5% from the previous term to 66.5%, the lowest since 2010.



Sales of WP Products

17,333,000 tons, 53.4%

Sales Linked to Solution Marketing

5,136,000 tons

Steel Sector



POSCO produces hot-rolled, cold-rolled, and stainless steel at Pohang Works and Gwangyang Works that boast the world's largest production capacity. POSCO C&C specializes in manufacturing coated steel. ZPSS in China produces and sells stainless steel and overseas processing centers process and sell steel products.

In 2017, consolidated crude steel production stood at 42.19 million tons. POSCO, PT. Krakatau POSCO in Indonesia, ZPSS in China, and POSCO SS VINA in Vietnam produced 37.21 million, 2.92 million, 1.16 million and 900,000 tons of steel respectively.

POSCO's major management activities in 2017 were as follows:

First, we actively promoted steel business profitability improvement by advancing steel business based on our own technologies. We enhanced global technological leadership by developing next-generation innovative products including giga steel (ultra-high-strength steel) and high manganese (Mn) steel, and in doing so, we actively responded to the rapidly changing market environment. We secured a differentiated competitive edge by promoting the further upgraded "Solution Marketing 2.0", which is to improve communication with customers through IT and provide customized package solutions. As a result, we increased domestic sales along with sales of high value-added World Premium products by 6.1% over the previous year to 53.4%. We also improved our operational competitive advantage by optimizing low-cost base production and enhancing production efficiency in major processes. At the same time, we advanced our facilities to expand World Premium production, internalized facility investment through independent engineering, and thus further solidified the low-cost and high-efficiency production system.

As for the overseas steel business, POSCO promoted the strategy of product advancement using solution marketing based on stable operations. As a result, we improved operating profits and achieved turnaround in net profits. In particular, PT KRAKATAU POSCO in Indonesia expanded the local market share and increased the sale of highly profitable products, and thus turned to profitability. As for ZPSS in China, it recorded an operating income by more than \$100 million.

Second, we completed business restructuring, and thus further solidified the business structure and financial structure of the POSCO Group. We produced an effect of financial improvement to a scale of KRW 1.2 trillion by selling off non-essential assets and restructuring low-profit businesses. As a result, we successfully completed around 150 cases of restructuring, which was a goal set in 2014, and achieved financial improvement by approximately KRW 7 trillion over the last four years. In particular, we continued activities for financial structure improvement, such as to secure approximately KRW 1 trillion in cash by selling off non-essential

investment assets including investment stocks at the right time. The restructuring of the E&C business group and steel distribution and processing business, started in 2016, were successfully completed, thus improving the performance of POSCO's key affiliates, such as POSCO E&C and POSCO Daewoo. As a result, our debt ratio and new borrowings were reduced to the lowest since our foundation, and therefore, we established a strong financial structure.

Third, we prepared a basis for diffusion of "smartization" and produced visible results from new growth engine businesses. POSCO is promoting the establishment of smart factories in our operation sites in line with the paradigm shift towards the era of the Fourth Industrial Revolution. We are attempting to apply smart technologies, such as IoT, big data, and AI, to steel production sites by using PosFrame, an independently developed smart factory platform. Through these efforts, we are strengthening the competitive advantage of our steel business. We are also actively discovering Group-level smart solution businesses, such as the smart factory, smart B&C, and smart energy, and leading the smart industry by cooperating with major affiliates including POSCO E&C, POSCO Energy, and POSCO ICT. In relation to future growth, we have completed PosLX (POSCO Lithium eXtraction), a lithium production plant with an annual production volume of 2,500 tons, through independent technological development in the secondary cell material field and commenced commercial production of lithium carbonate for the first time in Korea. POSCO ESM developed PG-NCM (POSCO Gradient-Ni/Co/Mn), a large-capacity anode material, and commenced mass-production and sale of the product. In addition, POSCO CHEMTECH, the only cathode material manufacturer in Korea, established a cathode material production system with an annual production volume of 8,000 tons.

Fourth, we promoted innovation in training programs to foster creative and innovative human resources that will lead "Smart POSCO" as well as the way we work and our HR system. To integrate new IT into our expertise in the steel business, we opened a new smartization training program and prepared a foundation to foster innovative human resources through the operation of a "Smart POSCO Forum". In addition, using POSTIM (POSCO Total Innovation Methodology), we have enabled employees to develop creative ideas into projects leading to financial results. At the same time, we strengthened the dual-ladder human resources fostering system for management and professional positions so as to improve expertise of our employees and help them display their specialized competencies in full. We have also enhanced performance-based corporate culture in relation to employee assessment and reward.

The management performance of the POSCO Group's affiliates in Korea have also been considerably improved. POSCO Daewoo further strengthened the steel sales base by restructuring the steel distribution and processing business, and acquired the exploration and management license for the DS-12 mining lot in Bangladesh following the acquisition of a gas field in Myanmar. POSCO Daewoo has also promoted diversification of its business model by establishing an office for grain supply in Ukraine. POSCO

E&C succeeded in turnaround through efforts to restructure poorly performed business areas, by selling off non-essential assets, focusing its competencies on core business areas and strengthening technological and cost competitiveness. POSCO Energy considerably improved its operating income over the previous year as a result of the efforts for LNG power system improvement and cost reduction. It also secured a basis for future profitability by promoting new and renewable energy businesses including overseas IPP projects, such as Quynh Lap 2 in Vietnam, and offshore wind power generation business. POSCO CHEMTECH expanded the sale of cathode material, which is used in secondary cell manufacturing, and improved the business profitability of needle cokes, and thus significantly increased its corporate value. POSCO ICT achieved sustainable growth in both sales and operating income based on the smartization performance including expansion of solution business in SOC field and smart factory business.

Based on improved management performance through the key management activities above, POSCO's credit rating outlook was raised to "stable" by S&P on February 16. Moody's also raised POSCO's long-term corporate credit rating outlook to "positive" on October 26. In addition, our stock price has risen by approximately 30% last year. With our performance to apply smart technologies to steel business recognized, POSCO won "Innovation of the Year" of the World Steel Association and "Presidential Award for the Korea Knowledge Awards" in Korea. As such, POSCO has strengthened its position as a leading global steelmaker. In addition, POSCO has become the first steel company in the world to be included in the DJSI(Dow Jones Sustainability Index) for 13 consecutive years. We were also named the most competitive steel company by WSD(World Steel Dynamics) for eight years in a row, and thus further solidified our status as a global steelmaker with the strongest competitive advantage in the world.

Trade Sector



POSCO DAEWOO, a representative subsidiary in our trade sector, engages in three business divisions-the trading division handling steel/metal, chemical/petroleum products, machinery/transportation equipment, and agricultural/livestock products; the overseas project division specializing in building overseas plants and power generation infrastructure; and the resource development division responsible for developing oil, gas, minerals, and food resources. POSCO DAEWOO is also working on new businesses such as manufacturing, distribution, and real estate development. It operates 86 local subsidiaries and branches all around the world.

The export performance of Trade Sector in 2017 increased by 20.5% from the previous term to \$7.2 billion based on the customs clearance amount. The total export performance of Korea increased by 15.8% from the previous term and our performance accounts

for 1.3% of the national total. Of our sales in 2017, 86.9% were from export(including tripartite trade, the same hereinafter). By region, 55.8% of our total export performance was that to Asia, including 18.8% to China. In addition, exports to North America and other regions account for 8.8% and 35.4% respectively. By export item, steel/nonferrous metal, chemicals/commodities, automobile parts/machinery and food/minerals/energy accounted for 58.3%, 24.2%, 14.6% and 2.9% respectively.

As for the overseas project division, we set a mid to long-term goal to develop infrastructure business as our third income source and are promoting various projects including projects related to infrastructure for private power generation, LNG import terminal, hospital, passenger car, and port facility development, and plant-related projects for chemicals, paper manufacturing, and steelmaking. In July 2016, POSCO was selected as a single negotiation target at the international competitive bidding for the Shwetaung private power generation project in Myanmar. Then, in December, we secured the business rights, allowing for us to solidify our position as a major power generation business operator in Myanmar's electricity market. In 2017, we implemented a 34MW-scale power generation investment project in Lae, the largest industrial city in Papua New Guinea and commenced commercial operation of the plant. We also signed a long-term power sale contract for 15 years in the future.

The details concerning our resource development division are as follows: Daily production volume at Myanmar gas fields has increased to 0.5 billion cubic feet since December 2014 as drilling and completion works at Shwe gas field were conducted following the commencement of gas sale in July 2013. As exploration projects, we completed two evaluation drillings and an additional exploratory drilling for evaluation of the structure of AD-7 field's Thalín area.

Results of exploratory drilling confirmed the presence of a satisfactory sandstone bed without any gas, while we are currently conducting additional analysis of the assessment drilling results. Through promising structure analysis by using the drilling result, we will decide exploratory drilling in the future. As for the A-1 and A-3 mines, additional exploratory drilling is under review after the analysis of many promising structures near Shwe Gas field. In addition, we won the PSC contract for developing the DS-12 mine in Bangladesh in March 2017 by participating in the bidding, and are conducting exploration tasks including the collection of data on artificial seismic waves. We are also acquiring data on artificial seismic waves in the 6-1 central field of the East Sea's continental shelf where we have conducted the East Sea-2 gas field development, and thus are developing promising gas reservoir structures. We have also acquired equity of the Oman LNG plant project in addition to the existing Peru oil field and Vietnam gas field. We are researching into promising businesses relating to gas to power (upstream/midstream/downstream) strategies and currently conducting business feasibility evaluations through consultations with respective governments.

In the mineral resources development sector, we are participating in the Narrabri coalmine project in Australia, Weta copper mine project in Indonesia, and other copper mine projects in Myanmar and Canada. We own 5% of shares of the Narrabri coalmine in Australia where mass production started in October 2012 after pilot production in 2010. About 7.8 million tons of coal is produced annually from this project. The Weta copper mine in Indonesia, where we secure 22% share, is producing finished products after the completion of construction in 2016. In addition, we are developing copper mines in Myanmar and Canada to foster future growth engines.

Lastly, to secure sustainable food resources for the future, we are working on food resource development projects. The extreme weather events around the world and strengthened policies for food resource protection in each country have amplified the necessity to preemptively secure food resources. Accordingly, we are implementing a palm oil farm development project in Indonesia. In 2014, we started the RPC(rice processing complex) project in Myanmar, and thus the distribution-type food business in full scale. In addition, we recently established a grain supply branch in Ukraine and are promoting grain supply chain development, such as for grain purchase, distribution, and export in the country.

As our new projects, we implemented a hotel development project in Myanmar, a strategic country for our business, and opened a five-star hotel in Yangon, the largest city in Myanmar. In addition, to reinforce our abilities to plan and operate exhibitions and fairs in Korea and abroad and to play a leading role in the MICE industry, which is growing as of late, we entered into business agreements with Korea International Trade Association and COEX. To bolster our competency in logistics business, we signed a business agreement for cooperation in domestic and overseas logistics business with CJ Logistics. As such, POSCO is promoting a range of new projects.

Construction Sector



POSCO E&C, the flagship subsidiary in our construction sector, is expanding its business scope to renewable energy and urban restoration areas beyond civil engineering, housing, energy, and urban development.

In 2017, despite the recovery of global economic growth and the trend of oil price increase, the number of overseas projects we won continued to decrease because the volume of orders from oil producing countries in the Middle East did not increase. In addition, as for the domestic construction economy, the number of public projects decreased due to the new government's policy of SOC budget reduction. As such, difficult conditions continued in 2017 following the last year. Accordingly, major construction companies had to decrease the weight on overseas projects and their business portfolios leaned towards domestic housing and construction business. POSCO also promoted restructuring by merging with POSCO Engineering, liquidating low-profit businesses, and selling

off non-essential assets. As a result of the effort, we recorded a total of KRW 10.0434 trillion in our order backlogs, which is divided into KRW 7.1358 trillion in domestic orders and KRW 2.9077 trillion in overseas orders. Our new projects include the Matarbari thermoelectric power generation project in Bangladesh, Myeongji development project in Busan, Korea, QuangTri thermoelectric power generation project in Vietnam and Pohang 6 cokes facility installation project. Our sales and operating incomes in 2017 were KRW 7.0192 trillion and KRW 300.4 billion(consolidated) respectively. In the construction business, POSCO stood out in the field of super high-rise building and composite commercial building construction and has built the highest construction and product composition capacities in the industry. In addition, based on the expertise developed in Songdo New Town where international organizations and companies enter increasingly as of late, we successfully completed the new town and private-led composite development projects. Abroad, we are successfully working on development projects, such as in Vietnam, and are continuously building the related expertise.

As for the energy business, we have completed a number of power generation projects abroad based on the power generation plants related to our steel plants. In the field of renewable energy, we have also implemented RDF, photovoltaic, fuel cell, and wind power generation projects. In Central and South America, especially, POSCO entered the power generation market as the first Korean construction company, and thus successfully completed the construction of large-scale coal-fired power plants. With our competencies built in these areas, we plan to enter new markets in Asia and Africa where the demand for electricity is growing.

For civil engineering projects, POSCO is continuously expanding participation in and entry to various projects and markets based on our performance in building roads, railways, and bridges. In case of railways, we are accelerating entry to overseas markets, such as Australia and Saudi Arabia, based on our technological competency and expertise accumulated through successful project completion in Korea. At the same time, we are strengthening our global project implementation capacity by securing finance, designs, and element technologies through strategic affiliation with advanced companies. Lastly, for plant business, we have carried out construction projects to build steelworks for HQ over the last 20 years. We built experiences in supplying and building facilities for the entire process in the integrated steelworks and auxiliary facilities, and thus secured an unrivaled position in the field of steel plants in Korea. In the global market, we have obtained recognition for our independent EPC project implementation capacity to build integrated steelworks based on the project performance results so far. Recently, we actively promoted entry to overseas markets, such as India and Brazil, and are enhancing recognition in the global stage. In addition, we are continuously improving the capacity in gas and chemical plants and resource development areas that are related to steel plants, and thus are promoting to commence new businesses and entering the respective markets abroad.

Energy Sector



POSCO ENERGY has continued the expansion and operation of combined cycle power plants to satisfy increasing demands for electricity in the early 1990s and ensuing government’s electricity stabilization policy since the commercial operation of Korea’s first private thermal power plant in February 1972.

Its Incheon power plant contributes to stable power supply in the metropolitan area with power generation capacity accounting for about 10% in the area. In particular, the company’s power plant, as a peak load thermal station with excellent operation competence and easy output control that can cover maximum load, instantly adapts to changes in electric power load, thereby being necessary for stable electricity supply to the metropolitan area.

It is also eco-friendly thanks to the use of LNG as a fuel. The power plants in Gwangyang and Pohang in particular use byproduct gas generated during the production process in steelworks as a fuel, helping mitigate environmental pollution.

Meanwhile, electricity reserve rate has maintained a high level since 2013 due to increased power plants and decreased electricity consumption, which caused a slight decline of our power plant operation rate. The collapse of oil prices led to a slump of overall electricity sale price, which also exerted a negative influence on CBP generator operation as of late.

In response, we are focusing on saving costs and improving electricity systems in the CBP(Cost-based pool) market including the increase of CP(capacity payment) at the end of October 2016, thereby reducing loss. In 2017, our efforts bore fruit in the form of a considerable increase in operating profit over the previous year.

The fuel cell business division, launched in 2007, is engaging in long-term O&M service and direct fuel cell power plant operation as well as manufacturing, sale, and installation of fuel cell facilities. It maintains a trend of deficit due to quality issues. However, in 2017, the deficit was reduced from the same period last year as a result of quality improvement activities. We plan to dedicate greater efforts to improving our profit structure by integrating company-wide competencies.

ICT Sector



For **POSCO ICT**, 2017 was a year in which new market opportunities were considerably expanded as convergence business to utilize the new ICT-IoT, big data, and AI-was stated in full scale despite the limited recovery of economic conditions, such as consumption and investment, in the domestic market and global economic recovery centering on the advanced countries. We focused on accelerating

smartization in our entire business areas and securing growth momentum centering on smart convergence business.

Our consolidated management performance in 2017 recorded sales of KRW 950.6 billion, an increase of 9.6% over the previous year, as a result of an increase in smart business performance. In addition, as a result of improved profitability of the solution-based business abroad and reinforced risk management, our operating incomes increased by 7.3% from the same period last year to KRW 56.1 billion and our net profit was KRW 42 billion.

POSCO ICT’s major management performance last year was as follows:

First, we expanded Smart X solution business areas in various industrial sites. We actively promoted smart factory business based on PosFrame, a standard continuous process platform developed for the first in the world. We also expanded the results of smart factory establishment at Gwangyang Works to the hot-rolling plant in Pohang and received orders of smart factory projects from external customers including Dongwha. In addition, we released PosFrame 2.0 by applying AI technology to PosFrame, which serves as a foundation for our smartization business, and we promoted diffusion of smartization in various business areas at home and abroad such as construction and energy as well as smart factory development. We also expanded smart solution business areas to the safety, power generation, and energy fields. Smart safety helmets were introduced to operating sites to prevent worker accidents and improve operating efficiency. At the same time, smart power solutions were applied to Hyeongsan Power Plant in Pohang and LNG combined-cycle power plant in Incheon to improve power generation efficiency and ensure optimal plant operation.

Second, from the overseas business, we produced visible results by converting to the solution and platform-centered Biz model. We differentiated our smart building business by using cloud-based building energy management and integrated building management solutions and, with the accomplishment, we won the projects for Doosan Bundang Center and the composite building of Changwon Central Station. As for the electric vehicle charging infrastructure business, we strengthened our position as the No. 1 private charging service provider based on the independently developed charging platform(ChargEV). We were selected as a home charger business operator for Hyundai Motor Company and the Excellent Partner of GM Korea. With the competencies built in Korea, we are expanding overseas market entry to implement projects abroad, such as by cooperating with ICE, a state-owned enterprise of Costa Rica. For airport business, we not only won the project for BHS(baggage handling system) extension at Jeju Airport based on the experiences accumulated through the BHS project of Incheon International Airport, an airport of the world’s highest standard, but also expanded our business area to security management at Incheon International Airport. .

Third, we continuously discovered new growth engine businesses for the future that are based on the new convergence technologies. We started a smart management business to support the corporate decision making process in finance, marketing, and purchasing sectors by applying big data and AI technologies. In addition, to dominate the market at the earlier stage, we developed an AI-based smart management platform and are expanding strategic partnerships. We are also discovering and promoting new business items including smart CCTV, smart motor diagnosis/ preventive maintenance, and IOT-based digital oilfield management.

Material Sector



For **POSCO CHEMTECH**, Samhwa Hwasung established in January 1963 for the production and sale of basic refractory and Pohang Shaft Tunnel established in May 1971 for repair of various industrial furnaces and shaft tunnel construction partially merged on December 1, 1994, changed the name to Pohang Steel Furnace Material Co., Ltd., and thus secured a foundation for development into a general furnace material supplier equipped with an integrated system from refractory manufacturing to construction. Having established the base as a global company for refractory, it promoted external growth by starting consignment operation of limestone calcinations facilities in steelworks in 2008 and consignment operation of chemical factories and chemical sales in 2010–2011. Currently, POSCO CHEMTECH is solidifying the base for advancement into a global top-tier coal chemical and carbon material maker.

The key business areas of POSCO CHEMTECH are refractory manufacturing and quicklime supply. Refractory is a core material for not only steel, but also cement, non-ferrous metal and glass industries. According to chemical classification, it is largely divided into acidic, neutral and basic refractory. POSCO CHEMTECH focuses on producing basic refractory, which is used in the high-temperature melting furnaces. It also builds and repairs refractories applied to various furnaces for steel and non-ferrous metals, such as blast, basic oxygen and electric furnaces in Pohang and Gwangyang Works. Specialized in furnace repair, POSCO CHEMTECH has established a responsible maintenance system for optimal furnace management with the professional human resources and internally developed equipment and facilities. Based on its technological competency and expertise, this company is conducting refractory construction works for industrial furnaces in Korea, such as from steel and non-ferrous metal furnaces to incinerators, petrochemical plants, and coal-fired combined-cycle power generation facilities.

POSCO CHEMTECH boasts the biggest quicklime production capacity in Korea by operating lime calcination facilities in Pohang and Gwangyang Works since 2008, and has moved into the global market after entering Indonesia in 2012. POSCO CHEMTECH's chemical business is engaging in consignment operation of a chemical factory which refines COG(Coke Oven Gas) of Pohang and

Gwangyang Works and purchasing and selling of chemical products generated from COG-refining process. The company acquired the cathode material business from LS Mtron in August 2010 and is currently in production. .

POSCO M-TECH performs steel packaging and steel raw material business. It started out as Samjung Steel in December 1973 and carried out packaging of steel products manufactured by POSCO. In May 1977, it completed a plant for aluminum deoxidizer, a steel raw material, and supplied it to POSCO. Since 2012, POSCO M-TECH has been conducting consignment operation of POSCO's magnesium factory, ferrosilicon factory and ferromanganese factory in addition to steel product packaging and oxidizer supply, and thus expanded competency as a company specialized in steel raw materials.

In 2017, POSCO M-TECH completed restructuring of low-profit businesses, which has been promoted since 2014, by selling off an overseas branch in Indonesia, and thus eliminated deficit-generating factors. As a result of the efforts for cost saving to secure profitability and an increase in the price of aluminum material, sales, operating income, and net profit were recorded at KRW 257.8 billion, KRW 12.2 billion, and KRW 9.9 billion respectively. In particular, POSCO is strengthening a stable profit structure by recording operating income and a net surplus every quarter.

POSCO M-TECH's major business activities in 2017 were as follows:

In the steel packaging division, POSCO M-TECH solidified its position in the steel packaging industry by winning an order for POSCO 7CGL packaging operation. In addition, POSCO strengthened internal competitive advantage by saving cost through improving efficiency of packaging materials, expanding internal maintenance and repair operations, and increasing competitive bidding. For the steel packaging facility business, the volume of orders and sales have decreased. However, POSCO M-TECH accelerated the time of profit recovery by shortening completion period of the previously obtained projects. At the same time, it dedicated efforts to discovering new projects, which include the activities to organize road shows and expand global marketing network targeting major customers.

In the steel raw material sector, POSCO M-TECH dedicated the utmost effort to strengthening competitive advantage by expanding the sale of aluminum deoxidizer, its key product, in the overseas markets, accelerating marketing activities including new customer development, increasing raw material suppliers, discovering low-priced raw materials, and stabilizing raw material supply. These efforts, together with an increase in the aluminum price, contributed considerably to POSCO's profit improvement.

In the consignment operation sector, POSCO M-TECH performed activities to ensure stable supply of steel raw materials to HQ and contribute to cost savings. The ferromanganese factory promoted technological development through cooperation with HQ to ensure stable production of World First products, such as high-manganese steel. At the ferrosilicon factory, production innovation activities were promoted in order to improve the operating patterns.

Performance Highlights

Classification	Indicator	Unit	2015	2016	2017		
Society	Social contribution expenditure ¹⁾	Total	KRW in billion	57.0	39.4	88.6	
		Donation	KRW in billion	15.9	15.2	14.3	
		Investment in local communities ²⁾	KRW in billion	39.5	23	31.4	
		Others(Commercial initiative) ³⁾	KRW in billion	1.6	1.2	42.9	
	Donations to charity ⁴⁾		KRW in billion	7	7	8	
	Microcredit expenses ⁵⁾	Raised funds(cumulative)	KRW in billion	27	28	28	
		Loans	KRW in billion	4.5	2.6	2.8	
	Volunteering hours per person		Hours/person	28.3	31	32	
	POSCO HUMANS-disadvantaged group/number employed		Persons	197/354	202/391	201/494	
	POSPLATE- disadvantaged group/number employed		Persons	74/150	71/143	63/149	
	Songdo SE- disadvantaged group/number employed		Persons	92/133	96/120	98/124	
	Sisterhood ties		Cases	201	201	203	
	Partner	No. of subsidiaries conducting the Compliance Program		Companies	28	24*	22
Compensation by benefit sharing in procurement			KRW in 100 million	367	326	322	
Private-public joint R&D fund			Cases	57	60	63	
Technology consultation through techno partnership			Cases	317	213	104	
No. of suppliers certified by POSCO			Companies	52	38	37	
Procurement		Raw materials		KRW in billion	12,075	11,152	15,062
		Materials		KRW in billion	1,710	1,702	1,776
		Subcontracting fee		KRW in billion	2,139	2,035	2,137
		Total (Procurement-to-sales)		%	62.2%	61.2%	66.5%
Investor		Crude steel production		K tons	37,965	37,496	37,207
	Sales		KRW in billion	25,607	24,325	28,554	
	Operating profit		KRW in billion	2,238	2,635	2,903	
	Operating margin		%	8.7	10.8	10.2	
	Net profit		KRW in billion	1,318	1,785	2,546	
	ROE		%	3.1	4.1	5.6	
	Total assets		KRW in billion	51,309	52,056	53,692	
	Total equity		KRW in billion	43,026	44,329	45,942	
	Debt-to-equity		%	19.3	17.4	16.9	
	Total dividends		KRW in billion	640	640	640	
	Dividends per share		KRW	8,000	8,000	8,000	
	Interim dividends		KRW	2,000	2,250	4,500	
	Earnings per share		KRW	16,067	21,899	31,409	
	Dividend payout ratio		%	48.5	35.9	25.1	
Corporate tax		KRW in billion	350	404	809		
Customer	Customer satisfaction index	domestic	Points	85	85	85	
		overseas	Points	74	74	78	
	Development of eco-friendly products		Units	32	20	21	
	Sales volume by product	Hot-rolled steel		Tons	18,792	19,034	17,925
		Cold-rolled steel		Tons	14,703	14,877	14,787
Stainless steel			Tons	1,842	1,964	1,997	
Employee	Employee satisfaction index		Points	75	77	78	
	Total number of employees		Persons	17,045	16,957	17,005	
	Retired employees		Persons	757	441	392	
	Retired employees under the age limit		Persons	461	0	0	
	Ratio of retirees		%	4.3	2.5	2.3	
	Average Years of Service		Years	18.0	19.0	19.8	
	Female employees		Persons	879	851	910	
	Female employees in manager position or higher		Persons	241	379	401	
	Employees age 55 and higher		Persons	5,676	2,237	2,796	
	Ratio of employees with disabilities		%	2.8	2.7	2.8	
	Employees who used maternity leave		Persons	72	79	67	
	Rate of return after maternity leave		%	100	100	100	
	Employees who used parental leave		Persons	73	88	94	
	Employees who used parental leave(male)		Persons	6	17	14	
	Employees who used parental leave(female)		Persons	67	71	80	
Rate of return after parental leave		%	100	97.7	90		

Classification	Indicator	Unit	2015	2016	2017	
Education	Total number of trainees	Persons	343,199	384,228*	296,557	
	Training hours per capita	Hours	116	126*	105	
	Training expenditure per capita	KRW in million	110	114*	125	
	Trainee satisfaction index	Points	4.69*	4.7	4.77	
Safety	Number of accidents(directly managed by POSCO)	Cases	7	10	3	
	Number of fatalities(directly managed by POSCO)	Persons	0	1	0	
	Number of accidents(managed by subcontractors)	Cases	1	6	4	
	Number of fatalities(managed by subcontractors)	Persons	0	3	0	
	Lost-time injury frequency rate(directly managed by POSCO)	(as of 1 million hours)	0.19	0.28	0.09	
	Lost-time injury frequency rate(managed by subcontractors)	(as of 1 million hours)	0.03	0.16	0.11	
	Total lost-time injury frequency rate	(as of 1 million hours)	0.11	0.22	0.1	
Labor costs/ pension support	Labor costs	Salary	KRW in billion	1,439	1,492	1,490
		Allowance for retirement	KRW in billion	139	161	130
		Legally required benefit costs	KRW in billion	112	117	125
	Pension subsidies	National pension	KRW in billion	39	39.2	39.2
		Personal pension subsidy	KRW in billion	7.8	8.2	8.2
		Number of personal pension beneficiaries	Persons	6,720	6,646	6,646
		Contribution to the employee welfare fund	KRW in billion	59	62	57.2
		Contribution to the employee welfare fund(cumulative)	KRW in billion	992	1,054.1	111,1.3
Environment	Air pollutant emissions	SOx	K tons/year	21.3	21.5	21.3
		NOx	K tons/year	32.3	33.5	30.9
		Dust	K tons/year	3.4	3.5	3.4
		Energy consumption ⁶⁾	TJ	355,877	355,649	353,463
	GHG emissions	SCOPE1+SCOPE2	K tons CO ₂ e	72,339	70,367	70,700
		SCOPE1(direct emissions)	K tons CO ₂ e	68,147	66,888	67,743
		SCOPE2(indirect emissions)	K tons CO ₂ e	4,192	3,479	2,956
		CO ₂ emissions per ton of steel(direct)	t-CO ₂ /t-s	1.83	1.78	1.82
		CO ₂ emissions per ton of steel(indirect)	t-CO ₂ /t-s	0.11	0.1	0.08
	Water	Water consumption	Million m ³ /year	155.1	154.5	160.8
		Municipal water	Million m ³ /year	34.9	34.4	37.2
		Surface water	Million m ³ /year	113.6	111.9	116.9
		Underground water	Million m ³ /year	6.5	8.3	6.6
		Wastewater discharge	Million m ³ /year	57.2	56.2	57.8
	Waste ⁷⁾	Waste generated	10K tons/year	1,172	1,110	1,059
		Waste volume(recycled)	10K tons/year	1,144	1,051	1,020
		Waste volume(disposed)	10K tons/year	27	59	39
		Landfill(in-house/outsource)	10K tons/year	24	52	32
		Incineration(in-house/outsource)	10K tons/year	3	7	7
		Chemical substance discharge	Tons/year	78	82*	81
	Investment in environmental facilities	Air quality	KRW in billion	92	70.9	100.9
		Water quality	KRW in billion	34	52.1	50.6
Recycling and other		KRW in billion	43	26.8	44.9	
Environmental costs	Costs for environmental facility operation and recycling	KRW in billion	778	804	801	
	Depreciation costs	KRW in billion	174	174	189	
	Administrative costs	KRW in billion	51	52	51	
	Environmental R&D costs	KRW in billion	10	14	13	
	Energy recovery costs	KRW in billion	47	56	51	
	Total	KRW in billion	1,060	1,100	1,105	

1) Our social contribution expenditure is managed in four categories-social welfare, sports and culture, talents cultivation, and volunteer service. Since 2013, we have disclosed more categories such as donations, investment in local communities, and others(commercial initiative).

2) Investment in local communities: Expenditure used at Pohang, Gwangyang, and overseas business sites for social contribution activities

3) Commercial initiative: Social contribution expenses for advertisements

4) The funds came from POSCO only. The total amount of funds from the POSCO Family stood at KRW 10 billion in 2017 and KRW 8 billion in 2015 and 2016, respectively.

5) Based on POSCO's accounting criteria on donations

6) Based on the figures on the statement submitted to the government. Electricity consumption was totaled up by converting into 3.6 TJ/GWh on the recommendation of the CDP.

7) Settled in accordance with domestic waste reporting standards.(2015, 2016)

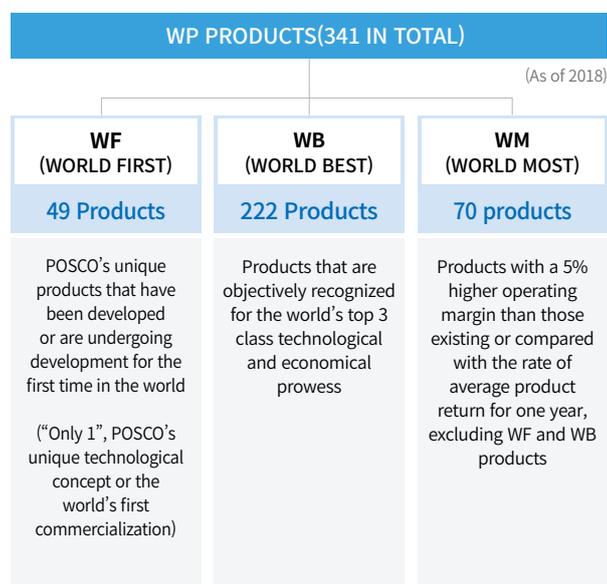
* Corrected numerical errors in past years

CUSTOMERS

World Premium Products

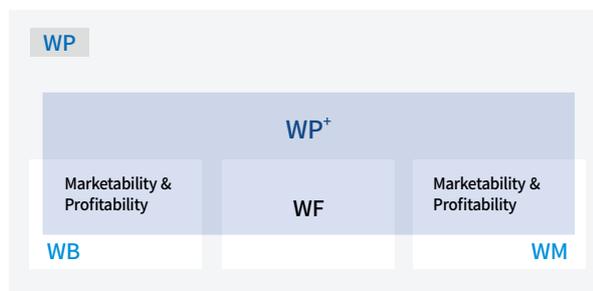
POSCO's World Premium Products

World Premium(WP) means the integration of technology-based World First(WF), profitability-based World Best(WB), and World Most(WM) concepts. WF products include our unique products which have been developed or are under development for the first time in the world. WB products are objectively recognized as the world's top 3 class technological and economical prowess, while WM products are those with an operating margin that is 5% or higher over other products in the same category, or a rate of annual product return of 5% or more over average products. As of 2018, we offer 341 WP products: 49 WF, 222 WB, and 70 WM products.



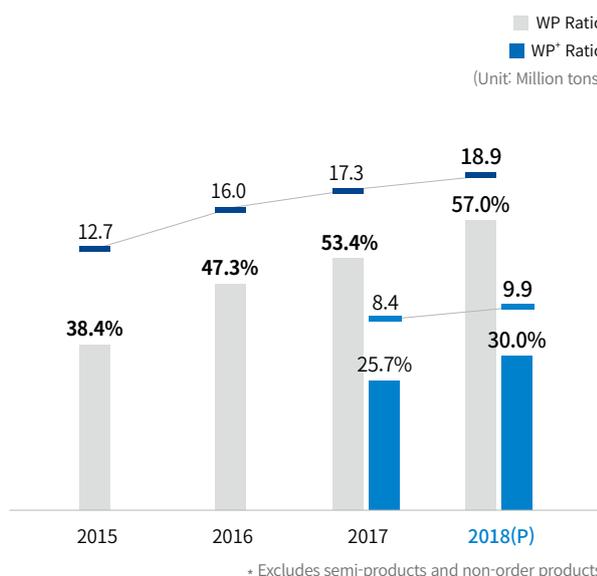
Quantitative/Qualitative Advancement of WP Sales to Focus on WP⁺

Over the last three years, POSCO has produced amazing results in regards to the sales of high value products. This was accomplished through solution marketing strengthening and the expansion of WP(World Premium) product sales as part of its steel business advancement strategy based on its unique technological prowess. During the last four years, we have been expanding the sale of WP products by developing and supplying various solutions for customers. As a result, POSCO's sales of WP products reached a share of over 50% among company's total sales compared to 30% in 2014. However, for timely response to the diverse needs of demand industry that is continuously advancing, it is necessary to achieve qualitative advancement of WP products and upgrade solution marketing techniques. In 2017, we introduced a product category of WP⁺(World Premium Plus) to meet the customer's needs and market expectation.



WP⁺ is comprised of steel products of Global No. 1 technological competency that combines profitability and marketability. POSCO is promoting to achieve quality advancement of WP products by expanding sales especially of WP⁺ products. We also plan to increase the ratio of WP product sales up to 60% by 2019. In addition, we are planning to extensively develop and provide solutions by clarifying the targets through certification and sales status mapping analysis for each customer and reinforce customized solution marketing by using digital infrastructure including a mobile app and big data analysis tools. POSCO will continue to lead the development of co-prosperity models for shared growth by creating new markets with our customers and improving their competitiveness of product quality with the belief in mind, "Customer have a solution".

WP/WP⁺ Sales Volume and Ratio



WP/WP* Steel Product Types and Applications by Industry

Automobile	 <p>Frame Body Weight Reduction</p>	<ul style="list-style-type: none"> • Reduced the weight of SsangYong Motors' SUV model(G4 Rexton) frame body • Reduced weight by 12% through increasing the ratio of high-strength steel to the frame body(0%→63%), which previously had inferior fuel efficiency and driving performance due to large weight • Provided technological support for application of 1.5GPa steel material for the first time to automobile frame <p>* Frame Body Structure: The combined structure of the body attached to the frame(chassis)</p>
Steel Product	 <p>High-performance Atmospheric Corrosion Resistant Bridge Applications (Owolgyo bridge, Chuncheon, Gangwon-do)</p>	<ul style="list-style-type: none"> • A project to build an elevated highway between Jakarta-Cikampek(37km) of Indonesia by designing/applying steel box using thick plate(Jan. 2017-Aug. 2018) - Demand for thick plate for bridge construction in Indonesia with concrete application expected to increase • Designed steel bridge of KP thick plate application through cooperation between PT.KP and POSCO
Energy and Shipbuilding	 <p>LNG-fueled Ship</p>	<ul style="list-style-type: none"> • World's first LNG-fueled bulk carrier(Green Iris) to incorporate high manganese steel • Fuel tank manufactured with high manganese steel produces low-temperature toughness down to -196°C, and thus is suitable for LNG storage and transport • Superior weldability and price competitiveness to those of the existing materials, such as nickel steel and Al alloy
Stainless steel	 <p>PyeongChang Hockey Center</p>	<ul style="list-style-type: none"> • STS curtain wall finishing material applied to ice hockey stadium for PyeongChang 2018 • Locked in and increased added values of steel products by providing one-stop solution from design and material development to manufacturing and installation of STS premium finishing materials • Higher strength and corrosion resistance than those of existing materials; thickness optimized for weight reduction

CASE REPORT

Information Security

POSCO ensures complete compliance with local and international cybersecurity-related rules and regulations, and international standards. Also we performs the activities for managing administered, technical and physical security such as controlling of core technologies and human resources constitute the primary source of its competitive edge. Risks are managed by a dedicated information security team. Rapid-paced change in information security-related regulations, business environment, and technological trends in Korea and abroad is fully assessed and incorporated into POSCO's security policy. In addition, to enhance the security level of POSCO Group affiliates and overseas subsidiaries, the corporate security team has been offering information security assessment and consulting services. At the same time, the team has been working around the clock to detect and fix security-related vulnerabilities in information systems and processes.

Safeguarding New and Mission-Critical Technologies and Important Data:

Corporate security standards have been continuously updated to accommodate the adoption of new technologies including the ones leveraged for implementation of the smart factory initiative. Additionally, proactive efforts are expended to heighten employee security awareness and practices by staging information security campaigns around specific cybersecurity themes like information security compliance inspections, communicating lessons learned from publicly reported security breaches and attacks. The organizational scope of information security efforts has been extended to cover not only the POSCO Group but also our customers.

Elevating Security Capabilities across Overseas Subsidiaries and Affiliates, and Partners:

POSCO has been striving to build: information security management competencies of our domestic and overseas sites as well as its affiliates and partners by providing them with field security assessment and training. To enhance the level of understanding of at our POSCO's overseas subsidiaries are provided with guidance and training in practical information security practices by using specifically designed cybersecurity materials translated into multiple languages including English and Chinese.

Ensuring Compliance with Information Security Rules and Regulations:

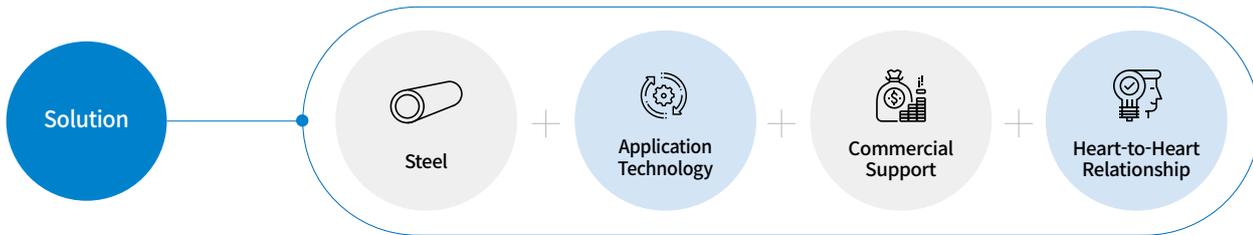
POSCO strictly abides by applicable information security rules and regulations of Korea and overseas countries where it has presence including Personal Information Protection Act and Act on Promotion of Information and Communications Networks Utilization and Information Protection. The trends in compliance are tracked constantly and the findings are translated into corporate security standards with on-going preventive monitoring to ensure compliance.

For the online e-Sales steel commerce system, POSCO has been certified in Information Security Management System(ISMS) since 2014. POSCO is committed to continuously stepping up efforts to enhance its information security management capabilities in order to ensure trust and continuity in securing personal information of its customers.

Solution Marketing

Securing and strengthening competitive advantages : Solution Marketing 2.0

Basic frame of Solution Marketing 1.0 continuously maintained



A 'Jump Up' for Solution Marketing Content



Since 2014, POSCO has been performing solution marketing activities to provide the highest-performance steel products (hardware) along with technical, commercial, and human solutions (software) so as to assist customers in using our products more conveniently and economically. In 2017, we promoted “Solution Marketing 2.0” with a goal to swiftly respond to the rapidly changing industrial trend and provide greater value to our customers with further differentiated strategies to out rival global competitors. Through Solution Marketing 2.0, POSCO further upgraded the standard of solution marketing by employing the three methodologies of innovative, digital, and tailored at the same time as strengthening the basic framework that had been established over the last four years.

POSCO opened the Steel Forming Laboratory in Songdo in May 2017 as part of the innovative strategy to help customers achieve a groundbreaking change in their work standards by providing them with solutions for not only increased working speed but also product development and sales. The Steel Forming Laboratory is a customer-oriented research infrastructure where POSCO products are evaluated and developed in production environments corresponding to those of clients and industry-leading technologies. The center is equipped with a wide range of testing equipment, from roll forming and press testing devices to a high-speed collision tester and a 2,000-ton hydraulic press. POSCO further innovated their solution marketing by establishing the “POSCO One-stop Development” system to complete the entire process from the development of steel application technologies to the manufacturing and performance verification of prototypes using these facilities.

In June 2017, we released a mobile solution app for the automobile industry called “POSCO Automotive Steel & Solution” which having reflected the key factors of the fourth industrial revolution such as

AI and big data. This app is for strengthening communication with customers through digital devices and content, and discovering the hidden needs through data analysis for preemptive response to customer. With the app, our customers can not only conveniently find information on steel products and application technologies but can also receive real-time feedback via VOC registration through an interactive communication system. We also began the establishment of infrastructure for big data analysis on the registered VOC information and identification of hidden solution needs by utilizing the “Mobile Service System”, a solutions marketing tool.

In October 2017, we hosted the “POSCO Global Electric Vehicle Materials Forum” as part of our tailored strategy to strengthen individual care for each customer and improve POSCO’s competitive advantage. At the forum, POSCO discussed the plans for coexistence and cooperation to build an electric vehicle industry ecosystem, covering the four areas: giga steel applied to the chassis of electric vehicles, electrical steel used in the motor, battery materials, and charging infrastructure. In line with the trend of industrial convergence, POSCO also tried to provide customized package solutions. In particular, this forum provided momentum for POSCO’s advancement to become a general material solutions provider with POSCO subsidiaries which are related to the electric vehicle industry, such as POSCO DAEWOO, POSCO ICT, POSCO ESM, and POSCO CHEMTECH.



Global EVI Forum 2017

Highlights of Solution Marketing by Industry

Automobile

“GIGA STEEL: SUV Frame Body Weight Reduction”

The “frame body,” which is created by assembling a body on top of the frame of an automobile chassis, produces excellent strength and durability. However, the weight is larger than that of a monocoque, resulting in inferior fuel efficiency and driving performance. To overcome this weakness, POSCO provided a range of application technologies including forming analysis for customers’ parts by carrying out a cooperative project with SsangYong Motors to select optimal steel materials for excellent automotive performance and cost competitiveness. As the application of ultra high-strength steel to automotive frame was increased to 63%, the highest in the world, the frame weight was lowered, yet the strength and collision safety were improved.

Electrical and Electronic Products

“PosMAC® 3.0: High Corrosion-resistance Air Conditioner Condenser”

The condensers of air conditioners exported to Southeast Asian countries are exposed to hot and humid environments for long periods of time. Therefore, the risk of corrosion is high. To solve this problem, POSCO selected condenser parts that are most prone to corrosion by breaking down and analyzing customers’ condenser products, and applied PosMAC® 3.0, a high corrosion-resistant alloy plated steel.

PosMAC® 3.0 is POSCO’s unique product that is not only high in corrosion resistance and versatility, but also cost-effective. It resolved the quality issue caused by corrosion and also contributed to cost reduction for customers.

Wire Rod

“PosCable98: Storage Tank Design Optimization”

To ensure the structural safety of LPG/LNG tanks, PC (prestressed concrete) strand is installed in vertical and horizontal directions inside a concrete layer. In general, PC strands with tensile strength of 1,860Mpa has been applied. For the first time in the world, POSCO and KISWIRE(customer) have jointly developed PC strands with the tensile strength of 2,400Mpa by using PosCable98, an ultra high-strength wire rod produced by POSCO. We also developed anchorage system for this ultra high-strength steel strand. Optimized structural design of storage tanks using the high strength strand and anchorage system enables reduction of construction period and cost. In addition to storage tanks, this product is also applied widely to bridge structures.

Customer Satisfaction Survey

Every year, POSCO has been conducting a customer satisfaction survey to identify customer needs and opinions and to improve customer value. In 2017, the survey was conducted by KMAC (Korea Management Association Consulting), an external professional researcher organization. The target customers are major 235 companies of the seven strategic industrial fields. As a result, POSCO achieved overall 81points which was up to one points compared to previous year, 85points and 78 points at home and abroad. In particular, the level of satisfaction of overseas customers increased by four points over the previous year as a result of the improvement of TSC response in the local markets and the dispatch of molding analysis experts. POSCO will derive new tasks from the 287 customer needs identified in 2018 and promote extensive improvement within the first quarter of 2018.

Customer Satisfaction Survey Results

(out of 100 points)

Classification	2015	2016	2017
Domestic	85	85	85
Overseas	74	74	78
Total	80	80	81

Marketing Education to Enhance Solution Marketing Competencies

POSCO has been operating an education team under the Steel Business Division. In 2017, we introduced education to enhance solution marketing competencies of the sales staff in addition to the education on product knowledge and special internal and external lectures.

In addition, POSCO is organizing educational courses to improve sales competitiveness of customers by inviting them to the steelworks, as well as courses to help new and transferred employees develop practical competencies for the steel business at an earlier phase.

As for the type of education, POSCO converted collective training for product knowledge and job competency improvement entirely to solution marketing education based on a ‘Flipped Learning’ system (online learning followed by offline discussion) in order to establish the culture of ‘Smart’ self-initiated learning.

In 2018, POSCO plans to install marketing courses that focus on the key points for solution marketing activities and provide education and assessment targeting all employees including the leaders of Steel Business Division.

CRM System to Meet Customer Needs

The CRM system of POSCO has been operating since 2003 and currently manages information of over 20 thousand customers worldwide. It automatically updates transaction results by customer through the ERP system and financial information in concert with credit rating agencies. All customer-contacting departments update customer needs, responses, and critical issues to the CRM system in real time. Customer information in the system is shared with more than 50 business sites at home and abroad to improve customer satisfaction and enhance solution marketing activities.

POSCO also provides support to ensure swift handling of the identified customer needs by linking the CRM system to the “Customer Promise Management System,” a company-wide collaboration tool, and ensures better response to customer requirements in the field through the application of “Mobile CRM System” using tablet PCs and smartphones.

Quality Management

POSCO Family Quality Charter

The POSCO Family Quality Charter was declared in 2010 with the aim of becoming a leading global company that creates higher customer value. With the Charter in mind, we will strive on to realize the vision for top quality in our business by providing customized-steel products and solution marketing services which include application technology.

THE POSCO QUALITY

World's Top Quality that Touches the Soul of Customers

The Charter is composed of the quality vision and three core values. "The POSCO Quality" implies that POSCO represents quality and we pursue the world's top quality that touches the soul of customers. Our three core values are Customer Inside, Basic Inside, and Synergy Inside. The code of conduct for each core value is as follows:



Customer Inside

Create customer value by identifying the potential needs of customers

Basic Inside

Put emphasis on basics and principles, while eliminating deviation and waste elements

Synergy Inside

Pursue shared growth with the supply chain through trust and communication

POSCO Quality Management System

The company introduced the ISO quality management system in 1993 to ensure that our products meet customers' demand and legal requirements. This system has allowed the company to enhance product quality by replacing the previous department-led quality management system with a process-based quality management system.

In 2017, the international standard for automotive industry was changed from ISO/TS16949 to IATF16949 with stricter requirements. Accordingly, Gwangyang Works, steelworks specializing in steel plates for automobiles, and our Seoul Office preemptively acquired the IATF16949 certification. In April 2018, Pohang Works also obtained the certification, and thus the working method based on the IATF16949 was newly established and the company-wide quality management system was further upgraded.

Education on Quality

Company-wide education on quality has been offered to employees of POSCO, POSCO Family companies, overseas subsidiaries, outsourcing partners, and suppliers, to enhance their competence and idea of quality.

In 2017, we provided the change management education for all employees of Pohang Works and Gwangyang Works to early establish working methods under the changed ISO9001 and IATF16949 systems. Also, POSCO provided systemized and specialized quality competency improvement training to the key

workforce for domestic and international quality management planning, quality control, quality assurance, and quality improvement. As the result, 2,706 of employees improved their mine for the quality through the education.

In 2018, POSCO will secure a basis for full-time training on the new quality management system by opening an IATF16949 e-learning course at the same time as operating collective training courses to improve competencies of the quality-related workforce in the head office, POSCO family companies, overseas subsidiaries, outsourcing partners, and suppliers.

Employee Education on Quality

(Unit: Persons)

Classification			2015	2016	2017
Collective training	General course	No. of courses	8	4	6
		Completed	2,028	395	719
	Professional course	No. of courses	3	4	5
		Completed	586	1,379	1,477
E-learning	No. of courses		11	13	7
	Completed		9,606	935	510

Quality Management System Certificate

Since the company received its first ISO 9000 quality management system certificate on October 18th, 1993, POSCO has continued to renew key quality certificates like the IATF16949. As of 2017, POSCO holds two international standards, 133 national standards, and 90 collective standards, including the ISO9001 quality management system.

In addition, while the demand for certification increases across the world as a result of the global trend of strengthened protectionism and the demand for mandatory certification of national standards expands in Southeast Asia, POSCO developed a global national standard certification management system in 2017 and expanded the application throughout the company in order to preemptively acquire and ensure systematic management of quality certifications. In 2018, POSCO plans to hold a total of 225 quality certifications, by acquiring and renewing certifications for 135 national and collective standards and maintaining 90 existing certifications, in addition to the IATF16949 Pohang Works conversion certificate.

Obtainment of quality certification in 2017

Classification	Certification
International standards(2)	ISO9001, IATF16949
Collective standard 8 organizations (90 certifications)	ACRS(Australian Certification Authority for Reinforcing and Structural Steels), AD2000 (German pressure vessel technology standard), API(American Petroleum Institute), BC1(Building and Construction Authority Singapore), CIDB (Construction Industry Development Board of Malaysia), KEPIC(Korea Electric Power Industry Code), CPR(Construction Products Regulation), PED(Pressure Equipment Directive)
National standards 7 countries (133 certifications)	KS(Korea), JIS(Japan), MS(Malaysia), SNI(Indonesia), BIS(India), TIS(Thailand), TCVN(Vietnam)

Improved Quality Management System of POSCO and Overseas Manufacturing Subsidiaries

In 2015, POSCO changed the internal audit into a quantitative assessment on the production departments at Pohang Works and Gwangyang Works. This assessment covers all 18 production departments: 11 departments at Pohang Works and 7 at Gwangyang Works. We also selected 17 quality management items that are used to evaluate production departments. In the quality management assessment conducted on all departments in 2017, the score of all production departments rose from an average score of 835 to 862 out of 1,000 compared to the previous year. Also we ensured an upward leveling in the standard of quality management due to the deviation of the score decreased between departments.

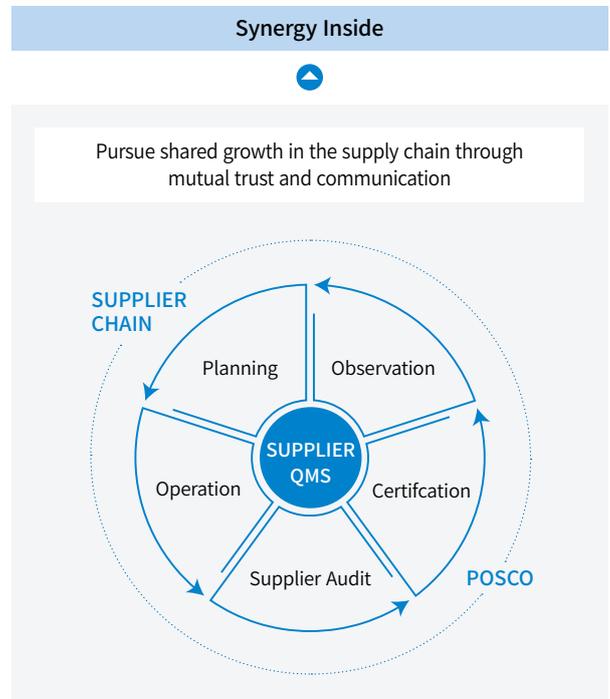
POSCO have been supporting the quality management assessment and improvement activities for overseas subsidiaries to ensure the quality management frameworks of HQ's level. The diagnostic model, in particular, was developed in reflection of the situations of production sites around the world to assess core quality management competency and customer value creation capability.

The assessment has been carried out on 12 overseas subsidiaries, starting with P-Vietnam in 2014, identifying an average of 10 to 15 improvement issues per corporation. Based on the results, HQ and overseas sites jointly implemented correctional activities, establishing a quality management system that is on par with that of HQ. In 2017, a biennial routine quality management evaluation process was introduced for continuous maintenance and management of the quality management system. The routine assessment was conducted on P-Vietnam, P-Mexico, and Guangdong Shunde Pohang Steel, which had been previously evaluated in 2014. In addition, we strengthened monitoring activities, such as inspecting efficient operation of the quality management system since the initial assessment. POSCO will continue to ensure that all of our customers are provided with products of the same high quality, regardless of manufacturing site.

Continuous Implementation of POSCO Supplier Quality Certification(PosQC)

POSCO has been operating the PosQC system since 2012 in order to fundamentally prevent quality failure from outsourcing partners and suppliers, and ultimately to ensure the world's top quality. This system evaluates the level of quality management activities and certifies performance on a scale of Q1 to Q5. Outsourcing partners and material suppliers with Q3 rating or higher are awarded a separate certificate in recognition of their quality assurance competence. In 2017, the evaluation targets were expanded and a total of 77 outsourcing partners and material suppliers were evaluated, and 67 of them received certificates for Q3 rating or higher. In particular, "Poren" and "Dae Won Knife" were selected as the best companies in the outsourcing partner and material supplier sectors respectively, and won the Synergy Award at the POSCO Quality Award.

In 2018, the 7th year of the PosQC system implementation, we will expand target partners and suppliers to secure a wider and higher level of quality assurance by involving more internal evaluators. As for the partners and suppliers recording insufficient results, a quality assurance system will be established along with continuous improvement activities.



Quality certification in the supply chain (Unit: Companies)

	2102	2013	2104	2015	2106	2017
Evaluated companies	6	43	58	66	62	77
Companies rated Q3 or higher	6	18	31	56	56	67

Quality Management Activities of POSCO Family Companies

We have been conducting a diagnosis on quality management activities of POSCO Family companies since 2011 to enhance the level of quality management. Their performance in major quality-related processes and effectiveness of quality management system are quantitatively evaluated(1,000 point scale) to identify and improve insufficiencies. The diagnosis system is based on the Quality Charter’s core values and code of conduct, and the maturity level of quality management is classified into five stages: beginning, improving, succeeding, controlling, and leading. The level of quality management maturity of POSCO Family companies increased from a B⁺⁺ rating(772 points) in 2016 to an A rating(805 points) in 2017, and all ten companies achieved a B⁺⁺ or higher rating. We identified the improvement areas by evaluating the quality management levels for POSCO Family companies, including three new companies POSCOHUMANS, POSCO ESM, and POSMATE, to promote quality management activities. In 2018, POSCO will further advance the standard of quality management by continuously performing improvement activities based on the evaluation results of each company.

POSCO Quality Awards

Since 2011, every year CEO has been granting ‘POSCO Quality Awards’ for the organization which effectively operated management system and achieved excellent performance in quality innovation. The award is presented in POSCO Family, POSCO Excellent Department, and Supply Chain categories. In 2017, an Excellent Overseas Subsidiary category was added. The award-winning organizations are selected fairly and objectively through quality management evaluation and PosQC evaluation.

PQA Winners in 2017

Classification	Prize	Winner
POSCO	Excellent (Dept.)	Pohang Works Electrical Steel Plate
POSCO Family	Excellent	POSCO E&C
	Takeoff	SNNC
Overseas Subsidiary	Excellent Subsidiary	P-Vietnam
Supply Chain	Synergy Prize (outsourcing partners)	Poren
	Synergy Prize (material suppliers)	Dae Won Knife

POSCO’s Quality Assurance System

POSCO operates the Q-CAPS(Quality-Check and Pass System) and an integrated system for corrective measures to reinforce its customer-oriented quality assurance system. The Q-CAPS was developed based upon the quality management message, “We do not make, supply, or take defective products.” It collects all data from the production process on a real-time basis and performs inspection, assurance, forecast, monitoring, and analysis of quality as well as effectively detects and prevents defects. The integrated system identifies the root cause of nonconforming items through quality inspection and customer claims, and prevents their recurrence, playing a key role for strengthening our quality assurance system.

Technological Innovation

In 2017, the global economy displayed a favorable trend and the performance of steel companies and the market conditions were relatively satisfactory as a result of the increase in the prices of Chinese steel materials. In 2018, the global economy is expected to continue on the trend of solid growth following last year, and steel market conditions are expected to remain stable. However, we also face risk factors, such as trade conflicts, volatility in fuel and material prices, and improved status of our competitors. At the same time, competition among global steel companies to survive in the future steel market and promote a new take-off is predicted to intensify, such as by improving productivity and creating, and thus securing premium materials markets.

In 2017, POSCO continued to accelerate the development of differentiated innovative products and customized solutions technologies by strengthening our technological competitiveness. In particular, we continuously developed technologies to improve stable mass-productivity and secure quality of POSCO's specialized high Mn steel and poStrip products.

To technologically support expansion of the development and sale of high value-added WP(World Premium) and WP+(World Premium Plus) products, we extensively developed FFT(Family Flagship

Technology) and WF(World First) and WB(World Best) manufacturing technologies as well as low-cost process technologies. We also placed a focus on early commercialization of these developed technologies, and have continuously promoted CO₂ reduction technology development for steelworks in a preemptive response to the Emissions Trading Scheme that had been reinforced in keeping with the national low-carbon and eco-friendly trends. In order to secure the world's No. 1 manufacturing competency in terms of cost, quality, and productivity, we set up a stretched target in WTI(World Top Index) and achieved it successfully while we expanded and integrated the WTI to overseas production units and subsidiaries.

In order to successfully promote mid to long-term technological development, POSCO will reinforce investments to maintain the competitiveness of our future technologies, such as by upwardly adjusting the company-wide R&D budget from KRW 460 billion in 2017 to KRW 510 billion in 2018. We will also establish a strategic O&C(Open & Collaboration) management system to actively make use of external technologies and R&D resources in addition to independent development through internal research labs and promote the system implementation by phase, so as to efficiently secure the necessary technologies.

Major Achievements in Technology Development



Iron Making

Developed Blast Furnace Operation Prediction Model Using AI and Smart Sensor

With the existing blast furnace operation, prediction had been difficult as the technologies applied were highly dependent on the operators' experiences and a large number of unstructured data were used. However, we improved competitiveness by turning the unstructured data into explicit information through installation of over 800 smart sensors and realizing low-cost operation through the development of a blast furnace operation prediction model and establishment of an automatic control system using artificial intelligence algorithms.

Realized Longer Life Cycle of Facilities by Developing Technologies for Old Blast Furnace Stave Replacement and Furnace Wall Repair Efficiency Improvement

The life cycle of a blast furnace had been limited due to aging. However, POSCO developed a technology to replace the entire stave structure, a facility to cool down the furnace body, through planned repair, and applied it to four blast furnaces in Pohang Works. In addition, we improved strength of the blast furnace by developing a structure to improve refractory adhesion, and thus minimize abrasion of the furnace body.

Reduced Cokes Manufacturing Cost by Developing Binder-free Dry Coal Molding Technology

In turning dust generated during coal drying for cokes manufacturing into coal briquettes, the use of expensive binder resulted in the increase of manufacturing cost. However, POSCO reduced cokes manufacturing cost by developing a technology to manufacture coal briquettes using sludge generated from the process.



Steel Making

Developed Technology to Control Steel making Properties in Response to WP Production

POSCO developed technology to control steel making properties in response to WP(World Premium) production by improving precision of measuring the amount of alloy iron input and ingot steel weight for high-strength steel, such as high carbon steel and giga steel of which ingot steel properties exert considerable impacts on the deviation of materials and slab cracking, and drastically increasing steel manufacturing process from property control standard of the past through alloy iron model advancement.

Developed Chamfered Mold Technology

The high alloy steel and giga steel for thick plates are prone to slab cracking as a result of the high alloy design. This not only deteriorates the quality of the slab, but also generates process load for removing the defective part. To address this issue, POSCO developed a chamfered mold optimization technology.



Hot Rolling

Developed Hot Rolling and Cooling Process Technologies for Expansion of Hot-rolled and Post-process WP Products

To respond to the strengthened fuel and environmental regulations as of late, steel products are becoming stronger and thinner, and thus it is necessary to secure productivity and quality of hot rolling and post-process WP(World Premium) products. In the hot rolling process, we expanded production volume of high-strength products by commercializing electrical hot rolling oil technology, and in the cooling process, we developed and applied technologies for precision control of iron phase transition during cooling. POSCO plans to secure technologies to reduce cooling deviation and handle the difficult control areas so as to stably produce giga-level high-strength steel products.

Expanded Application of Cryogenic High Mn Steel for Thick Plates of LNG Tank

As the level of interest in eco-friendly fuel is increasing as of late, the demand for LNG fuel has expanded. Accordingly, POSCO developed cryogenic steel(PosM_CS) with a high Mn content to drastically reduce the cost from that of Ni steel with 9% content previously used for LNG tanks. This product was the first of its kind and was applied to the fuel tanks of "Green Iris," a 50,000-ton LNG-fueled bulk carrier ordered for construction by POSCO. In addition, POSCO is reviewing the application of cryogenic steel to ground LNG tanks to be built in Yeosu and is currently promoting standard revision and verification testing for the application. As such, POSCO plans to extend its marketing base by dominating the LNG fuel market, which will be expanded in the future, by securing track records.

Developed Wire Rod for Crystal Grain Size Control

With the crystal grain size control platform technology, POSCO's Family Flagship Technology(FFT), we developed a carbon steel wire rod with the crystal grain size reduced by more than half. By developing a steel material for which the crystal grain size can be controlled, POSCO accelerated the spread of crystal grains inside steel during the nitrocarburising heat treatment process, and thus further improved product properties, such as the rates of nitrocarburising and spheroidizing after heat treatment, from the existing steel materials. As the technology is increasingly applied to other steel products, the acceleration of WP(World Premium) product development is expected.

Developed Product and New Manufacturing Process for Automobile Chassis Weight Reduction and Fuel Efficiency Improvement

POSCO developed ultra high-strength and high-elongation giga-level steel materials for cold forming, which can stand in competition against the high-end HPF(hot press forming) parts, in order to reduce vehicle weight and improve strength in response to the CAFE2025(23.2km/l) fuel efficiency regulation and the strengthened safety regulations. We are also continuously promoting to improve the stability of mass-production and quality of products. At the same time, POSCO is reviewing a new manufacturing process through facility investment in preparation for a case where it is difficult to secure the quality of giga-level steel material mass-production with the existing facilities.

* CAFE: Corporate Average Fuel Economy

Developed Differentiated Premium Surface-treated Steel Plate (Inkjet-printed Steel Plate: PosART®) for Home Appliances/ Construction Material

POSCO developed a colored product and associated manufacturing process to apply various colors and designs to a steel plate by using inkjet printing. Existing printed products were created using roll printing and silk screen techniques, and thus only repetitive images could be printed. In addition, the resolution of printed materials and the respective productivity were low. Therefore, we developed an ink for steel plates and added an aesthetic function. In addition, to improve productivity, continuous coating process technology was developed. POSCO plans to discover and expand the market through active promotional activities, such as by producing prototypes and organizing presentations to introduce the new products.

Developed Technology to Manufacture Non-oriented Electrical Steel of Ultra High Magnetic Flux Density

POSCO developed a non-oriented electrical steel product of ultra high magnetic flux density to considerably improve magnetic flux density, magnetic permeability, and electric conductivity while maintaining the iron loss rate, by controlling the precipitates of the crystal microstructure. The magnetic flux density was improved by more than 0.03 Tesla and this product is expected to play a leading role in the market for high-efficiency premium motors of IE4 class and higher. We will actively develop new demands by completing a lineup of ultra high magnetic flux density products and achieving quality stabilization.

Developed Technology to Manufacture 329LD HR Thin Plate, a Stainless Steel Construction Material, through poStrip Process

By using the poStrip(POSCO Strip Casting) process, we have developed 329LD HR to replace 329LD CR, a duplex stainless steel used for construction, to simultaneously reduce manufacturing costs and the hot-rolling process load. By mass-producing 329LD steel, which has superior corrosion resistance compared to general purpose 316L steel, using POSCO's proprietary poStrip process, we expect growth in the development and sales of WF(World First) stainless steel products in the construction materials market.

Business Innovation

To achieve our vision of “POSCO the Great,” POSCO has steadily conducted innovation activities since 2014, when the “POSTIM (POSCO Total Innovation Methodology)” was introduced. POSTIM aims to encourage all POSCO employees and family companies to participate in innovation activities, while also integrating work and innovation.

POSTIM is a powerful execution engine for realizing the four agendas of Innovation 2.0-strengthening fundamental competitiveness of steel, acceleration of business structure innovation, creation of tangible results in new growth engine businesses, and establishment of ethics-based management infrastructure. It is also operated under the principles-unification of work and innovation, voluntary involvement and adequate compensation, establishment of working environment to enhance creativity and concentration, and

cultivation of talents with technical knowledge and problem solving capabilities. POSTIM greatly contributes to creating better operating performance every year.

POSTIM consists of three major components: ① PSS+(POSCO Six Sigma plus), a project-centric work system where creative ideas are developed into projects and reasonable reward is ensured; ② QSS+(Quick Six Sigma plus), POSCO’s unique methodology and activity to achieve the best product quality, prevent failure of facilities in plants, and ensure safe workplace; and ③ SWP(Smart Work Place), an activity to conduct high value-added work and find creative ideas based on harmonious and positive organizational culture.

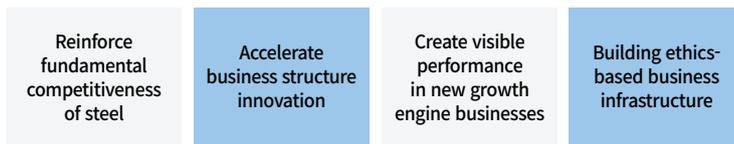
Over the past four years, we have striven to embed POSTIM in the company, and in 2017, POSCO produced greater results.

Structure of POSTIM

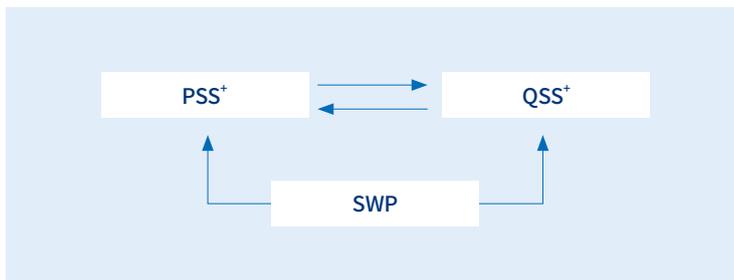
Vision



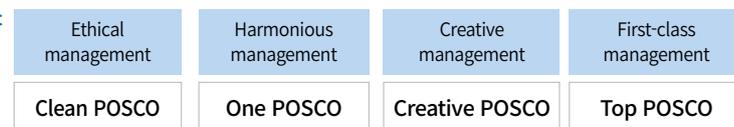
Innovation Agenda



POSTIM



Management Philosophy



PSS+ (POSCO Six Sigma plus)

POSCO’s unique innovation methodology to accelerate performance creation through a project-centric work system

QSS+ (Quick Six Sigma plus)

POSCO’s unique methodology and activity to enhance quality, stability, and safety in manufacturing sites by taking into account the characteristics of steelworks

SWP (Smart Work Place)

Activity to conduct high value-added work and find creative ideas based on harmonious and positive organizational culture

* POSTIM is a structure where our own process, system, and minds act harmoniously.

POSTIM Highlights in 2017

PSS⁺(POSCO Six Sigma plus)

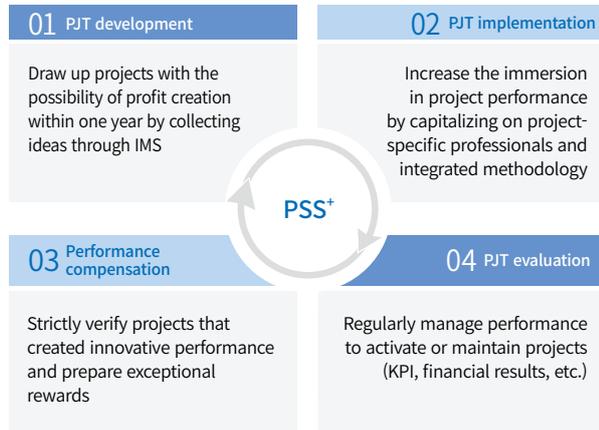
PSS⁺(POSCO Six Sigma plus) is POSCO’s unique innovation methodology which accelerates the production of results through a project-centric work system. POSCO runs an “idea suggestion” system to discover projects. In this system, employees are free to suggest any ideas about potential projects on the in-house IMS(Idea Management System). Then other employees jump in to build upon the suggestions by sharing their own tips. The selected ideas are carried out as official projects to generate financial results. In 2017, we reduced the average time period from idea suggestion to project implementation and from idea suggestion to project completion by 20 and 36 days respectively, and thus produced POSTIM performance more swiftly. For the idea suggestion system, the existing quarterly idea suggestion and autonomous idea build-up centered on managers was improved into full-time idea suggestion centered on employees and idea build-up led by executives. As a result, the number of ideas developed into IP projects increased by more than 50% over the previous year. To offer superior performance, PCPs(POSCO Certified Professional) of the in-house system to foster experts were unified. Project PCPs and specialized PCPs were integrated into specialized PCPs and the project implementation roles of specialized PCPs were strengthened. As a result, the number of S/A level high-profit projects implemented was increased from 24 in 2016 to 38 in 2017. In 2017 alone, 35 smart IP projects to generate profits by using smart technologies such as big data and AI were discovered and executed. Using the 576 smart ideas suggested in 2017, we expect to perform a greater number of smart IP projects in 2018.

One of the characteristics of the PSS⁺ methodology is that those highly profitable projects receive due rewards. This system is called “IP Project Special Reward.” If an IP Project is applied to business and results in a certain amount of profit for one year, the project automatically qualifies for the special reward program. Projects must go through result verification before being qualified for special reward. The reward amount is decided in the verification stage after evaluating the exact amount of profit generated. The reward amount is about 10% of the net profit but subject to adjustment within 5% depending on special cause.

From 2015 to 2017, a total of KRW 7.5 billion was paid as special reward for the results of 38 IP projects. As for gain sharing, which is paid to employees, KRW 100,000 was paid per person per year in 2017 following 2016, thus expanding motivation for POSTIM activities.

POSCO Family companies also participated in innovation activities through POSTIM. In 2017, the project-centered operation method was spread to overseas subsidiaries as well as throughout the Group. The companies were guided to operate the process from idea suggestion to project implementation under the same system as that applied in POSCO. In addition, CEO VP was expanded to 35 key IP projects of POSCO Family companies for the first time.

PSS⁺ Operation Process



QSS⁺(Quick Six Sigma plus)

POSCO announced QSS⁺(Quick Six Sigma Plus), an innovative, self-regulating method to realize healthy and safe workplaces. In 2017, we focused on establishing QSS⁺, the center of field innovation activities, so as to ensure that QSS⁺ contributes to our management performance.

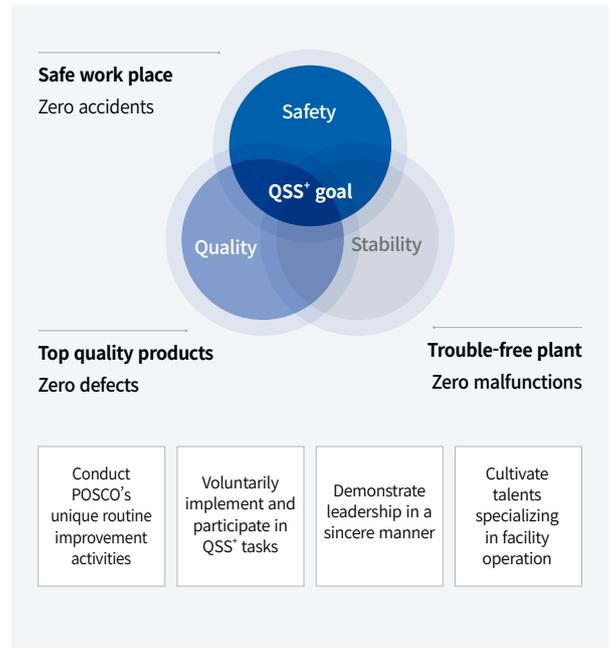
In 2006, POSCO started My Machine activities to restore the original conditions and performance of facilities. It has been 12 years since, and as of the end of December 2017, POSCO completed one cycle of My Machine activities on 16,720 facilities. Pohang Works and Gwangyang Works performed 7,239 and 9,481 My Machine activities, respectively, and through these activities, over 800,000 pollution, failure, defect, and accident sources and locations with difficulty in cleaning, inspection, fueling, sheet feeding, and adjustment were discovered and improved. In 2014, POSCO started My M&S for the key online-operated facilities that exert direct impacts on quality/failure/accident indicators, and by 2016, it has reached a stage where it is also performed by unit staff. My M&S was started as a model activity in 2014 and the progress rate improved to 46% from 2016 and to 70% in 2017, and thus has been established as an activity to improve the performance of online-operated facilities. Without being complacent with the current achievement, POSCO will jump up a step by integrating My Machine maintenance and smart technologies and will continuously secure top-level facility competitiveness.

In addition, through continuous QSS⁺ activities, employees have discovered and addressed workplace irrationalities(3,994 usual tasks, 343 tasks for improvement leaders) and have thus contributed to cost reductions. In particular, POSCO reestablished the Idea Suggestion system, a reward system to motivate employees. Under the system, over 45,000 ideas have been registered and paid out as compensation.

POSCO also carried out pilot operation of Smart M&S(Smart Machine & Safety) to realize Smart Factory, an intelligent high-quality, high-efficiency, and zero-accident steelworks. For Smart M&S, a success model and a company-wide dissemination plan were established in 2016. In 2017, the Smart Factory model was spread to all plants within the department. Accordingly, Smart M&S activities using IoT technology were performed at 16 locations in Pohang Works and Gwangyang Works and an expected result of KRW 1.5 billion was achieved. To reinforce the ability to execute field-oriented QSS⁺ activities, POSCO provided QSS⁺ competency improvement training to 929 employees including all managers and part leaders. For the innovation workforce to lead continuous improvement culture, we selected approximately 700 QSS⁺ improvement leaders and provided them with basic training, challenge-based advanced training, and overseas experience-type training. In addition, we fostered a total of 12 QSS⁺ FTs(facilitators). For QSS⁺, the management's interest and exemplary behavior are important. As much so, the management paid many visits to workplaces(a total of 288 times including those by the CEO) to encourage employees in the field. Exemplary behavior of leaders and departmental mentoring have promoted better understanding of QSS⁺ and bolstered its impact.

In 2017, we carried out QSS⁺ activities with POSCO Family. The Group implemented QSS⁺ programs customized for its business. As a result, nine affiliates executed around 4,600 improvement tasks to reduce cost. In addition, while performing My M&S model activities and new My Machine activities, we promoted improvement in the standard of activities over the previous year. Our overseas subsidiaries organized QSS⁺ activities for autonomous implementation by local employees using local languages. The subsidiaries in China and Vietnam, which have established innovation hub systems, performed My Machine and My M&S activities in 211 and 27 locations respectively, improving competitiveness of POSCO's overseas production subsidiaries and processing centers. For partners, we drew up QSS⁺ activity plan for steel works and provided customized support aimed at enhancing the foundation for shared growth. Our 103 partners performed My M&S activities to contribute to cost reduction through maintenance quality and facility efficiency improvement according to the characteristics of each business category. POSCO executed QSS⁺ activities along with team management KPI to train the innovation workforce while addressing quality failure rate, operation rate, and accident rate. The POSCO Family has made every effort to promote QSS⁺ activities and plans to build upon the activities to introduce smart manufacturing sites.

Concept of QSS⁺



SWP(Smart Work Place)

To create an environment that realizes high performance, POSCO set up the SWP(Smart Work Place) to foster positive employee work engagement through convenient IT infrastructure, advanced working methods, appreciation sharing, and implementing an organizational culture in which employees participate. In line with the changes of the Fourth Industrial Revolution, POSCO introduced AI(artificial intelligence) to the worksites and office spaces, and thus improved production quality, secured safety through risk prediction, and supported productivity enhancement for clerical operations. For the production field, we are promoting the establishment of the Smart Factory, an optimally controlled factory to predict/diagnose operation status based on IoT. We also independently developed "PosFrame", a software platform that serves as a foundation for the Smart Factory. PosFrame ensures convenient connection between various facilities and IoT devices and data categorization and storage according to domain characteristics. It also enables the development of control models by using AI technologies, such as deep learning, and prediction and diagnosis models through big data analysis. For clerical operations, conversational AI is applied to the employee information search system. When a question is asked through voice or in a text format, the intention of the question is identified, the necessary contact information is searched, and a call is made simultaneously. As such, the existing 3-step process(search -> select -> call) was reduced to one step. New search modes, such as search by organization or position, and search of higher and lower-ranking employees, have also been added. In October 2017,

our “Smart POSCO” strategies and Smart Factory promotion results were recognized and POSCO received the Presidential Award at the “6th Korea Knowledge Awards”.

For stable IT system and infrastructure management, POSCO upgraded document authorization, ECM, EP(Enterprise Portal), and account management package, improved system performance by changing the server storage system to high-performance SSD(solid state drive), supported 64-bit OS and Java8 in line with technological changes in employees’ PC environment, and thus established a foundation for swift large-size data analysis and processing by employees.

To improve the convenience of system use, the MDM(Mobile Device Management) screen was improved so that employees can easily recognize errors and functions. Through improvement of the screen, which was developed before 2010, operation efficiency was enhanced. We also introduced an open source-based search engine to resolve the weaknesses of the black box-type Google search engine, and thus improved search accuracy and speed.

In terms of organization culture, POSCO started a Gratitude Sharing program and has continuously promoted dissemination of the spirit to reduce waste. At the same time, we organize idea contests to establish Smart Culture that is led and nurtured by all employees.

Summary of SWP

Operating margin of companies with high immersion in work is six times higher than those with low immersion.
(survey of 360 thousand employees of 41 global companies)

Immersion means voluntary and proactive involvement in works.



SWP	
Convenient IT infrastructure	Provide IT infrastructure with no time and space constraints
Advanced method of work	Remedy low added value and expand creative work
Smart Culture/sharing	Build positive work environment and boost loyalty to the company

POSTIM Goals in 2018

In order to create greater results through innovative activities next year, we will take the lead in realizing Smart POSCO by promoting further differentiated POSTIM activities, such as strengthening idea creation, expanding high-profit smart performance, and operating IP project innovative venture business.

POSTIM in 2018 at a Glance

<p>Reinforce Idea Creation</p>	<p>Expand High-profit Smart Performance</p>	<p>Operate IP Project Innovative Venture Business</p>
Promote idea creation concurrently through online/offline channels	Discover smart projects and promote M&S Increase project implementation by experts	Project leaders with verified performance take on a challenge to start venture business

For idea creation, the activities under the online IMS(Idea Management System) will be concurrently promoted with offline idea creation in executive unit for advancement to a further developed idea creation process. In addition, we will discover over 150 S/A level projects, high-profit projects, and the percentages of smart projects to combine smart technologies and smart My M&S will be expanded up to 20% each.

Lastly, we will operate IP project innovative venture business to develop IP projects into business items, and thus expand profit creation through IP projects to the external areas. To support the business establishment, we are examining the establishment of the business startup leave system and will provide a range of other supporting programs including training and consulting services.

Fair Trade

In 2002, we adopted the Compliance Program(CP)¹⁾ in order to coincide with the order of free market competition and in abidance with the Fair Trade Act. Since then, we have striven to foster a culture of voluntary compliance. With the declaration of the Code of Ethics in June 2003, the CEO declared the commitment to voluntary compliance. He has also emphasized the importance of fair trade and encouraged to abide by fair trade and relevant regulations at the corporate management meeting and POSCO Group CEOs' meeting every year.

1) An internal compliance system including education and audit on the compliance with fair trade, with the aim of preventing violations of the Fair Trade Act.

Summary of Fair Trade Compliance Program

POSCO implements the Fair Trade Compliance Program based on seven items recommended by the Fair Trade Commission and additional two items operated autonomously by the company.

Government recommended items	<ul style="list-style-type: none"> • Declaration of voluntary compliance by the management • Designation of Compliance Officer • Publication and distribution of the compliance guidebook • Implementation of education programs • Establishment of monitoring system • Punishment of employees who violate fair trade related regulations • Establishment of document management system
Self-developed items	<ul style="list-style-type: none"> • Organization of the Compliance Council • Evaluation of operation performance

Following the introduction of the Fair Trade Compliance Program in 2002, the CEO affirmed the commitment to fair trade with the declaration of the Code of Ethics in 2003. In 2004, we strengthened relevant functionality such as by installing the Internal Transaction Committee under the Board of Directors and creating an organization taking exclusive charge of the fair trade compliance program. As a result, POSCO became Korea's first company to win the AA rating at the Korea Fair Trade Commission's CP ratings for four consecutive years from 2006 to 2012, and obtained the highest rating in a Shared Growth Index evaluation led by the Korea Commission for Corporate Partnership for three consecutive years from 2013 to 2016. In 2015, we established ethics as the highest value of management through administrative reform, and meanwhile put forth efforts to construct infrastructure for the sake of free trade such as the '3 100% principles(competition, disclosure, records)' and the abolition of abnormal business practices.

Performance in CP operation

POSCO has been making a concerted effort to minimize legal risk with regard to fair trade through consistent education, with the belief that prevention is the best option. To raise employees' awareness of fair trade, POSCO has been running e-learning courses "Easy-to-Understand Fair Trade" and "Fair Trade Violation Cases" since 2002. In 2017, the e-learning courses were supplemented by reflecting the law amendments and a total of 1,260 employees took the courses. We also offer collective training on fair trade to new employees, employees categorized by level and field such as sales/purchasing, and employees of affiliate companies. A total of 1,014 people received this training in 2017.

CP operation highlights in 2017

- Online fair trade training courses(1,260 persons)
 - Two subjects including "Easy-to-Understand Fair Trade"
- Collective fair trade training tailored to each division(1,014 persons)
- Consulting and coaching activities about fair trade for relevant departments(201 cases)
- Internal Transaction Committee (Deliberation and conclusion of 5 items during 5 meetings)
- Pledge on voluntary compliance with fair trade (twice a year, 24,189 persons from 22 companies)
- Fair Trade Compliance Council(yearly)
- Fair Trade Compliance Leader Meeting(biannual)

A website was launched in 2004 where employees are able to voluntarily check fair trade practices, and a smartphone application was developed in 2012 to help self-check on the violation of fair trade related regulations. We have also published fair trade guidebooks for different fields, such as procurement, sales, and conglomerate, to encourage employees to autonomously check legal risks and abide by relevant regulations. Field operations division fair trade consultations amounted to a total of 201 cases in 2017.

We operate a fair trade risk management process consisting of preliminary risk check, coaching, improvement, training, and follow-up measures. Moreover, the Internal Transactions Committee is composed of three outside directors for the sake of pursuing independence in case deliberations and has been operating under the Board of Directors since April 2004 to ensure transparency and fairness in transactions among affiliates. The committee has deliberated on a total of 125 transactions as of the end of 2017. Internal Transaction Committees for each of various fields including with regard to facilities, materials, raw materials, and outsourcing have been operating to improve the awareness of fair trading compliance since 2016, according to the trade custom improvement policy.

Every year, for the sake of heightening fair trade compliance awareness, pledges of voluntary fair trade compliance are carried out targeting employees of fair trade related departments such as purchasing and marketing as well as affiliate companies. On top of that, to ensure the execution power of fair trade compliance at field operations departments, we operate a Voluntary Compliance Committee consisting of group and department leaders and working-level fair trade practice leaders to support compliance activities of each department.

POSCO is making efforts to spread a culture of voluntary fair trade compliance on the POSCO group level such as by carrying out regular trainings, information exchange meetings, and workshops through the PCA (POSCO Compliance Academy), a research meeting of those in charge of affiliate companies' fair trade CP, etc.

Compliance Program of POSCO Family Companies¹⁾

A total of 22 POSCO Family companies are operating the Compliance Program.

Introduction of CP by POSCO Family Companies

Year	POSCO Family companies	Total
~2003	POSCO, POSCO E&C, POSCO ICT	3
2006	POSCO C&C, POSCO M-TECH, POSCO CHEMTECH,	8
~2010	POSCO PLANTEC, POSMATE, POSCO A&C, POSCO ENERGY, SNNC	
2011	POSCO DAEWOO, eNtoB	2
2013	PNR, SRDC, POSCO HUMANS, POSCO Terminal, Blue O&M, POSCO ESM	6
2014	POSRI, POSCO CAPITAL	2
2015	PMCTECH	1

Total 22 companies

To disseminate and embed the CP throughout the POSCO Group, we have been proactive in participating in the CP ratings hosted by the Korea Fair Trade Commission and have been receiving good ratings. We have also been putting forth proactive effort for the sake of the establishment of order in fair trade and for the sake of co-existential cooperation with SMEs, and have been receiving good results from the Korea Commission for Corporate Partnership's the Shared Growth Index evaluations.

1) POSCO P&S merged with POSCO DAEWOO. POSCO Engineering merged with POSCO E&C.

Our Plans to Embed the Culture of Fair Trade

In 2018, we will continue to make a concerted effort for disseminating and embedding the culture of fair trade throughout the Group. We will perform a voluntary compliance program putting emphasis on risk prevention within superior/subordinate relationships such as by the improvement of the unfair business practices in the subcontracting field, which is an emphatically promoted task of the competition authorities. POSCO also plans to strengthen and reinforce CP operation on the POSCO group level, such as by promoting the vitalization of the group-level CP for the sake of strengthening fair trade risk prevention activities, strengthening risk management processes for the sake of law violations in major fields, and boosting the fair trade compliance mindset through the vitalization of training and voluntary realization activities.

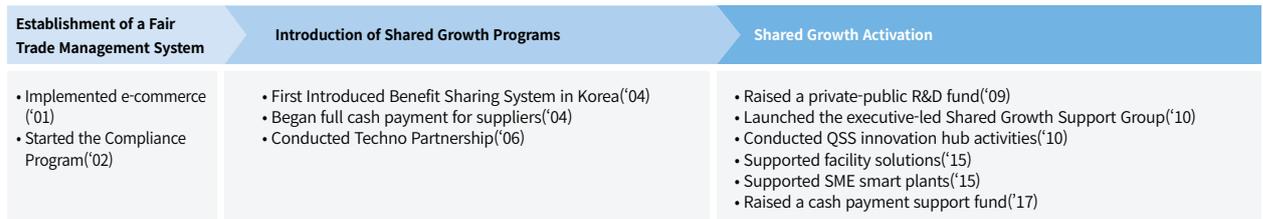
Shared Growth Policies and Programs

Vision and Value System for Shared Growth



Shared Growth History

Since 1999, POSCO has emphasized mutual growth with SMEs, so it has run 33 shared growth programs in 5 categories.



1999	2005	2010	2013	Current
<p>1999-2004</p> <p>1999.02 • Paid purchasing bills in advance of national holidays</p> <p>2003.07 • Became first Korean steel maker to adopt the SRM system</p> <p>2004.07 • Became first Korean company to adopt the Benefit Sharing System</p> <p>2004.10 • Implemented network loan</p> <p>2004.12 • Implemented whole cash payment for purchases from SMEs</p>	<p>2005-2007</p> <p>2005.07 • Raised a fund to support suppliers</p> <p>2006.07 • Operated the patent consulting center</p> <p>2006.08 • Transferred our own patent technologies</p> <p>2006.09 • Conducted Techno Partnership</p> <p>2008-2009</p> <p>2008.08 • Supported QSS innovation activities</p> <p>2008.11 • Signed an agreement on raising a special co-prosperity fund</p> <p>2008.12 • Signed an agreement on raising a Public-Private R&D fund</p> <p>• Signed an agreement on co-prosperity and fair trade at the Group level</p> <p>2009.03 • Opened "Recruitment Center for POSCO Partners" at Job World</p> <p>2009.09 • Implemented network loan for POSCO affiliates</p>	<p>2010</p> <p>2010.06 • Conducted Techno Partnership (tailored technical support for suppliers)</p> <p>2010.09 • Reflected Shared Growth performance in executive evaluation</p> <p>• Published a guidebook to introduce Shared Growth programs</p> <p>2010.10 • Launched the executive-led Shared Growth Support Group</p> <p>• Established councils for 2nd-4th tier supplier</p> <p>• Opened a Sinmungo</p> <p>2011</p> <p>2011.04 • Enacted the Code of Conduct for suppliers</p> <p>2011.07 • Expanded the executive-led Shared Growth Support Group to affiliates</p> <p>2011.10 • Held the Idea Market Place</p> <p>• Signed an agreement on private-public investments in technology development projects</p> <p>2012</p> <p>2012.07 • Established POSCO's unique Benefit Sharing model "FOCUS"</p> <p>2012.09 • Won the Presidents' Award for Benefit Sharing</p>	<p>2013</p> <p>2013.05 • Signed an agreement on voluntary practice of Benefit Sharing System</p> <p>2013.06 • Signed an agreement on promoting the Industrial Innovation Movement</p> <p>2013.10 • Ran the POSCO WinC to support fair trade between 1st and 2nd tier suppliers</p> <p>2014</p> <p>2014.04 • Reformed the executive-led Shared Growth Support Group to project-centric operation system</p> <p>2014.06 • Conducted open discussion between POSCO and suppliers</p> <p>2014.10 • Opened Shared Growth Portal site</p> <p>2014.11 • Held the Partners Day for Shared Growth</p> <p>2015</p> <p>2015.05 • Conducted facility solution support activities</p> <p>2015.06 • Held the Shared Growth conference</p> <p>2015.12 • Held the Partners' Day for Shared Growth</p> <p>• Signed an agreement on supporting SME smart plants</p> <p>• Won the grand prize at the Korea Shared Growth Award</p>	<p>2016</p> <p>2016.04 • Signed an agreement on Fair Trade throughout the Group</p> <p>2016.06 • Won the best rating in Shared Growth index evaluation for 4 consecutive years</p> <p>2016.09 • Expanded supports for SME smart plants</p> <p>2016.11 • Held the Partners' Day for Shared Growth</p> <p>2016.12 • Won the grand prize at the Korea Shared Growth Award</p> <p>2017</p> <p>2017.09 • Improved purchasing system, including expansion of lower limit price bid system</p> <p>2017.09 • Executed double-digit wage increase for the employees of outsourcing partners</p> <p>2017.11 • Expanded the target of full cash payment for suppliers to medium-standing companies and raised a cash payment support fund</p> <p>• Held the Partners' Day for Shared Growth</p> <p>2017.12 • Signed an agreement on expansion of cash payment</p>

Shared Growth

Under the vision “Win-Win for the Great”, POSCO is committed to co-prosperity and shared growth with SMEs. We have promoted shared growth with SMEs since the late 1990s, and an organization with exclusive charge over SME support was established in 2005. Currently, the Procurement Planning Group under the Equipment and Materials Procurement Office is in charge of shared growth with SMEs and it strives to expand the base of shared growth to 2nd tier suppliers and other SMEs with no business.

We operate 33 shared growth programs in five categories - technical cooperation, financial support, partnership enhancement, consulting & training and job creation & strengthening communication - to systematically promote shared growth activities throughout company wide. In 2018, we will continue to improve these programs so that they can become practical shared growth activities that SMEs can feel the effectiveness of.

Major Shared Growth Activities in 2017

September	<ul style="list-style-type: none"> Improved purchase system to support management stability of partners <ol style="list-style-type: none"> Supplemented bid system to center on lowest price <ul style="list-style-type: none"> * Expansion of low-price bidding system, competitive bidding system of market price, expansion of TCO purchase system Improved standard for supply unit price reflection Increased wages of outsourcing partners’ employees by double digits
November	<ul style="list-style-type: none"> Expanded cash payment for partners <ol style="list-style-type: none"> Raised “Cash Payment Support Fund” of KRW 50 billion to expand cash payment between first and second-tier partners Eligibility for 100% cash payment for goods received expanded from SMEs to include mid-sized businesses
December	<ul style="list-style-type: none"> Held POSCO Group’s Shared Growth Partners Day event <ul style="list-style-type: none"> * Held cash payment expansion agreement ceremony

Shared Growth Programs of POSCO

Composition of Shared Growth Programs

POSCO operates a shared growth program throughout all management fields, pursuing co-prosperity with not only SMEs but also 2nd tier businesses and companies not currently doing business with us.



Shared Growth Programs of POSCO				
Technical Cooperation	Training and Consulting	Financial Supports	Job Creation and Communication	Partnership (Suppliers/Customers)

Technical Cooperation to Enhance R&D Competence of SMEs

Benefit Sharing System

The Benefit Sharing System aims to jointly conduct improvement activities and share the benefits with suppliers. Motivating suppliers to voluntarily renovate management system and develop technologies which eventually brings better competitiveness and product quality to large companies, the benefit sharing system is recognized as a desirable shared growth model. It was introduced by POSCO in 2004 for the first time in Korea and has been promoted throughout whole industries since 2012 at the government level. As of January 2018, a total of 297 companies are operating the system. POSCO gives compensation worth 50% of the amount of benefits created through the carrying out of benefit sharing tasks, and provides diverse incentives including the signing of long-term contracts, awarding extra points for the supplier SRM evaluation, and joint patent applications. In 2017, KRW 32.2 billion was awarded to 173 completed projects.

CASE REPORT

Securing Cost Competitiveness through Development of an Optimal Blend of Desulfurizing Agent(Hantech Co.,Ltd)

Details	Expensive desulfurizing chemicals exerted a burden on manufacturing cost. Accordingly, POSCO developed a low-priced desulfurizing agent through cooperation with its partners. Succeeded in developing low-priced desulfurizing agent of equivalent efficiency by reducing the content of expensive carbon and adding the inexpensive Al-Dross(optimal blend of raw materials)
Results	<p>Hantech: Received reward of KRW 332 million(50% of cost reduction amount) and secured supply volume (approx. 200,000 tons over 3 years)</p> <p>POSCO: Reduced purchasing cost(KRW 664 million)</p>



Hantech Gwangyang Plant

Public-Private Joint Investment in Technology Development

POSCO supports R&D expenses of SMEs and cultivation of their sales channels by raising an R&D fund in collaboration with the Ministry of SMEs and Startups. Each SME can receive up to KRW 1 billion within 75% of total R&D expenses, reducing financial burden on R&D activities. For this, we entirely supported the first R&D fund of KRW 10 billion raised in 2008. Currently, an additional KRW 44.6 billion R&D fund raised in December 2011 is being operated. As of the end of 2017, we have supported a total of 63 SMEs’ R&D projects.

CASE REPORT

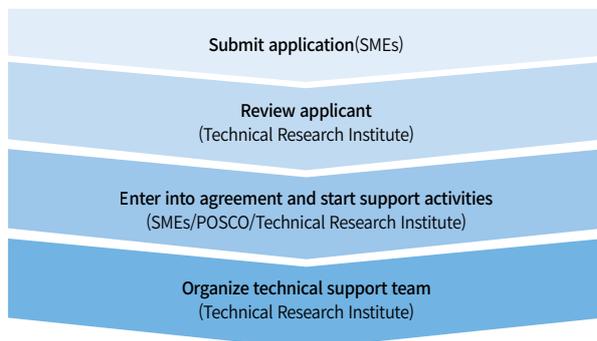
Development of large-size, high-efficiency fan for dust collector of convertor in steelmaking plant 2 (ShinPung Fan & Blower., Co., Ltd)

- Details** POSCO developed Korea’s first large-size, high-efficiency fan at half the price of those previously imported from overseas. The fan performs at a similar level to that of foreign-made products(88.5% efficiency) and reduces power consumption by 15% or more.
- Results** **Shinpung Fan & Blower:** Increased sales according to new product commercialization(KRW 1.52 billion)
POSCO: Reduced investment cost through facility localization and decreased power consumption (facility cost reduced by 1/2 that of foreign-made products, power consumption reduced by max. 20%)

Techno Partnership (Customized Technological Support to SMEs)

POSCO began the Techno Partnership program in September 2006 to provide free technological supports to SMEs. Technological advisory groups composed of experts with PhDs from four institutions, including POSCO and POSTECH, currently help SMEs solve technical difficulties and secure core technologies. We evaluate SMEs that apply for this program to select targets to be supported, and then technological advisory groups are formed considering the features of their businesses. Assistance is offered after signing the Techno Partnership agreement with POSCO.

Process



The advisory group visits every month to implement on-site diagnosis, technical training, and other consulting services to solve issues regarding manufacturing processes and products. Participating institution provide support through equipment in possession and test analysis, and support is provided so that sisterhood relationships can be entered into between doctorate-level high grade professionals and SMEs. In 2017, 84 cases of technical consulting and 20 cases of free test analysis were provided to 19 SMEs.

Patent Support Program for SMEs

To boost SMEs’ technological competitiveness, POSCO offers a program that shares its patents through a website(www.steel-N.com) to allow SMEs to use them in production, and provides full financial support for POSCO-SME co-applicant patents. If a company supplies products to POSCO by using POSCO’s patents, we promote patent utilization by exempting license fees.

For companies delivering products manufactured using POSCO’s patents, the royalty is exempted so as to improve patent application. We also operate the “SME Patent Consulting Center” to offer consultation on patents and intellectual property.

Technology Escrow System

The technology escrow system was designed to protect SMEs’ intellectual assets, such as technological knowledge, by depositing them in the Technology Escrow Center of the Large & Small Business Cooperation Foundation. Since the introduction of this system in 2011, POSCO has signed 283 agreements on technology escrow and paid KRW 179 million for escrow commissions at the end of 2017.

Financial Supports

Fund for Loans to SMEs

To help SMEs solve financial problems, POSCO is operating a fund worth KRW 406 billion for low-interest loans, in collaboration with banks. In 2017, a total of KRW 374.8 billion was loaned to 278 suppliers of POSCO through this fund.

Co-prosperity Special Fund KRW 10 billion	Partner Company Support Fund KRW 406 billion
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Equity Investment Fund

POSCO participates in investment funds in order to foster promising SMEs and maintain continuous partnership relations with them.

We have raised money for a KRW 200 billion fund named “Shared Growth Fund for Large and Small Enterprises” in collaboration with KB Financial Group and Hanhwa Group, and are also investing in SMEs equipped with new growth engines and key technologies. We have invested a total of KRW 15 billion as of the end of 2017. In order to help promising SMEs with technological prowess ensure financial stability, we have raised money for a KRW 101 billion fund in cooperation with financial institutes, including IBK(Industrial Bank of Korea). Through this, support is being provided for financing for SMEs that have high growth potential but whose financial conditions are temporarily unstable. We provided funding of KRW 36.9 billion for SMEs to reduce their financial difficulty at the end of 2017.

Cash Payment for All Purchases from SMEs and Medium-standing Companies

Since 2004, to foster a stable business environment for partner SMEs, POSCO has paid cash to all suppliers registered as SMEs within three working days of delivery. The transaction occurs twice a week, regardless of sum. For national holidays, such as Seollal (Korean New Year’s Day) and Chuseok(Korean Thanksgiving Day), during which capital flow tends to be particularly concentrated, we make daily payments for one week in advance in order to ensure liquidity of SMEs. In November 2017, we expanded the cash payment targets to medium-standing companies in addition to the partner SMEs.

Cash Payment Support Fund

POSCO currently operates a cash payment support fund created in November, 2017, worth KRW 50 billion, in order to improve upon the customary practice of some first-tier suppliers in difficult financial conditions, making payment in promissory notes to second-tier suppliers. With the fund, we anticipate to provide first and second-tier suppliers with assistance in regards to their management of funds. We are striving to spread a cash payment culture to partners.

Cash Payment for All Transportation Costs to Delivery Service Companies

POSCO pays for transportation costs in cash to delivery service companies, thus encouraging their cash payment to subcontractors. We settle the invoice in the beginning of the following month of product release full in cash, recommending transportation company to pay costs to their subcontractors within 30 days in cash as well. We check transportation company’s compliance with the payment rules. In 2017, we expended a total of KRW 142.2 billion in transportation costs in full cash.

Intermediate Payment for Facilities

To assist SMEs in the manufacturing of facilities that require a long period of time, POSCO makes a down payment and intermediate payment in order to ensure successful liquidity for the SMEs. We pay a 20% down payment of the total contract amount in advance when purchasing facilities. Since 2010, intermediate payment has been made to support SMEs’ cash flow in production and business operation. The intermediate payment system is applied to contracts with more than KRW 100 million and over 180 days’ duration. Payment is made when half of the contract period has passed within 30% of the total contract amount. In 2017, We paid KRW 126.2 billion in down payments(498 cases) and KRW 35.5 billion in intermediate payments(46 cases).

Shared Growth Payment System(POSCO WinC)

To ensure that benefits generated from shared growth programs with 1st tier suppliers trickle down to 2nd tier suppliers, POSCO introduced the WinC system in 2013. The WinC system helps spread POSCO’s shared growth activities to 2nd tier suppliers via 1st tier suppliers, and improve the payment conditions. In 2017, a fair trade agreement was signed between POSCO and 1,617 1st tier and 2nd tier suppliers through the POSCO WinC system. Then the cash payment of KRW 525.3 billion was proceeded from 1st tier suppliers to 2nd tier suppliers.

Guarantee Charge Support

With the guarantee charge support system, POSCO supports SMEs’ issuance charge of payment certificate, which is to be offered as collateral by customers who purchase our products so as to alleviate financial burden and promote management stability of the SMEs. When an SME presents a receipt for the insurance charge of payment certificate and documents for account registration, We deposit the insurance charge amount. In 2017, we spent KRW 3.68 billion for guarantee charge support, which adds to a total of KRW 40.24 billion since 2011.

Improving SMEs' Competitiveness and Enhancing Partnership

POSCO's Executives-led Shared Growth Support Group

Since October 2010, POSCO has been organizing our Executives-led Shared Growth Support Group. In the Group, our executives have been improving the competitiveness of our 1st and 2nd tier partner companies by using their knowledge and experience in the areas of technology development, productivity improvement and management innovation.

Since 2014, we have been achieving better performance after group was reorganized into a 'Project Base' activity system which means "the right people can provide smart support at the right businesses. Especially, we prioritize the SME company which have a clear needs and strong mind for the improvements. After selecting the company, we match the executives who fit the company. Then the Group sets targets and provides systematic support to help the companies reach their goals.

CASE REPORT

Creating New Demand through Solution Marketing (Pyungsan SI, Co., Ltd)

- Details** Supported new product development and market development
- Verified and developed structure and performance of new corrugated steel products
 - Provided technical consulting for customers and applied technologies(underground roadway on Cheonhodaero in Seoul, etc.)
 - Supported design technologies for large-scale projects (water intake tunnel for Goseong Thermolectric Power Plant, etc.)
 - Supported pilot construction for entry to overseas corrugated steel plate market(intersection in urban area of Indonesia)

Results Pyungsan SI: Expanded new marketing routes and increased domestic and overseas sales(KRW 6.41 billion/year)

POSCO: Expanded sales volume of WP steel products to Pyungsan SI(3,300 tons/year)



Architectural design with corrugated steel plate application(ordered by POSCO 1% Foundation)

PHP(POSCO Honored Partner) System¹⁾

The PHP system aims to select excellent suppliers in contract fulfillment and contribution to the development of our company and nurture them into professional suppliers(sourcing group) with world-class quality and technical competitiveness.

POSCO offers them diverse benefits such as PHP certificates for marketing support and the exception of issuance of performance bond for contracts.

1) PHP : POSCO Honored Partner

Support for SMEs to Expand Sales Channels

POSCO participates in Matching Seminars for matching SMEs and large companies every year to boost purchasing of SMEs' products and help them to expand their sales channels. In the seminar, we have been offering one to one meeting for SMEs, which did not have any meeting even though they hope to enter a cooperative relationship or business transaction with POSCO. Through meeting, we have been providing the information about purchasing system and detailed procedures.

In 2017, we consulted 29 SMEs at the Matching Seminars held in Busan, Gwangju, and other major cities. Meanwhile, we have been supporting SMEs' overseas market development and stable growth by utilizing our brand image and network infrastructure abroad. In 2017, we supported for 24 SMEs by developing the overseas marketing route which was worth about KRW 87.2 billion.

Operating joint ventures with SME Component Companies(Global Platform Business)

We have established joint ventures abroad with SME component companies based on our global network including a sales network, processing technology, and processing center. The joint venture are contributing to the advancement of the overseas market while simultaneously supporting activities for creating new demand of the steel products. In 2017 alone, we attained USD 279.7 million in total sales through seven joint ventures with four SMEs.

Solution Marketing Activities

POSCO carries out solution marketing activities aimed to enhance customer productivity and quality, thus promoting shared growth with customers. In 2017, we engaged with 38 local customers in performing 44 problem-solving tasks from steel product purchase to end product production.

In 2015, we also adopted the facility solution support project which is diagnosing and improving the facility operation of our customers by drawing upon our rich experience and expertise in steel making facility operation. Through this project, we supported for 27 customers in 2017.

Consulting and Training to Enhance Personal Competence and Management Capability

Industry Innovation Movement and Smart Factory

The Industry Innovation Movement is a consulting project that aims to increase the productivity of the entire industrial ecosystem by supporting management innovation and process improvement of SMEs. POSCO has been participating in this movement by applying its unique innovation methodology QSS since 2013. Since 2015, POSCO has been working on the smart factory support project. Through this project, we apply IT to the manufacturing factories of SMEs for intellectualization and optimization to prevent waste, helping SMEs improve their constitutions and productivity. In 2017, POSCO supported smart factory construction for a total of 31 companies. The scale of our support will be continuously expanded.

CASE REPORT

Building an Energy-Efficient System through Furnace Power Consumption Management(SEOUL Engineering)

Details The company used a large amount of electricity in melting copper for product manufacturing. Accordingly, POSCO suggested reducing the power consumption amount through big data analysis.

- Predicted appropriate steel tapping timing by analyzing big data collected from real-time electric power consumption measured at each furnace to enable reduction of cost and product defects through input energy cost analysis by charge

* 5 Electric Furnaces Operated: 2 of 750kW, 1 each of 500kW, 250kW and 200kW

Expected Benefits Using ingot steel temperature big data in connection with data on the amount of use:

- Steel tapping timing can be predicted
- Meltage and temperature data can be managed through computers as opposed to manual record in the past
- Data on the electric power consumption amount and temperature can be used and the causes of defects can be identified.

SME-customized Consulting Support

The service scope encompasses energy, safety, and IT sectors for our major suppliers and 2nd tier suppliers. In 2017, consulting services were offered to 67 suppliers.

SME training support project

POSCO operates job and leadership programs to support the competence improvement of SMEs' employees who have poor educational infrastructure. In 2017, a total of 57,441 employees working at suppliers completed this program.

Lifelong Learning Program(PIUM) for Executives of SMEs

POSCO has also invited CEOs of outsourcing partners and excellent SMEs to the Lifelong Learning Program (PIUM) every month since January 2009. This program is for sharing information on management environment and improving their business mindset.

Job Creation and Communication Activities

Operation of the Recruitment Center for SMEs

In March 2009, POSCO became the first Korean conglomerate to open a recruitment center for suppliers experiencing labor shortage on Job World(<http://www.ibkjob.co.kr>), a website specializing in job creation. The online recruitment program helps our suppliers find talents and at the same time contributes to solving the youth unemployment issue. In 2016, a total of 134 persons joined POSCO's 21 suppliers. All of our suppliers are able to use this program and other SMEs can also post recruitment notices on the website after obtaining membership. Hiring employees through the website, the supplier can reduce bank commission or loan interest from Industrial Bank of Korea and use the website for free.

Medical Service for Partners

POSCO pursues human-oriented shared growth by opening medical facilities to employees working at outsourcing partners in its steel works. We provide basic treatment for colds, stomach pain, and light injuries, as well as physical therapy. All employees of POSCO's partners, including those of outsourcing partners working at Pohang and Gwangyang Works, are eligible to use these services. A total of 4,908 employees visited POSCO's medical facilities in 2017.

Partners Day Event

Partners Day event has been held in every second half of the year since 2009 in order to share performance in shared growth and expand communication with suppliers and outsourcing partners, as well as customers. In 2017, 100 companies attended the event. In particular, we held a signing ceremony for cash payment expansion, where first-tier suppliers resolved to make cash payments at an earlier phase to the respective second-tier suppliers.



Signing ceremony for cash payment expansion



Photo of attendants

Shared Growth Portal

Since POSCO have been operating a portal site (winwin.posco.co.kr) for shared growth by integrating individual shared growth programs and relevant information. This portal is providing one stop service, which is easily accessed by supplier, customers and relevant organization, to search the information and request for the participation on the shared growth program.

We will expect to contribute to enhancing communication on shared growth between SMEs and POSCO through the portal which is composed of 4 categories, vision and philosophy, major programs, task request & model cases, and communication space-it.



Shared Growth Portal

Operation of Sinmungo, the SME Consultation Center

POSCO operates Sinmungo, the SME Consultation Center, for the purpose of listening to SMEs' complaints and grievances. It can be easily accessed via the customer support category of the corporate website(www.posco.co.kr), the main page of e-commerce website(www.steel-n.com), and the job creation and communication improvement program category of the shared growth portal (winwin.posco.co.kr). Sinmungo is comprised of four sections: auditing(reporting of unethical conducts), shared growth(consulting for SMEs), purchasing(consulting for purchase), and sales(customer consulting). SMEs can file complaints and grievances to the respective sections.



POSCO Website: Sinmungo

Plans for Shared Growth in 2018

In 2018, POSCO will continue promoting shared growth activities in whole management categories to help SMEs enhance technological competitiveness, productivity, and financial conditions, thereby creating a sustainable shared growth culture.

Support for Smart Factory Construction and Financial Support Program Operation to Establish foundation for growth of SMEs

Actively participating in the Industrial Innovation Movement, POSCO has been supporting operation system establishment of our partners, such as by providing assistance in management innovation and process improvement using QSS. We will take a step further and encourage our partners to achieve productivity and quality improvement through production and process automation by providing them with support in smart factory construction. POSCO will expand support to help our partners successfully adapt themselves to the Fourth Industrial Revolution. In addition, with the KRW 50 billion cash payment fund raised in November 2017, POSCO will encourage cash payment between first and second-tier partners, and continuously strive to disseminate the cash payment culture. We are dedicating efforts to providing substantial help in financial stability of SMEs by operating financial support program, which includes the KRW 412 billion fund raised to provide low-interest loans to SMEs experiencing financial difficulties.

Improving Mutual Profit Creation through Cooperation with Partners

POSCO strives to resolve the complicated and chronic problems in the worksite by continuously activating the Benefit Sharing system. We will also actively promote technological development projects through private-public cooperation to support R&D funding for our partner companies to allow them to focus on technology development. In addition, POSCO will implement joint projects with our partners in order to help our partner SMEs secure competitive advantage and increase sales through technological development while we achieve quality and productivity improvement.

Promoting Customized Shared Growth through Communication

POSCO is promoting "customized shared growth activities" by evolving from the previous POSCO-centered shared growth programs. By improving on the existing method of encouraging sporadic project participation, we will visit our key partners, identify their needs and recommend suitable programs. With the improved communication, we will enhance the effectiveness of our shared growth programs. In addition, we will establish a full-time monitoring system for shared growth activities targeting key suppliers and immediately address areas that require improvement.

POSCO will lead the way in creating a healthy industrial ecosystem by performing the shared growth activities earnestly and actively support our partner SMEs in order to achieve shared growth with them.

Enhancing Suppliers' CSR Competitiveness

Cooperation between large companies and SMEs in CSR is increasingly being required today. As there are a lot of difficulties for SMEs to practice CSR activities systematically and sustainably, large companies are required to share their CSR capabilities with suppliers and outsourcing partners to build a healthy corporate ecosystem. In response, POSCO has striven to create an environment where we can contribute to society and pursue healthy growth together with our partner companies. We established 'POSCO Group Supplier Code of Conduct', which is a basic guideline for our supplier, to ensure the soundness of our supply chain. Our suppliers must comply with these code of conduct. A supplier evaluation system was also prepared to enhance the competitiveness of the supply chain including POSCO Family companies. These systems play a key role in diffusing POSCO's CSR competence to suppliers, thereby fostering their competitiveness and preventing CSR risks in the supply chain in advance.

POSCO Group Supplier Code of Conduct

To encourage all suppliers to fulfill their responsibility as a global corporate citizen, POSCO established the POSCO Group Supplier Code of Conduct in June 2010. It consists of 21 clauses in 7 categories containing fair trade, quality management, and shared growth related items as well as the basic principles stated in the UN Global Compact such as human rights, labor, the environment, and anti-corruption. All suppliers wanting to conduct trade with POSCO are required to comply with the POSCO Group Supplier Code of Conduct. A digital signature on the e-procurement(www.steel-n.com) website is a prerequisite to transactions with POSCO.

Summarized POSCO Group Supplier Code of Conduct

 Respect for employees' human rights	Voluntary employment, prohibition on child labor and discrimination, compliance with working hours and wage related regulations, humane treatment
 Safety and health	Safe working environment, compliance with occupational safety
 Environment	Control of hazardous substances, control of wastewater, solid waste, and air pollution, reduction of resource use
 Ethics and fair trade	Business integrity, compliance with special clause for business ethics, compliance with fair trade regulations, establishment of a culture of trust
 Protection of trade secrets and intellectual property	Management and protection of confidential information, protection of intellectual property
 Quality management	Quality control, change management, quality control among suppliers
 Shared growth and social contribution	Shared growth, social contribution activities

POSCO Group Supplier Code of Conduct is available at <http://www.steel-n.com>

Introduction of SRM Evaluation Index

POSCO operates sourcing groups by classifying outsourced products in accordance with the characteristics of each market, product, and contract. We examine the financial conditions, facility capacity, and other fundamental qualifications of suppliers who wish to engage in business with POSCO, and then register the certified suppliers to each sourcing group to provide them with opportunities for bidding or negotiation.

The suppliers' track record is analyzed and evaluated quarterly by sourcing group and published into a report. The report is then distributed to the suppliers so that they can voluntarily analyze and improve on their strengths and weaknesses. POSCO Group's SRM(Supplier Relationship Management) is comprised of seven categories that include credit, price, quality, delivery, cooperation, safety and the environment to increase or deduct points. The CSR evaluation, covers all aspects of the economy, society, and the environment. To improve competitiveness in the supply market as a whole, promotes a shared growth policy. We also encourage first-tier suppliers so that second-to third-tier suppliers can in turn build market competitiveness. As a result of evaluating the first-tier suppliers' payment to the second-to third-tier suppliers, conclusion of a shared growth agreement between the first-to second-tier suppliers and execution of the benefit sharing(BS) system with the second-tier suppliers as part of the evaluation for first-tier suppliers' SRM delivery performance, the number of tasks reflected has been doubled.

In addition, for the technology development of suppliers, we has introduced the TCB(Tech Credit Bureau) certification system, voluntary service program and CP(compliance program) through which we are adding additional points to the suppliers' delivery performance evaluation so as to encourage the participation of suppliers in CSR activities. The supplier evaluation criteria include safety and the environment as well. The number of safety accidents and violations of rules at the steelworks are deducted in the evaluation. In the aspect of the environment, we take into consideration environmental certificates such as the ISO 14001, amount of green purchasing, proposal of eco-friendly products, and carbon emissions control in the supplier evaluation criteria, contributing to building an eco-friendly supply chain. In terms of safety, POSCO rewards additional points to suppliers that have received the Occupational Health and Safety Management System Certification(OHSAS18001) in order to prevent accidents, and thus to instill respect for people in our suppliers. Through these efforts, we encourage our suppliers to voluntarily participate in health and safety activities.

We publish quarterly and annual reports on our supplier evaluation and analysis, and distribute them to our suppliers for self-improvement. The ratings of our suppliers designated in the reports are classified into excellent, good, and poor. Suppliers who received a poor rating for a long period of time are restricted in bidding. Upon receiving a poor rating in the annual evaluation report, the supplier is suspended for participating in business for one year and the membership to the sourcing group is also cancelled. Suppliers wishing to rejoin the sourcing group are required to go through the same procedure for new registration. Meanwhile, suppliers with an excellent rating are named as a POSCO Honored Partner and receive benefits such as primary negotiation rights and exemption from deposits in major contracts.

In 2017, the number of suppliers included in the SRM evaluation amounted to 2,202(757 excluded to double counting) and the results were as follows: 403 suppliers received an excellent rating(90 points and higher), 1,665 suppliers received a good rating(70 points and higher), and 134 suppliers received a poor rating(under 70 points). 26 suppliers faced cancellation of sourcing group membership and two suppliers were restricted from bidding for six months. As the result, total 28 suppliers was excluded from our sourcing group. Meanwhile, 37 suppliers with an excellent rating and recognized for their great contribution to POSCO joined the PHP.

The performance evaluation provides our suppliers with feedback on their strong and weak points, creating an environment to motivate their voluntary improvement. It also contributes to enhancing our value chain by being used as the criteria for cultivating competitive suppliers. Furthermore, we restricts business relations with suppliers who engage in socially reprehensible conduct or arouse public complaints by setting up guidelines on social and moral responsibility. All instances involving the violation of POSCO ethics guidelines, arousal of public complaints, instigation of environment contamination and other related issues, are met with strict punishment, including restriction from the participation in bidding, resulting in the termination of all business transactions with such socially unsound businesses.

SRM Evaluation Items

Item	Details
Credit	Credit rating
Price	Bidding participation rate, bidding price competition rate, optimal bidding rate, quote reliability
Quality	PosQC rating, quality defect rate, defect occurrence rate
Delivery	Delivery delay rate, average number of days delayed, number of long delays
Cooperation	Number of benefit sharing projects, financial performance by benefit sharing projects, date of payment to second- to fourth-tier suppliers, agreement on shared growth, satisfaction of each department, participation in POSCO WinC
Environment/ safety	Amount of eco-friendly products supplied, eco mark certification, ISO 14001 certification
Additional points	Occupational Health and Safety Certification(OHSAS18001), TCB(Technology Credit Bureau Certification), Voluntary service activities, CP(Fair Trade Compliance Program)
Subtractive points	<ul style="list-style-type: none"> Number of cases pointed out by Corporate Audit Office: 2 points per case Safety accident(fatal accident: 3 points, general accident: 1 point, safety violation: 0.25 points per case) CSR violations: 3 points per case Unethical suppliers: 15 points every quarter/for 2 years

The information exchange meeting aimed at enhancing the competitiveness of suppliers is held half-yearly. In 2017, a total of 254 suppliers attended the meeting-122 suppliers in the first half (purchasing policy and system improvement, compliance with purchasing ethics, etc.) and 130 suppliers in the second half(cash payment support fund, shared growth programs, bidding system improvement, etc.). As a key SRM activity, we conduct a video conference with the representatives of PHP suppliers, excellent suppliers, on the last Thursday of each month for communication to resolve pending issues. In addition, every quarter, the POSCO

management visits or organizes a talk with partner SMEs in each region in order to reinforce communication with stakeholders.

Other major SRM activities included the disclosure of all transaction records, expansion of competitive purchasing, and business renovation. In line with this, information of all sourcing groups covering materials, equipment, and logistics have been 100% disclosed. At the same time, the Internal Transaction Deliberation Committee is held to ensure transparency in transactions and expand competitive purchasing. We are also continuously sourcing new suppliers, strengthening our supply chain by establishing stricter criteria for eliminating poor-performing suppliers and conducting quality audits on suppliers that are suspected of quality deterioration in order to bolster quality competencies. For three years since 2015, we have conducted quality audits on a total of 96 suppliers. For 19 companies with inferior quality competencies, we cancelled their sourcing group registrations, and for 19 other companies in need of quality competency improvement, we recommended improvement and took measures to enhance their quality control standards. In 2018, we will expand the target of quality audit to 100 companies and assist them to improve their design, manufacturing and quality control abilities.

To strengthen our supply chain, we cancelled the sourcing group registrations of 30 companies, including those that have not participated in bidding for one year, those that have no transaction records in the past two years, those of which credit rating falls short of the criterion for sourcing group registration(B and higher), those that have disposed of necessary equipment and facilities after sourcing group registration or those that do not meet the quality control competency requirements. In 2018, we will shorten the refresh inspection cycle to every six months in order to minimize the occurrence of risks of our suppliers. Also, to encourage and inspect the technological advancement of our suppliers, we will introduce the TCB(Tech Credit Bureau) certification system and continue to perform activities to improve the competitive advantage of our suppliers.

CASE REPORT

Management of Conflict Minerals

As rebel forces own and control mines in conflict areas such as the Democratic Republic of Congo, the revenues from the sales of those minerals are used for committing crimes against humanity. In particular, violations of human rights such as child labor and sexual assault are frequently committed in the mines controlled by rebel forces, thus becoming an international issue. The industrial minerals produced in these conflict zones are called conflict minerals. The United States SEC requires companies to report whether gold, tungsten, tin, or tantalum mined in the DR Congo or its neighboring states were used during production. POSCO uses tin and ferro-tungsten for manufacturing products. The countries of origin for tin are Indonesia and Malaysia, while ferro-tungsten used in stainless steel comes from Korea and Vietnam. Under the principle of restricting transactions with suppliers who commit socially condemnable behaviors(page 153, POSCO Supplier Code of Conduct), POSCO prohibits suppliers from using conflict minerals. To this end, we stipulate the terms that suppliers should not use conflict minerals. Otherwise, the contract is immediately terminated and future bidding is prohibited in the written purchasing agreement. We will also continue to train the employees of POSCO Family companies and conduct monitoring to fundamentally prevent conflict minerals related issues.

Venture Support Program

POSCO Idea Marketplace

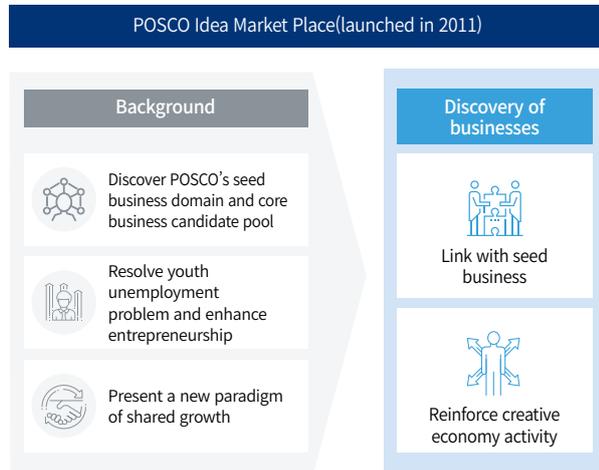
POSCO has been running a program named IMP(Idea Market Place) to discover and foster venture companies since November 2011. The IMP plays a role as a business incubator and angel investor. As a business incubator, the IMP fosters promising venture companies, and as an angel investor, it provides funding support to startups. To fulfill these roles, we established the “POSCO Idea Marketplace,” a program dedicated to providing venture companies with comprehensive support from the stage of idea creation to business model planning, investment, and growth management.

We select promising venture companies and startups by collecting and strictly screening their ideas, and then provide them with our unique support programs such as idea cultivation camp and mentoring with professionals. After completing the programs, they can seize opportunities for introducing their ideas and businesses to receive funds from investors through IR events held at the IMP. As such, POSCO operates a comprehensive support program to ensure the success of venture companies. The IMP also functions as a venture startup hub for the POSCO Family by discovering and fostering venture companies that are based on the seed technologies necessary in new businesses of POSCO and POSCO Family companies.

19 companies fostered through IR events held in Seoul and Pohang in the first and second half of 2017 respectively introduced their technologies and businesses to investors by organizing IR presentations and prototype exhibitions. In addition, nine companies discovered and fostered through the IMP by POSCO as an operator of TIPS(Tech Incubator Program for Startup) of the Ministry of SMEs and Startups were selected for the TIPS program and received R&D funding support for venture startups.

From 2018, in connection with the government’s employment policy, POSCO will strive to create both social and business value by developing quality jobs and promoting shared growth based on the efforts to foster technology-based venture companies. Meanwhile, POSCO has held the Idea Market Place a total of 14 times since the first idea contest for new businesses in June 2011, through which a total of 151 venture companies have received mentoring support as of 2017. We have invested KRW 10.4 billion in 68 venture companies.

Background of Idea Market Place



Role of POSCO

Play the role of the angel investor who intensively supports startups in the stage of idea creation or seed as well as the business incubator aimed at the stable growth of venture companies

Encourage venture capital funds to invest in venture companies in the embryonic stage



Operational Procedure of the POSCO Idea Marketplace



Operation of the Idea Market Place

Classification	Date	Place	Participating Companies	Remarks
Inauguration	Oct. 27, 2011	POSCO Center	-	Inauguration of the venture support program
1 st	Feb. 23, 2012	POSCO Center	9	Trade, Industry and Energy Minister
2 nd	Jul. 18, 2012	POSCO Center	8	-
3 rd	Nov. 30, 2012	POSCO Center	14	Including two restarting SMEs
4 th	Apr. 30, 2013	POSCO Center	15	Including three restarting SMEs, support in connection with Youth, Startup Support Center
5 th	Sep. 24, 2013	Songdo Tri-bowl	16	Support in connection with Incheon City and Real Startup League
6 th	Jan. 15, 2014	POSCO Center	10	-
7 th	Jun. 26, 2014	POSCO Center	9	-
8 th	Nov. 25, 2014	POSCO Center	9	Science, ICT and Future Planning Minister
9 th	Jun. 11, 2015	POSCO Center	12	Head of the Public-Private Creative Economy Promotion Group
10 th	Nov. 4, 2015	Songdo Tri-bowl	10	Deputy Prime Minister and Education Minister Hwang Wu-yeo, Mayor of Incheon Metropolitan City, Head of the Private-Public Joint Creative Economy Promotion Group, etc.
11 th	Jul. 25, 2016	Pohang Creative Economy Innovation Center	10	10 IMPs(excluding four companies in Pohang Center)
12 th	Nov. 21, 2016	Gwangyang World Marine Center	10	Mayor of Gwangyang City, Deputy Governor of Jeollanam-do
13 th	Jun. 21, 2017	POSCO Center	10	10 IMPs, Presidential Committee on Young Generation Chairman Park Yong-ho
14 th	Nov. 23, 2017	Pohang Creative Economy Innovation Center	9	9 IMPs, President of POSTECH, Commissioner of Daegu-Gyeongbuk Free Economic Zone Authority



14th IMP IR Presentation



14th IMP VIP Tour

ENVIRONMENT

Environmental Management

POSCO is committed to becoming a truly environment-friendly company by conducting business activities from the perspective of environmental sustainability.

Environmental Management of Global POSCO Family Companies

Since the declaration of the “Environmental Management Policy for Global POSCO Family Companies” in December 2010, we have set up the vision, strategies, and action plans to practice environmental management in collaboration with local sites, investment companies, suppliers, and outsourcing partners. Entire business activities at POSCO have been implemented based on environmental sustainability, which resulted in entering the RobecoSAM’s Dow Jones Sustainability Index for 13 consecutive years.

Environmental Management Policy for POSCO Family Companies

Recognizing that the environment is a key element of our core management strategy, we are committed to practicing the following requirements in order to secure environmental soundness and take the initiative of low carbon green growth on the basis of technology development and open communication.

- We secure global leadership by building an environmental management system for POSCO Family companies, based on ISO14001.
- We comply with environmental regulations and continue to improve the environment throughout all processes.
- We minimize pollutant emissions by introducing clean production process and optimized pollution prevention technology.
- We create a resource-recycling society and enhance ecosystem efficiency by making efficient use of natural resources and byproducts.
- We lead the low carbon green growth initiative by reducing GHG emissions with clean energy and green technology.
- We secure business transparency and aim for sustainability by disclosing environmental management performance.

Environmental Management Vision and Strategy of POSCO Family Companies

Vision

Set a global standard in environmental management to lead low-carbon green growth

Strategy

Establish an integrated environmental management system

Enhance competency for responding to environmental risks

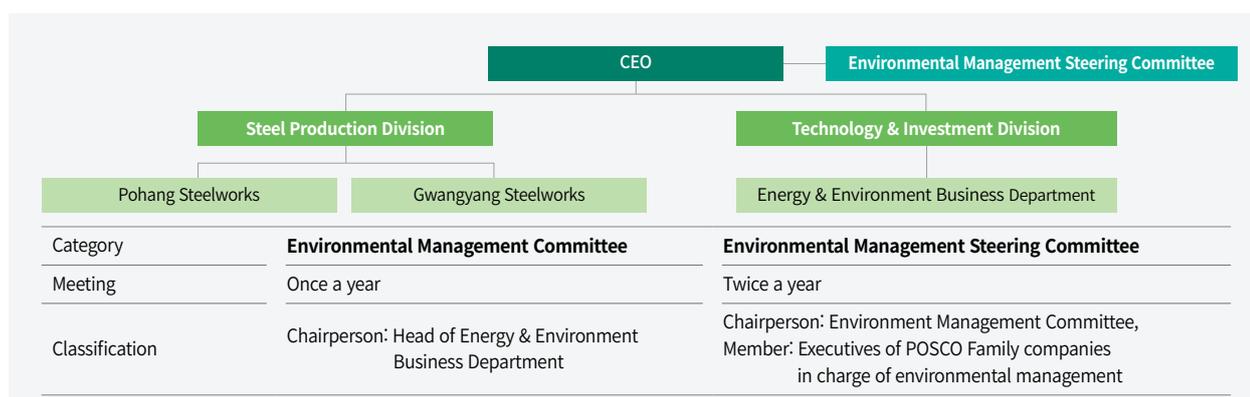
Open communication

Environmental Organization

POSCO operates the Environmental Management Committee chaired by the CEO and consisting of executives of domestic and overseas subsidiaries. The committee reviews all environmental management activities of POSCO and POSCO Family companies, analyzes environmental trends, and deliberates on key environmental issues by holding regular annual meetings. The issues are reflected in management plans of POSCO Group and reported to the Environmental Management Steering Committee to check their practices twice a year. Key issues are adopted in the Group’s mid-term management strategy for environment and energy and reported to the Management Committee under the Board of Directors for deliberation and resolution. Those are also reported to the monthly management meeting and executives meeting, both chaired by the CEO. POSCO currently has the organization, Energy & Environment Business Dept. and Environmental & By-Product Group, in order to ensure smooth operations of the Environmental Management Committee.

Operated in air conservation, water conservation, and resource recycling sections, the Environmental & By-product Group of steelworks performs activities to minimize pollutants generated from the steelmaking process and increase recycling of byproducts. In particular, by operating the environmental center that monitors environmental pollutants on a real-time basis, environmental pollution is prevented using swift counteraction through an automatic alert system when the internal pollutant standard has been exceeded. The Environment & By-product Group also carries out operations concerning issues environmental facilities licensing and performs inspection of environmental facilities. We also strive to improve the regional environment by developing and applying technologies to reduce scattering dust, odors, and noise. Furthermore, the Environmental & By-product Group improves water treatment efficiency by diagnosing wastewater generated from worksites, minimizes the amount of water pollutant discharge by applying the latest technologies, and prevents chemical accidents by performing comprehensive management and improvement activities for chemical facilities.

Through these activities, the Environmental & By-product Group is minimizing environmental risks and maximizing recycling of by-products through by-product profitability improvement activities, and thus is operating eco-friendly steelworks. Moreover, we cooperate with various institutions at home and abroad including POSRI(POSCO Research Institute) and RIST(Research Institute of Industrial Science & Technology) to analyze trends of environmental policy and management activities as well as further develop technology.



Major Environmental Management Programs

Environmental Education

Diverse education programs are offered to employees of POSCO and POSCO Family companies to improve understanding and raise awareness of environmental issues. Moreover, online education programs about environmental management are available to employees of outsourcing partners and suppliers to help them recognize the importance of environmental protection. Training about internal audit on ISO certifications is annually provided to staff responsible for environment at POSCO and outsourcing partners to embed environmental management activities into the supply chain. In the steelworks, especially, internal auditor training was provided in 2017, targeting staff responsible for environment in the operation department. As a result, 39 and 40 employees at Pohang and Gwangyang Works, respectively, have now obtained qualifications and are performing as internal auditors. In September 2017, Pohang Works provided training on the necessity of environmental management, its environmental management status, internal and external conditions, and environment-related laws to POSCO M-TECH engineers in order to improve the environmental management capability of the POSCO Family companies. For environmental management education optimized to each class, it organizes regular training sessions for leaders, engineers, and new employees, so as to improve their understanding of environmental management in steelworks.

Starting in 2018, we will provide basic and professional training according to the competency levels of environmental managers in the operation department while expanding basic, advanced, and field management technological training for engineers in order to improve their practical capabilities. By strengthening environmental education, POSCO aims to advance the environmental management capacity of Pohang Works through the reinforcement of environment training.

Gwangyang Works also provides environmental training optimized for each position. This has led to improved understanding of leaders responsible for environmental management in related worksites by sharing environmental issues and trends, the status of environmental facility operations (once a year), and by providing training regarding an overview of environmental management and basic theories to engineers in charge of substantial field improvement to help them identify the importance and improvement directions of environmental management (twice a year). We have been able to share detailed changes made to environmental laws and the environmental goals of steelworks by holding half-yearly meetings with environmental managers at the operation sites so as to achieve substantial environmental improvement. From 2018, POSCO will further systemize environmental training to prepare standardized educational materials for employees of each position and establish training cycles to upgrade environmental management competency in the field.

In particular, POSCO has adopted five courses for environment including water treatment in job capability certification program which is aimed for cultivating professionals at the enterprise level. Employees who complete the courses are appointed as managers in the environmental sector.

Environmental Information Exchange

POSCO holds the Environmental Technology Conference every year where affiliate employees responsible for the environment and outsourcing partners share recent environmental issues with one another, as well as excellent methods of practice. The conference has diverse programs intended to strengthen the capabilities of group environmental managers through lectures given by environment experts and intensive discussions, and to enable the improvement of Group environmental activities through open communication.

POSCO is exchanging internal information on a regular basis between the head office and Pohang and Gwangyang Works in order to identify the latest environmental management technology trends and introduce management systems optimized for the field conditions. We are also continuously holding technological exchange meetings with overseas steelmakers. Also, POSCO is attending policy presentations of the Korea Ministry of Environment, Korea Environmental Policy and Administration Society, Korean Society for Atmospheric Environment, environment-related associations, and ENVEX (an environmental exhibition) to identify the trend of environmental laws, reflect it in the environmental management systems for our steelworks, and collect information on environmental technologies for application to our improvement effort.

Environmental Management Awards

To enhance the execution of environmental activities, we hold the Environmental Management Awards to reward our affiliates and outsourcing partners with excellent environmental performances every year. Winners are selected based on environmental management system and operability, and innovativeness and the extent of endeavor in environmental improvement activities through two assessments. First, assessment of certified groups and external partner companies is done using the company's internally developed environmental management system, measuring the environmental management activities quantitatively as the first step of the assessment. They are then examined by the Deliberation Council consisting of four internal and two external directors for final winner. They receive the award directly from the CEO at the Environmental Management Committee. This award contributes to spreading best practices and growing interest in environmental management throughout the Group. In 2017, Gwangyang Works presented Green Management Awards directly from the director of administrative division to factories that produced excellent outcomes from environmental management activities. Through this, Gwangyang Works publicizes its environmental management activities internally and externally, enhances the will of field departments to pursue continuous environmental management, and thus promotes better environmental management. During the assessment, in particular, top managers of each division are selected as evaluation committee members to objectively and fairly assess environmental improvement activities performed in the field in order to transfer the information to other divisions.

Response to Environmental Risk

Environmental Risk Management

POSCO systematically analyzes and manages risk elements to minimize environmental impacts from our businesses. Defining the rapidly changing market conditions and tightening global environmental regulations as an opportunity, POSCO is proactive in adopting these changes to its mid to long-term business strategy and investment decisions. Departments dedicated to environment and investment cooperate closely in identifying, evaluating, and diagnosing environmental risks in each stage of investment review, design, construction, and operation. Accordingly, verification procedures by the department responsible for environment in the stages of planning, investment, and construction have been made compulsory since 2014 in order to minimize environmental risk from new projects. On top of that, to efficiently respond to recently tightening environmental regulations from around the world, we continuously monitor the trends of related regulations and government policies to verify potential business risks and proactively participate in public discussions for rational policy development.

Environmental Risk Management Process



Inspection of Environmental Risk

Pohang Works conducts scheduled audits to strengthen environmental management and executes special inspections in response to environmental accidents that can occur in springtime or during a holiday period. In 2017 in particular, we analyzed cases of environmental risk by type and administered extensive inspection on all areas of the complex in relation to inappropriate operation of environmental facilities and noncompliance with waste storage criteria. We also discovered and improved on potential risks. For prevention of similar nonconformities, we held discussion sessions with the related departments and are promoting improvement of the management system to reduce the occurrence of violations.

Gwangyang Works is continuously administering special environmental inspections and environmental patrolling on the weekends, during holiday periods, and at night, in order to minimize negative environmental impact. In 2017, we conducted a comprehensive special inspection on air pollutant discharge and prevention facilities, scattering dust generating processes, water pollutant discharge and prevention facilities, and waste storage yard, and discovered and improved on environmental risks in the field. For the nighttime patrol, the environmental monitoring center staff directly patrols the field and monitors environmental data to check for cases of inappropriate facility operation. As for weekends and holidays, employees form patrol groups in order to conduct environmental inspection.

Diagnosis of Affiliates' Worksites

Systematic diagnosis of affiliates' worksites was conducted to reduce environmental risk at the group level. It preferentially targeted worksites of affiliates engaging in manufacturing business with a relatively high environmental risk. We checked site-specific environmental licensing documents first and then implemented audits on the basis of diagnosis items and potential environmental risk factors. Comprehensive audit results are released by the Environmental Management Committee and are also used for modifying our environment strategy and goals, contributing to sustaining an efficient environmental management system. We will continue to enhance diagnosis and audit of affiliates' worksites based on the level of their environmental impact and risk.

Environmental Performance

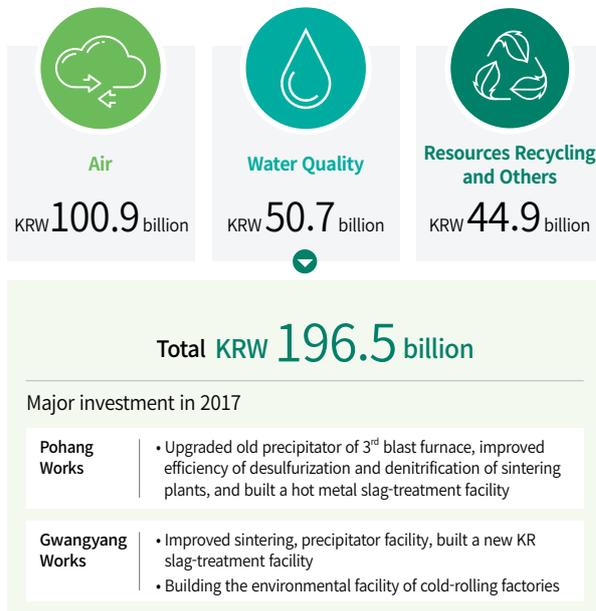
At POSCO, environmental performance is methodically managed under the environmental management system, contributing to minimizing environmental impact from our businesses.

Environmental Management System

Our environmental management system has been verified by independent institutions every year since the obtainment of ISO14001 in 1996. Internal verification is also conducted by the department of environment twice a year. The results are reported to the top management and reflected in modifying environment strategy and goals. Particularly, we carried out concentrated inspection on chemical substance control, a recent critical issue, in collaboration with an independent institution, and improved insufficiencies. We will continue to carry out inspections on environmental issues based on a specific theme, together with external experts.

POSCO has established the New POEMS(POSCO Environment Management System), a web and mobile-based integrated environmental performance management system consisting of eight processes of environment monitoring, including air quality control, water control, byproduct control, soil and underground water control, chemical substance control, general management information, and environmental cost, to ensure more systematic management of company-wide environmental data. Air and water pollutant data from our two major steelworks are transmitted to the government in real time through the TMS(Tele Monitoring System). Other environmental data are disclosed to employees and local people through electric display boards. In particular, the mobile environment monitoring system is applied to onsite patrol for effective site environment control.

Major Investment in Environment Facilities in 2017



Environmental Costs in 2017

(Unit: KRW in billion)

Category	2015	2016	2017
Environmental facility operation & resource recycling	778	804	801
Depreciation	174	174	189
General administration	51	52	51
Environmental R&D	10	14	13
Energy recovery	47	56	51
Total	1,060	1,100	1,105

Water Management

Recognizing water shortage as a critical global issue, POSCO strives to increase water recycling and develop replacement water sources with the goal of reducing water consumption and increasing co-prosperity with local communities. Considering that steel production uses a large amount of water, POSCO has invested considerable effort into the reuse of water consumed in the process of steelmaking. As a result, in 2017, we recycled 41% of rainwater and wastewater generated from our worksites rather than directly discharging it, and thus contributed to securing water resources for the country.

Pohang Works promotes the improvement of water management systems and processes, aimed for vitalizing water reuse and optimizing water control. First, collected water is treated by water purification facilities before being supplied separately to each factory as fresh water and purified water. Wastewater and cooling water from each factory are separated and collected through independent drainage facilities. Wastewater is treated primarily and secondarily at each factory and then brought to the final wastewater treatment facilities before being discharged. Wastewater containing low concentration of chlorine ions(Cl-) generated from rolling factories is transferred to water purification facilities through separate pipelines for treatment and reuse. Sewage is collected into sewage treatment facilities for biological treatment before being used as cleaning water. Cooling water, sprinkling water, and rainwater are treated at rainwater processing facilities for reuse as industrial water and sprinkling water for yards and roads. Meanwhile, POSCO signed an MOU with Pohang City in 2008 to reuse water treated by the local sewage treatment facilities as a solution to water shortages in local communities. Since 2015, POSCO has been steadily receiving 80,000 tons of treated water a day and using it for industrial use. Moreover, we take 30,000 tons of underground water a day instead of dam water, contributing to solving water shortage in local communities. Gwangyang Works is also increasing wastewater reuse and replacement water source development in order to respond to the local community's demand for reducing water consumption. In 2017, Gwangyang Works improved on the corrosiveness of wastewater by using low-chlorine water treatment chemicals, and increased the number of locations able to use recycled water. It also reduced

the amount of wastewater generation by reusing blow-down water from cooling towers in the Coke plant as the water for sprinkling in the yard for raw materials. Moreover, by installing desalinization facilities in Gwangyang Works, we used 30,000 tons of seawater per day and lowered the amount of water intake from Sueo Dam. As a result, the amounts of water intake and consumption in Gwangyang Works have been continuously decreasing.

Wastewater generated during production is first treated at each factory and then brought to wastewater treatment facilities to minimize the emission of water pollutants. These processes ensure safe treatment and discharge of major pollutants, such as COD and T-N, at the final drainage outlet.

POSCO has participated in the Water Management Project(2007-2011) hosted by the World Steel Association and continually improved its water management program by utilizing the “WBCSD Water Tool”, a guideline for water management in supply chain recommended by the WBCSD(World Business Council for Sustainable Development). In 2016, we joined the CDP Water Disclosure to announce the information on our water management.

Water Intake and Effluent (Unit: m³/T-S)

Year	2015	2016	2017
Intake	3.59	3.60	3.76
Effluent	1.73	1.86	1.81

COD Concentration of Final Effluent (by automatic telemetry) (Unit: mg/l)

Year	2015	2016	2017
Emission concentration	7	11	10
Act standard (Gwangyang, Pohang)	70, 90	70, 90	70, 90

T-N Concentration of Final Effluent (by automatic telemetry) (Unit: mg/l)

Year	2015	2016	2017
Emission concentration	13	15	11
Act standard	60	60	60

Air Quality Management

POSCO implements various activities to improve air quality at our steelworks and in the surrounding region. We adopt stricter air quality criteria than those of environmental laws and operate mobile monitoring systems in site patrol to find and promptly improve environmental risk points, contributing to maintaining clean air around worksites. Particularly, we have installed additional air quality measuring stations and dust analyzer at site boundaries and vicinity areas of our factories to continuously improve air quality.

As the next step for the 1st voluntary environmental agreement¹⁾ (2006-2010), Gwangyang Works signed and has implemented the 2nd voluntary environmental agreement(2012-2016) aimed for reducing the emissions of air pollutants such as dust, nitrogen oxides, sulfur oxides, and VOCs(volatile organic compounds) around Gwangyang Bay by 20,028 tons, which is about 13% of total emissions(154,043 tons) in 2008, together with the Ministry of Environment, local governments, and 17 factories near Gwangyang Bay. It is also continuously making efforts to ensure stable air quality management by controlling the facility pollutant concentrations and discharge amounts.

1) 1st Agreement: Reducing 20,829 tons(22.8%) of air pollutant emissions around Gwangyang Bay to 70,610 tons(average emissions from 2006 to 2010) compared to 91,439 tons in 2003

Pohang Works operates fine dust analyzers and odorous substance detectors for optimal facility maintenance. The measured data are sent to websites and smartphones in real time to reduce environmental risks that derive from operating activities. If data exceeding the standards is found in connection with site patrol, the mobile environment monitoring system is operated to identify insufficiency and promptly make improvements. Meanwhile, to fundamentally prevent scattering dust, we built a linear yard to store 95,000 tons of supplementary materials and a silo with a coal storage capacity of 180,000 tons. Other activities include creating green space, cleaning roads and yards, and spraying surface hardening composite.

Air Pollutant Emissions

(Units: kg/T-S)

Year	2015	2016	2017
Dust	0.09	0.09	0.09
SOx	0.56	0.57	0.57
NOx	0.85	0.89	0.83

**Installation of Indoor Fuel and Materials Storage Facilities**

Category	Facilities	Storage Purpose
Pohang Works	9 silos with respective 60,000-ton capacity 1 cell silo with 95,000-ton capacity	Coal for fuel (anthracite, etc.) Supplementary materials (limestone, etc.)
Gwangyang Works	23 silos with respective 50,000-ton capacity	Coal for fuel (anthracite, etc.)

Environmental Investment to Improve Regional Environmental Conditions

POSCO is dedicating numerous efforts to actively respond to the government's particulate matter reduction policy and improve regional environmental conditions.

Pohang Works improved the surface covering rate, the proportion of surface covered by the cloth material, by systematically managing daily surface covering rates of each department using the yard management system to help prevent dust from being scattered into the wind. A foam spray technology was also developed in response to materials susceptible to scattering and was able to reduce the occurrence of scattering dust during the cargo-working process. It is also developing a mobile watering app with which a yard inspector can directly instruct water sprinkling while inspecting the yard. Moreover, Pohang Works is establishing a smart air quality management system in order to prevent environment-related complaints from local residents and to track down the sources of dust and odor on a real-time basis.

For scattering dust reduction, Gwangyang Works plans to invest in air environmental facilities, such as replacing the old sprinkling pipelines and increasing the number of dust collectors. Surface coverings are used for all applicable piles in order to suppress scattering dust generation in the yard for raw materials and, for piles to which surface covering cannot be applied, water and surface hardening agents are administered. In addition, Gwangyang Works is expanding green spaces by continuously planting trees of various species. In 2017, a total of 8,286 trees of 25 species were planted, and a green space of 25,528 m² was additionally secured through this activity. The total green space in Gwangyang Works is approximately 22.2% of the site area.

Promoting Photovoltaic Power Business in Unused Sites

Pohang Works is implementing the phased photovoltaic power generation business using idle sites in the complex by entering into an MOU with POSCO ICT. First, we plan to complete the construction of a 0.34MW roof-top photovoltaic power generation facility, which was started in December 2017, on the parking lot of Hyeopdong Sports by September 2018. Once installed, this facility will generate and supply power. In addition, customers using the parking lot will enjoy the benefit of light shielding effect. To additionally install a 17MW photovoltaic power generation facility using the rooftop of the rolling factory, we are reviewing a plan to diagnose structural safety of the building and examine environmental conditions, such as the lighting condition.

Chemical Substance Management

Enhancement of Chemical Substance Management

Recognizing the importance of impact of chemical substances on environment, safety, and local communities, POSCO focuses on preventing accidents from chemical substances that our steelworks handle. Hazardous chemical substances that are supplied to steelworks are continually monitored by a company-wide chemical substance distribution management system for the amount of consumption and storage and facility management. Furthermore, to fundamentally reduce risks, we are developing technologies to use chemical substances with low hazard and consumption amount. In 2017, we established a real-time leakage detection system in order to monitor chemicals leaked from all chemical substance handling facilities. For prevention of and response to chemical accidents occurring in each region, we are also performing as a leader of

chemical safety management communities by cooperating with Daegu Regional Environmental Office for Pohang Industrial Complex and Yeongsangang River Basin Environmental Office for Gwangyang Industrial Complex. At the same time, we are dedicating efforts to protecting steelworks from harmful chemical substances by holding systematic safety training, accident prevention training, and joint simulation training.

Chemical Substance Discharge Result

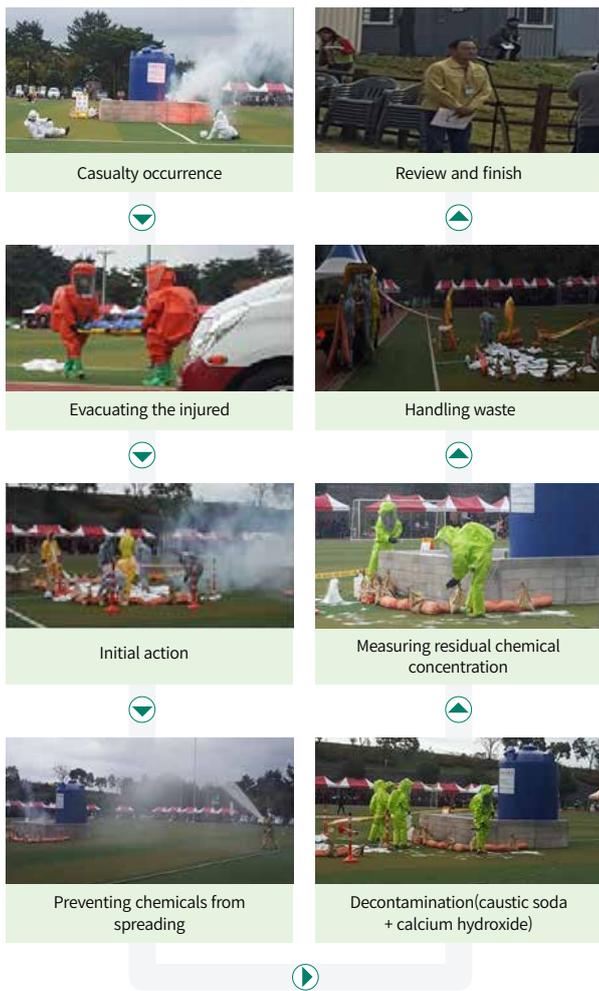
(Unit: tons)

	2015	2016	2017
Emissions of Chemical Substances	78	82	81

Response to EU-REACH

Restrictions on chemical substances to be contained in products are increasingly tightening across the world. In response, POSCO discloses test certificates on MSDS²⁾, REACH³⁾, RoHS⁴⁾ and PFOS⁵⁾ by each chemical substance in accordance with EU's Restriction of the Use of Certain Hazardous Substances and the latest SVHC¹⁾ candidate list through its e-commerce system(www.steel-n.com), through which anyone can find the information. We are also preparing information disclosure on imported and produced chemical substances in response to the Act on Registration, Evaluation, etc. of Chemicals.

- 1) SVHC(Substances of Very High Concern): If a product is manufactured or imported by more than 1 ton and it contains over 0.1% SVHS compared with total weight, the manufacturer or importer must report the content to ECHA (European Chemicals Agency).
- 2) MSDS(Material Safety Data Sheets): A program to manage material safety and health
- 3) REACH(Registration, Evaluation and Authorization and Restriction of Chemicals): The EU's new chemicals management system
- 4) RoHS(Restriction of Hazardous Substances): Guidelines to restrict the use of certain hazardous substances initiated by the EU
- 5) PFOS(Perfluorooctane Sulfonate): A foam-type fire extinguishing agent containing persistent organic pollutants



Chemical Accident Prevention Training through Private-Public Cooperation

Resource Circulation

Generation and Final Disposal of Byproducts

In the ironmaking process, approximately 600~700kg of byproducts are generated for every ton of iron produced. Steel slag, which is generated while molten iron is separated in the iron-making and steelmaking processes takes up the largest portion of the byproducts. Other byproducts include dust collected with a dust collector, sludge discharged from environmental facilities of cooling process, scale generated in casting and rolling processes, and waste refractories from steelmaking and furnace facilities.

In 2017, POSCO produced 37.20 million tons of steel and, in the course of the production, 23.76 million tons of byproducts were generated. With approximately 98.4% of the byproducts recycled, a high recycling rate is shown. Approximately 360,000 tons of the byproducts were finally disposed through incineration or landfill. In the case of steel slag, it is 100% recycled as a material for cement or through application to civil works, contributing to the preservation of natural resources. Furthermore, dust and sludge with high iron contents are reused as a material in the iron making process to improve the resource efficiency. POSCO is dedicating efforts to ensuring high value-added utilization of byproducts that contain useful substances as functional materials or raw materials. The generation of a large amount of byproducts is inevitable in the energy and resource intensive steel industry. However, with the "Zero Waste" goal to maximize byproduct recycling and minimize final disposal of landfill and incineration as a basic direction, POSCO is striving to carry out continuous research and develop new uses for byproducts. Through the efforts, we will realize the transition to a resource circulation society in order to overcome the environment, energy and resource-related risks which the socioeconomic systems face at the moment.

Recycling of Byproducts

Steel slag is largely divided into blast furnace and steelmaking slag. In 2017, a total of 18.56 million tons of slag was generated, which breaks down to 12.13 million tons of blast furnace slag and 6.43 million tons of steelmaking slag. The entire amount is recycled as a cement material, substitute for natural aggregates or as an ingredient for calcium silicate fertilizers. Blast furnace slag is again divided into air-cooled slag(palletized slag), which is molten slag cooled at the yard, and water-granulated slag, which is slag rapidly cooled with high-pressure water. Palletized slag is slowly cooled in the air, making the crystal structure to be in a hard rock state. On the other hand, granulated slag is generated in an amorphous(hyaline) sand state as the crystalline structure is almost not formed. When pulverized into fine particles, granulated slag takes on the properties of cement, and thus becomes suitable for

use as a concrete admixture. Therefore, it has a higher additional value than palletized slag. Accordingly, POSCO increased the percentage of granulated slag generation among blast furnace slag from 88.2% in 2016 to 94.1% in 2017. In addition, granulated slag is utilized as a substitute for clinker in cement manufacturing, and thus produces the effects to preserve natural resources and reduce CO₂ emissions through energy savings. In ordinary Portland cement(OPC), it is mixed in by approximately 5% of the weight, and it is mixed in by around 40% in slag cement. In PosMent, an eco-friendly and high-performance cement developed by POSCO, it is mixed in up to 60%, contributing considerably to CO₂ reduction.

Steelmaking slag is mainly comprised of lime, silica and iron oxide. These properties compose of the earth's crust or natural rocks, and thus the shape of the aggregate is similar to that of a natural rock. Steel slag go through pulverizing and magnetic separation processes during which iron content from steelmaking slag are recovered. Then, slag aggregates of large particles are used in construction works, such as civil works and road constructions, and those of fine particles are mainly used as a cement material. Currently, POSCO is promoting cooperation with the cement industry so as to contribute to CO₂ reduction and energy savings by increasing the use of steelmaking slag as a substitute for limestone in the cement manufacturing process. In addition, we are making efforts to increase demand by developing new uses for this material, such as in the creation of marine forests for restoration of the marine ecological system. When steel products are manufactured at steel mills, various plant manufacturing processes, including raw materials handling plant, coke, sintering plant, lime plant, blast furnace plant, steelmaking plant, hot strip plant and cold rolling plant manufacturing process, take place during which varied forms of dust and sludge are produced in a precipitator facility, which is operated to reduce discharging of environmental pollutants, and during water treatment. Initially they were mixed with raw materials and recycled in sintering process or were buried if they contained impurities. However, we are currently recovering useful substances as much as possible by considering physical and chemical characteristics of dust and sludge and expanding utilization of the collected substances internally and externally by finding new uses of, and utilization methods for, the substances.

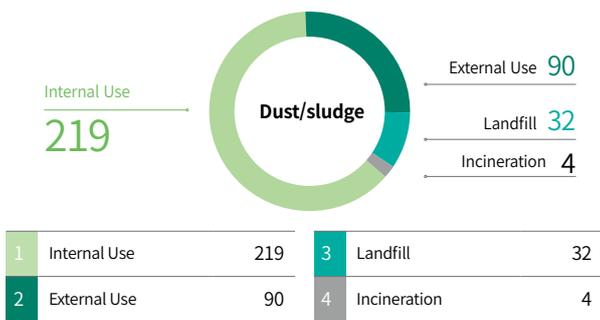
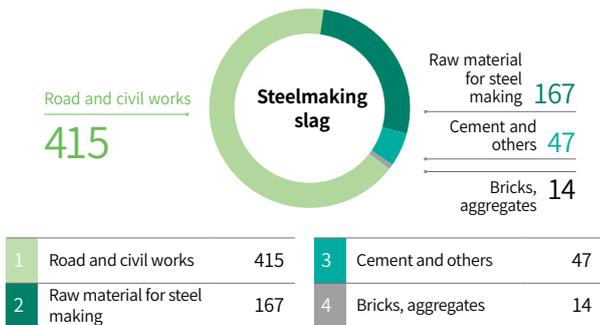
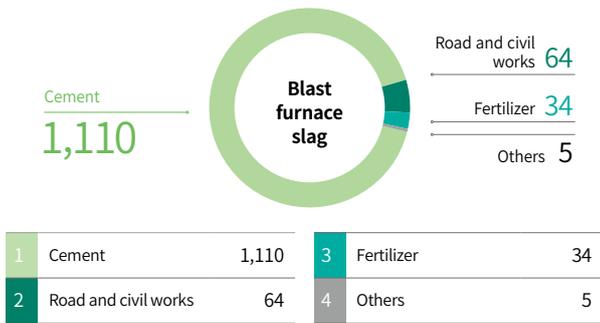
Recycling of Byproducts¹⁾

Category	2015	2016	2017
Byproducts generated (ten thousand tons)	2,396	2,337	2,376
Amount of recycling (ten thousand tons)	2,356	2,299	2,337
Rate of recycling(%)	98.3	98.4	98.4

1) Excluding 175,000 tons for other applications(refractories, etc.)

Performance in Recycling of Byproducts in 2017

(Unit: Ten thousand tons)



Developing Technologies for Byproduct Utilization

Recycling of steel byproducts has evolved considerably. However, the conditions for byproduct recycling are forecast to become more difficult in the future as the number of SOC construction works, such as building and civil works, that require large amounts of recycled byproducts will be reduced, environmental regulations will be tightened and market entry by competitive materials including recycled construction aggregates and cinder will be expanded. Nevertheless, for the steelmaking industry to contribute to sustainable development in the era of an inclusive circular economy, it is more important to minimize the generation of byproducts through resource productivity improvement in production processes through innovative technology development and to increase the economic efficiency of byproduct recycling. Moreover, it is necessary to flexibly and systematically respond to the changes

in environmental regulations for recycling, such as the regulations on the harmful characteristics of byproducts and environmental evaluation of recycled products.

POSCO focuses on establishing a resource circulation system at the Group level by systematically analyzing byproducts and actively developing new demand and recycling technologies to meet various needs. Byproducts generated from production processes are systematically and continuously analyzed at the Research Institute of Industrial Science & Technology(RIST) and by external research agencies. To seek out high value-added recycling plans, we are actively reviewing the development of new recycled products and application of the technologies to a range of industrial processes. For this, we establish cooperative relationships with leading research organizations and enterprises from around the world as well as the POSCO Family companies. We are also focusing on expanding profitability by using our own byproduct utilization models.

In particular, by cooperating with RIST and POSCO E&C as well as a number of construction companies and cement manufacturers in Korea since 2012, POSCO has been developing PosMent technology with improved physical characteristics, such as strength and CO₂ reduction effect, from existing slag cements by increasing the use of slag. In 2013, PosMent technology received green technology certification from the Ministry of Environment and has been contributing to the acquisition of G-SEED, the carbon reduction eco-friendly building certification, for buildings applied with the technology.

PosMent, an eco-friendly and high-performance cement, is capable of responding to changes in construction technologies, such as to decrease the amount of hydration heat generation by concrete, increase chemical resistance, suppress salt damage and improve durability. Therefore, the application is expanded to marine structures and large-scale structures that are prone to cracking in addition to general concrete structures. In 2015, we designed the ultra-low-heat concrete mixing ratios based on the PosMent technology and applied it to a mega-scale concrete base over an area of 51,800m²(amount transported by 8,600 ready-mix concrete trucks), the largest scale for a single project, for the LCT composite development project in Haeundae, Busan comprised of the tallest residential buildings(339m, 2 x 85-story buildings) and a landmark hotel building(441m, 101-story building) in Korea.



LCT composite development project in Haeundae, Busan through PosMent application(2015-2019)

Biodiversity Policy and Activities

Biodiversity Policy

POSCO's policy on biodiversity is included in the POSCO Code of Conduct. The details are as follows.

POSCO's Biodiversity Policy - Code of Conduct Guidelines

5. Protection of Environment and Preservation of Eco-system

① Establishment of Environmental Management System

- We evaluate impacts and risks of business activities on the environment and analyze and manage the results of environmental management in order to achieve for goals by efficiently operating the environmental management system.
- We share benefits and issues with various interested parties and jointly carry out environmental protection activities.
- We convince business partners to believe that protection of environment is a fundamental social responsibility of a company and support business partners to comply with laws and regulations related to environmental protection.
- We support business partners to protect public health and safety in providing products and services, and minimize adverse effects on the environment and natural resources of local communities.

② Compliance with Environmental Laws and Reduction of Environmental Impacts

- We endeavor to comply with environmental laws and reduce environmental impacts in entire processes of developing, producing, and using products.
- We minimize pollutant emissions by introducing environment-friendly manufacturing processes and applying technologies optimized for prevention of pollution.

③ Response to Climate Change

- We strive to reduce consumption of fossil fuels and materials and minimize greenhouse gas emissions by increasing energy efficiency.
- We enhance our competitiveness by developing innovative low-carbon technologies.

④ Protection of Environment and Ecosystem

- We endeavor to restore the natural ecosystem and preserve biodiversity through effective use of natural resources and byproducts.

 posco.co.kr/biodiversity

Biodiversity Preservation Activities

Restoration of Marine Ecosystem

POSCO takes the initiative in restoring marine ecosystems by using steel slag, "Triton," used for restoring coastal areas affected by rising seawater temperatures, is effective in restoring marine organisms in the ecosystem such as seaweed, fish, and shellfish. Steel slag, the main material in Triton, has a high mineral content, particularly calcium and iron, which are beneficial to marine ecosystems and promote better growth and photosynthesis of seaweed, thereby purifying polluted sediment and water quality. Marine forests made with Triton are also able to fixate CO₂ due to carbonization of the slag and photosynthesis of seaweed. Signing an MOU with the Ministry of Oceans and Fisheries in 2007 for countermeasures against marine climate change, and another MOU in 2010 for building marine forests and marine resources, POSCO has been collaborating with the FIRA(Fisheries Resources Agency) and RIST to build marine forests. We will enhance cooperative activities with the government, civilians(fishing villages), and academia to create sustainable marine ecosystems, such as building new marine forest models, managing existing marine forests, and exploring their effectiveness.

Sea Forests with Triton

Target

Utilizing the functional characteristics of steel byproducts, it contributes to the formation of 75% of the coastal marine forests and restoration of fishery production, thereby enhancing the health of the coastal ecosystem and creating social value.

Performance of Sea Forests with Triton

2010	Yeosu Expo Sea Forest
2011	Tongyeong in Gyeongsangnam-do and Uljin in Gyeongsangbuk-do
2012	Samcheok in Gangwon-do and Guryongpo in Gyeongsangbuk-do
2013	Guman-ri in Pohang-si
2014	Yeongdeok-gun in Gyeongsangbuk-do
2015	Daejin-dong, Donghae, Ulleungdo Island, etc.
2016	Odo 2-ri, Pohang, Yeonpyeongdo Island, etc.
2017	Uljin-gun Jukbyeon, marine forest in South Sea, etc.

Time Frame

- Phase 1: Development of fishery resource development technology such as 'Triton Sea Forest' and marine ranch through R&D and government cooperation
- Phase 2(present): Commercialization of 'Triton Sea Forests' by technical transfer to specialized companies and establishment of business base
- Phase 3: Expansion of commercialization and external cooperation as SPB(Solution based Platform Business) technology that can be utilized as business management resources

* Triton: The god of the sea in Greek mythology. POSCO's low-carbon artificial reef brand with excellent ability to restore marine forests using steel slag as aggregate.

Marine Biodiversity Protection

POSCO continuously monitors the pollution status of the sea and sediment adjacent to steelworks and the changes in the number of marine organisms. In particular, we carry out cleaning campaigns to protect marine ecosystems affected by industrial activities, through the Clean Ocean Volunteer Group organized in 2009. Since September 2013, we have been performing activities to preserve the diversity of marine plants and animals from damage caused by starfish and sea urchins, which recently skyrocketed in number, in the clean water of Ulleungdo Island and Dokdo Island. Each year, we perform volunteer activities in the sea and the surrounding areas, together with regional fishing village societies and environmental groups. We also raise awareness of protecting biodiversity by posting updates on the in-house blog.

Especially, the Gwangyang Works site and surrounding areas are the home to a variety of animals and plants. Among animals designated for protection by law due to the small population, one mammalian species(otter) and 11 avian species(whooper swan, swan, bean goose, brant goose, kestrel, sparrow hawk, buzzard, osprey, vulture, saunders’s gull, and far eastern curlew) were spotted in the Gwangyang Works site, and various efforts are being made to protect these animals. To Jijindo Island, where otters are often spotted, access by the public is restricted and a signboard has been installed, indicating that it is an otter habitat. In winter (December–February) when migratory birds fly in, we refrain from pile installation works as much as possible. In inevitable cases, a portable temporary soundproof panel is installed to prevent causing disturbance to the birds. We are also continuously monitoring the migratory birds in terms of their distribution and inhabitation.



Ocean Cleaning Activities

Publication of Books about Biodiversity



“Birdwatching,” a book published in 2016

“The people waiting for birds,” a book published in 2017

In collaboration with the Korean Federation for Environmental Movement(KFEM), POSCO has been publishing books on endangered species with the aim of raising awareness and protection of endangered species. We chose the eagle-owl and the crane as the subjects in 2014 and 2015, respectively. The books introduced experiences and episodes from experts in various fields, and provided readers with the opportunity to reflect upon the importance of protecting biodiversity. In 2016, we organized a migratory bird observation program with the KFEM, where citizens had a chance to take a glimpse into environment protection. Furthermore, in 2017 we published a book on birds that are easily found around neighborhoods with the goal of promoting biodiversity awareness. This book, which applies the method of detailed illustration of birds, will help the citizens read with ease and also become aware of the importance of biodiversity activities. POSCO will continue biodiversity preservation activities together with KFEM.



Bird-watching activity together with children

Stakeholder Engagement

With awareness that transparent communication with stakeholders holds the key to the implementation of environmental management, POSCO encourages stakeholders to engage in maximizing its environmental and social performance.

Communication with Stakeholders

Pohang Eco-Friendly Corporation Promotion Council

Having joined the Pohang Eco-Friendly Corporation Promotion Council launched in 2003, Pohang Works performs voluntary activities to reduce contaminants and to improve the environment around the industrial complex. Especially in 2016, the company joined an industry-academic-public-private council in Pohang, under the Eco-Friendly Corporation Promotion Council, working to improve the air quality in the industrial complex, strengthening environment improvement activities for local communities. We also signed a sisterhood relationship with local communities to share ideas on environmental issues.

Gwangyang Council on Sustainable Environment

Gwangyang Works has been a member of the “Gwangyang-si Sustainable Environmental Council,” an industry-academic-public-private council to share ideas on future-oriented aspects of local environmental issues, since 2012. The council establishes optimal environmental management plans for the region by organizing field trips to other sites each year. In 2017, the council visited Dangjin, a city that owns a similar steelmaking industrial complex, to share information on the environmental management status and form a consensus on the importance of environmental management. Moreover, it suggested opinions for environmental preservation by participating in environmental impact assessments for large-scale projects implemented in the region, such as the Yeosu community energy project and Gwangyang bio power generation project. The council also promoted the projects for designation of a wildlife protection zone in Gwangyang City and to support environmental improvement of squat toilets for vulnerable social groups.

Environmental Council for the POSCO Family

Pohang Works launched the environmental council for the regional POSCO Family companies in order to form a consensus about the government’s environmental policies, improve response to environmental operations, and strengthen communication among field workers. The council functions as an environmental Control Tower for the POSCO Family by analyzing and discussing issues on environmental trends in Korea, discovering environmental improvement success cases in worksites, and benchmarking similar businesses through quarterly meetings. Through regular and continuous operation of council meetings, we will strive to achieve substantial environmental improvement.

A number of the POSCO Family companies for production support are situated within the Gwangyang Works complex. Each company performs environmental management activities and this leads to the issues of inefficient investment and generation of blind spots for which the management entities cannot be clearly identified. Accordingly, to prevent environmental risks of the companies and improve synergy in environmental management, we established the environmental council for the POSCO Family companies of Gwangyang Works in November 2016.

The council is comprised of 19 POSCO Family companies, as well as eight departments of Gwangyang Works. In 2017, it performed environmental assessments on and provided improvement ideas to 15 companies. As a result, the council has invested KRW 23.67 billion for a total of 158 environmental improvement activities. By holding three meetings, it shared environmental improvement success cases of each company. The council also invited officials from the related government agencies of Gwangyang-si and Jeollanam-do to learn more about the government’s direction of environmental policies and discussed countermeasures. In 2018, the Environmental Council for the POSCO Family will continue to perform environmental diagnosis and improvement activities so as to serve as a control tower for comprehensive environmental management in Gwangyang Works.

National Federation of Fisheries Cooperative Welfare Awards

Since 2004, the Environmental & By-product Group of Pohang Works has been in sister relationships with fishermen’s groups in Pohang and supported a scholarship fund each year for the children of fishermen within the region. As such, it has been leading the way in welfare support and improvement of living environment of fishing villages, performing a range of volunteer activities and helping neighbors in need. Pohang Works has also been continuously performing environmental purification activities in the area around Yeongilman Bay, including collecting fishing nets and tires from the coastal areas. It is actively contributing to environmental improvement in the Pohang region.

As a result, with the successful model of fishing village welfare to promote shared growth with local fishermen recognized, Pohang Works received the second “National Federation of Fisheries Cooperative Welfare Award” in November 2017. In the future, Pohang Works will continue to practice sharing in order to provide substantial benefits to local residents through volunteer service programs.



Won National Federation of Fisheries Cooperative Welfare Awards



Environmental Purification Activities to Save the Ocean

Cooperative Activities at Home and Abroad

POSCO has been proactive in supporting sustainable development at home and abroad. We take the initiative in mutual exchange within the steel industry and cooperation in many areas such as biodiversity preservation, spearheading sustainable growth in the world.

Category	Participation in	Activities
Domestic	Environmental Policy Conference of the KOSA	Promotion of the response to changes in environmental policies and voluntary environmental improvement
	Korea Business Council for Sustainable Development(KBCSD)	Discussion of issues on corporate sustainability management
	Business Institute for Sustainable Development of the Korea Chamber of Commerce & Industry	Policy response and exchange for sustainable growth
	Ministry of Oceans and Fisheries	Agreement on the “Cooperation for Greening the Sea and Building Marine Resources”
	Institute for Climate Change Action	Cooperation for energy diagnosis program for green home
Overseas	Korean Federation for Environmental Movement(KFEM)	Cooperation for the publication of books about biodiversity
	Environmental Policy Committee of the World Steel Association	Exchange of information and policies in response to environment and climate change with global steelmakers
	Environmental & Safety Committee of the SEASIS	Sharing of technologies and policies in response to environment and climate change with Southeast Asian steelmakers

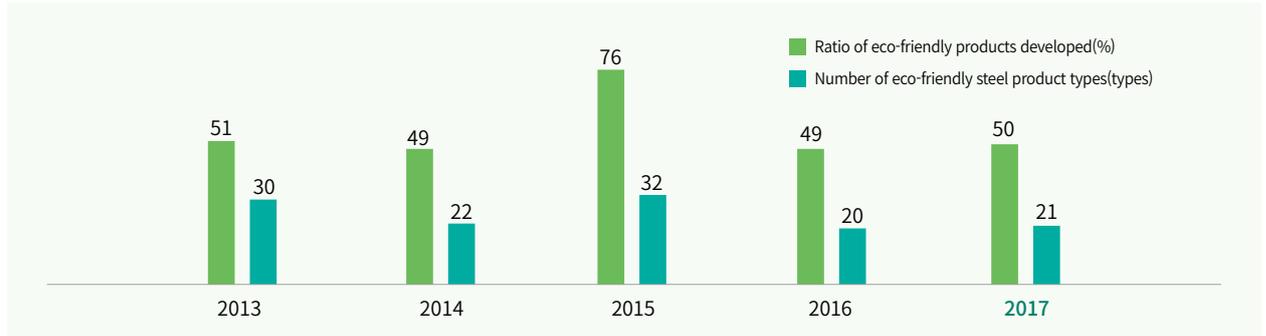
Disclosure of Environmental Information and Awards

Starting with the first environmental report in 1995, POSCO has disclosed environmental information through the Sustainability Report, POSCO website, and POSCO News. To respond to increasing stakeholder interest in climate change, POSCO has reported its environmental management via a separate climate change section since 2010. In recognition of our continued efforts for environmental management, POSCO has been included as one of the excellent companies in the RobecoSAM’s DJSI for 13 consecutive years.

New Eco-Friendly Products in 2017

In 2017, the number of eco-friendly products took up 50% of all new products developed and the number of eco-friendly steel product types came to 21.

Development of Eco-friendly Products



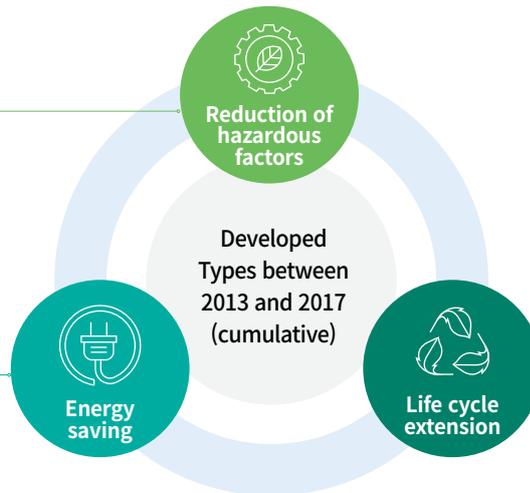
Types of Eco-friendly Product Development

10 types

- Absence of environmentally hazardous substances, reduction of electromagnetic waves/noise/vibration
- Exclusion of the use of fossil fuel

67 types

- Weight reduction of vehicle and exclusion of process and heat treatment
- Increase of energy efficiency and machinability



48 types

- Extension of product life cycle such as by improving corrosion resistance/fatigue resistance/durability

Eco-friendly Products by Category

Hot rolled steel(1) <ul style="list-style-type: none"> • API-CT80 for PO Coiled Tube 	Thick steel plate(5) <ul style="list-style-type: none"> • Wear-resisting steel for heavy equipment(AR500 level) • PosTen950 for the frame of heavy equipment special vehicles • EN-S355ML for wind power structures -60°C guaranteed(Max 120t) • EN-S460NL for wind power structures • PosMAS, decarbonized steel, for electromagnetic shielding(Max 75t)
Wire rod(2) <ul style="list-style-type: none"> • High alloy steel for stud bolts in nuclear power plants/oil fields(PosAF40X) • 2,100MPa-level steel for spiral rope 	STS(2) <ul style="list-style-type: none"> • 329LD as building material • 329J4L(H/C) for water tanks
Electrical steel(3) <ul style="list-style-type: none"> • 50PNE470 • 50PNE300 • 20PNF1200 	Automobile(8) <ul style="list-style-type: none"> • PGT780C • PGT980C • PDT780C • PCT1180XF-Y • PDT780D-EWF • PET1800H-AL • PCT980C • PGT1180XF-Y

Thick steel plate · PosMAS, Decarbonized Steel for Electromagnetic Shielding(Max 75t)

As the performance levels and applications of electronic devices have been increasing as of late, mechanical malfunctions and harmfulness to the human body caused by electromagnetic interference have surfaced as a social issue. With customers' need and demand for electromagnetic shielding materials increasing rapidly, the industry is focusing on developing safer and more reliable products.

PosMAS(POSCO Magnetic Active Shielding) produces products having shielding efficiency approximately four to six times higher than that of ordinary steel products depending on the user environment. It enables to reduce the facility scale and, accordingly the amount of material consumption and construction period.

PosMAS, particularly, is applied to the 11.7T MRI shield room currently in the process of R&D by the Gachon University College of Medicine. It produces excellent shielding efficiency although the magnetic field in the 11.7T MRI shield room is higher by more than five times that of general 2-3T MRI equipment. POSCO is expanding the use of PosMAS in order to apply it to a wide range of industrial fields, including medicine, national defense and broadcasting.



MRI shielded room with PosMAS product

STS · 329LD Steel for Construction

Among the required characteristics of building materials, corrosion resistance is an important factor to determine the exterior and structural stability of a building. As the aesthetic value has also become important, stainless steel products, which can ensure both stability and the aesthetic value of a building, are popular in various fields. Lean Duplex 329LD produces wear resistance equivalent to that of 316L, which has been mainly used as a building material. This is also a steel type with reduced Ni and Mo contents. Therefore, the use of expensive materials can be decreased. Also, with high strength, the thickness of the plate can be reduced. Furthermore, POSCO 329LD is manufactured with POSCO's new technology named poStrip, which is integrating continuous slab casting and hot rolling, rather than the typical process of steelmaking-casting-hot rolling. As such, energy-saving production technology to omit the slab reheating and hot rolling processes is used. The exterior finishing material of the PyeongChang 2018 Ice Hockey Center II is a case of properties similar to that of 329LD steel being incorporated and applied into the exterior of the building. The high wear resistance prevents the risk of corrosion in finishing materials applied to

stadiums located along the coastal area. As a high-strength material, the thickness can be reduced by 25% of an ordinary stainless steel plate. Moreover, through surface treatments of bead blasting and vibration, a unique effect is created on the same material. 329LD completed of a surface treatment and coloring process was also applied to the exterior and door frames of the PyeongChang Media Residence, winning favorable comments from foreigners.



PyeongChang 2018 Ice Hockey Center II and media residence hotel

Electrical steel · NO 50PNE470

Efficiency improvement of electric motor devices, such as an alternator, to produce electricity inside a vehicle is required as the fuel efficiency regulation for automobiles has been strengthened in recent times and the proportion of electronic equipment, such as displays, within cars has been increasing. The recently developed and commercialized POSCO 50PNE470 is a high magnetic flux product with a low rate of iron loss(high efficiency) and high magnetic flux density(large torque). Compared to existing materials that are mainly applied to the alternator, this product has been drastically improved in the magnetic characteristics, and thus produces an effect to improve the motor efficiency by approximately 1.2%. POSCO will continue to promote the extensive development of eco-friendly and high-efficiency NO products.

Decomposition of Alternator



Automobile · PGT1180XF-Y

Automobile makers take into consideration the strengthened mileage regulation, consumers' expectation on mileage, environmental laws, and safety when developing vehicles. It is essential to develop lighter parts for improved mileage as new technology adds more weight to the vehicle body.

PGT1180XF-Y for which POSCO has recently succeeded in mass-production technology development and commercialization is a high-elongation XF(eXtra-formable) steel. The multiplication of tensile strength and elongation is 25,000MPa% or higher. It is

a next-generation ultra high-strength steel product that enables easy molding of chassis parts of complicated shapes at room temperature without requiring a heating process, and thus can replace the existing hot press used for forming parts. Thus, POSCO is focusing efforts on increasing the demand for this product. Every 10% reduction in the vehicle weight results in 3.8% added mileage. With our GI materials, automakers can expect to enhance the durability of their car parts.

CASE REPORT

Establishment of LCI DB for POSCO WP Products and Promotion of EPD Certification to Publicize Eco-friendliness of POSCO Steel Products

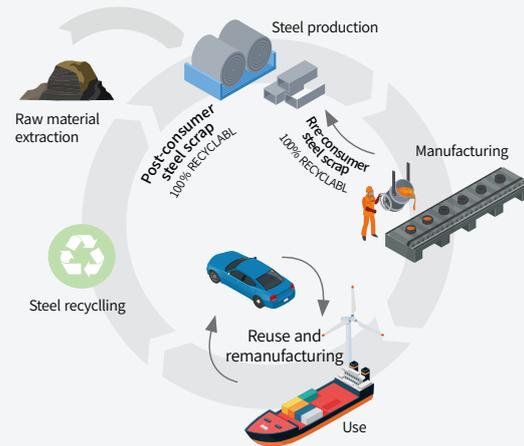
The importance of environmental and sustainable management to protect the ecosystem and natural resources is expanding across the world.

With the demand of domestic and international customers and stakeholders for transparent environmental information of products, such as product carbon labeling and environmental labeling from the standpoint of LCA(Life Cycle Assessment)¹⁾, increasing, the importance of corporate efforts to establish a basis for environmental assessment of steel products and environmental certification is also amplifying.

Based on the awareness that 'environmental friendliness' taking into account our products' 'quality' and 'performance' together with our steel products' life cycle is directly connected to the competitiveness of our steel products. POSCO, as the first in Korea's steelmaking industry, established LCI DB(Life Cycle Inventory Data Base)²⁾ for steel products and is pushing forward to obtain domestic and international Environmental Product Declaration(EPD)³⁾ certification. Furthermore, together with specialized institutes in Korea, POSCO is operating a pilot project to establish LCI DB on life cycle environmental impact of products through cradle-to-gate(mining and transport of raw materials, steel manufacturing, recycling) analysis of Giga Steel⁴⁾ for automobiles, the representative WP products produced in 2017 based on the LCA methodology. At the same time, we are pushing forward to obtain EPD certification from reliable organizations in order to secure transparency of the environmental information established.

Through these efforts, POSCO is striving to ensure excellence of our environmental improvement activities, including investment in flue gas cleaning facilities and water treatment facilities and resource and energy consumption efficiency, in our steelmaking processes. We are also taking this as an opportunity to publicize the eco-friendliness and economic value of our processes, such as the high recycling rate of steel materials.

Steel's life cycle



*Source: worldsteel

- 1) LCA(Life Cycle Assessment): An objective environmental impact assessment technique to analyze potential environmental impacts of raw materials and energy used in the entire process of human economic activities, production and service, from collection and production of raw materials, to product manufacturing, transport, use, and disposal, and environmental pollutants from the process, by considering the amounts of raw materials and energy used and environmental load caused by the pollutants discharged, quantifying the impacts, and thus deriving environmental improvement plans
- 2) LCI DB(Life Cycle Inventory Data Base): A database listing the amounts of resources and energy introduced into the production system over the entire life cycle of a product, from collection of raw materials necessary in production, to processing, transport, use, and disposal of the materials, and the amounts of environmental load caused by the system
- 3) EPD(Environmental Product Declaration): An environmental load index for the life cycle of a product calculated by applying LCA techniques to disclose environmental information on resource consumption, global warming, impact of ozone depletion, acidification, eutrophication, and photochemical oxide generation
- 4) Giga Steel: An ultra high-strength steel sheet for automobiles with a tensile strength of 980 MPa(1 GPa) or higher, that safely protects the chassis of an automobile and lowers automobile fuel consumption through chassis weight reduction

CLIMATE CHANGE

Carbon Management

Carbon Risk and Opportunity Management

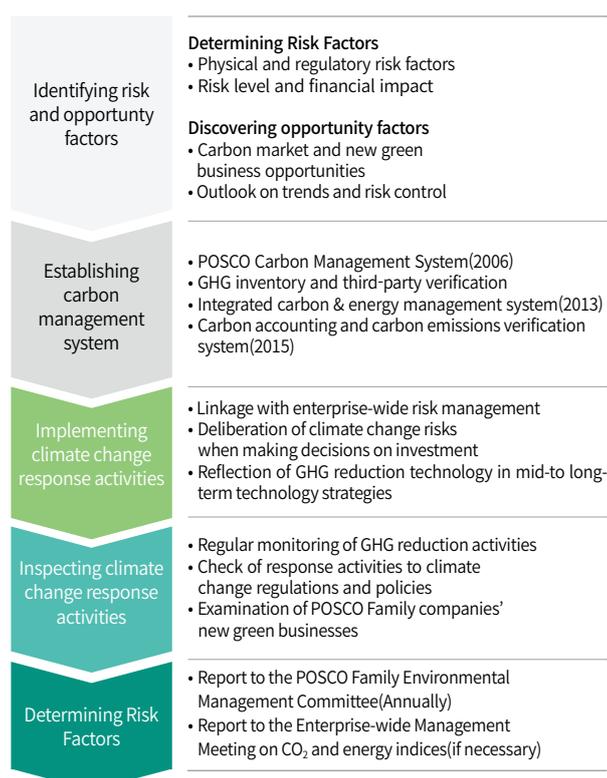
Perspective and Approach

Climate change is a mega trend that shifts the paradigm of each sector of society. A majority of global companies proactively respond to this issue and strive to create new business opportunities. With the understanding that climate change is a critical risk factor, POSCO acknowledges that it is a significant opportunity to enhance corporate competitiveness.

Management System and Process

POSCO operates an internal system to identify, analyze, and control risks and opportunities regarding climate change. Risk and opportunity factors are systematically analyzed in connection with our risk management system and the results are reflected in our mid-to long-term strategies. In addition, our investment management rules specify that a decision on whether to invest in a project with potential environmental risk factors such as GHG emissions should be made in discussion with the relevant division. The results of such climate change response activities are reported through the annual POSCO Family Environmental Management Committee meeting chaired by the CEO. The companywide CO₂ and energy indices are shared in this Management Meeting. The information on POSCO's efforts in carbon-related risk and opportunity management is transparently disclosed to stakeholders through a third-party-verified sustainability report and business report.

Carbon Risk & Opportunity Management Process



Risk and Opportunity Factors in Carbon Management

Risk factors

S	Damages to equipment and facilities, difficulties in securing raw materials and water, increased logistics costs caused by heavy snowfall, heavy rainfall or drought
S	Increased carbon costs with the implementation of the domestic Emissions Trading Scheme, and consequential decrease in price competitiveness
S B P	Weakening of the competitiveness of carbon-intensive businesses due to tightened carbon regulations led by the Paris Agreement, and heightened regulatory barriers in overseas countries entered
S	Requirements on social responsibility to large GHG emitting companies

Opportunity Factors

S B	Increasing demand for high energy-efficiency steel products triggered by the Paris Agreement, and development of new markets such as green building and slag marine forest
B	Participation in new businesses such as renewable energy, energy storage, and carbon market
S	Enhancement of corporate competitiveness through development of innovative low-carbon technologies
L P	Improvement of stakeholder awareness through external evaluation and transparent information disclosure

S Green Steel **B** Green Business **P** Green Partnership **L** Green Life

Major Risk Factors Related to Climate Change

Risk factors related to climate change and carbon management are classified into three categories: physical factors by climate change, policy factors associated with carbon regulations, and other factors such as corporate reputation.

Unforeseen weather phenomena such as heavy rainfall, heat wave, heavy snowfall, earthquake and cold wave are frequently causing great damage all around the world. POSCO has also experienced not only direct damage to facilities but negative impacts such as difficulties in securing raw materials, electricity, and industrial water, and increase of logistics costs. To preemptively respond to climate change risks, the Storm and Flood Control Center of the two steelworks conducts regular monitoring and closely cooperate with relevant institutions and organizations. Furthermore, we have established and upgraded the companywide risk management process and system by setting up a disaster management manual and guidelines for a more systematic response to risks.

At the UNFCCC COP21 Paris in 2015, countries agreed to cap the global temperature rise to below 2°C compared to the pre-industrialization era after 2020 to respond to global climate change. At the UNFCCC COP23 held in November 2017, the “Fiji Momentum for Implementation” was adopted following a discussion on the preparation of guidelines for the implementation of the Paris

Agreement by 2018.

Even in Korea, following the Framework Act on Low Carbon, Green Growth in 2010, the Greenhouse Gas and Energy Target Management Scheme has been enforced since 2011. The system has been accompanied by the GHG Emissions Trading Scheme since 2015, complying with the Act on the Allocation and Trading of Greenhouse-Gas Emission Permits and its Enforcement Decree enacted in 2012. Domestic companies are subject to either of these two systems according to their annual GHG emissions.

POSCO fulfilled its duty under the GHG and Energy Target Management until 2014, and has participated in GHG emissions reduction and emissions trading since January 2015. According to the government's climate change response system restructuring in December 2017, the Ministry of Environment was again assigned to supervise the emissions trading.

The enforcement of the Emissions Trading Scheme and new climate regime is a crucial policy risk to corporate competitiveness. POSCO identifies potential business risks through the monitoring of relevant policies and actively participates in discussions aimed at building rational policies. We also support effective policy responses and executives' decision-making through the risk management process. Also, policy risks attended by the global expansion of POSCO and its subsidiaries are actively reviewed to meet tightening global carbon regulations.

Recently, the demand for carbon-intensive companies to further fulfill their social responsibility, such as disclosure of information, has been increasing and any inadequate response may undermine their corporate reputations. Hence, POSCO undergoes external assessments regarding climate change, such as CDP and DJSI, and discloses related information through the sustainability report.

Major Opportunities Related to Climate Change

The new business opportunities is created through the increasing energy consumption by unusual weather such as natural environment change, a heat wave and a cold wave. POSCO has initiated a marine forest restoration project by developing 'Triton'¹⁾, a product made from steel slag, to restore coastal areas experiencing chlorosis in marine plants. Approved by the Ministry of Oceans and Fisheries as a general fishing reef in 2014, Triton is utilized in marine forest and sea farm creation projects led by the central and local governments. We also plan to use the POSCO Green Building applied by over 100 types of eco-friendly technologies as an energy-saving building model for diffusion.

Meanwhile, our low-carbon technologies and efforts for reducing social GHG emissions create opportunities for new business models. A high-strength steel sheet that helps reduce the vehicle weight and improve fuel efficiency and blast furnace slag that replaces cement have already become new profit sources. Additionally, our unique eco-friendly technology, the FINEX method and environmental management, receive a great deal of attention from global steelmakers so the demand for our environmental and energy-saving technologies is predicted to rise.

According to the energy efficiency improvement and new and renewable energy expansion policies in Korea, we will also expand the Smart Factory²⁾, building integrated photovoltaic(BIPV)³⁾ system verification, Smart Grid⁴⁾ project and photovoltaic power generation project.

- 1) Triton: The brand name of a low-carbon fishing reef that uses steel slag as aggregate. It was named after the sea god from ancient Greek mythology, who is capable of calling fish and dolphins by blowing a horn and restoring the marine forest.
- 2) Smart Factory: A system that collects all important on-site data by using the Internet of Things, conducts a predictive analysis of the collected big data, and optimizes and controls all processes in the automated method using AI technologies. The system thereby actualizes zero-defect operation, minimizes quality issues in advance, creates a safe production environment, and reduces costs.
- 3) Building Integrated Photovoltaic System: A system that integrates solar panels and building exterior materials in order to contribute to efficient land use and zero-energy building
- 4) Smart Grid: A next-generation intelligent power grid that optimizes energy efficiency by employing IT to the traditional power grid and exchanging real-time information between power suppliers and consumers

Climate Change Response System

Our sustainability management system helps with swift decision-making on climate change response under the corporate governance of shareholders, the Board of Directors and the CEO. The decision-making body deliberates on the company-wide vision and agenda and presents specific goals and directions based on opinions of the staff in charge, and issues discussed by relevant committees, thereby implementing systematic sustainability management.

Issues related to climate change, energy, and the environment are handled by the Energy and Environment Planning Group of the Energy and Environment Business Office, while those associated with the use of byproducts are addressed by the Environment Business Group. The Energy and Environment Business Office defines the environment & energy management strategies, establishes and implements the companywide climate change response and carbon & energy management systems. Moreover, it builds and implements strategies to make efficient use of resources and byproducts, while creating profits in the process. The office also takes the initiative in establishing the global environmental management system for the operation of overseas steelworks and responding to regulatory policies and the rise in energy prices. Departments in charge of renewable energy and gas businesses were reorganized in preparation for the Paris Agreement.

At Pohang Works and Gwangyang Works, the Energy Department and Environment & By-Product Group are responsible for CO₂ reduction, energy efficiency improvement, and environmental and resource recycling issues. They cooperate closely with the Energy and Environment Business Office to enforce the environmental management and carbon & energy management systems in the steelworks.

The POSCO Family Environmental Management Committee, chaired by the CEO and attended by representatives of family companies, is held to deliberate on climate change and environmental management issues once a year. In 2011, the Environment and

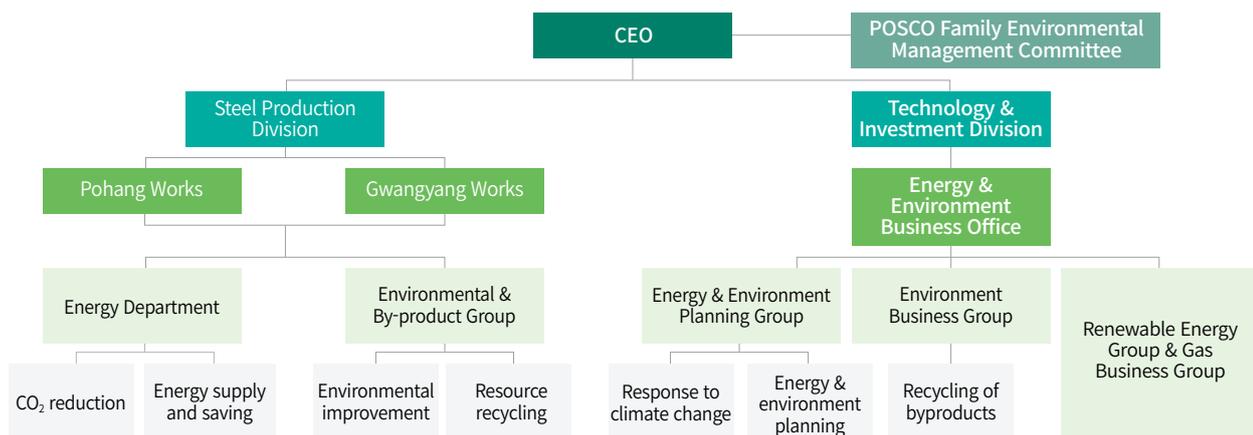
Energy Committee chaired by the director of the Environment and Energy Office was turned over to be chaired by the CEO. In 2013, the committee was integrated with the Green Growth Committee that examines the green growth strategies of POSCO Family companies.

Climate Change Vision and Reduction Targets

In celebration of the 50th anniversary, POSCO declared a new mission, “Unlimit the Limit: Steel and Beyond” and suggested the vision, “POSCO the Great” based on this mission. This vision aims at achieving “Great Business, Great Technology, and Great Culture.” The four future strategies established to fulfill this vision are fortifying future growth structure through portfolio shift, solidifying global presence centering on strategic countries, innovating business model through convergence with software, and establishing smart management infrastructure based on creative culture. Through the four future strategies, POSCO hopes to build a base of 'POSCO the Great' and become a POSCO that is loved by the people and admired by the citizens of the world by increasing corporate value, restoring the credit rating, and securing mega-growth power.

In response to climate change, the POSCO Family companies are devoted to Green Steel, Green Business, Green Life and Green Partnership. The foundation for Green Steel is reinforced by the development of high energy-efficiency steel, CO₂ reduction process, and other low-carbon innovative technologies as well as promoting energy efficiency improvement and the Smart Factory project. Fostering the Green Business also contributes to creating tangible performance in new growth engine businesses by not only promoting photovoltaic power and smart-grid but also developing lithium extraction technology and materials for batteries. Moreover, employees of POSCO and its affiliates participate in the Green Home activities aimed for improving the living conditions of households with limited access to energy. We also cooperate with domestic and overseas carbon policies to secure leadership and strengthen our corporate activities for a low-carbon society to realize the Green Partnership.

Governance to Respond to Climate Change



POSCO's Voluntary GHG Reduction Target by 2020

POSCO declared its GHG Reduction Target to be achieved by 2020 at the 7th Green Growth Committee meeting chaired by the President of Korea in February 2010. In this regard, we intend to reduce CO₂ emissions per ton of steel in our steelworks to 2.00 t-CO₂/t-S by 2020, a 9% decrease from the average level between 2007 and 2009 (2.20 t-CO₂/t-S).

To achieve the goal, we are focusing on decreasing coal consumption, improving energy efficiency, and developing innovative CO₂-reducing technologies. Other activities for reducing social GHG emissions include the development and distribution of high-strength automotive steel sheet for improving vehicle mileage, high-quality electrical steel for increasing energy efficiency of motors and transformers, and granulated blast furnace slag to be used for eco-friendly cement.

POSCO's CO₂ Intensity Target and Outcomes (Unit: t-CO₂/t-S)



- In response to the enforcement of the Emissions Trading Scheme, the amount of emissions was calculated in accordance with the "Administrative Guideline for the Greenhouse Gas Target Management System" announced by the government in March 2011.
 - Scope: Pohang Works and Gwangyang Works
 - GHGs: CO₂, CH₄, N₂O, HFCS, PFCS, SF₆
 - Direct emissions(Scope 1): Direct CO₂ emissions from steel production, gaseous fuel combustion, mobile combustion, and waste incineration
 - Indirect emissions(Scope 2): Indirect CO₂ emissions from the use of purchased electric power
- The figures disclosed in this Report are from Pohang Works and Gwangyang Works only and may not exactly coincide with those in the statement submitted to the government which includes all business sites including Pohang Works and Gwangyang Works.

CASE REPORT

Roadmap for Response to New Climate Regime

The Paris Agreement, which was concluded in December 2015, was designed to replace the Kyoto Protocol that requires advanced countries to reduce their GHG emissions by 2020. It requires both advanced and developing countries to reduce GHG emissions and fulfill their Nationally Determined Contributions(NDCs)¹⁾ by 2020. In November 2016, the Paris Agreement officially comes into effect by meeting the requirements of ratification. The negotiation for the detail rules for implementing are still underway until 2018. POSCO will make more efforts to reduce GHG emissions to cope with the new climate regime, and expand cooperation with the government for the sustainable steel business.

- **Improving Energy Efficiency in Steelworks**
To invest in commercial technologies for heat recovery and off-gas utilization
- **Developing Technologies for GHG reduction in Steel Industry**
To extensively develop technologies with great reduction potential, such as low- to medium-temperature waste heat recovery, efficiency improvement of the steel manufacturing process and energy facilities and carbon utilization
- **Discovering Reduction Options and Establishing Analysis System for Steel Industry**
To strengthen financial decision-making and risk control in relation to climate change through analysis on internal and external reduction technologies and projects
- **Expanding Social GHG Reduction**
To promote utilization of high-efficiency steel and granulated blast furnace slag
(Ex.: Reduction Effect of High-strength Steel Sheet for Automobiles: 0.8 ton of CO₂/product-ton compared with general steel sheets each year)
- **Cooperation for Sustainable Steel Industry**
To assess GHG emissions of steel products in regards to the product lifecycle²⁾(Ex.: GHG Emissions per Ton of Product: 2.0-2.5 tons of CO₂ from steel, 11.2-12.6 tons of CO₂ from aluminum) To prepare plans to resolve the impact of imbalanced carbon regulations in Korea and abroad

1) NDCs(Nationally Determined Contributions): A voluntary measure of each country for contributing to the climate change regime
2) A method to recover steel scrap from discarded steel products and reuse it as materials for blast furnace and electric furnace

Implementation of the GHG Emissions Trading Scheme

The Act on the Allocation and Trading of Greenhouse Gas Emission Permits was enacted in January 2015, signaling the commencement of emissions trading.¹⁾ POSCO was designated as a company subject to emission allowances allocation in October 2014 and was allocated emission allowances for the first phase period(2015~2017) in November. For better systematic operation of this activity, the company has established the Carbon Accounting System that supports the demand forecast of emission allowances and reflects cost incurred by lack of allowances in manufacturing costs by improving the GHG management system that has been in operation since 2006. We also established the Emission Verification System and revamped the internal policies and systems to manage monitoring, reporting and verification(MRV) of emissions. In 2017, we revised and strengthened the management of internal guidelines, such as on energy management, emission allowances and trading and company-wide GHG emissions estimation. Through the reduction efforts, we achieved a reduction amount larger than the allocated in 2017.

1) A company that annually emits 125,000 tons across the entire company or 25,000 tons at a single business site is subject to this regulation. As of 2016, a total of 560 companies are subject to emission allowances allocation.

Carbon Management System

Integrated GHG-Energy Information System

POSCO has calculated monthly emissions by using its own GHG emissions calculation method developed in 2006 based on international standards, such as IPCC¹⁾, WBCSD^{2)/WRI³⁾, and World Steel Association ISO14404⁴⁾ and established the GHG management system for steelworks. The calculation method has been revised in accordance with the guidelines of the national GHG and Energy Target Management Scheme enforced in 2011. The calculation is conducted at 16 business sites, including Pohang Works and Gwangyang Works. Carbon emissions are calculated based on the carbon emissions factor of major materials containing carbon in terms of the amount of fuel and raw materials used, electricity purchase and production volume. The company also monitors the CO₂ emissions per ton of crude steel(t-CO₂/t-S) as one of the Key Performance Indices(KPI). Our efforts to integrate GHG-energy information management include improving the energy-saving work process in the business sites and systematizing the management of GHG emissions reduction.}

1) IPCC: Intergovernmental Panel on Climate Change

2) WBCSD: World Business Council for Sustainable Development

3) WRI: World Resources Institute

4) ISO14404: Calculation method of carbon dioxide emission intensity from iron and steel production

Carbon Accounting

According to the “GHG Emission allowances and Emission Debts in Chapter 33 of the General Corporate Accounting Standards,” a subject company is required to apply the costs for emissions that exceed its quota set by the government to its accounting. Since 2015, POSCO has been running the Carbon Accounting System that supports the demand forecast of emission allowances and reflects the costs incurred by the lack of allowances in the manufacturing costs. We set the guidelines regarding the management and trading of emission allowances to clarify the system operation procedure in 2016 and plan to improve the system by 2018.

Verification of Carbon Emissions

Considering that emission allowances are a financial asset, the government has set a strict legal verification procedure. Government-designated verification bodies annually verify the fuel and raw material consumption directly connected to emissions in stages of “measurement, collection and calculation.” In particular, in the case of inadequate verification, the government considers that the company emitted its maximum amount and consequently imposes a greater financial burden on the company.

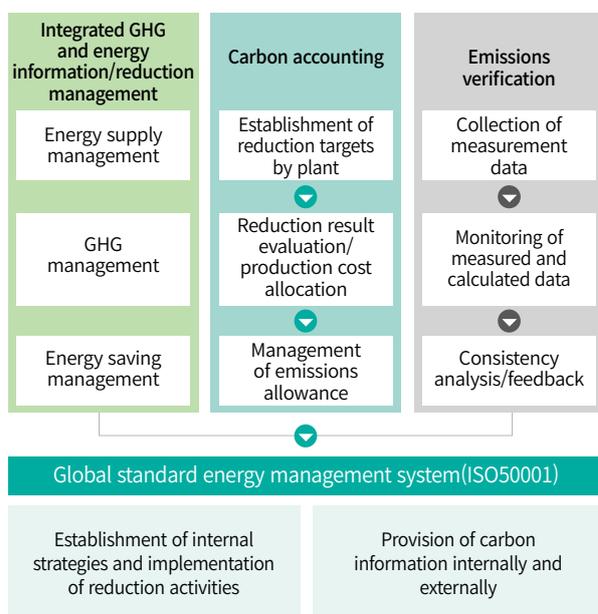
In this sense, POSCO has reflected the roles of each department ranging from monitoring plan preparation, collection of evidential documents for the activities of each plant, instrument measurement management, carbon content analysis and evidence management, to emissions statement reporting. POSCO has prepared a cooperative system so that changes in monitoring plans can be shared quickly through consultations between relevant departments.

We also set up a cooperation system for sharing information in the case of changes in the monitoring plan. Since July 2015, we have run the Carbon Emission Verification System to monitor the fuel and raw material consumption related to emissions. This system can regularly examine, improve, and record the omitted data and errors, ensuring the transparency and reliability of the verification process. Moreover, we have been increasing the accuracy of Tier 3 emission factors by analyzing the major substances emitting GHGs including coal and by-product gas are calculated each month.

ISO 50001 Certification

POSCO has been running the Energy Management System to cope with changes in the business environment such as increasing the need for reducing carbon emissions and energy consumption demanded by diverse interested parties, tightening regulations, and trade barriers on energy efficiency certifications. Discussions on the ISO 50001(Energy Management System) started in 2008 and was completed in June 2011. Thereafter, a TFT(Task Force Team) was formed in January 2012 and we obtained the ISO50001 certification in September of the same year. The certification is renewed every April through re-valuation for maintenance.

POSCO's Carbon Management Mechanism Based on Energy Management System(ISO50001)



Carbon Performance

GHG Emissions from Production Processes

Carbon dioxide constitutes the majority of GHG emitted from POSCO Pohang Works and Gwangyang Works. The GHG emissions volume in 2017 amounted to 70.70 million tons, a increase of approximately 0.5% from 70.37 million tons in 2016. Crude steel production volume also decreased 0.8% from 37.50 million tons in 2016 to 37.20 million tons in 2017. Thus, CO₂ emissions per ton of crude steel production increased slightly by approximately 1.3% to 1.90 t-CO₂/t-S in 2017 from 1.88 t-CO₂/t-S in 2016. The reduction of emissions intensity resulted from our continuous efforts. Recent CO₂ emissions intensity stood at 1.88 t-CO₂/t-S in 2016 and 1.90 t-CO₂/t-S in 2017, staying low compared with the base years(average of 2.20 t-CO₂/t-S, from 2007 to 2009).

CO₂ Emissions Intensity

(Unit: t-CO₂/t-S)

Classification	2015	2016	2017
Direct emissions(scope 1)	1.80	1.78	1.82
Indirect emissions(scope 2)	0.11	0.10	0.08
Total emissions intensity	1.91	1.88	1.90

* The figures only cover Pohang Works and Gwangyang Works, thus may not exactly coincide with those in the statement submitted to the government.

Social GHG Reduction Effect

The social CO₂ reduction effect is generated from the expansion of high energy-efficiency steel products such as high-strength steel sheets for automobiles and low core loss electrical steel that

increases the energy efficiency of motors and transformers. In 2017, our social CO₂ reduction effect amounted to 6.14 million tons. Blast furnace slag, one of the byproducts from steelmaking, contributed to reducing 8.60 million tons of CO₂ by being used as an alternative to cement in 2017.

Social GHG Reduction Effect

(Unit: Thousand t-CO₂)

Classification	2015	2016	2017
High-strength steel sheet for automobiles ¹⁾	3,149	3,405	3,608
Low core loss electrical steel sheet ²⁾	2,606	2,271	2,528
Granulated blast furnace slag ³⁾	7,693	7,834	8,596
Total	13,448	13,510	14,732

- 1) Ultra high-strength steel sheet refers to HSS(High-strength Steel) and AHSS (Advanced High-strength Steel) with tensile strength of at least 340 MPa. Reduction of weight by applying the steel to a 2,000cc passenger vehicle is substituted for CO₂ reduction volume. CO₂ reduction effect per ton of high-strength steel: 0.81t-CO₂/year(weight reduction(fuel saving: 86L/year, unit) X number of vehicles produced per ton of high-strength steel(4.4 units) X CO₂ emission coefficient in road transportation (0.0693 kg CO₂/MJ, based on IPCC Guideline, gasoline vehicles) X caloric value(31.0 MJ/L, Energy Act's Enforcement Regulation) ÷ 1,000).
- 2) Low core loss electrical steel refers to grain-oriented electrical steel with core loss of less than 0.98 W/kg, as well as non-oriented electrical steel with core loss of less than 4.7 W/kg. Improvement of energy efficiency by applying this steel to motors and transformers is substituted for the CO₂ reduction volume.
- 3) CO₂ reduction volume is calculated by applying the theoretical ratio to convert the main ingredient of cement clinker(calcium oxide) to CO₂, which estimates a reduction of 0.785 t-CO₂/t-clinker when replacing each ton of cement with blast furnace slag.

Other GHG Emissions

GHG is also emitted from a variety of channels including the transportation of raw materials, employee commuting, business trips, and so on. More details in 2017 are as follows:

Other CO₂ Emissions¹⁾(Scope 3)

(Unit: Thousand t-CO₂)

Classification	2015	2016	2017
Transportation of raw materials ²⁾	1,008	959	978
Employee commuting ³⁾	6	7	7
Employee business travel ³⁾	1	1	1
Purchased products and services ⁴⁾	2,850	2,970	2,638
Upstream leased assets ⁵⁾	2,047	2,111	2,081
Investments ⁶⁾	13,589	13,105	12,339

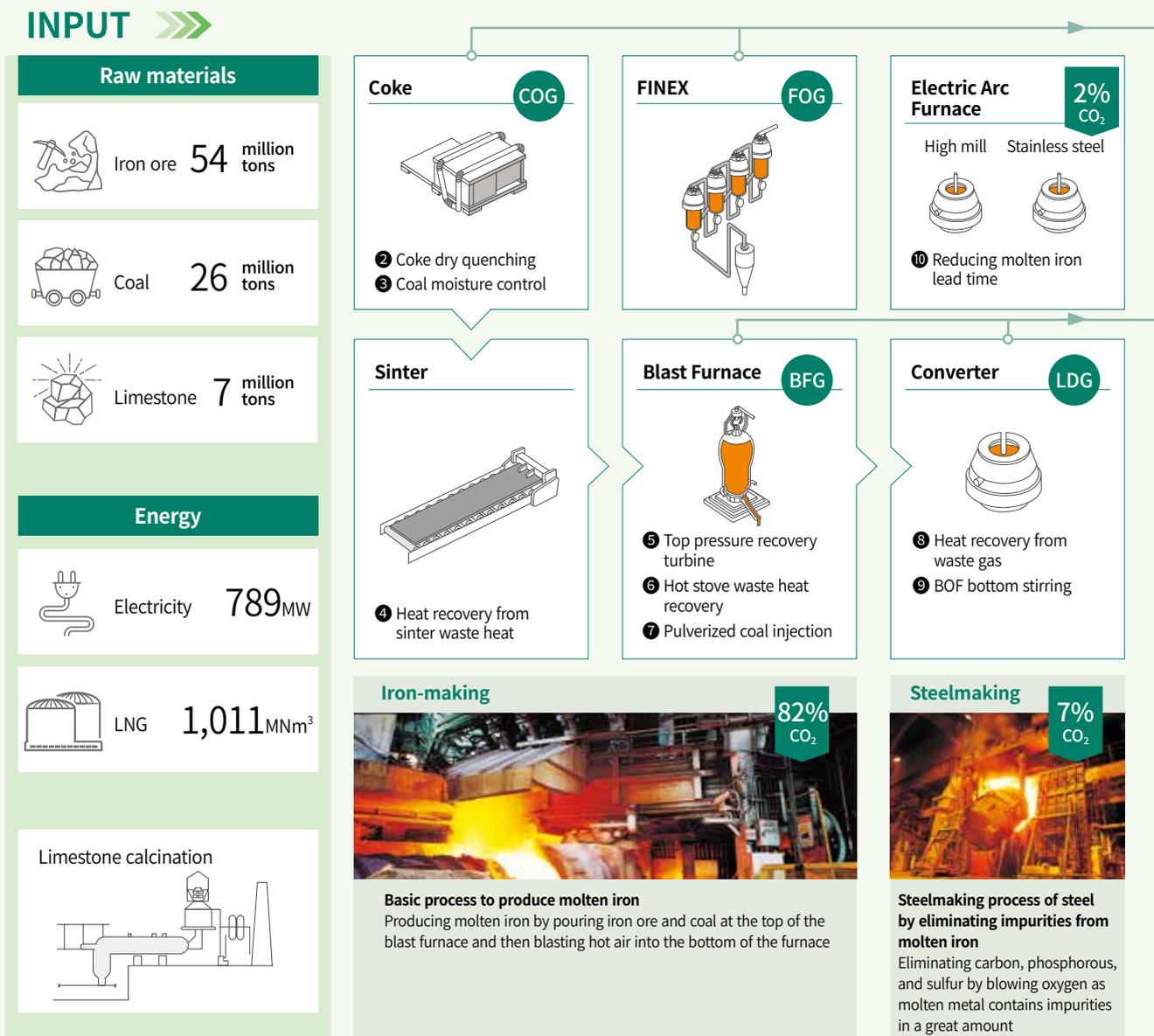
- 1) Calculated on the basis of the WBCSD/WRI Greenhouse Gas Protocol.
- 2) Total weight of purchased raw materials came to 92.68 million tons (coal, iron ore, and limestone took up the majority)
- 3) Based on 13,348 employees working at Pohang Works and Gwangyang Works corresponding to Scopes 1 & 2, from a total of 16,998 employees as of the end of 2017.
- 4) Calculated GHG emissions focusing on major raw materials suppliers out of purchased goods and services.
- 5) Calculated GHG emissions from the limestone calcination plant which was leased to POSCO Chemtech.
- 6) Calculated Scope 1 & 2 emissions from investee companies subject to the GHG Emissions Trading Scheme in consideration of POSCO's share ownership.

Investments in GHG Reduction Facilities and R&D

A total of KRW 6.7 billion was invested in energy recovery facilities and process improvements for energy reduction in 2017. KRW 3.3 billion was spent on installing energy-saving equipment, such as an electric dust collection inverter on steelmaking line 2 of Pohang Works. Remaining KRW 3.4 billion was invested in process improvements and replacement or supplementation of facilities including pumps and lighting. We also used KRW 83.2 billion in 2017 for R&D projects to reduce GHG emissions which involves recovering sensible heat from the production processes and capturing CO₂ from by-product gas, and so on.

POSCO Carbon Flow

The GHGs generated in our steelworks is mostly comprised of CO₂ from coal directly and indirectly entering blast furnaces. CO₂ is mainly emitted during the iron-making process where a reduction reaction occurs. POSCO calculates not only CO₂ emitted in the production process at Pohang Works and Gwangyang Works, but also indirect emissions of CO₂ along the value chain, including raw materials transportation, commuting and business travel of executives and employees, and upstream leased assets.



Application of Available Technologies for CO₂ Reduction

Technology description	Energy recovery				Scope
	Electricity	Steam	Hot Water	Others	
① Capturing, purifying, and reusing by-product gas generated from the blast furnace, FINEX, coke furnace, and electric furnace				●	Scope 1 : Direct emissions from incineration and processes
② Recovering sensible heat by exchanging heat between red hot coke and cooling gas	●	●			
③ Improving coke strength and blast furnace efficiency by controlling the moisture of coal which is inserted into the coke oven				●	Scope 2 : Indirect emissions from generated electricity and steam
④ Recovering sensible heat from the cooling process of sintered ore		●	●		
⑤ Generating power by using by-product gas which is emitted from the blast furnace	●				Scope 3 : Indirect emissions from the value chain
⑥ Recovering sensible heat from the exhausted gas of the hot blast stove				●	
⑦ Directly injecting coal into the blast furnace instead of coke				●	
⑧ Recovering sensible heat included in the gas emitted from processes		●			
⑨ Improving energy efficiency by blowing argon gas at the bottom of the electric furnace				●	
⑩ Minimizing energy loss by shortening the transportation time at the steel tapping and back end processes				●	
⑪ Saving energy through the direct insertion of hot slabs				●	
⑫ Recovering sensible heat included in the gas emitted from the heating furnace		●	●		
⑬ Saving energy for heating during the pickling process through low-temperature operation				●	

OUTPUT

Recovering and utilizing by-product gas

Reuse of by-product gas for the steel-making process

① Recovery of by-product gas **51%**

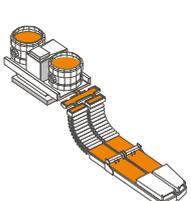
Power generation with by-product gas (1,371MW)

35%

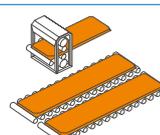
Selling of by-product gas

14%

Continuous caster

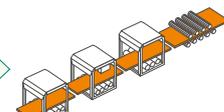


Hot rolling mill



⑧ Heat recovery from waste gas
⑪ Hot charge rolling
⑫ Heat recovery from the reheating furnace

Cold rolling mill



⑬ Low-temperature pickling

Casting



Solidifying molten metal
Producing intermediate materials such as slabs, blooms, and billets by pouring molten iron without impurities into the caster

Casting



6% CO₂

Producing steel sheets and rolled plates
Flattening and lengthening slabs, blooms, and billets by passing them through rollers to produce steel sheets and rolled plates(hot rolling and cold rolling)

Cold rolling



3% CO₂

Product

Production of crude steel **37 million tons**

CO₂ emissions

Emissions from production (Scope1, Scope2) **70 million t-CO₂**

Other emissions (Scope 3 including raw materials transportation) **19 million t-CO₂**

Social CO₂ reduction

High-strength steel sheet for automobiles
Weight lightening and fuel efficiency improvement **3.6 million t-CO₂**

Low core loss electrical steel
Efficiency improvement of motors and transformers **2.5 million t-CO₂**

Blast furnace and FINEX slag
Substitute for cement **8.6 million tCO₂**

Supply of recovered steam
District heating and related businesses **0.1 million tons**

Climate Change Response Activities

Roadmap for Energy Efficiency Improvement and Performance

Phase 1 1999~2008

POSCO had implemented the first two voluntary agreements with the government from 1999 to 2008 by conducting 2,100 projects, including the construction of a combined-cycle power plant fueled by FINEX by-product gas, waste heat recovery system in the steel making process, and investment in coke dry quenching(CDQ) facilities, in addition to a KRW 1.43 trillion investment into energy facilities. As a result, the installation rate of energy recovery facilities reached 97% and 2.91 million TOE of energy was saved. We also established an integrated information system that accumulates energy-saving manufacturing technologies in order to promote the proliferation of diagnosis management technologies and ideas for energy conservation, prior to sharing all performance results.

Phase 2 2009~2015

Completing the investment in large-scale energy recovery facilities by 2008, we have pioneered the small-and medium-scale energy efficiency improvement projects and employed convergence technologies since 2009.

At Gwangyang Works, waste heat recovery facilities were installed in the 3rd steelmaking plant in 2010 and 5th sintering plant in 2011. The evaporation cooling system(ECS)¹⁾, a high-efficiency waste heat recovery facility, was established in the 4th hot rolling plant in 2014, and now produces low-pressure steam required for steelmaking. In 2011, a newly-built 5th coke plant introduced coke dry quenching facilities to ramp up its own power generation. We also operate four high-efficiency combined cycle generation facilities to recover surplus by-product gas. Since 2009, power consumption has been steadily reducing by installing inverters for high/low voltage motors and fluid couplings for pumps and electric precipitators.

Gwangyang Works initiated the smart industry test bed project having integrated IT and steelmaking technologies at the oxygen plant in 2010 and hot rolling plant in 2013. As the focus of the government's energy policy was shifted from supply to demand control, we installed a 1.5MW energy storage system(ESS) in plants and buildings to enhance the energy efficiency for which the test run was completed in 2015. Since June, 2015, Pohang Works have been actively participating in the energy demand management system, calling for the reduction of energy use during peak hours of demand. With the execution of the Greenhouse Gas & Energy Target Management Scheme in 2011, we acquired ISO 50001 EMS(Energy Management System) certification and strengthened energy target management. Currently, we are focusing our efforts on the effective implementation and management of carbon and energy reduction at each plant in accordance with the 2015 Emissions Trading Scheme.

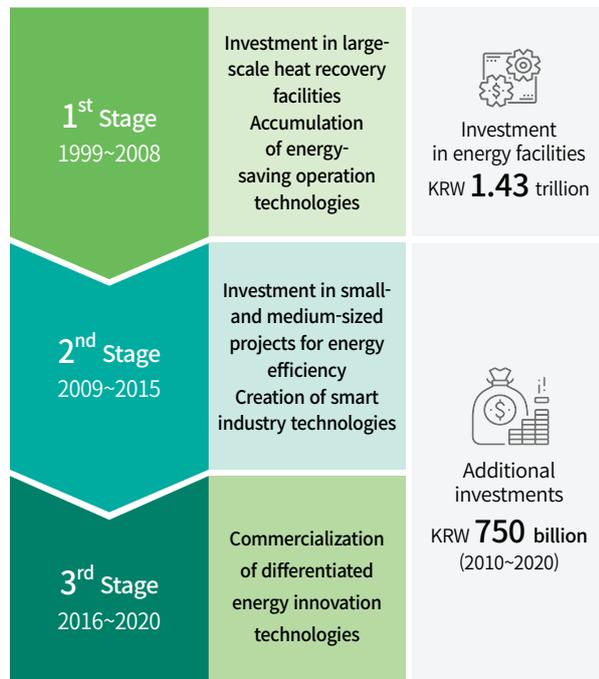
1) ECS(Evaporation Cooling System): An evaporative cooling method to produce steam by circulating high-temperature and high-pressure cooling water

Phase 3 2016~2020

To meet tightening international carbon regulations, POSCO looks to actively focus upon the improvement of efficiency large-scale waste heat recovery facilities operations while promoting self-conservation of energy through applied new technologies of small-to-medium sized waste heat recovery facilities as well.

We strive to enhance the energy efficiency of the large-scale waste heat recovery facilities through the improvement of current in existing large-scale waste heat recovery facilities such as CDQ and TRT, the investment in an optimized infrastructure of byproduct gas for power generation and the recovery of capacity to enable increased power generator efficiency. We will also consider employing the latest technology for additional waste heat recovery in the STS electric furnaces, hot-rolling heating furnaces, and the new FINEX process. In addition, we will continue to develop the innovative energy technologies for mid-to long-term by considering the limitation of the additional energy efficiency improvement. POSCO will continuously develop the technology of low-to-medium temperature power generation by recovering unused waste heat from steelworks and commercialize it as POSCO brand energy.

Roadmap for Energy Efficiency Improvement



Energy Efficiency Improvement Activities

Use of By-Product Gas from Steelmaking Process

Most of the by-product gas(BFG, COG, LDG, FOG) generated in the steelmaking process are recovered as energy sources and utilized for in-house power generation. Pohang Works and Gwangyang Works self-generate 72% of the total power consumption in 2017 through

energy recovery facilities, such as Coke Dry Quenching (CDQ), and Top Gas Pressure Recovery Turbines (TRT), by-product gas-fueled and LNG-fueled power generation. This figure marked an increase of 6% of last year's 68%.

Electric Power Consumption and the rate of in-house power generation in 2017

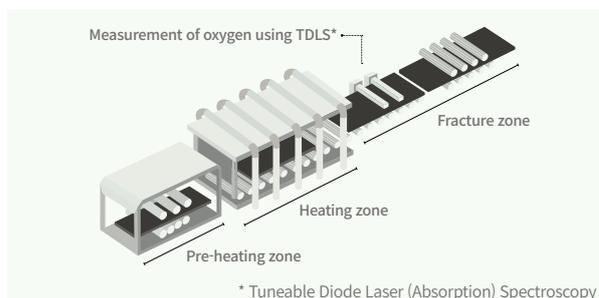
Power source	Power consumption	Ratio
by-Product gas	1,371 MW	72% (in-house power generation)
Others(CDQ, TRT)	287 MW	
LNG power generation	355 MW	
Purchased electricity	789 MW	28%

Power Generation Efficiency Improvement and Performance Restoration of Energy Recovery Facilities

We organized a new project team for increasing the power generation efficiency at Pohang Works and Gwangyang Works in August, 2016, with related activities to be continuously conducted through 2018. Pohang Works enhanced the power generation efficiency by cleaning the boiler tubes and condensers of the LNG combined cycle power plants and improving the operation method through real-time monitoring. Meanwhile, Gwangyang Works managed to enhanced efficiency by applying adjustable burners to two by-product gas power plants. Moreover, Pohang Works and Gwangyang Works have the achievement by restoring the performance of the major energy recovery facilities, including CDQ, TRT, and waste heat boilers.

Improvement of Combustion Efficiency of Heating Furnaces

At Pohang Works and Gwangyang Works, a TFT(Task Force Team) was organized in 2011 to enhance the combustion efficiency improvement of all the heating furnaces consuming the largest amounts of fuel. After the TFT became the official team in 2012, the team has been focusing on implementing annual combustion efficiency improvement projects to prioritize furnace body examination, combustion optimization and heat exchanger efficiency improvement. Both steelworks enhanced their combustion efficiency through the regulation of furnace temperature, increasing the air temperature for combustion and reinforcing the materials of heat exchangers based on the results of a diagnosis performed in 2015 of 19 heating furnace equipment facilities.



Mimetic diagram of reheating furnace

Smart Factory

POSCO's smart factory aims to collect all key data of worksites by using IoT technology based on the best steelmaking technology that we have accumulated over many years of experience, conduct big data-based analysis and forecast, and optimize and control all processes with AI technologies.

In 2010, Gwangyang Works launched the Smart Industry Demonstration Project for its oxygen plant aimed at increasing energy efficiency, reducing costs, and stabilizing facilities by combining energy sources and advanced IT technologies. We established and operated a smart factory at the thick plate factory in 2017 and plan to expand the smart factory application to automobile steel sheet production plant in 2018.

We have carried out a demonstration project at the hot rolling plant of Pohang Works since 2014, and developed a model for the integrated analysis of operation errors and quality defects according to the status and records of facilities. By 2018, we plan to complete a task to improve on chronic defects in processes by linking the steelmaking, hot rolling, cold rolling, and STS rolling processes.



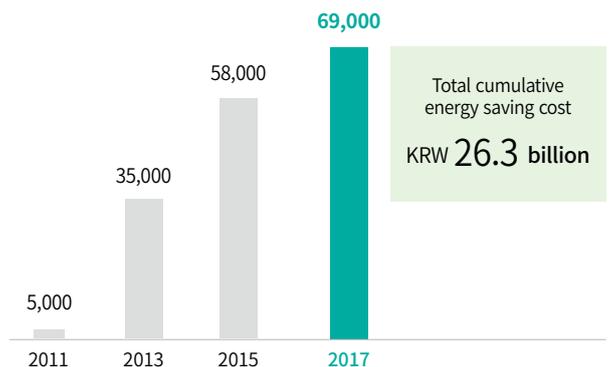
Concept of POSCO Smart Factory Implementation

Energy-saving Lighting System in Steelworks

Since 2011, Pohang Works and Gwangyang Works have been installing natural skylights and related lighting circuit devices and replacing the lighting with high-efficiency LED lighting. As of 2017, approximately 280,000 lamps in the plants and offices have been replaced with LED lights. Total cumulative energy saving cost is KRW 26.3 billion.

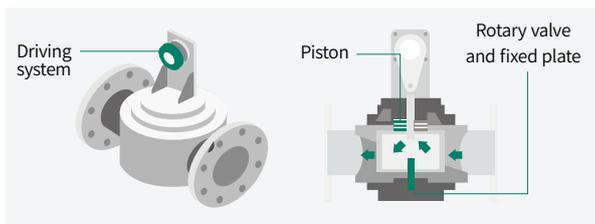
LED Lighting Replacement Records

(Unit: No. of light)



Pulsating Combustion Technology for Burners with Direct Heating Mode

Since 2012, we have developed pulsating combustion technology to restrain the generation of NOx in the combustion facilities at steelworks and enhance combustion efficiency. The technology is designed to feed fuel to the supply pipes at a steady pulsation cycle and promote oscillation to facilitate heat transmission and boost heat efficiency. As a result, fuel consumption is reduced by over 3% with a 30% plus decrease in NOx generation. It was applied to the steel and iron making plant for basic testing in 2014. The scale-up performance evaluation applied to the heating furnaces in the wire rod plant at Pohang Works commenced in 2015 and saw completion in 2017. We plan to monitor the mid-to long-term effects according to the variables of operating conditions and seasons.



Mimetic diagram of a pulsating control valve

Breakthrough Technology Development

Capture of CO₂ from by-Product Gas Using Ammonia Solution

We are working on the development of technology that absorbs and separates CO₂ from blast furnace gas(BFG) by using low-concentration ammonia solution(10% or less). It collects low to medium-temperature waste heat from steelworks and utilizes it as energy sources required to recycle CO₂, making it possible to separate CO₂ at a low cost. We began technology development in 2006, leading up to the initializing of the phase 1 pilot test with a processing capacity of 50 Nm³/hr from in December, 2008. This resulted in the achieving of a CO₂ capturing efficiency exceeding 90% and a CO₂ purity of over 95%. The phase 2 pilot plant project began with a capacity of 1,000Nm³/hr 2010, followed by the completion of construction in July, 2011. In 2012, a liquefaction facility to store the captured CO₂ was built. In addition, together with pilot plant process optimization, the basic design of a commercial facility was completed with an annual capture capacity of 300,000 tons. In 2015, this technology was temporarily transferred to the SMEs in order to promote shared growth of SME(Small and medium-sized enterprises) and Large Enterprise.

Low to Medium-temperature Waste Heat Power Generation Using Organic Rankine Cycle(ORC)

Low-to medium-temperature power generation is a technology used to generate electricity by using low-to medium-temperature heat sources(200-400°C) that are difficult to utilize with industrial waste heat and new and renewable energy sources. To develop low-

to medium-temperature power generation system using waste heat from steelworks, POSCO reviewed the proposal for application and completed the system design in 2016. In 2018, we plan to implement a low-to medium-temperature power generation demonstration project targeting the ferro manganese(FeMn) factory at Gwangyang Works.

Hydrogen-based Steelmaking Process

We are developing steelmaking technologies using hydrogen instead of coal in iron ore reduction in preparation for the era where large-quantity clean hydrogen production would be available. The development of technology utilizing the increased hydrogen concentration of by-product gas from steelmaking for hydrogen reduction is required for the short term. Meanwhile, the long term demands the development of hydrogen reduction steelmaking technology utilizing high-concentrate, clean hydrogen supplied in large quantity. Since 2016, POSCO has been participating in the selection of element technologies for economic and technological feasibility review of hydrogen reduction-steelmaking process led by the government. From 2018 to 2024, we plan to develop the selected element technologies into furnace-based CO₂ reduction type steelmaking technologies. Our goal is to reduce CO₂ by 10% using hydrogen containing reduction gas and low-carbon substitute iron sources.

Social GHG Reduction Activities

High-strength Steel Sheet for Automobiles

Weight reduction is one of the most effective ways to improve automotive fuel efficiency and lower GHG emissions. Generally, a weight reduction of 10% is known to lower CO₂ emissions by 5-8%, although it varies by vehicle type. The thin high-strength steel for automobiles¹⁾ ensures the same strength with a general thick steel sheet, making it possible to manufacture a light vehicle and enhance energy efficiency. Assuming that a vehicle made of high-strength steel sheet travels 19,000km a year²⁾for 10 years, it is expected to indirectly reduce about 1.8 tons of CO₂ emissions over a decade.

1) HSS(High-Strength Steel) and AHSS(Advanced High-Strength Steel) with over 340MPa of strength
 2) Annual mileage of a vehicle(Korea Automobile Testing & Research Institute of the Korea Transportation Safety Authority, 2006)

Social CO₂ Reduction Effect from High-strength Steel for Automobiles¹⁾ (Unit: Thousand t-CO₂)

Category	2010	2012	2016	2017
CO ₂ reduction as of product lifecycle ²⁾	20,230	25,382	34,046	36,081
CO ₂ reduction per annum	2,023	2,538	3,405	3,608
Sales volume (thousand tons)	2,511	3,150	4,226	4,478

1) Reduction of weight by applying the steel to a 2,000cc passenger vehicle is substituted for the CO₂ reduction volume.
 2) As of the use of finished product(automobile) for 10 years

Global automakers are expanding the use of ultra high-strength steel sheet for weight lightening to cope with tightening fuel efficiency regulations in various countries. POSCO has been cooperating with domestic automakers for the development of weight lightening solutions. For example, SsangYong Motor Company applied our high-strength steel sheet to the body frame of SUV model Tivoli by more than 70%. In April 2017, POSCO completed the Gwangyang No.7 CGL(Continuous Galvanizing Line), an automobile steel plate manufacturing line designed exclusively for Giga Steel³⁾, as the first in the world. Gwangyang 7CGL is capable of galvanizing ultra high-strength “Giga Steel” with a tensile strength of 1.5-giga. Yearly production capacity amounts to a scale of 500,000 tons. With the efforts, we recorded 4.48 million tons in the sales volume of our high-strength steel sheet for automobiles in 2017, which increased by 6% from the previous year and by 1.8 times from 2010.

3) An ultra high-strength steel plate with a tensile strength of 980 MPa(1GPa) or higher developed by POSCO that is capable of withstanding a load of more than 100kg per unit area of 1mm² when pulled from both ends until it is torn.

High Energy-efficiency Electrical Steel

Recently, demand for electrical steel, which is largely used for generators, power transformers, and electric motors, is on the rise along with the value of clean energy. Electrical steel can be classified into grain-oriented and non-oriented types according to the magnetic characteristics. Grain-oriented type is a soft magnetic material¹⁾ with enhanced magnetic properties gained by aligning the material’s magnetic domains in the rolling direction through a special process. It is widely used as a core material for such static equipment including transformers, converters and rectifiers. Non-oriented electrical steel features consistent magnetic properties in the rolling and other directions, and is widely utilized in the iron cores of various rotating machines, ranging from large generators to small precision motors. This steel is also suitable for small transformers.

Electrical steel with high energy efficiency has a higher orientation to the rolling direction compared to general electrical steel, improving the energy efficiency of a complete product with its low core loss and high magnetic induction properties. In 2017, POSCO supplied 0.45 million tons of high energy-efficiency electrical steel, a 5% decline from the previous year, but a 1.3 times increase from 2010.

1) Similar to the concept of resistance in electricity, core loss occurs during magnetization and materials with low core loss are highly energy efficient.

CO₂ Reduction by High Energy-efficiency Grain-oriented Electrical Steel¹⁾

(Unit: Thousand t-CO₂)

Category	2010	2012	2016	2017
CO ₂ reduction as of product lifecycle ²⁾	5,560	6,571	7,172	7,099
CO ₂ reduction per annum	185	219	239	237
Sales volume (thousand tons)	183	215	235	233

1) High energy-efficiency grain-oriented electrical steel means products with iron loss of 1.05 W/kg or less.

2) When using finished product(transformer) for 30 years.

CO₂ Reduction by High Energy-efficiency Non-oriented Electrical Steel¹⁾

(Unit: Thousand t-CO₂)

Category	2010	2012	2016	2017
CO ₂ reduction as of product lifecycle ²⁾	33,507	41,343	36,577	41,252
CO ₂ reduction per annum	1,861	2,291	2,032	2,292
Sales volume (thousand tons)	173	213	189	213

1) High energy-efficiency non-oriented electrical steel means products with iron loss of 4.70 W/kg or less.

2) When using finished product(motor) for 18 years.

CASE REPORT

Development of Light-Weight Vehicle Solutions and Automobile Suspension Solutions

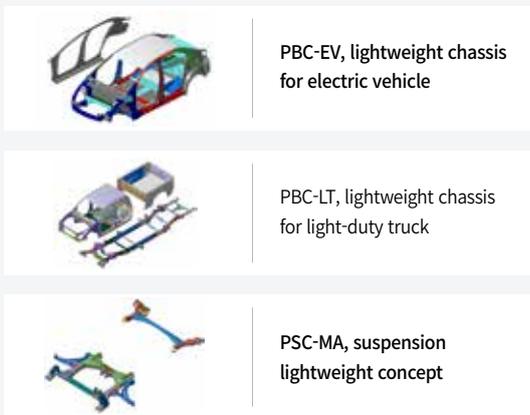
The automobile industry focuses on developing evolved driving modes, such as electric vehicles, and lightweight materials in order to reduce GHG emissions. Following the participation in the Future Steel Vehicle(FSV) project of World Auto Steel to develop a lightweight chassis for electric vehicles in 2011, POSCO completed the development of our own model, the PBC-EV(POSCO Body Concept-Electric Vehicle).

PBC-EV is an example of solution marketing that uses POSCO’s World Premium products, such as TWIP steel, TRIP steel, HPF steel, CP steel and DP¹⁾ steel. Through the application of ultra high-strength steel with a tensile strength of 80kg/mm² for more than 45% and state-of-the-art technologies including hot press forming and PosRollForm, the weight of the chassis is lowered by 26% from that of existing midsize cars of the same size. As a result of assessing the weight reduction effect throughout the entire process from material production to automobile operation and recycling after disposal, the PBC-EV was found to reduce CO₂ emissions by approximately 50%.

Furthermore, POSCO developed PBC-LT(POSCO Body Concept for Light-duty Truck) in 2015 and a low-cost frame by applying a mass-production steel sheet to the PBC-LT in 2016. As a result, we have secured a solution to enable vehicle weight reduction by more than 20% without an increase in the manufacturing costs.

In 2017, POSCO designed a weight reduction concept for the automobile suspension, which supports the vehicle driving system and determines the driving performance. Two types of solutions, PSC-MA(POSCO Suspension Concept-Multi Application), which can be applied to both an internal combustion engine vehicle and an electric vehicle, and PSC-EV-4WD, which is used exclusively for 4WD electric vehicles, are available. With the technologies, the vehicle weight can be reduced by approximately 20% with the performance level equivalent to or higher than that of existing parts.

1) TWIP: Twinning-Induced Plasticity steel, TRIP: Transformation Induced Plasticity steel, HPF: Hot Press Forming steel, CP: Complex-Phase steel, DP: Dual Phase steel



Recycling of Granulated Blast Furnace Slag

Granulated blast furnace slag is made by spraying water onto molten blast furnace slag and then rapidly cooling and granulating it. Granulated slag with a similar chemical composition to cement is utilized as cement raw materials through the pulverization process. The use of granulated slag as a substitute for cement clinker¹⁾ makes it possible to conserve natural resources such as limestone and reduce energy consumption and CO₂ emissions during the cement sintering process. Cement producers therefore mix granulated slag within 5% of the weight in cement production.

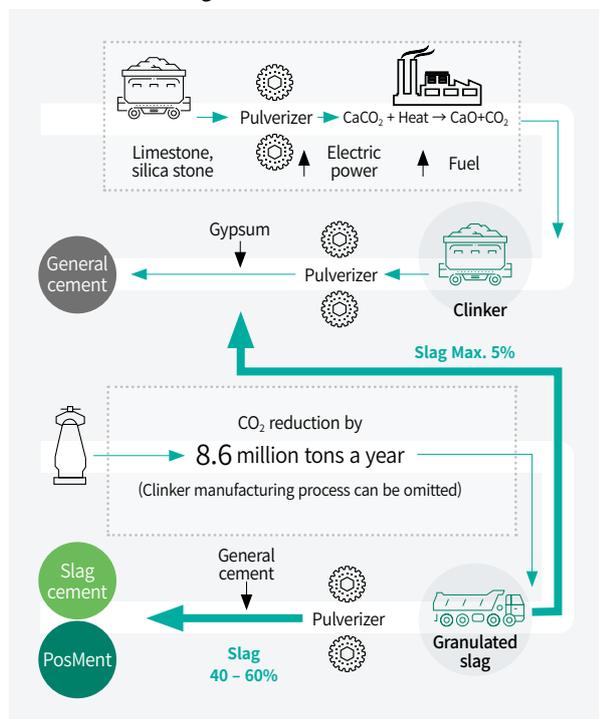
The eco-friendly slag cement developed by POSCO is a combination of general cement and fine-ground slag(up to 40%), which boasts excellent seawater-resistance and the capability of reducing hydration heat. It is mostly used in mass concrete and marine concrete.

Moreover, we are collaborating with RIST and POSCO E&C to develop and distribute PosMent, an eco-friendly and economical

high-functional cement. PosMent boasts a higher content of slag than existing slag cements and distinctive compression strength, reducing CO₂ emissions by nearly 60% compared to existing cement products. In 2017, 10.95 million tons of granulated slag was used as a raw material of slag cement, achieving a reduction of 8.60 million tons of social GHG emissions.

1) Clinker: Made by sintering cement materials such as limestone at a high heat temperature. It becomes cement through the pulverization process.

Cement Manufacturing Process



Carbon Market

Carbon Fund and CDM¹⁾

From 2007 to 2016, POSCO participated in the Carbon Fund, led by the Ministry of Knowledge Economy and aimed at securing carbon credits from CDM(Clean Development Mechanism) projects. Among the credits secured through the fund, 119,000 tons were converted into Korean offsets through governmental authorization in 2016, while 26,000 tons were donated in December 2015 to the Organizing Committee of the PyeongChang 2018 Olympic Winter Games and the Paralympic Games. Particularly, the donated carbon credits correspond to the power generation for a year by twenty 1MW-wind turbines(30% energy efficiency). It will be utilized in offsetting GHG emissions during the entire period of the PyeongChang 2018 Olympics, contributing to the first zero-emission Olympic Games. We have also invested in the Future Carbon Fund of the Asian Development Bank since 2009, which was raised to support GHG reduction projects in developing countries, jointly with the Ministry of Strategy and Finance. We plan to reach 1.2 million tons of overseas credits through 19 CDM projects in Asia by 2023. Our fund

investment activities thus far to pursue co-benefits for sustainable development were introduced at a unit event of COP23 held in Bonn, Germany in November 2017 and were published as a report under the supervision of the Asian Development Bank.

1) CDM: A type of project to invest in GHG reduction activities in developing countries and acquire carbon credits which is tradable in international carbon markets such as the EU. The UNFCCC supervises the process from business registration to certification and issuance of carbon credits.



Asian Development Bank Future Carbon Fund Co-benefit Report

GHG Registry

We had joined the national GHG reduction project led by the Korea Energy Management Corporation from 2005 to 2011. A total of 14 projects were carried out, including power generation expansion by increasing energy efficiency and GHG reduction through renewable energies, which we obtained 3.58 million tons of credits for five years. These credits were converted to Korean offsets in March 2017, and thus will be used in implementation of the Emissions Trading Scheme in Korea.

Green Business

Solar Power Generation

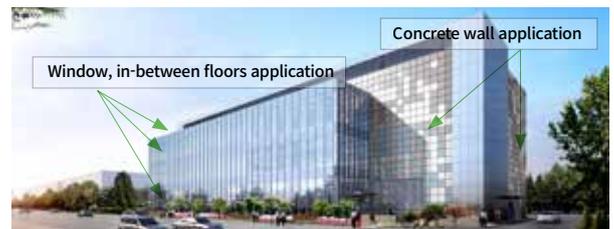
POSCO Energy had constructed a 14.5MW-solar power generation complex on abandoned salt ponds with a land space of 230,000m² in Sinan-gun, Jeollanam-do in three phases from 2011 to 2014. It generates 20,000MWh of electricity annually and will supply the electricity to nearly 5,000 households over the next two decades. It can reduce over 9,000 tons of CO₂ emissions a year, the effect equivalent to planting 2.6 million pine trees every year. It was meaningful in the way that we constructed the complex without damage to the environment by selecting an abandoned salt pond and secured a 16.2% solar electric conversion rate, higher than the national average(15%), by utilizing the abundance of sunlight.



POSCO Energy's Sinan Solar Power Generation Complex(third phase)

Building Integrated Photovoltaic(BIPV)

POSCO is developing the BIPV(Building Integrated Photovoltaic) system with a goal to expand the use of renewable energy in Korea, ensure efficient land use and achieve zero-energy building. In particular, BIPV substitutes the exterior materials of a building. Therefore, it is required to have high structural safety, an insulation property and water-tightness as well as stable power generation efficiency of the photovoltaic modules. We are developing BIPV modules in various colors in order to improve the aesthetic value of buildings at the same time as meeting the performance requirements. In this regard, the new BIPV is differentiated from the existing one where black solar cells are exposed. The color modules will be applied at a 130kW level to the outer walls of smart data centers to be built in Pohang Works and Gwangyang Works. The installation is scheduled for completion in 2018. POSCO have plans to commercialize products that increase the aesthetic value of buildings and ensures convenient installation, and thus enter into renewable energy and building integration business.



Perspective Drawing of Pohang Smart Data Center with BIPV Applied

Smart Grid

POSCO ICT entered the smart grid¹⁾ market with the Smart Grid Demonstration Project in Jeju in 2009. Through the demonstration project in Jeju, we developed the 2MW energy storage system (ESS) and established a microgrid demonstration complex, and thus secured renewable energy output stabilization technology.

ESS is one of the key technologies to realize a smart grid. The surplus power from renewable power plants or inexpensive electricity at night is stored and then utilized during peak hours to reduce energy costs. Starting with the ESS establishment at the Edison Power Plant in Japan in 2014, we have supplied the ESS to the LG Chem Plant in Ochang, POSCO Center and Pohang Works. We also supplied the ESS for frequency control to KEPCO in 2015. In 2016, in line with the government's announcement of the ESS support system, we established the ESS that was connected to the wind power generator in Haengwon-ri, Jeju Island and carried out the central power generation ESS establishment project at Pohang Works. In December 2014, as a part of our efforts for product quality improvement, we completed the ESS test center with the largest scale in Korea to handle ESS manufacturing and testing on a scale of 144MW each year.

In relation to the microgrid, we participated in a microgrid project to supply and connect the ESS to a photovoltaic power generation complex in Sinan in 2014 and built an energy-independent village equipped with a solar power plant and the ESS in Mozambique,

Africa through cooperation with KEPCO in 2015. In 2016 and 2017, we promoted a microgrid project in Canada based on the high-capacity ESS and established a microgrid on POSTECH campus in Pohang respectively. We have been continuously expanding domestic and overseas businesses.

1) Smart Grid: The next-generation intelligent power grid that introduces IT to the existing power grid and enables power suppliers and consumers to exchange real-time information, thereby optimizing energy efficiency



POSCO ICT's Pohang ESS Test Center(144MW)

EV Charging Infrastructure

POSCO ICT established a consortium in Jeju in 2011 to start the private EV charging infrastructure business for the first time in Korea. This business provides total EV-charging-related services ranging from charging infrastructure operation, charging service, and charging control system, for the convenience of EV users. Moreover, POSCO ICT was selected as an EV charging supplier by BMW in 2014, Hyundai Motor Company in 2015, General Motors in 2016 and Jaguar Land Rover in 2017, distributing personal chargers to EV users and providing a public charging service under the brand name ChargeEV. A total of 700 chargers have been installed at E-Mart stores, LG Best Shops, Shinsegae Outlets, Hyundai Department Stores, Accor Hotels, Daemyung Resort and Starfield across the country. A smartphone application service was also launched to help users easily search for the location of chargers and visit them.



POSCO ICT's EV Charging Station

High-speed Lithium Extraction Technology

Lithium, the lightest metal on the planet, is a core raw material for the lithium secondary battery applied to mobile phones, laptops, and EVs. Brine(liquid minerals containing dissolved lithium) and ore are used for lithium production, of which brine boasts cost competitiveness.

POSCO's direct lithium extraction technology does not require a wide evaporation pond, unlike existing evaporation methods, and is less affected by climate change. Since there is almost no loss of lithium during extraction, it is an economical and eco-friendly

technology that extracts the same amount of lithium using a smaller amount of brine compared to existing methods. This method is also effectively applied to ore and can ensure stable lithium product manufacturing even under a condition where the material supply is limited.

In February 2017, we completed the construction of the PosLX Plant with an annual production capacity of 2,500 tons of lithium, and started lithium carbonate production for the first time in Korea. Starting in April 2018, we will be able to flexibly respond to rapidly changing market needs by concurrently producing lithium hydroxide that is mainly used in the batteries of high-performance electric vehicles. POSCO plans to expand the production volume to 40,000 tons a year through continuous technological development and diversification of lithium materials.



Completion of POSCO's Gwangyang PosLX Plant

Triton Sea Forest

In addition to the MOU with the Ministry of Oceans and Fisheries in 2007 to respond to marine climate change, we signed an MOU for the establishment of the marine forest and creation of marine resources, and have cooperated with the Korea Fisheries Resources Agency(FIRA) and the Research Institute of Industrial Science & Technology(RIST) to carry out the marine forest project in 2010.

The marine forest project uses Triton, a product effectively restoring coastal areas impacted by rising ocean temperatures to enable the recovery of marine ecosystem-based resources. Steel Slag, the key material for Triton, is a byproduct generated in the steelmaking process, which contains more calcium, ionized iron, and other useful minerals than ordinary aggregate. This stimulates the growth and photosynthesis of algae and purifies contaminated sediment and seawater. The sea forest consisting of Triton can fixate CO₂ through the carbonation of slag and photosynthesis of algae.

In 2017, POSCO expanded the marine ecosystem purification space by applying 1,196 Triton reefs and 8,630 rocks to a snow crab resource restoration project and Sadong breakwater project in Ulleungdo.



POSCO's Triton Sea Forest Project

Climate Change Partnership

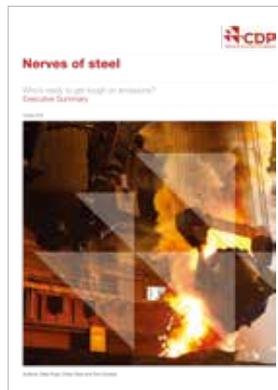
Carbon Information Disclosure

POSCO discloses climate change response activities and CO₂ emissions through the Carbon Report and Sustainability Report and on the company website. Since 2003, we have participated in the Dow Jones Sustainability Index(DJSI) and Carbon Disclosure Project(CDP), and accordingly, our efforts for climate change response are evaluated by an external agency.

The DJSI is a sustainability evaluation index designed by Swiss sustainability rating agency RobecoSAM and Dow Jones, a U.S. based publisher of financial information. They analyze the economic profitability, environmental soundness, and social responsibility of more than 2,500 top global sales enterprises, of which, POSCO had been selected as the leading sustainable company, as well as the best steel brand name for 13 consecutive years from 2005 to 2017.

In the annual CDP evaluation, conducted by the Financial Times to cover 500 companies listed on the FTSE(Financial Times Stock Exchange), POSCO was the only global steelmaker included in the list of the best companies based on the CDLI(Carbon Disclosure Leadership Index) and CPLI(Carbon Performance Leadership Index) in 2010. From 2012 to 2013, we were selected as the best company of CDLI for two consecutive years. Moreover, we have been recognized as a leading company in the raw material sector by the CDP Korea Committee for nine consecutive years since 2009. In October 2016, the “CDP Steel Sector Evaluation,” an evaluation on the level of climate change responses of 14 global steelmakers, also nominated POSCO as the best player, once again proving our commitment to GHG and energy intensity reduction and performance in low-carbon technologies.

We have also been recognized as a leading company in the raw material sector by the CDP Korea Committee for nine consecutive years, from 2009 to 2017.



CDP Steel Sector Report(Oct. 2016)

World Steel Association Partnered Response to Climate Change

POSCO has participated in the climate change countermeasures led by the World Steel Association. As part of this, we have joined the “worldsteel CO₂ Breakthrough Programme” since its launch in 2003 and developed the GHG emission calculation methodology in the steelmaking process. Other participations include the “worldsteel Climate Change Policy Group” since 2007, “worldsteel CO₂ Data Collection Project” since 2009, and the establishment of diverse criteria by the International Organization for Standardization(ISO)¹⁾. As a result of such participations, POSCO has been included in the “worldsteel Climate Action Member” for 9 years in a row since the initial year(2008–2009). Moreover, we joined the “worldsteel LCA Project” that collects data on fuels, raw materials and processes used by the members and publishes the “worldsteel LCI Methodology Report” with the aim of sharing the LCI(Life Cycle Inventory)²⁾ data of major steel products and environmental effect analysis results with all stakeholders around the world..



2016-2017 Climate Action Logo

- 1) ISO TC17/WG21, 「Calculation method of CO₂ emissions intensity from Iron and Steel production Part 1: Steel plant with blast furnace(ISO/CD14404-1) Calculation method of CO₂ emission intensity from iron and steel production Part 2: Steel plant with EAF(ISO/CD14404-2)」
- 2) LCI(Life Cycle Inventory): The list of substances to quantitatively display the environmental impact of resource consumption, which takes place in the entire process from material collection to production, transportation, use and disposal, as well as global warming, ozone depletion, acidification, eutrophication and the generation of photochemical oxides

Technology Exchange and Forums on the Environment & Energy with Global Steelmakers

POSCO hosts the technology exchange meeting to share issues regarding the environment, energy and climate change with domestic and global steelmakers while establishing an industry network. In particular, we exchanged information with European association for steel and steelmakers about harmful chemicals, air pollution regulations and response strategy, such as NOx and GHG, while continuing to perform sustainable technological exchange in fields of environment and energy.

SAFETY AND HEALTH

Safety

POSCO places the highest priority on safety, striving to establish a world-class safety culture through employee-led autonomous safety activities. POSCO is committed to creating a work environment that can protect the health and safety of its employees in a more scientific and effective manner by introducing the latest IoT technologies.

Following the 5.4 magnitude earthquake that struck Pohang, Gyeongsangbuk-do in November, 2017, we established a manual and code of conduct for rapid emergency response including SMS messaging and emergency alert using our own seismograph as part of creating a comprehensive response plan to minimize earthquake damages. From the fact that the seismic center of the Pohang earthquake was only 10 km away from Pohang Works, it is evident we are taking measures to keep our worksites safe from the direct threats of natural disasters.

Smart Safety



POSCO makes a wide range of efforts to prevent disasters. Through the diffusion of “Smart Safety” which applies IoT and big data technology to safety, we anticipate the reduction of human error arising from natural habits while

increasing the efficiency of risk response, ultimately catalyzing a paradigm change in regard to safety activities.

As a result of the “Smart Safety Idea” contest held in 2016 in which all employees participated, nine tasks selected as “excellent ideas” (including a Smart Safety Helmet and Smart TMB) are all being applied to operations at all steelworks.

KOSHA18001, OHSAS18001

POSCO has obtained the KOSHA18001 health and safety management system and OHSAS18001 certification in order to carry out all health and safety-related management activities autonomously and systematically. We are systematically implementing a “safety first” management policy and other safety-related policies on the basis of the PDCA Cycle and are continuously improving the standard of our health and safety activities.

Certification

KOSHA18001	
Pohang Works March 19, 2016	Gwangyang Works February 21, 2018
OHSAS18001	
Pohang Works April 14, 2017	Gwangyang Works June 5, 2017

Safety Score: 2015-2017(Accident Rate)

No. of Accidents (): No. of serious accidents

Year	2015	2016	2017
POSCO	7(0)	10(1)	3(0)
Subcontractors	1(0)	6(3)	4(0)
Total	8(0)	16(4)	7(0)

Accident Rate

Classification	2015	2016	2017
POSCO	0.04	0.07	0.02
Subcontractors	0.01	0.04	0.03
Total	0.03	0.06	0.02

Lost Time Injury Frequency Rate

Classification	2015	2016	2017
POSCO	0.19	0.28	0.09
Subcontractors	0.03	0.16	0.11
Total	0.11	0.22	0.10

* Accident Rate = (No. of accident victims/No. of workers) x 100

* Lost-time injury frequency rate = (number of lost-time injuries /total working hours in a year) X 1 million hours

* Serious accidents

- ① Accident which causes at least one fatality
- ② Accident which simultaneously causes two or more people to suffer injuries requiring at least three months of recuperation
- ③ Accident which simultaneously causes 10 or more people to suffer injuries or occupational disease

* Yearly working hours(for 2017) = Total(71,983,329 hours), direct operations (35,059,077 hours), outsourcing partners(36,924,252 hours)

* 2017 LTIFR(Lost Time Injury Frequency Rate) based on USA OSHA(Occupational Safety and Health Administration) standard of 200,000 working hours: Total(0.02), POSCO(0.02), outsourcing partners(0.02), figures rounded off to two decimal places

Safety Education and Training

POSCO conducts legally required safety training for employees of both directly operated divisions and outsourcing partners in order to foster the safety awareness of employees and minimize safety risks every year. We also provide additional training tailored to each class so as to cultivate necessary safety competencies. Felt-leadership is cultivated for leaders, and training to heighten the onsite safety management competencies is carried out for administrative supervisors so as to foster a safer and healthier workplace. Education geared toward raising awareness and informing about basic safety regulations is provided for all employees to protect against the risks of disaster. In October 2011, POSCO established the Global Safety Center equipped with an exhibition hall, 4D theater, and experience lab which lays a foundation for systematic and continuous training combining theory and practice. POSCO operates safety education and tour programs for students and ordinary citizens as well. In 2017, a VR(virtual reality) experience program was introduced to further enhance the effectiveness of safety training.

Training Tailored to Each Class



Global Safety Center

Training Courses for Each Field

Field	Training/Course Name
Safety	<ul style="list-style-type: none"> • Equipment safety • Handling hights/heavy materials • Electrical safety • Chemical safety • Gas safety • VR experience
Accident prevention	<ul style="list-style-type: none"> • Firefighting safety • Process safety management(PSM) training
Health	<ul style="list-style-type: none"> • Chemical safety • Air respirator usage method and CPR

2017 Class Tailored Training Records

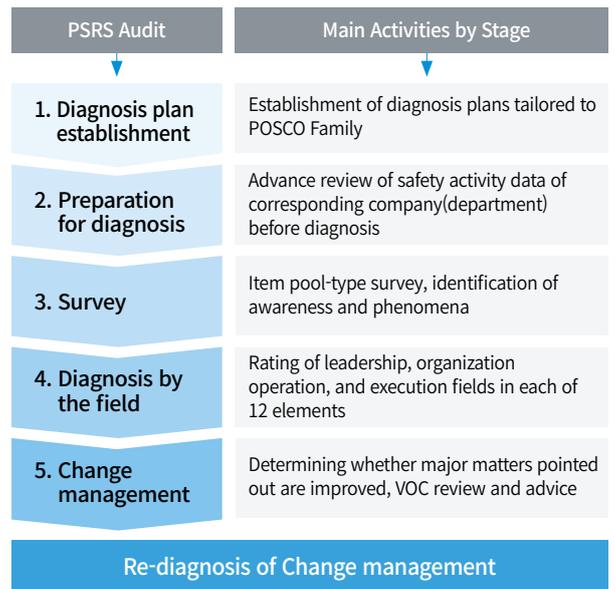
(Unit: Persons)

Division	Direct operations	Outsourcing partners
Pohang Works	10,268	2,759
Gwangyang Works	8,381	10,259

PSRS(POSCO Safety Rating System) Safety Diagnosis Consulting

We operate the POSCO Safety Rating System(PSRS), a safety diagnosis tool to quantitatively evaluate the level of safety in the safety leadership, organization and practice categories based on our safety management expertise. The PSRS procedure starts with establishing a diagnosis plan and forming a team. Pertinent data is then reviewed in advance prior to diagnosis in order to produce a rating after having surveys, interviews and site diagnoses for each of the 12 elements. Rating results are entered into a Bradley Curve to form an evaluation of the level of safety. Following diagnosis, change management is implemented based on evaluation results with continued re-diagnoses carried out periodically in order to promote the steady increase of our safety level.

PSRS Diagnosis Procedure



POSCO Family Safety Management Awards

POSCO has been granting Safety Management Awards to individual POSCO divisions and Family companies that contribute to establishing a safety culture of respect for humans since 2010. We confer awards to two directly operated POSCO divisions, two outsourcing partners, and one affiliate company. Directly-operated divisions and outsourced partner companies are categorized by affiliation to either Pohang Works or Gwangyang Works. In 2016, POSCO was awarded for having demonstrated excellence in safety and health management among overseas manufacturing subsidiaries.

Results of the 2017 Safety Management Awards

Category	Award Winner
POSCO(directly operated division)	<ul style="list-style-type: none"> • Pohang Works STS Rolling Division • Gwangyang Works Hwaseong Division
Outsourcing partner	<ul style="list-style-type: none"> • Pohang SM • Gwangyang JESCO
Subsidiary	<ul style="list-style-type: none"> • POSCO ICT
Overseas corporation	<ul style="list-style-type: none"> • Qingdao Pohang Stainless Steel

ILS(Isolation Locking System)

POSCO has implemented an ILS since 2008 in order to fundamentally remove causes of accidents by blocking energy sources in advance as well as controlling and managing access to equipment while in operation.

ILS is divided into During Stop and During Operation types. When operation is in pause, ILS prevents the sudden operation of equipment during maintenance or repair by blocking, isolating and locking equipment energy sources. During operation, ILS manages and restricts workers from accessing the equipment during operation by classifying the equipment based on the degree of danger. We are realizing the securement of worker safety where, if the access door of Level 1 equipment is opened, the equipment automatically stops operating.

In addition, we operate select model factories of Pohang Works and Gwangyang Works in order to manage risks from the point of view of an equipment inspector, such as by removing duplicate protective doors. This is aimed at securing the safety of workers through ILS and constructing a simple and efficient equipment management environment.

We are striving to secure workplace safety by creating an ILS for both the entire POSCO Group, as well as outsourcing partners. We offer education tailored to the individual companies, diagnose present ILS operation conditions and suggest directions for improvement so as to match the company's needs.

10 Ironclad Safety Rules & Co-worker Love Card

For the sake of accident prevention, POSCO has enacted 10 Ironclad Safety Rules that must be observed at the workplace and that must not be changed or violated and striving to ensure they are observed. When someone violates the 10 Ironclad Safety Rules or standards the leader a Co-worker Love Card(SIR), and when safe behavior is performed, a compliment card is issued.

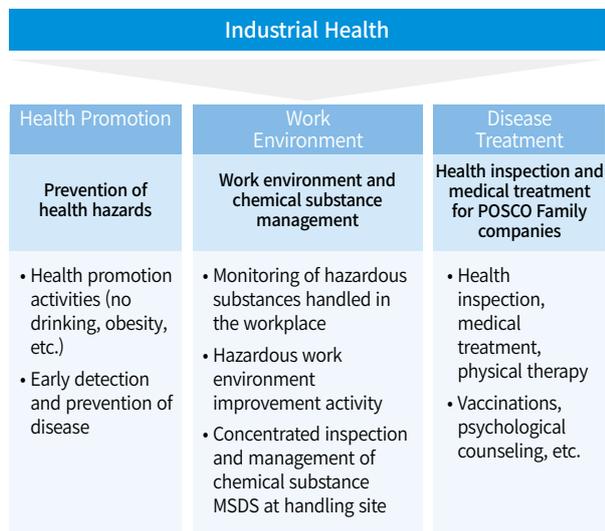
If a worker receives a Co-worker Love Card twice within a year they will receive a warning from the department head, and if they receive one 3 or more times sever measure are taken such as the employee being summoned to an HR Committee. We adopt such measures to induce all employees of both POSCO and outsourcing partners to follow the 10 Ironclad Safety Rules.



10 Ironclad Safety Rules

Health

Based on the philosophy that “Healthy employees make their company healthy,” POSCO is concentrating on advancing industrial health tasks in three areas-health promotion, work environment, and disease treatment. Industrial health involves creating a clean work environment so that employees can work in a healthy manner while simultaneously providing continuous diagnosis of employees’ health conditions and treating diseases in their early stages. POSCO will continue to dedicate the utmost efforts to ensure its employees can enjoy a healthy work life.



Health Promotion

With the belief that ‘the health of our employees is the competitiveness of the company’, POSCO carries out no smoking, healthy drinking, obesity reduction, low salt diet, and ‘No Stress’ activities. Since 2009, POSCO has declared smoke-free steelworks, and employees have shown interest in health promotion, successfully promoting smoking cessation for the love of employees and families. We are also carrying out a healthy drinking campaign for employee health and family happiness at the same time.

In line with company dinner culture gradually changing away from being biased towards drinking towards different activities such as going to good restaurants or attending sports or cultural events, at Pohang Works the “No Passing a Drink, No Pressure to Drink, Practice 123¹⁾” campaign is starting up. In addition, to help employees manage their weight, the “Eight-week health-up Project” is also being operated, with diverse obesity management programs such as a healthy walking campaign, healthy diet development and a bicycle-riding program.

Gwangyang Works is emphasizing the deployment of the 2-2-2 Movement²⁾ and deploying a campaign for a peaceful mind, considering that stress is the first and foremost factor threatening health.

Our Seoul Office operates the “Proud and Confident Health Up Project,” which offers integrated support through specialist health consultation, exercise prescription, and dietary therapy, and offers tailored health promotion programs to improve the physical constitution of all executives and staff. Moreover, we are lowering salt content in food at our company food service facilities and starting a low-salt diet campaign, considering a high daily sodium intake causes high risk of lifestyle diseases such as high blood pressure and obesity is characteristic of Korean food culture.

- 1) Practice 123: Drinking less than twice in one week and fewer than three glasses at one time.
- 2) 2-2-2 Movement: Pour only 1/2 a glass, propose toasts only 2 times, and company dinners should last only within 2 hours.



Pohang Health Promotion Center



Gwangyang Health Promotion Center



Seoul Health Promotion Center

Industrial Health Management

POSCO is exhibiting multifaceted efforts in order to create a pleasant work environment and ensure the sustained health of workers, such as by maintaining a pleasant state of the internal and external work environment that surrounds workers. POSCO is devoting itself to various efforts. We are improving the convenience and performance of personal safety gear that workers wear at worksites in collaboration with suppliers so as to relieve inconveniences related to the use of such equipment. We are also operating the ‘Hearing Protection Program’ at work environments vulnerable to noise. In addition, in confined spaces with low oxygen concentration health standards are enacted and followed, such as the ‘Healthy Work Program for Confined Areas,’ and for chemical substances material safety and health documents(MSDS: Material Safety Data Sheet) following the GHS(Globally Harmonized System of Classification and Labeling of Chemicals) standards are strictly managed. We systematically manage our industrial health by conducting thorough tests for asbestos in advance when demolishing buildings and replacing plumbing.

Stress Management and Psychological Consultation

POSCO was the first company in Korea to operate a counseling center within Korea, which began in the mid-1990s for the sake of employee happiness and mental health. Pohang Works and Gwangyang Works have been operating psychological counseling offices with resident counselors since 2005. Employees and their families can make advance reservations and receive counseling services via their desired method of communication such as visiting the center in person, phone call, or email. The counseling centers focus not only on our employees’ mental health, but safety psychology education and counseling activities have been introduced and are being offered as well. Particularly, we focus on the prevention of safety accidents caused by unsafe behaviors of workers. Our Seoul Office has been providing employees with tailored consultation programs such as psychological tests, and psychological training services tailored to the level of their psychological stability and the characteristics of their age since September 2014 in order to improve the mental health of all members of the POSCO family.

Psychological Consultation Situation

(Unit: Persons)

Year	2015	2016	2017
Pohang Works	998	767	901
Gwangyang Works	890	529	588
Seoul Office	934	850	668

* Operation of special lectures and educational program on psychology in 2017: 49 times at Pohang Works, 133 times at Gwangyang Works, and 38 times at the Seoul Office.

Safety & Health Strategy and KPI

Vision

POSCO the Great
(The Most Respected & Beloved Company Globally)

Goal

To establish global No. 1 safety culture based on smart technology and co-existence

Core Strategies

To secure the foundation for improvement into a leading company in regards to safety	To spread a people-centered safety-first culture	To strengthen mutual trust through emotional leadership	To realize employee-led safety activities
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KPI

<p>Accident rate</p> <table border="1"> <tr> <td>2016</td> <td>0.06</td> </tr> <tr> <td>2017</td> <td>0.02</td> </tr> <tr> <td>2018</td> <td>0.02</td> </tr> </table> <ul style="list-style-type: none"> • KPI definition: An index indicating the number of accident victims, calculated by multiplying the rate of the number of accident victims within the total number of employees by 100 - No. of injury victims/Total no. of workers × 100 - Target for 2018: 0.02 	2016	0.06	2017	0.02	2018	0.02	<p>No. of serious injury victims(persons)</p> <table border="1"> <tr> <td>2016</td> <td>4</td> </tr> <tr> <td>2017</td> <td>0</td> </tr> <tr> <td>2018</td> <td>0</td> </tr> </table> <ul style="list-style-type: none"> • KPI definition: No. of serious accident victims - Target for 2018: Zero serious accident victims 	2016	4	2017	0	2018	0
2016	0.06												
2017	0.02												
2018	0.02												
2016	4												
2017	0												
2018	0												

CASE REPORT

Challenge! Safety Golden Bell

POSCO holds the Challenge! Safety Golden Bell event to improve the safety capabilities of all employees. The finals are held following a two month free study period and preliminaries for each department. We have made it a rule that all employees should participate in the event for the sake of contributing to the establishment of self-led safety activities through voluntary safety capability improvement.



Golden Bell finals



Golden Bellwinner

Safety Video on Commuting Bus

POSCO plays a safety video on commuting buses in order to improve the employees' awareness of safety in everyday life. The video is comprised of content to which the employees can relate and which can provide various types of safety-related knowledge and lessons. POSCO uses a variety of content such as excellent video from the 'Safety UCC Contest' and safety video from outside the company. In the future, we are planning on screening this video to all people entering POSCO's steelworks.



Safety UCC contest excellent video



External safety video

Safety Boom-up Activities

POSCO is implementing various Safety Boom-up activities in which all employees participate. Pohang Works held the Near-miss Contest to discover and fundamentally improve potential risks. Gwangyang Works held the TBM Contest with the goal of recognize risk factors before the start of a job and securing safety in advance.



Near Miss Contest at Pohang Works



TBM Contest at Gwangyang Works

BUSINESS ETHICS

Business Ethics

POSCO established and declared a Code of Ethics on June 2, 2003 for the sake of realizing corporate ethics of a global standard in order to lead ethical management and receive faith and respect from interested parties. After declaring the Code of Ethics, based on the CEO's firm philosophy and intent to fulfill the goals, POSCO has been implementing effective and fruitful ethical implementation activities such as systems and activities befitting a global corporation as well as continuous and systematic training and promotion.

We have set 'Clean POSCO' as our top-level management philosophy and have established a zero-tolerance policy (One Strike-out Rule) in regards to four unethical behaviors including bribery and embezzlement. Currently, we are operating the Ethical Management Executive Office as the organization in exclusive charge of the ethical management of the entire company. Key issues and activities related to ethical management are reported to the management board through the regularly-held meeting of executives under the direct management of the CEO. At the end of the year, we also organize and report the records of ethical management for the year to the Audit Committee, showing how we are operating processes for receiving objective review.

POSCO's ethics management is based upon the principle 'do right things in right way'. It means doing meaningful things necessary to achieve company's management goals and employees' performance under the value of 'business ethics' in a fair and transparent manner. POSCO has been striving to ensure that the ethics management built around employees' voluntary participation is established company-wide.

Ethical Compliance and Systematic Educational Activities

In January every year, a message from the CEO for ethical management is sent out to all employees. At the same time, a pledge is conducted expressing resolve to uphold the Code of Ethics for improving the ethical mindset of employees.

In addition, we recognize the importance of ethical education and continuously develop and operate online and offline education programs for our employees. In particular, we have made the business ethics and sexual harassment prevention training offered as online lectures mandatory. We are encouraging all employees to complete a compulsory course within the respective year. The related training completion rate is managed as KPI.

In addition to online training, we also providing offline lectures matching each employee level and situation. For executives, we operate the 'Executives' Ethics Session' to introduce the company's key policies in relation to ethics as well as ethical trends. During the ethics week, the executives are required to learn the ethics training materials first and then provide the training directly to their employees.

In particular, we conducted 'special education on the prevention of sexual harassment' for the company management and leaders. To establish a healthy workplace culture without sexual harassment,

965 executives/chairmen and 978 leaders/factory heads attended.

As a result, we promote the effectiveness of company operations by conducting customized ethics education program geared toward newly hired employees and newly appointed managers as well as a three-step program categorized into pre-dispatchment, the middle of dispatchment and post-return for employees dispatched overseas subsidiary.

We provide an ethics program against the decline of the ethics mind for employees of the steelworks because they are lack of opportunity to have a training. Thus we intensively conducted an ethics training program teaching about the respect of others during the latter half of the year. The program was geared toward 5,140 on-site shift workers and 2,550 team leaders and managers.

In order to comply with the Anti-graft Act, we have published an e-book illustrating actual cases of consultation which is organized into different sections, including meals, gifts and unethical business practice regarding the Anti-graft Act. The e-book was distributed to all employees for educational purposes and assisting their actual tasks. It was also distributed among all POSCO Group affiliates to serve as a guide for law-compliant activity and operations.

For our outsourcing partners and suppliers, we offer online education annually on the theory and practice of the Code of Ethics, which serves as a basis for ethical management. For new partners, we hold related briefing sessions for the Pohang and Gwangyang regions together with education and ethical pledges.

POSCO also continuously carries out promotional activities and campaigns on corporate ethics to enhance ethical awareness. For strengthening ethics in our organization, we are constantly conducting promotional activities and campaigns for business ethics. Using pop-up notices in the internal business system and notice boards, we provide employees with notices about various ethical practice activities, such as external instruction fees donations, holiday gift return center and the online auction to practice sharing, so as to guide employees' understanding and practice.

Ethics Training Completion Rate in 2017

Category	Completion Rate
Sexual Harassment Prevention	99.7%
Ethical Management	99.5%

Records of Ethical Education for Employees Working Abroad in 2017

Category	Education before Dispatch	Education during Service Abroad	Soft-landing Education
No. of Persons	45	74	59

The Ethics Training Completion Rate for Outsourcing Partners/Suppliers in 2017

Category	Completion Rate
Business Ethics	89%

Operation of Campaign/Corporate Culture of Respect towards Humans and Ethical Practice System

POSCO has prepared and implemented a number of systems and campaigns to establish ethical corporate culture. First, our Code of Ethics is comprised of a message from the CEO on ethical management, the Ethical Charter which specifies the purpose and directions of the Code of Ethics implementation along with the Practice Guidelines which provide detailed behavioral standards by which every employee is expected to abide. Through this, we are encouraging all our employees to hold ethics as the top priority of value judgments.

We are strictly following the ‘One Strike Out Rule to impose severe sanctions against the four major unethical behaviors- bribery, embezzlement, violations of sexual ethics and information manipulation-without question from top to bottom of the company. We are actively pursuing a clean corporate culture where solicitation and graft have no place. We operate the ‘Clean POSCO System’ through which we record and manage records of all occurrences of bribery even in cases where the opposite party withdraws their charges.

This year, we strengthened activities for establishing a corporate culture of respect for humans. We expanded the frequency of our questionnaire survey to expose violations of human rights, such as abuses of power and sexual harassment, to three times a year. The questionnaire survey target was expanded to all POSCO Group affiliate staff, and also included the local employment workforce located overseas in countries, including China and Vietnam. We enforced strict punishment of personnel in violation of ethical business practices. Surveys for the entire staff of outsourced partner companies were also conducted to discourage the overuse of power, while respective punishment and preventive countermeasures were taken for those discovered to have committed acts of violation. Moreover, we conducted a questionnaire twice a year aimed at eradicating abuses of power by employees towards outsourcing partners. We took improvement measures for the violations detected as well as the issues raised through the survey.

We also strengthened our efforts to prevent and eradicate sexual harassment. We revised the sexual harassment prevention guidelines to strengthen the responsibilities of the management of offenders and the protection of victims. Also we put forth various effort including providing special training on sexual harassment prevention for leaders and executives and enforcing the 119 Company Dinner Rule in order to establish a healthy company dinner culture.

We also operate the ‘Ethics Counseling Center’ that offers help through counseling in regards to ethics-related questions or dilemmas and the ‘Unethical Conduct Reporting Center’ through which the unethical behavior of employees can be reported.

Counseling can be received and unethical conduct can be reported through various channels including phone, fax, post and e-mail, and we make sure the counseling recipient/report submitter’s identity is thoroughly protected. We also set up the ‘Abuse of Power Report Center’ on our company website, through which abuses of power involving on stakeholders can be reported.

Reports on Unethical Behaviors (Unit: cases)

Category	Reports
2015	251
2016	270
2017	22

Measures Taken by POSCO in 2017 (Unit: cases(%))

Classification	Inspection
Disciplinary action	10(62.5%)
Warning	4(25%)
Caution	2(12.5%)
Total	16

We also run the Holiday Gift Return Center during holiday periods such as around Lunar New Year and Chuseok and engage in an ethics practice campaign to exchange gratitude instead of gifts. We hold in-company auction among employees for items that are difficult to return. All profits from the auction are donated to the ‘POSCO 1% Foundation’ to help our neighbors in need.

We are also donating to the ‘POSCO 1% Foundation’ the full amount of congratulatory and condolence money received from stakeholders which is difficult to return and employees’ earnings received from lectures based on knowledge gained from work-related activities.

We are making our utmost efforts to help all employees understand corporate ethics and raise ethical awareness through participation in various ethical practice systems and campaigns. For example, we have been implementing the ‘Ethical Practice Program’ which discovers and improves on ethical risks within the departments under the management of individual executives. In 2015, it was promoted from a program categorized per department head groups into a program categorized per executives. In 2017, we made 63 practical tasks by improving the substantive programs for the finding of ethical risk during 6 months. The activity results are linked in the performance evaluations to assign the responsibility.

POSCO Group-level Ethical Management Activities

At POSCO, diverse activities are being conducted to establish ethical management group-wide and to take ethics standards across the group to the next level. We have been dedicating numerous efforts to establishing a clean and transparent corporate culture by expanding the 'Clean POSCO System' introduced for the prevention of improper solicitation to all POSCO group companies.

As for the Improper Solicitation and Graft Act, which is currently in enforcement, we shared the 'Improper Solicitation and Graft Act Consultation Casebook' created as an e-book for the purpose of company-wide compliance with the act and violation risk prevention. We also spread related systems and campaigns including the '119 Company Dinner Rule' for sexual harassment prevention to group companies.

We additionally are conducting relevant activity to expand ethical business practices including the implementation of local ethical education programs and the ethical oaths for POSCO Group affiliates, outsourcing partners and suppliers.

Preventing Ethical Risks on the Global Business Level

POSCO is putting efforts into ethical risk prevention for its overseas subsidiaries and complying with global standards to become one of the leading ethical company.

First, we have revised the 'FCPA Compliance Guidelines' enacted in 2011 into the 'Anti-corruption Compliance Guidelines' in 2016. We adjusted the previous guidelines into company regulations that can serve as a basis for punishment. The scope of application was expanded to not only government officials but stakeholders as well in order to ensure thorough prevention of anti-corruption risks.

On the sidelines of the pledge for compliance with the Code of Ethics, we held the Anti-corruption Compliance Pledge for employees of our overseas subsidiaries to comply with global

regulations. We are continuing to implement a variety of ethical management activities for newly appointed overseas operation leaders such as collective training to enhance the ethical leadership.

We also check the legal compliance status of our major overseas subsidiaries by comprehensively assessing anti-corruption related risks using an independently developed checklist. We have been operating the enhanced corruption prevention program for overseas operations of priority control.

In addition, POSCO has been supporting the preemptive risk prevention activities such as appointing an 'Ethics Helper' at the representative overseas operations for implementing education and coaching to improve the ethical mindset and executive ability. These activities include the implementation of compliance activities through monitoring.

CASE REPORT

Regulations on prohibiting political donations in accordance with anticorruption guidelines

Article 6(Entertainment and Conveniences)

6.1 General Principles

No employee at POSCO shall give or receive any money or valuables in connection with entertainment or conveniences with an unjustifiable intention for the sake of business gains to or from any stakeholder including Korean or foreign public officials and trading partners. Examples of valuables are as follows:

- Marketable securities, real estate, meals, gifts, golf
- Expenses for transportation, accommodations, etc.
- Usage rights or discounts for products or services
- Political contributions
- Other tangible or intangible economic gains such as cancellation or transfer of debts, offering of employment, or granting of rights

Global Human Rights Management

The importance of human rights management is gradually expanding as business becomes more global and its influence on society expands. As the human rights-related problems such as human rights protection, forced labor, and discrimination are continuously occurring, the role of business is being magnified to solve these problems. POSCO is continuously communicating to provide a discrimination-free work environment for all employees to develop together with local communities.

Human Rights Management Based on Code of Ethics

As a member of the UN Global Compact, POSCO honors global standards of human rights and labor. In addition, we abide by global human rights standards including the Universal Declaration of Human Rights, UN Global Compact and OECD Guidelines for Multinational Enterprises through the Code of Ethics. We also aim to establish a corporate culture and work environment where discrimination or torment on the grounds of race, nationality, gender, age, academic background, religion, locale, disability, marital status, or sexual identity is nonexistent and cultural differences are respected.

Recent global trend in ethical management requires proactive coexistence and co-prosperity with ecosystems surrounding companies beyond just the practice of anti-corruption. We also see tightening regulations on respect for human rights and environmental protection in local countries.

In line with such trends, POSCO not only reflects global standards including the OECD Guidelines for Multinational Enterprises in our Code of Ethics, but also includes key content from our internal regulations such as the environmental protection policy and the product quality charter. We also reflect the recently effectuated Improper Solicitation and Graft Act in the Code of Ethics and are operating the code in a timely manner.

The current Code of Ethics specifies things such as the prevention of the discrimination of employees, equal provision of employment opportunities, respect for diverse cultural differences, guarantee of legal and humane employment conditions, and efforts to respect the local society's human rights. The POSCO Code of Ethics is the first in Korea to give form to and specify regulations on protection of and respect for human rights as a separate clause. Thus our code of ethics deserves credit for a global leading ethics in terms of the expressions of respect for human rights.

Human Rights Management Advancement Based on Ethics

POSCO is dedicating our efforts on the basis of four core value; Clean POSCO, One POSCO, Creative POSCO and Top POSCO to realize the vision, "POSCO the Great." Clean POSCO involves considering ethics the top priority in all value judgments during corporate activities. One POSCO involves employees working together to achieve common goals and seeking to achieve growth together with external stakeholders.

POSCO is striving to enable the real practice of the philosophy in everyday life by connecting it to effective systems rather than regarding it only as an ideological declaration. The Ethics Counseling Center and Sexual Harassment Counseling Center provide counseling services on human rights. For serious cases, we investigate and take action promptly. As such, POSCO is dedicating efforts to protecting and respecting the human rights of our employees.

We are putting forth efforts to prevent the infringement of human rights of each employee by exposing the violation such as sexual harassment and abuse of power by the questionnaire survey on human rights. This year, in particular, we conducted another respect for humans questionnaire survey concerning abuses of power towards outsourcing partners with so as to-protect and respect the human rights of our external stakeholders as well.

We are also actively preventing the sexual harassment by revising the clause for the protection of victims in the sexual harassment prevention guidelines. In addition, we established a compulsory e-learning course on sexual harassment prevention for all employees. Moreover, we established and implemented the '119 Company Dinner Rule' for propagation of a healthy company dinner culture. POSCO also continuously strives for the perception and minimization of human rights abuse risks in our global business activities by conducting questionnaire surveys on human rights management conditions and levels of implementation at our overseas subsidiaries. Thus, we ultimately aim to stabilize the awareness of the importance of human rights management at the overseas subsidiaries.

CASE REPORT

Human Right Due-Diligence Process

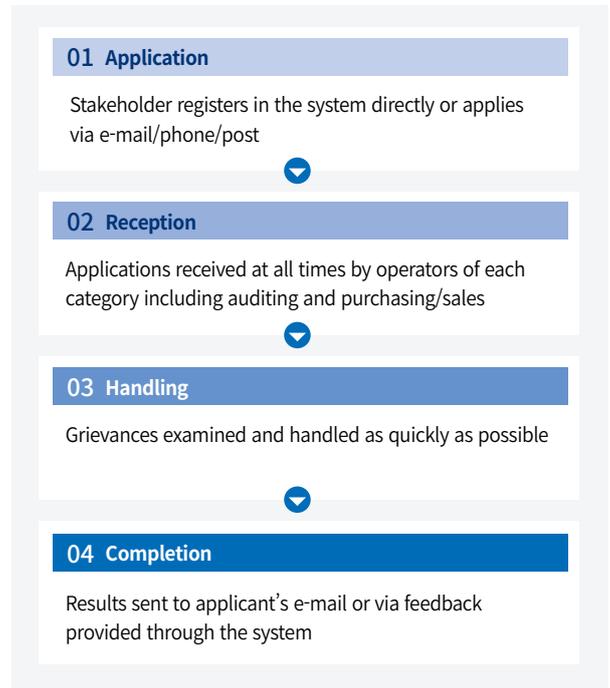
In order to fulfill the responsibility for human respect, POSCO implements due-diligence to identify, prevent, alleviate and assign due responsibilities for negative impacts on human rights. This includes the assessment of the real and potential impacts on human rights, recording the responses taken to the discovered facts and communication with stakeholders on how the impacts were handled. The human right due-diligence process is outlined below.



System for Addressing Human Rights Grievances: Sinmungo System

POSCO has been implementing the improvement in terms of human rights by the reflection of stakeholders voice into the management through various channels. The “Sinmungo,” or grievance mechanism, which is currently operated on our website(www.posco.com) and the e-commerce website(www.steel-n.com) has been developed to receive and address stakeholders’ questions and grievances. It serves as an online channel to connect between the company and our stakeholders. Through this mechanism, we can receive reports on human rights abuses and ethical violations as well as requests for improvement of unfair practices and consultation in regards to business-related difficulties. We have been improving the grievance mechanism to ensure the reflection of the local employee’s opinions by providing reporting/consultation services in six languages including English, Chinese, Vietnamese, Iranian, Thai and Indonesian.

Process for Addressing Grievances



We prohibit all acts that can lead to exposing the identity of informants for this system to work properly. Also we make a stipulation to punish the cases of violation of this prohibition. We ensure the protection of human rights of the informant through holding of ‘Informant Identity Protection Pledge Ceremony’ by the Corporate Audit Department employee on an annual basis.

EMPLOYEES

Organizational Culture

Improving Communication between Generations: Talk Talk Camp

POSCO organizes the “Talk Talk Camp” to promote communication between generations with different characteristics and values. This two-day camp includes various activities including a “psychological role-play” in which conflict situations within the organization are recreated in drama-form, with the performers switching roles amongst each other. In 2017, around 1,000 leaders and employees who had been with POSCO for less than five years participated in the camp and experienced performance creation through communication. In 2018, we plan to hold this camp again in order to expand sincere communication and sympathy between generations.

Efficient Way of Working: Direction/Reporting/Meeting Culture Improvement

To minimize operational inefficiencies, POSCO is promoting activities to improve instruction, reporting and meeting cultures. In 2017, we selected model departments and arranged for each one to perform autonomous improvement activities reflecting its individual characteristics. Members propose their own ideas and personally create realization guides, together changing the method of doing work. In the future as well, POSCO will lead the way in establishing a Work Smart culture to protect the Work & Life Balance of employees in addition to improving the level of concentration on work by ensuring “clear directions,” “succinct reporting” and “efficient meetings.”

Building a Culture of Mutual Respect: Improvements in Attitude of Superiority

Improvement in regards to attitudes of superiority is an organizational culture improvement activity that POSCO has been promoting since 2014 with the goals of preventing factors leading to internal and external conflicts in advance and establishing the basic environment for generating synergy. It is not just a campaign to eradicate the attitudes of superiority but contains the meaning of improving on the irrational practices as a whole and causing change in the constitution of our organizational culture. We have a plan to establish a ‘culture of consideration and respect for one another’ by cleaning out attitudes of superiority that still remain in our company, and thus continuously race to produce better results.

Developing a Positive Work Environment: Promoting Thanks Sharing

We are operating various campaigns and special educational programs for each class of workers so as to allow the natural everyday realization of the ‘Thanks Sharing’ communication method, which involves showing mutual respect and consideration. In 2017, particularly, we introduced the ‘Thanks Coupon’ to encourage the leaders to set an example. In addition, we published the serial ‘Thanks Relay’ where employees introduce episodes to thank one another. We have a plan to continuously push forward so that through such activities all employees participate in thanks sharing activities and establish a positive communication culture including thanks/compliments/encouragement, which will provide help to employees during the performance of work tasks.

Communication Activation: CEO Letter and Employee Meeting

The CEO Letter is delivered on a regular basis to share information on important social and industrial trends for the sake of securing the expansion of the future competitive edge of the company and build consensus on the future course to take amongst employees. In addition, we have been held on communication meetings where employees from various levels and fields can communicate directly with the CEO to listen the vivid opinions within the entire group and spread management philosophy. This meeting was held eight times in 2017, through which employees’ could feel self-esteem and a sense of belonging as members of the POSCO Group.

Employee Satisfaction

Every year we have been carried out the ‘P-GWP(POSCO-Great Work Place)’ survey targeting all employees. Through this we measure the level of satisfaction employees feel in regards to their work and the organization as well as their degree of immersion in their work. The results of the survey show that POSCO Group employees feel a sense of ownership to a globally leading degree and are experiencing a great sense of accomplishment through task fulfillment.

The P-GWP index for 2017 came out to 78 points(100 points is perfect score), which is very high compared to other large Korean businesses. In the future as well, POSCO plans to work hard to embody the ideals of bidirectional communication and smart communication as well as to boost employee engagement.

Employee Satisfaction Survey Result (Unit: Points, on a scale of 100 points)

Classification	2015	2016	2017
Employee Satisfaction	71	77	78

Improving Work Environment for Female Employees

We have been built a working environment that alleviates the burden of pregnancy and childcare to help female employees concentrate on their work. We also offer education and information for a future vision for advancement so that they can make the most of their capabilities.

Childcare Solution

Daycare Center Operations

We operate daycare centers in Pohang, Gwangyang, and Seoul accommodating a total of at least 480 people, through which we are contributing to relieving infant care burdens thereby expanding female employment, as well as to solving the low birthrate problem.

Lounge for Female Workers

We have provided lounges for female employees including spaces for nursing, thereby showing consideration to them so as to make sure they do not experience difficulties while working.

Parental Leave System

Parental leave can last for a maximum of up to 2 years, in addition to 90 days of maternity leave around the time of childbirth. No disadvantages in regards to promotions or evaluations shall be imposed on the grounds of an employee having taken maternity/parental leave. Applications for parental/maternity leave are dealt with through a notification system so that employees are able to easily take advantage these leave benefits.

Prohibition on Discrimination / Diversity

POSCO has established human rights protection on the basis of its management as we regard it as the most valuable type of asset. We have included such ideas in the Code of Ethics to follow the compliance.

Practical Guidelines for the Code of Ethics: ④ Respect and Equality

- We shall not discriminate or harass on the grounds of race, nationality, gender, age, educational background, religion, region, disability, marital status, or sexual orientation.
- We shall provide equal employment opportunities to those who possess the necessary qualifications and capabilities.
- We shall maintain a work environment that respects cultural diversity.

Employment Stability and Job Security

At POSCO, there has been no company-led large-scale layoff or forced termination of employment for business recovery or increasing profitability since its establishment. Job security is guaranteed by the Article 36 of Job Regulation “Employees shall not be terminated or dismissed without a just cause.” Even in case of obvious reasons for dismissal such as violations of laws, the decision on whether to fire the person is made after a strict deliberation by the Human Resources Council. Notification should be made 30 days prior to dismissal. If this rule is broken, compensation worth of 30 days’ ordinary wages is compulsory. Going forward, POSCO will continue to improve its rules and procedures to enhance employment stability and job security.

Employment Regulations

- Article 36.(Job security) The company shall not take disciplinary action against, terminate the employment of, suspend or dismiss employees without just cause.

Flexible Work Program

The company has been operating the flexible work program since July 2011 with the aim of creating an environment for job commitment by flexibly adjusting work hours in accordance with job features and individual needs. Targets for this program are employees working at all departments in the head office, female employees at the steelworks and male employees at administrative positions. They are free to adjust their hours as long as they work eight hours a day including the core hours between 10:00 and 14:00 within 40 hours a week. Our employees are utilizing this system for self-development such as language studies and childcare on the personal side, and for late-night concentrated research work on the business side.

Since July 2017, POSCO have operated the “childcare support working hour system” to help employees achieve work and life balance. This system is comprised of a “complete autonomous working hours system” under which employees can adjust their

working hours flexibly within the range of 40 hours a week, “conversion type working hour selection system” under which employees can reduce their working hours down to four to six hours a day during a set period of time and “duty sharing system” under which two employees team up and complete the operations of one person by working four hours each. Currently, our employees can use the three systems for up to two years.

Fair Evaluation and Compensation

POSCO operates a fair and objective employee evaluation system to ensure reasonable rewards for their performance. Employees set up and implement MBO plans in line with the goals of their organizations and annual achievements are evaluated by a 4-stage procedure (self-assessment, 1st assessment, 2nd assessment, and 3rd assessment). In particular, to ensure fairness in evaluation, the 2nd assessment and 3rd assessment require a group discussion (Calibration) on all members’ annual performance in which all of the 2nd and 3rd stage evaluators participate. Assessment results are fed back to evaluate through a one-on-one interview. An appeals system is available to anyone who does not accept the results. Our salary system considers two aspects: the stability of employees’ livelihood and rewards adequate for performance. Salary is increased based on service period and inflation rates, so that employees support their families in a stable manner. Pay increase is differentiated in accordance with their performance evaluation results. In addition, POSCO operates a variable performance-based bonus system under agreement between labor and management. We apply the same salary standards to both male and female employees.

Welfare Benefits

POSCO have been contributing a portion of the company profits to the employee welfare fund to improve the quality of life of employees. The fund is used for loans for housing and living, tuition fees of employees’ children, optional welfare benefits, family events, and support for disabled family members. We also operate recreational facilities and medical checkup centers for the leisure life and health improvement of employees. Large-scale culture and sports facilities were built in Pohang and Gwangyang in 2011 and the Goheung Family Center opened in 2012. Medical checkup services for spouses and group insurance were introduced in 2012 and 2013, respectively. We also expanded medical expense support in 2013. In 2016, the company improved the tuition fee support system for multi-child families and launched bereavement leave in the event of the death of maternal grandparents for the sake of gender equality. In 2017, we adopted our unique working hour system to systematically support pregnancy, childbirth and childcare. For example, there are complete autonomous working hour system and conversion type working hour selection system and the increased subsidy of the birth encouragement and the scholarship fund for kindergarteners.

In addition, the GWP (Great Work Place) campaign has been

implemented in collaboration with the Labor-Management Council at the company-wide level since 2014. It has contributed to further improving HR and education systems and simplifying administrative work, creating a desirable work environment with a high level of affective commitment. We have also pursued a movement to comply with basic regulations to sharpen our fundamental competitiveness and at the same time build a great workplace for employees.

Category	2015	2016	2017
Contributed amount	59.3	62.0	57.2
Cumulated contribution amount	992.1	1054.1	1111.3

Category	2015	2016	2017
Payroll ¹⁾	1,439	1,492	1,490
Allowance for retirement ²⁾	139	161	130
Legal welfare expenses ³⁾	112	117	125

1) Payroll: Monthly salary, bonuses, welfare expenses(meal allowance, personal pension subsidy, performance-based benefits, incentives)

2) Allowance for retirement: Allowance for retirement benefits for the year (excluding executives)

3) Legal welfare expenses: National pension, health insurance, employment insurance, industrial accident compensation insurance, and wage claim guarantee insurance charges

Category	2015	2016	2017
National pension (company's contribution)	39.0	39.2	39.6
Personal pension subsidy	7.8	8.2	8.1
No. of beneficiaries of personal pensions	6,720	6,646	6,478

Labor-Management Council

Based on the Act on the Promotion of Worker Participation and Cooperation, the Labor-Management Council was launched as an employee representative body on November 17, 1997. It consists of 20 members from the management and worker representatives. Labor members on a three-year term are selected by direct and secret voting. Currently, the seventh Labor-Management Council which was appointed in November 2015 is in service. With the members' terms expiring in November 2018, the eighth Labor-Management Council elections will be held in October of this year.

The worker representative members negotiate on company-wide interests including wages, working systems, welfare, productivity, compensation, safety, and health. They attend company operation meetings and regular and ad hoc meetings to share information on corporate business activities, playing a role as a communication channel between the management and employees.

The company holds quarterly presentation, discussion meeting and workshop in order to form a consensus on business activities and corporate policies with both labor members and unit members.

The Labor-Management Council has affiliate organizations such as the Steelworks Council, Division Council, Department-Office Council, and Factory-Section Council. Particularly, the Factory-Section Council consists of about 390 members as the smallest unit council. The Labor-Management Council not only holds a regular meeting at the end of each quarter to discuss ways for co-prosperity between the company and employees and improvement of welfare benefits, but also strives to solve employees' difficulties and grievances, gaining trust as a representative body.

Moreover, the council takes the initiative in the 1% Sharing Movement, GWP campaign, prevention of safety accidents, and improvement of organizational culture. It also plays a leading role for the safety SSS(Self-Directed Safety Spread) activities to create a happy workplace.

HR Development

Global Player	Creator	Executer
 <p>Talents with global competence and open minds who can play a roles global business</p>	 <p>Talents who can readily rise to challenges with unwavering commitment and passion to achieve the highest goal and create new values through unique perspective and approach</p>	 <p>Talents who can fulfill the role given to them with high-caliber skills, knowledge, and professional consciousness in their fields</p>
<p>Global Competence A global mindset, business etiquette, and communication skills such as language and IT to lead the global age</p> <p>Openness Quality and competence to build mutual trust by understanding and respecting diversity and differences based on an open mind and actions</p>	<p>Challenging Spirit Devotion and passion that voluntarily set high goals and bear up against any hardship</p> <p>Creativity Ability to understand phenomena and problems with a new perspective and present original alternatives and solutions by analyzing and integrating them</p>	<p>Professional Competence Expert skills, knowhow, broad perspective, and insight in their fields</p> <p>Professionalism Commitment to fulfilling basics and principles with healthy thinking and ethics and responsibility to complete assigned tasks with self-esteem and pride</p>

Recruitment Process

Since 2003, we have been selected talented person by using “the Structured Selection method: to recruit the right people who is the best for our culture. It is a tool to minimize disparity among evaluators and hire talents suitable for the task by systematically conducting interviews and using evaluation criteria in line with a set procedure.

The recruitment process consists of four steps-document screening, PAT(POSCO Aptitude Test), job competence evaluation, and value suitability evaluation. Since 2016, POSCO has changed its scheme from existing job group-based to academic course-based recruitment(science and engineering, humanity and society) to select convergence of talents. Also we prefer double major applicants get preferential treatment.

*The following presents POSCO’s open new employee recruitment process.

Step 01. Document Screening	Step 02. PAT(POSCO Aptitude Test)	Step 03. 1 st interview(Job Competence Evaluation)	Step 04. 2 nd interview(Value Suitability Evaluation)																		
<p>We evaluate applicants’ basic qualifications, motivation for application, personality, creed, and commitment to growth written on their application form. The level of an applicant’s job understanding and suitability is assessed through a job essay in which the applicant’s academic background, certificates, and activities related to the job are described.</p>	<p>PAT is an objective and fair recruitment process to check applicants’ basic job competence, creativity, and personality.</p> <table border="1"> <thead> <tr> <th>Classification</th> <th>Test Content</th> <th>No of questions/ Time required</th> </tr> </thead> <tbody> <tr> <td rowspan="4">Aptitude test</td> <td>Language: Expression, understanding, reasoning, derivation of conclusions</td> <td rowspan="4">120 questions/ 85 minutes</td> </tr> <tr> <td>Math: Data calculation, general mathematics, mathematical thinking</td> </tr> <tr> <td>Space/Schematic: Space perception, rotation, pattern, development</td> </tr> <tr> <td>Common sense: Management, economics, society, culture, current affairs, history, POSCO-related questions</td> </tr> <tr> <td>Personality test</td> <td>-</td> <td>375 questions/ 50 minutes</td> </tr> </tbody> </table>	Classification	Test Content	No of questions/ Time required	Aptitude test	Language: Expression, understanding, reasoning, derivation of conclusions	120 questions/ 85 minutes	Math: Data calculation, general mathematics, mathematical thinking	Space/Schematic: Space perception, rotation, pattern, development	Common sense: Management, economics, society, culture, current affairs, history, POSCO-related questions	Personality test	-	375 questions/ 50 minutes	<p>The job competence evaluation consists of AP/GD, a job suitability interview, and a history essay to comprehensively identify applicants’ values and job capabilities.</p> <table border="1"> <tbody> <tr> <td>AP/GD Interview</td> <td>Applicants are required to conduct AP(Analysis Presentation) on a given task and a group of five to six applicants attend the GD(Group Discussion) on the contents. The AP/GD interview aims to evaluate applicants’ strategic thinking, creative problem-solving, teamwork, and communication skills.</td> </tr> <tr> <td>Job suitability interview/ personality interview</td> <td>The job suitability interview is carried out to evaluate the level of applicants’ job competence in various aspects, such as adjustability into the company, adaptability, growth potential, and knowledge, skills and attitudes appropriate to the job they applied for. It is conducted by interviewers from each department based on National Competency Standards(NCS). Evaluation on basic engineering capabilities such as physics, mathematics, and chemistry as well as job knowledge is required for technical jobs.</td> </tr> <tr> <td>History essay</td> <td>Applicants describe their opinions about given historical topics, through which the company identifies their knowledge of history and the humanistic insight.</td> </tr> </tbody> </table>	AP/GD Interview	Applicants are required to conduct AP(Analysis Presentation) on a given task and a group of five to six applicants attend the GD(Group Discussion) on the contents. The AP/GD interview aims to evaluate applicants’ strategic thinking, creative problem-solving, teamwork, and communication skills.	Job suitability interview/ personality interview	The job suitability interview is carried out to evaluate the level of applicants’ job competence in various aspects, such as adjustability into the company, adaptability, growth potential, and knowledge, skills and attitudes appropriate to the job they applied for. It is conducted by interviewers from each department based on National Competency Standards(NCS). Evaluation on basic engineering capabilities such as physics, mathematics, and chemistry as well as job knowledge is required for technical jobs.	History essay	Applicants describe their opinions about given historical topics, through which the company identifies their knowledge of history and the humanistic insight.	<p>The final step aims to check how appropriately the applicants match with the image of right people that POSCO looks for. This interview is conducted by the management. The applicants’ challenging spirit, creativity, organizational adaptability, and ethicality are comprehensively evaluated through Q&A.</p>
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Global Talents Cultivation

Since its establishment in 2015, the POSCO Group University has been at the forefront of nurturing the talents of employees of the entire POSCO Group to realize the vision “POSCO the Great.” In 2017, we focused on education to improve competitiveness in response to Industry 4.0, the global innovation trend. In addition, We nurtured future management leaders and experts armed with POSCO’s visions to grow the group into the global No. 1 company.

2017 Highlights

First, we strived to bring the employees together for the next 50 years as we celebrated our 50th anniversary by fostering talents to respond to the era of Industry 4.0. On the company-wide level, we operated “Smart POSCO” education for all employees of the POSCO Group(until 2018) to reestablish our founding philosophy. On the departmental level and that of individual employees, we activated education to build a trust-based organizational culture, such as by supporting the establishment of strong worksites through education considering the lifecycles of employees on the monthly wage system, operating a daily learning and working system as the first among large enterprises in Korea and providing systematic entry-level training to employees with short terms of service in the annual salary system and educational contents to improve the employees’ understanding of the organization and different cultures between generations.

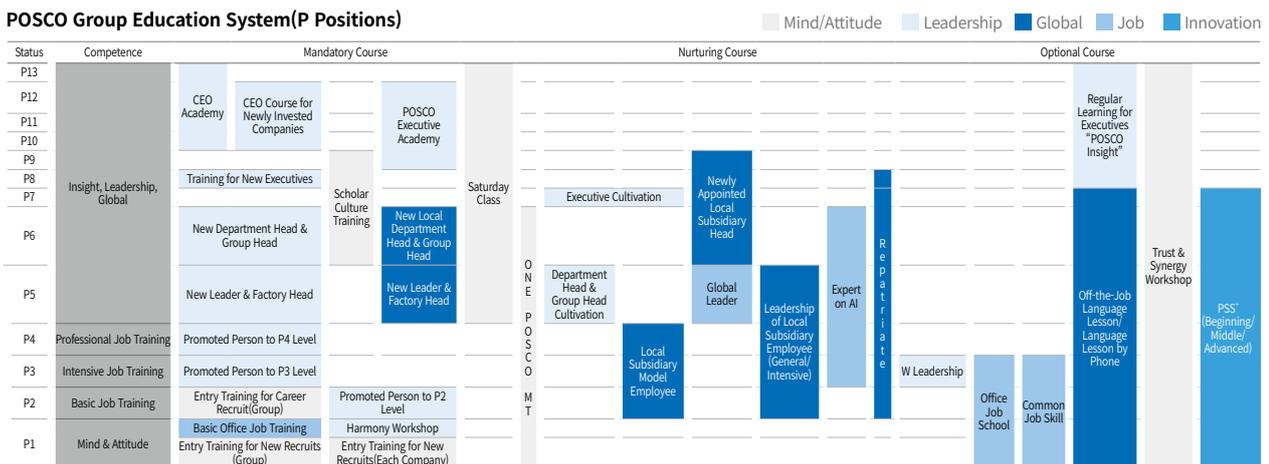
Second, we developed a systematic training program to foster talents in response to the rapidly changing era. To nurture management leaders with financial capabilities, we gradually expanded coaching and mentoring as well as financial coaching programs in the CEO course for newly invested companies. In the POSCO Executive Academy, an advanced course on finance was added so as to help executives develop their individual capabilities through learning. We provided the training such as knowledge, leadership and group policies according to the reestablished R&R for leaders. The training course was strengthened the customized education on the basis of assessment center. Also it is improved

to implement the business challenges by each major area. The promotion of P2, P3 and P4 were guided to study the R&R by class and work skills to complete tasks by themselves. A job competency certification system was introduced for general employees through which they receive certification after improving their capabilities through common and professional courses to foster talented individuals equipped with good personality, creative abilities and professionalism.

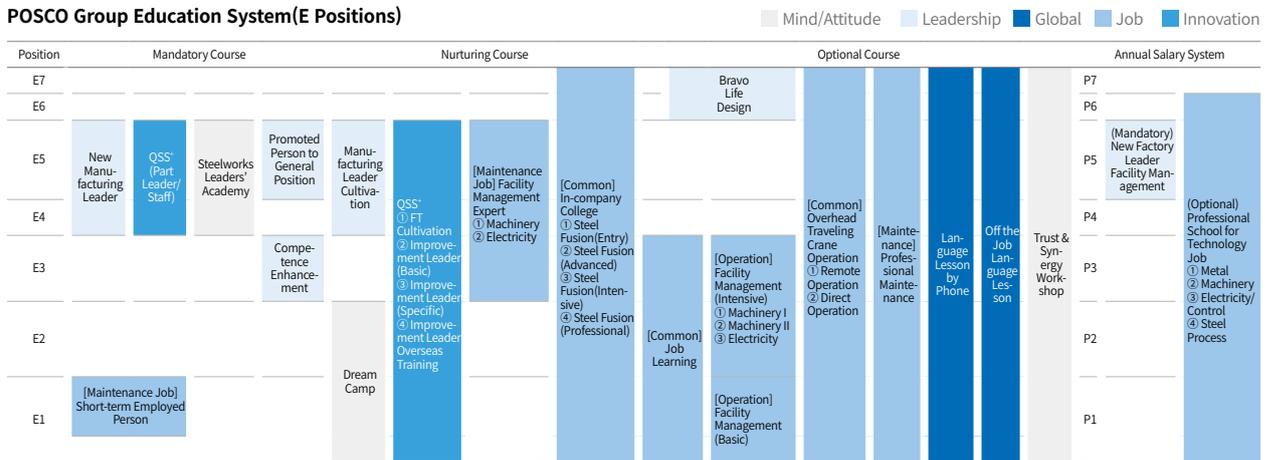
Third, the field-centered solution provider’s role was enhanced. POSCO strived to support field-centered activities by strengthening My M&S-oriented QSS⁺ and foremen QSS⁺ practice education, and improvement of leaders’ educational contents. Customized coaching, collaborative expert WS, and One-Point lessons supported the project. In addition, we tried to respond to future society and operate the programs effectively by improving GB/BB/MBB content for large-size data analysis and utilization. We also established our own innovation methodologies through job-related education and consultations. Affiliates and overseas subsidiaries provided customized education which reflected the process characteristics(order, contract, and logistics) to train an innovation-led class and spread POSTIM which is tailored to overseas subsidiaries. They also carried out the PSS⁺ process and QSS⁺ activities suitable to group’s site situations and innovation capabilities.

Fourth, we strived to raise our profile as a professional educational institution by emphasizing humanity and manners between people, which can be neglected in the era of Industry 4.0, and thus aiming to help our employees develop themselves into human beings with complete personalities. In terms of management, we advanced the productivity and management system through innovating the business and revenue structure for the education center. From organization management perspective, we also enhanced the innovation of the education center structure and the ethics-based s-based GWP organizational culture such as the development of contents and process and the training of experts and S-grade instructors.

POSCO Group Education System(P Positions)



POSCO Group Education System(E Positions)



Fostering Talents to Lead the Future and Developing Organization Culture based on Creativity and Reliability

POSCO operated the artificial intelligence(AI) trainings separately by target for successful implementation and the rapidly spread of the Smart Solution in the company. This trainings are comprised of the basic course and expert course for the employee of POSCO and affiliates. The AI expert course is provided through collaboration with POSTECH Information Research Laboratories. To foster AI experts, 27 trainees were selected and provided with basic and advanced training programs for four months(off-job for two months and on-job for two months). In this course, the trainees studied the method for convergence-type utilization of the domain knowledge obtained in the field and the key AI knowledge by learning and practicing professional AI knowledge and discovering and executing individual AI projects. They also learned the capability of effectively support for smart task solving in the field. By more extensively developing educational content, POSCO, through collaboration with POSTECH, will continuously cultivate experts to lead Smart POSCO by 2020.

The basic course is a three-day group training course targeting all POSCO employees and those of POSCO affiliates. It was provided sequentially from leasers to general employees. The curriculum for this course is comprised of the latest technological innovation, which is represented by the fourth industrial revolution and business model change, understanding of big data and AI technologies and internal and external smart case studies. For the improvement of somatization, the leaders participated in the workshops for the change management and the formation of consensus. Also the employee practiced the Posframe for the advancement of smatization capability. In 2017, 2,414 people from the POSCO Group completed this training over a total of 49 courses. In 2018, we have a plan to introduce differentiated training content by office and mechanical sectors targeting approximately 2,000 people in the POSCO Group.

POSCO held Talk Talk Camp to build trust and promote communication between generations in an attempt to establish an organizational culture of creativity and innovation. Talk Talk Camp was held 18 times from May to October. The programs are organized to create the performance by improving their understanding and communication between classes and generations for employees who had worked in the company for less than five years during 2days. Under the slogan, “Smart POSCO, Smart Talk Talk,” the participants experienced communication programs as well as special lessons designed with music, a role-play session, Mutual Bond Talk and an activity to build a smart steelworks using Lego blocks.

POSCO has been organizing positive organization workshops for four years. In 2017, under the keywords “base for a culture of trust,” we started the “Mutual Bond Plus Workshop” to select organizational culture in a team(group) unit. The Mutual Bond Plus Workshop is the only organizational-unit education program in POSCO. From March to December, it was held 52 times at POSCO’s facilities including Guryongpo Family Training Center in Pohang, Baegunsan Mountain Training Center in Gwangyang, and Songdo Global Leadership Center. This workshop was developed to help our employees select the values by themselves and promote communication on the basis of the selected values so as to function as priming water for POSCO vision.

The e-learning program contributed to the training of the talented through establishing the on-line learning environment in 2017. We improved the personalization and convenience of the system by applying new technologies to the HRD web portal, such as training course recommendations based on big data analysis, developing a micro-learning platform and providing one-click learning routes through the EP Portlet. A total of 1,009 e-learning programs were operated(758 in Korea and 251 abroad) through which 220,000 people received education through the HRD web portal.

We designed a compulsory course covering POSCO Group’s three major issues, developed the “New Mid-term Strategy” and “Industry

4.0” to spread our management philosophy and issues rapidly. Also we provided courses specialized to POSCO affiliates, such as “Information Protection” for POSCO E&C and “FEED Course” for design capability improvement. As we developed a “safety course” including VR experience both last year and this year, we gained the Smart Training Class 1 from the Ministry of Employment and Labor. In addition to new course development, we applied IT(VR, simulation) to the existing basic courses for the steelmaking process and facility diagnosis courses that needed to be refreshed in order to strengthen the employees’ job capabilities in the field.

As the post retirement life-long education, “Green Life Design” have been operated since 2001. As there were no retirees in 2016 and 2017 due to the retirement age was increased to 60, POSCO offered “Bravo Life Design” in connection with “Green Life Design” to employees aged 50 or older in order to help them plan their life after retirement from a long-term perspective. BLD(Bravo Life Design), as such, is comprised of programs to provide information and directions on business establishment, re-employment, asset management, and health care.

Nurture Next-generation Management Leaders and Train Young Employees into Future Leaders

POSCO runs a unique leadership education system to foster next-generation management leaders and support the performance of management leaders at their worksites. The CEO Academy, which was started in 2016, strengthens future leaders to successfully respond to changes in future industry and discover new growth engine businesses. This course is provided to POSCO Group’s top management. External experts on new technologies and business contents are invited to teach discussion-type classes. In addition, we operate a 1:1 customized coaching program for the CEOs of new subsidiaries. We have also expanded the 1:1 financial coaching programs to help them develop financial competencies as managers. Furthermore, in order to enhance executives’ understanding and insights on management, “POSCO Executive Academy” was opened to obtain core knowledge and identify the latest trends in various areas by inviting the nation’s most renowned professors and experts. All executives in their 2nd year of P8 to P12 are required to attend more than one of the courses in five subjects including management strategy, finance/accounting, organization HR management, marketing, and technology innovation. In 2017, we provided basic and advanced courses on finance and accounting according to their level. For harmonious organization management, we organized special lectures on manners and moral characters targeting management, executives and leaders so as to help them display leadership in a dignified way.

Training for leaders below the level of executives is largely divided into a training course and a course for the newly appointed. The Executive Cultivation Program(EDP) is operated in an action-

learning mode where the executive candidates study tasks, which are major issues of the POSCO Group, for five months by team using collective intelligence and improve their problem-solving abilities. Especially, we adopted an assessment center to make them recognize their strengths and weaknesses through diagnosis of the main factors regarding their leadership and personality as well as feedback to help them improve their leadership abilities and self-awareness as executives. It also supports for the prevention of leadership derailment. As for the Junior Executive Development Program(JEDP), it was held for three months including a pre-learning session. Comprehensive leadership diagnosis and management knowledge(strategy and financial capability) diagnosis and feedback were carried out through this program. In the case of financial learning, the action-learning method was introduced to increase the learning effect.

The promotion courses are comprised of curriculum that focus on the roles and responsibilities of each job level in order to help the participants clearly recognize and successfully fulfill their new roles. In 2017, we strengthened personality education for the purpose of establishing an organizational culture of mutual respect. In the case of the course for new leaders, they received the evaluation according to the Kirkpatrick three-level evaluation(behavioral evaluation). Following by this evaluation process, the participants established action plans to change their individual leadership capabilities during a group training period and receive assessment by their senior and junior staff three months after establishing the plan.

For short-term employed persons, education on the recognition of their new roles and future planning is provided so as to help them grow as experts in their fields through career development. Separately from this, POSCO organizes the Harmony Workshop for third-year employees with a goal of providing them with an opportunity to look back at themselves in terms of work and strengthen their immersion in work. As for new employees, we provide systematic training programs so as to strengthen their personalities and capabilities based on POSCO Group’s values and philosophy and cultivate them as talents to lead POSCO Group’s growth in the future. Based on the 4C developed in 2016, we continuously provided beginning education(3 weeks), introductory education(5 weeks) and field education(4 weeks) in 2017 for the growth and job competency improvement of our employees. In addition, we conducted the evaluation by using the level 2 of the Kirkpatrick evaluation model to evaluate their knowledge and competency level. The mentor employee system is operated to help with new employee’ adaptation to their job. Mentor employees who are selected as excellent talents serve as role models, closely supporting new employees by spreading a desirable organizational culture and sharing know-how about the office life. Especially, we enhanced the expertise for the newly appointed mentor employee through providing 2-days training course.

1) 4C Models: Compliance, Clarification, Culture, Connection

Establish a Systematic Global Workforce Education System and Enhance Human Competency of Local Employees

As the first training programs every year, we have been provided the global talented education for the head of overseas subsidiary. The course comprises subjects intended to develop their capabilities to analyze and solve management issues such as crisis management competency, financial capability, global business capability, trade response, and labor issue management. Participants evaluated the education as timely and useful program due to they had a chance to learn management know-hows from senior executives who had experience as heads of overseas subsidiaries.

Also the training of resident employees are separated by their periods of the appointment and returning such as the appointment training, the resident employee for a second year and the resident employee who have to return to the company. In 2017, we conducted six rounds of education for 167 resident employees, strengthening the pipeline for overseas employee training in a systematic manner. For returning employees, customized training to focus on the understanding of the company's policies, global business skills and competencies to help them with a soft landing is provided. In particular, the participation-based PBS and leadership/communication education were conducted to strengthen the management capability of employees who return to Korea before the end of dispatch. We provided an educational program on preparing a report to help returning employees adapt themselves to the operations in the head office quickly and collect their experiences abroad as the company's assets.

We also invite global staff(local employees) with key capabilities to the head office for training. As for the leader course, it was reorganized into a course for newly appointed personnel different from the past. With a goal of preemptive global core talent development, we strengthened the connection between pre-course, main course and follow-up course through flip learning and evaluation of field operation fulfillment rates. In addition, POSCO enhanced learner's satisfaction with education by introducing programs such as a Korean culture experience, lab tour for strengthening intelligibility of solutions marketing, and a steelworks visit program. The training for local employees was comprised of the G-NGP(Global-New General Manager Program) for new general managers(31 employees) to focus on the establishment of an "Action Plan" following OJT at the head office and evaluation of the application of the plan. For new leaders(74 employees), we provided the G-NLP(Global-New Leader Program) to support their roles as middle managers and develop leadership. The Change Agent Program(199 employees) was provided for employees with short terms of service to improve their sense of belonging and loyalty

to the head office. Also the local employees learned the POSCO's working method and established a network with the head office employees through the Global Mobility Program(25 employees).

The programs is designed for covering POSCO's values, Cross-Culture, Korean culture, and leadership capabilities in a balanced manner to contribute to discovering future management leaders by the systematic training of core local employees. From last year, we updated the programs which are the global standard contents of three ethics programs and the role and responsibilities of the group leader and leaders by using POSCO group's intellectual assets to serve as educational material for employees at overseas subsidiaries. These contents have been uploaded on EP Lite to be readily available for reference.

Enhance POSCO Employees' Professional Competency through Job Qualification Certification System and Production Technology Engineer Training

POSCO conducted four rounds of the Job Qualification Certification Examination in 2016 which was introduced in 2015 for the purpose of enhancing the job competency of employees. By taking this test, employees had a chance to build expertise in their job while deepening their understanding about other areas away from their specialty. They also obtained professional knowledge through job school and job competency required of POSCO employees through a job-based common course. Job school was well-received by participating employees and internal communicators, as it offered courses on management strategy, marketing, HR, finance, investment, and purchase while the job-based common courses included planning capability, communication skills, and negotiation. POSCO implements a work-and-learn system, the first large enterprise in Korea to do so. While actively responding to the government's policy to create a society to focus on individuals' abilities rather than their backgrounds, POSCO has strengthened both personality and job training for differentiation from other training programs. We are training an excellent technological talents for the field who fit our concept of talent. In 2017, we selected outstanding graduates from Meister high schools, recommended students from colleges and employees recruited through regular recruitment and produced 275 new employees for the job group E. They are required to complete intensive collective training in the form of Off-JT at POSCO Group University. After that, they study and work for nine months in the form of ON-JT through which they experience the worksites by participating in production activities in person. The trainees will receive their final evaluations after 12 months of training. Based on the results of the final evaluations, they will be hired as new permanent employees of POSCO.

Spread POSCO's Unique Innovative Activities and Enhance Competitiveness through an Innovation Training System

POSCO has a long history of fostering innovative workers and rich experience performing tasks. We continue to sharpen our competitive edge based on accumulated innovation capabilities since the introduction of Six Sigma and POSTIM(POSCO Total Innovation Methodology) which have been systemized as POSCO's unique innovation methodology. The 'project-oriented working method' which produces differentiated outcomes by carrying out projects based on creative ideas has entered the stabilization stage since it was introduced in 2014. In the latter half of 2016, PSS+(POSCO Six Sigma Plus) was stably established as a problem-solving centric system which is more valuable for project execution beyond existing methodologies and tools. With the project implementation methodology, we enhanced subjects such as statistical analysis, advanced Excel and report writing. Additionally, the training was composed of the basic course for Internet of Things, Big Data, and AI. The courses were organized into GB, BB and MBB according to the trainees' levels and connected with the innovation belt system. Employees subject to the annual salary system and project team members obtain GB to understand POSCO innovation and problem-solving methodology while full-time project performers must acquire BB certificate to secure independent competency to carry out project. Those who wish to further develop competency can be trained into MBB.

Under the conviction that facility maintenance and improvement capability on site are what define a company's competitiveness, POSCO provided systematic training so that employees working at the production sites can properly apply QSS+(Quality, Stability, Safety Plus) that is customized for innovation activities for the sites. Following 2016, a curriculum was developed centering on the methods to create a good working environment and maintain facilities in optimal conditions and the methods for inspection and improvement of management indicators for each plant. 70% of the education hours are based on practice. We also developed a practice program which is modeled after site facilities to maximize the participation of students. In addition, with a goal to form a consensus for innovation activities among leaders, we also developed a training program for newly appointed factory heads, and thus provided them with change management training to focus on understanding the QSS+ activities, defining the roles of factory heads and the sharing of QSS+ success cases for each plant.

To establish a steelworks improvement culture, POSCO has selected and managed improvement leaders three times a year since 2005. According to this policy, POSCO Group University continuously operates task solving methodology-centered theoretical training(1st month) and benchmarking of excellent overseas subsidiaries(2nd month) in order to improve the innovation mindset of improvement leaders and develop their abilities to discover waste elements and solve problems. In 2017, we developed and provided the QSS+ Improvement Leader Challenge course in the third month for motivating improvement leaders to continuously maintain a will for improvement activities even after they return to their worksites.

This course is designed as a participation-type training program to use new educational materials(drones). It improves the participants' concentration on education and teamwork and helps them build confidence about improvement activities through indirect experience of success.

In addition, we partially reorganized and installed a revised QSS+ Facilitator course where the participants broadened their horizons by benchmarking excellent companies in Korea and abroad and developed compulsory abilities for field guidance by attending lectures on planning and task coaching skills.

Develop New Content and Operate Customized Internal and External Education Courses

POSCO Group University strived to develop excellent content to be reflected in the educational courses while preemptively training leaders by redefining the executive fostering course management process. We also published(Global POSCO, the Great Journey Ver. 2.0), the best practice book about employees dispatched overseas and their stories for three years in a row, sharing POSCO group's best cases and know-how. Those efforts allowed POSCO Group University to emerge as an HRD institute that not only trains future global management leaders but also contributes to the management improvement of relevant agencies and provides customized services and partnership in a timely manner.

Education Indices

The effectiveness of educational programs is quantitatively measured using Kirkpatrick evaluation model levels 1 to 3. For new employees, learning evaluation is conducted, which is equivalent to Kirkpatrick evaluation model level 2. For new leaders, the behavioral evaluation equivalent to level 3 is conducted in order to measure leadership influence. In addition, we have been managing the education indices for all training programs for performance management aimed at employees' competency development. Major indices include the number of trainees, training hours per capita, and trainee satisfaction. POSCO have been striving to establish the learning culture through providing the common required programs for strengthening our competitiveness beyond the quantity of training. As a result, our training hours and costs per capita have shown a decline, while trainee satisfaction has increased.

Result of Kirkpatrick Evaluation

Level 2	93.9 points(results of learning evaluation in new employee course)
Level 3	94.2 points(results of behavioral evaluation in new leader course)

Category	2015	2016	2017
No. of trainees(persons)	343,199	384,228	296,557
Total training hours(hours)	39,811,084	48,412,728	31,138,485
Training hours per capita(hours)	116	126	105
Total training costs(KRW in 100 million)	200	204	221
Training costs per capita(KRW in 10 thousand)	110	114	125
Trainee satisfaction(points)	4.69	4.70	4.77

Employee Data

Classification		2015	2016	2017
No. of Total Employees	Total(No. of Employees)	17,045	16,957	17,055
	Pohang(No. of employees)	7,241	6,969	7,273
	Gwangyang(No. of employees)	6,150	6,190	6,386
	Head Office/Technical Research Laboratories/Offices/ Others(No. of employees)	3,654	3,798	3,396
Employment Type	Regular workers(No. of employees)	16,321	16,756	16,885
	Contract workers ¹⁾ (No. of employees)	724	201	170
	Proportion of contract workers(%)	5	1	1
Employment of Seniors ²⁾ (No. of employees)	No. of employees aged 55 and older(No. of employees)	1,915	2,237	2,796
	Proportion of employees aged 55 and older(%)	11.2	13.2	16.4
Gender	No. of female employees	879	851	910
	Proportion of female employees	5.2	5.0	5.3
	No. of female employees with manager position and higher	241	379	401
	Proportion of female employees with manager position and higher	27.4	44.5	44.1
Employment of Disabled People	Proportion of employees with disabilities ³⁾	2.8	2.7	2.8
	(POSCO) Employees with Disabilities	256	238	245
	(POSCO HUMANS) ⁴⁾ Employees with Disabilities	240	239	243
Average Years of Service(Years)	18	19	19.8	
Retirement	No. of retirees	757	441	392
	No. of regular retirees	461	-	-
	Ratio of retirees	4.3	2.5	2.3
Childbirth/Childcare	No. of employees who used maternity leave	72	79	67
	Average length of maternity leave per employee (days/person)	75.3	73.9	71.5
	Rate of return to job after maternity leave	100	100	100
	No. of employees who used parental leave	73	88	94
	(Male) Employees who used parental leave (No. of employees)	6	17	14
	(Female) Employees who used parental leave (No. of employees)	67	71	80
	Rate of return to job after parental leave	100	97.7	90
	No. of employees who used paternity leave	579	555	515

1) Contract workers include those rehired after leaving the company and specialized contract workers such as lawyers and nurses.

2) Seniors are those aged 55 years and older in accordance with Article 2 of the Enforcement Decree of the Act on Prohibition of Age Discrimination in Employment and Elderly Employment Promotion.

3) Ratio of employees with disabilities was calculated based on the number of full-time workers at POSCO and POSCO HUMANS

4) Standard workplace for the disabled

SOCIAL CONTRIBUTION

Since its foundation, POSCO has been implementing diverse social contribution activities to fulfill its social responsibility aimed at co-prosperity with local communities. We are committed to communicating with all stakeholders and creating social value.

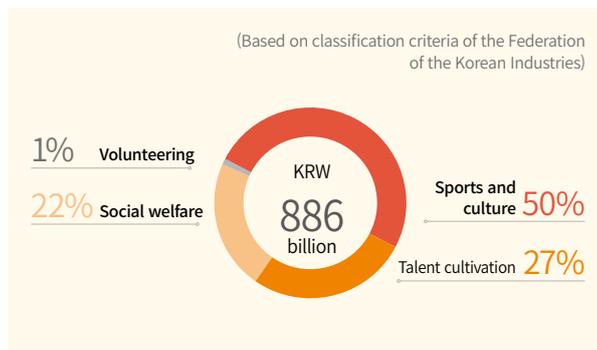
Strategic Directions and Focused Areas

Under the vision of “for a better world” we carry out practical and effective social contribution activities based on three strategies and three focused areas (UN SDGs **11 4 8**). The social efficiency of these activities is continually improved through monitoring.

Strategic Direction	Collaborate	Create	Differentiate
	Strengthen cooperation with the government, experts, NGOs, and media	Enhance connection with core competencies and business characteristics of each POSCO affiliate	Create prestigious brands that overwhelm competitors and existing programs
Three Focused Areas	Sustainable Community	Quality Education	Economic Empowerment
	To improve the quality of life through infrastructure expansion and alleviate inequality/ narrow gaps by increasing social and cultural opportunities	To resolve the educational gap and foster future talents by expanding opportunities for high-quality education	To improve accessibility to the job market and economic independence

Social Contribution Performance in 2017

Total expenses for social contribution



Employees' volunteering service



Donation to the Community Chest of Korea



POSCO Steel Village Performance

Country	Infrastructure Distributed	Project Period	Houses	Beneficiaries (Accumulated)
Korea	House	2009-2017	31	71
	Welfare facility	2013-2017	4	25,000
Vietnam	House	2014-2017	104	600
	Bridge	2016	1	450
Myanmar	Bridge	2017	1	1,800
Thailand	Outdoor sport facility(dome)	2017	3	3,000

Economic empowerment performance

Category	Region	Project	Target/ No. of people
Domestic	Nationwide	Café O Asia	Vulnerable class marriage migrant females/103
	Pohang	Silver Home Care	Elderly/30
	Gwangyang	Sharing Happiness Lunch Box	Elderly/10
Social enterprises in Korea		POSCO HUMANS, Songdo SE, POSPLATE	Employees/767
Overseas	Indonesia Cilegon	PTKP. SE (Social Enterprises)	Young people/138

1% Donation

Revenue (including project costs returned and interest earned)	POSCO Group and outsourcing partners	Employees (participated in donation)
7.76 Total KRW billion	122 Total companies	21,784

Sustainable Community

We are striving to put in a lot of effort for the local residents, our most important stakeholders in the 53 countries, by providing social and cultural opportunities and helping to improve their quality of life through infrastructure expansion. The efforts, as such, lead to protecting cultural heritage and expanding social and cultural opportunities for local residents as well as changing residential spaces through the construction of steel houses. In order to contribute to the development of sustainable local communities with our strengths, POSCO dreams of building a better world by resolving inequality and narrowing gaps.

POSCO Steel village

The POSCO Steel Village project, POSCO's foremost social contribution activity, aims at contributing to the expansion of basic services for healthy life and safe residential space for local residents based on steel produced by POSCO Group and construction method know-how. Using our business competencies, we build houses, schools and bridges in domestic and overseas locations where we have entered and help the local communities achieve self-reliance by developing software for economic independence, such as social enterprises. While building steel welfare facilities in Pohang, Gwangyang, Incheon and Seoul, we have built and supplied steel houses to marginalized people suffering from fire accidents. In November 2017, POSCO Steel Village was introduced in the Partnerships for SDGs section of the UN SDGs website under the title of "POSCO Steel Village SDGs Initiative" and received SMART certification from the UN Division for Sustainable Development. Recently, we have been building steel houses that are resistant against disasters having increased the lifespan of the housing itself while incorporating earthquake-resistant POSCO steel products. We are also participating in preemptive risk management for disasters as recommended by the Hyogo Framework for Action and the Sendai Framework for Disaster Risk Reduction. POSCO's steel house project began with the construction of steel houses for three families that suffered fire damages in 2009. Thus we have built a steel village for 104 families in Vietnam and a steel bridge in Myanmar. At the moment, POSCO is promoting a steel dome construction project aimed at improving the health of the youth in Thailand. For this, we are cooperating with the local government, NGOs and local residents to create synergy.

Steel Village in Vietnam



Beneficiaries
600

The POSCO Steel Village Project built a total of 104 houses for low-income families in Ba Ria-Vung Tau province where POSCO Vietnam is located. The creation of POSCO Steel Village enabled the integration of the capacity of affiliates and local subsidiaries, including POSCO Vietnam, POSCO SS Vina and POSCO A&C. Moreover, the participation of the donor, the volunteer, the POSCO Group Employee Global Volunteer Corps, local employees and POSCO Beyond Global Youth Volunteers, are meaningful for the voluntary service of the steel villages. At the POSCO Steel Village

completion ceremony held in June 2017, Nguyen Van Trinh, the Chairman of the People's Committee of Ba Ria-Vung Tau Province said, "I would like to extend the deepest appreciation to POSCO and Habitat for Humanity for providing stable residence to the residents who suffered in the poor environment in Tan Thanh." In addition, President Yun Hyeong-ju of Habitat for Humanity Korea cheered for the local residents' self-reliance by saying, "It is a meaningful project to build homes, not just houses."



Steel Village in Vietnam

Steel Houses for Fire Victims and Low-income Families Beneficiaries 24 people from 9 families

POSCO is building steel houses as new homes for low-income families that have suffered from fire damages. In 2017, we built new homes with improved seismic design using eco-friendly materials and provided them to 9 families that had lost their homes or suffered from financial difficulties due to fire. Thus we have provided 31 steel houses for semi-permanent use across the country, helping in the stable living of our neighbors. Our efforts help these people overcome disasters and return to their lives.

Welfare Facilities Using Steel House Construction Method

POSCO Group is ultimately helping to support the self-reliance of regional society members by building welfare facilities that people of local communities needs with POSCO's unique "Steel House Construction Method. The POSCO 1% Foundation built the Happy Steel House for senior citizens in Pohang(Jan. 2013), Happy Steel Welfare Center for vision-and hearing-impaired people in Gwangyang(Jan. 2014), and Gangbuk Youth Dream Center for children and youth in Seoul(Jun. 2015).

Donggurang Steel Land in Incheon

 Beneficiaries
23,613

In 2017, POSCO completed Donggurang Steel Land for children in the Incheon area. Particularly, Donggurang Steel Land, as a Kids café, has diverse facilities such as not only an artificial climbing wall, jungle gym, and futsal pitch where children can foster creativity and healthy bodies but rest zones for their parents. Other features include petal-shaped exterior design made of “corrugated steel plate” open view by “steel curtain wall,” high-manganese flooring material “PosCozy” to prevent noise, and more. Donggurang Steel Land is delivering the goods as a landmark of the Incheon region as it captures everyone’s attention.

Application technique

POSCO developed a beautiful design with a high floor height for Donggurang Steel Land by applying corrugated steel plate and steel curtain wall made with POSCO Group’s materials. The use of high-manganese flooring material(PosCozy) ensures a comfortable environment by preventing noise between floors.

Corrugated steel plate, which functions as an interior and exterior material for buildings, is a uniquely designed product developed by adding three dimensionalities to POSCO’s high-strength steel sheet(SS590). It is free from deformation even when exposed to UV light or water, and thus is highly durable. In addition, this is a next-generation building structure offering greater economic efficiency by reducing the construction period. The enhanced strength of the steel curtain wall in comparison with other materials, including aluminum and PVC, helps reduce the cross-section area of the frame by 40% for improved visual openness. It is also excellent in regards to fire resistance, heat resistance and insulating properties. PosCozy is made by applying high-manganese steel clips with anti-vibration performance four times higher than that of general steel products to the galvanized steel plate. It is POSCO’s independently developed flooring system capable of reducing impact noise by more than 10–20dB in comparison to general concrete flooring.



Donggurang Steel Land in Incheon

Share House in Seodaemun-gu, Seoul

 Expected Beneficiaries
18

In 2017, we designed and started construction of a steel share house in Seodaemun-gu for youth in Seoul. A share house is a type of multi-family housing that is operated with the concept of cooperatives. Young people share a house together to reduce the expensive cost of living in Seoul. While one bedroom is allocated to each person to protect privacy, the residents share the living room and kitchen, enjoying a better living environment at lower cost. In July 2018, the eco-friendly and energy-saving share house will be opened with the Passive House certification(Passive House Institute Korea 5.0L) which is applying with POSCO Group’s PosMAC steel house, exterior panel and PosART inkjet printing steel plate.



Share House in Seodaemun-gu, Seoul

Myanmar Steel Bridge

 Beneficiaries
1,800

The POSCO 1% Foundation has built a strong steel bridge in Yowa Village, Yangon, Myanmar. By replacing worn, damaged and unsafe bridges, we expect the safe passage of residents and the volume of passenger flow to contribute to economic revitalization. Prefabricated bridge technology, involving the shipment of bridge sections built domestically to the bridge installation site, followed by bridge assembly and installment, was implemented into the Myanmar steel bridge, containing a 2.5-meter width and 20-meter length. We used thick plates and PosMac produced at Pohang Works as the bridge framework to ensure the safety of the bridge structure, while POSCO A&C assumed design control and POSCO E&C handled construction management.



Myanmar Steel Bridge

Steel Dome Project in Thailand



Expected Beneficiaries
3,000

Implemented as a part of the POSCO Steel Village Project in Thailand, the Steel Dome Project is aimed at building steel domes using POSCO's steel products and donating them to three schools in Rayong where POSCO-SouthAsia, POSCO-TCS and POSCO-Thainox are located. A steel dome for which construction began in December 2017 is built at a scale of a maximum of 12m in width, 30m in length and 8m in height using products from POSCO-TCS and PT. KRAKATAU POSCO. It is capable of accommodating more than 100 people at once. It was designed to help local students enjoy outdoor activities safely by shielding off the strong sunlight and the frequent tropical squalls. Three domes will be completed in January 2018 and the number will be increased through project model assessment in the future.



Steel Dome Project in Thailand

Press Residence for the PyeongChang 2018 Olympics

POSCO further upgraded the standard of infrastructure for the PyeongChang 2018 Winter Olympics by applying World Premium(WP) steel plates and solutions to key facilities. A prime example was the securing of building durability and safety, as well as aesthetically pleasant exteriors by applying World Premium products and solutions, such as PosMAC and PosSD, to the media residence hotel, International Broadcasting Center and Gwandong Hockey Center. In particular, in the media resident hotel comprised of 300 guestrooms in three four-story buildings that was completed on December 15, 2017, each guestroom was 100% pre-made at our plant and simply assembled on site. The unit building technique reduced the construction period by 18 months from that of general concrete construction works. In addition, as the complex was built using the relocatable building unit method, the buildings can be reused after the Olympic Games, suggesting an alternative eco-friendly construction technique.

CASE REPORT

POSCO Steel Village Project Approved as a UN SDGs Good Initiative

In November 2017, POSCO Steel Village was listed on the UN website as an excellent model contributing to the UN SDGs under the title of "POSCO Steel Village SDGs Initiative." POSCO has been steadfastly striving to fulfill SDG 11, which is to "make cities and human settlements inclusive, safe, resilient and sustainable" by building infrastructure using steel and steel houses for the low-income class. The listing of the POSCO Steel Village on the UN website marks the first case of our efforts to solve the issue of residential poverty in the countries and regions where we have entered as a global steelmaker and to assist with the mobility and safe living of local residents being recognized by the international society. With this accomplishment, POSCO was given an opportunity to submit official opinions to the UN high-level commissions, such as the Economic and Social Council and High-level Political Forum. In 2018, POSCO will continue to strive in setting an example with the POSCO Steel Village as the UN SDGs leading model.



Sharing with Local Communities

POSCO Group employees are practicing volunteer service and the sharing of our traditional culture. POSCO is sharing the joy of living together with our neighbors through the voluntary service of our sister villages and the establishment of the POSCO 1% Foundation.

Talent Donation Corps(25ea)

 Beneficiaries
6,722

In 2017, POSCO employees performed 32 hours of annual volunteer service. We have earned the trust of local residents and contributed to creating a better environment by continuously performing volunteer service activities over a long period of time.

Recently, talent donation based on job features, skills, and professionalism has been implemented as well. We will continue to focus on volunteer services that can offer more practical and effective support to beneficiaries.



Talent Donation Activities

Service Corps	Major Activities	Area(Beneficiaries)
Clean Ocean Volunteer Group	Preserving the marine ecosystem by removing marine waste and starfish in the coastal areas where POSCO Group's worksites are located	Nationwide (1,500)
Cultural Assets Preservation Volunteer Group	Offering special education on cultural assets and preserving cultural assets in Seoul	Seoul(280)
Volunteer Photographer Corps	Taking photos of senior citizens, single-parent families, and multicultural families who cannot visit photo studios due to hardships	Seoul(510)
Green Home Team	Helping low-income families reduce energy costs by wallpapering, laying linoleum, replacing LED lights, and diagnosing energy efficiency	Seoul(48)
Volunteer Furniture Service Team	Making customized home furniture for low-income families	Seoul(25)
Techno Pro Bono Corps	Developing ergonomic agricultural equipment and repairing diverse farming tools by capitalizing on the advanced technologies of our research laboratories with the aim of helping farmers around our steelworks	Pohang(80), Gwangyang (300)
Volunteer Service Team for Children's Happiness	Providing elementary and middle school students with diverse education opportunities in order to help them have a sense of self-respect and dreams of a better future	Pohang(30)
Reform Volunteer Group	Reforming houses of low-income families such as recipients of National Basic Livelihood benefits and senior citizens living alone	Pohang(80)
Serving Volunteer Group	Visiting senior citizens in local areas to become companions and deliver warmhearted services, widening relationships with local communities	Pohang(43)
Golden Time Service Team	Offering volunteer teaching service on first aid treatment and cardio-pulmonary resuscitation(CPR) in schools, public institutions, and welfare facilities	Pohang(250)
Happiness Sharing Mural Service Team	Contributing to making Pohang beautiful by painting murals on the walls of certain residential areas	Pohang(400)
Love Study Room Volunteer Team	Employee talent donation to teach local adolescents who have difficulties with advanced learning due to economic hardships	Pohang(144)
Electrical Repair Volunteer Team	Replacing old lighting systems and checking the safety of local houses to prevent electrical hazards	Pohang(40)
Hand Acupuncture Service Team	Offering hand acupuncture and massage services to ailing senior citizens, done by employees who have completed specified training	Pohang(80)
Friend Volunteer Group	Providing multicultural specialization support including group wedding ceremonies for multicultural families, a helping hand for farming villages, and inviting multicultural families for education on Korean culture	Gwangyang(350)
Engineer Teaching Volunteer Group	Providing customized education on English, math, and science to children of local childcare centers by capitalizing on engineers' talents	Gwangyang(52)
Volunteer Agricultural Machine Repair Corps	Repairing agricultural machinery, house gates, and steel structures of local farming families, done by employees with ironsmith and maintenance skills	Gwangyang(120)
Volunteer Wallpapering Service Team	Replacing wallpaper and linoleum of houses resided in by senior citizens living alone and children raised by grandparents	Gwangyang(60)
Foot Massage Volunteer Group	Visiting local senior citizen welfare facilities to offer foot massages	Gwangyang(370)
PC Repair Volunteer Team	Repairing broken PCs at public facilities such as community and welfare centers in local communities	Gwangyang(130)
Electric Device Repair Volunteer Team	Arranging wires and broken electric facilities in local welfare centers twice a month	Gwangyang(40)
Hairdressing Volunteer Team	Offering free mobile hairdressing services to senior citizens who have difficulties moving around	Gwangyang(400)
Photographer Volunteer Team	Visiting sister villages and senior citizen centers around steelworks to take photos of the elderly	Gwangyang(400)
Medical Volunteer Team	Visiting sister villages to check the health conditions of senior citizens and deliver medical supplies	Gwangyang(360)
Laughter Sharing Volunteer Team	Providing opportunities for recreational activities to local residents and excluded parts of society	Gwangyang(630)

Support for Employees' Volunteer Activities

 Beneficiaries **10,000**

POSCO is supporting employees' volunteer activities to encourage the employees' spirit of sharing and to assist in the environmental improvement of cooperating institutions. When our field departments discover needs and apply for support, we support projects that are in compliance with the purpose and operating direction of the POSCO 1% Foundation. In 2017, Pohang Steel Works(25 departments), Gwangyang Works(20 departments) and the Seoul Office(16 departments) carried out 54, 20 and 17 supporting projects respectively. In addition, we are fulfilling our responsibility as a global company by expanding the scope of the department-unit employees' volunteer activity supporting project to overseas locations. At POSCO-HANDS, which is aimed at encouraging the self-initiated volunteer works of our global staff, applications are received and reviewed at the beginning of each year. The selected companies deploy a variety of activities including repair and remodeling of schools and social welfare facilities, residential environmental improvement, support for rehabilitation of the disabled and educational service and donations for marginalized people in need.

Sister Villages and Sharing Saturday Volunteer Activities

Since 1988, starting with Hagwang Village in Gwangyang, we have been carrying out our "One Department for One Village" volunteer activities. We have 203 sister villages in which POSCO employees participate in an array of philanthropic activities. Our sister villages have been upgraded as a result of the efforts of POSCO employees to achieve shared growth with local communities. In addition, POSCO employees practice sharing with local communities by participating in the "Sharing Saturday" program once a month. We strive together to create an inclusive and sustainable city based on mutual relationships formed having personally visited marginalized neighbors and institutions and are enabling the local communities to become more participatory, unified and sustainable.

Sister Villages Status (Unit: No. of villages, organizations)

Category	Sisterhood relationships		
	Village	Organization	Total
Pohang	121	6	127
Gwangyang	68	8	76
Total	189	14	203

Donation of External Lecture Fees

 Beneficiaries **279** (cumulative figure over 5 years from 2013 until 2017)

Since 2007, POSCO has conducted the "Donation of External Lecture Fees" campaign, where employees donate fees received for outside lectures back to society. These donations are being used for scholarship funding for underprivileged teenagers in local communities through the Chin Chin Rainbow Program of the POSCO 1% Foundation.

Donation of Employees' Lecture Fees (Unit: KRW 1,000)

2007	2008	2009	2010	2011	2012
119,960	65,746	46,425	44,296	35,517	53,320
2013	2014	2015	2016	2017	Total
54,945	96,396	67,780	39,955	42,978	667,318

POSCO Global Volunteer Corps

 Beneficiaries **18** (5th: 11, 6th: 7)

In January 2017, 41 employees of the POSCO Global Volunteer Corps, started in 2015, were sent to POSCO Steel Village sites in Vietnam to build houses for local communities over the course of eight nights and nine days. The Corps members worked in a school for the disabled and an orphanage, and built houses for local residents(home owners) living in poor conditions. Local employees at the corporations in Vietnam also joined hands with the members dispatched from Korea in building houses. In August 2017, 51 employees from the 6th term Corps carried out voluntary house building work.



Global Employees' Volunteer Group

CASE REPORT

Support for Earthquake Recovery in Pohang

 Beneficiaries **34,000** (population of Heunghae-eup, Pohang)

In November 15, 2017, an earthquake with a 5.4 magnitude struck Pohang, the location of POSCO's steelworks, causing ten human casualties and property damages amounting to KRW 54.6 billion. From the day following the earthquake, November 16, to December 31, all of the 4,948 POSCO employees volunteered to aid in the area's earthquake recovery. We also set up the Earthquake Damage Recovery Support Team to take the lead in rebuilding Pohang. In particular, with our professional human resources and technologies, we initiatively participated in the project to make Pohang reborn into a safe city by conducting safety diagnosis on buildings and performing reconstruction, regeneration and seismic reinforcement operations.

Moreover, we organized an art therapy session to help local residents suffering from trauma after the earthquake. This was POSCO's effort to create an inclusive, safe and resilient sustainable local community by aiming for disaster risk management at all levels according to the Hyogo Framework and the Sendai Framework, international agreements for preemptive response to disasters and accidents through the expansion of inclusiveness, resource efficiency and resilience to recover from disasters.



Culture and Art (Preservation of Traditional Culture)

POSCO also takes the initiative in preserving cultural assets and heritage. In particular, we have held the Yi-Eum Exhibition aimed at reinterpreting the use of intangible cultural heritage in the modern era and the Small Concert for Our Heroes, also known as “Woo Young Eum,” to provide support and appreciation to manufacturing workers in cooperation with the POSCO 1% Foundation. We are also performing Mecenat activities by organizing music concerts and operating cultural facilities for local residents.

Small Concerts for Our Heroes



The POSCO 1% Foundation has held a concert named Woo Young Eum to honor manufacturing workers since 2015, as part of a project to support major intelligible cultural heritage. The concert offered a thankful and cheering message to manufacturing workers in the industrial complexes in Gwangju, Seoul, Eumseong, Daegu and Busan in 2017. With the crossover of traditional music and popular songs, the concert was dedicated to the task of popularizing our cultural music. The concert also gave less known singers an opportunity to introduce their own songs. We are intending to put on more concerts in 2018.

2017 Concert Summary

7th Concert **Gwangju Scientific Industrial Complex (June, 300 audience members)**
 Lineup: Oh Jeong-hae(Korean classical musician), Kang San-ae(singer), Honampyeongya (Korean classical band)

8th Concert **Seoul Digital Industrial Complex (September, 400 audience members)**
 Lineup: Nam Sang-il(Korean classical musician), Kang San-ae(singer), the National Chorus of Korea

9th Concert **Eumseong Wonnam Industrial Complex (September, 400 audience members)**
 Lineup: Oh Jeong-hae(Korean classical musician), Tour Sketch(folk music duo), Golden Swing Band (jazz band), Wu Ju-ho(tenor)

10th Concert **Daegu Seongseo General Industrial Complex (September, 200 audience members)**
 Lineup: Oh Jeong-hae(Korean classical musician), Tour Sketch(folk music duo), Gyeongji (Korean classical band)

11th Concert **Busan Myeongji Noksan National Industrial Complex (September, 300 audience members)**
 Lineup: Oh Jeong-hae(Korean classical musician), Tour Sketch(folk music duo), Akdangwangchil (Korean classical band)



Small Concert for Our Heroes

Connecting Generations, Yi-Eum Exhibition by Jumuljang-Casting Master



Yi-Eum Exhibition is a project of social contribution planned to publicize the excellence of Korea’s traditional metalwork, which faces the risk of extinction. Since 2015, POSCO has been introducing the contemporary value of this traditional craft by collaborating with intangible cultural assets and contemporary craftsmen. The theme of the exhibition in 2017 was “Jumuljang-Casting Master.” In addition to Kim Jong-hun, the Master of Anseong Jumul(Gyeonggi Provincial intangible cultural assets No. 45), 16 contemporary craftsmen and companies including Anseong Jumul and Dae Han Special Metal exhibited around 50 metal tableware pieces. The first exhibition was held until November 2017 at the Training Center for Important Intangible Cultural Properties and the second exhibition was held from December 7 to 10 at the Craft Trend Fair 2017 in COEX. This exhibition raised public interest in iron as a material for artwork and traditional metalwork and also raised new possibilities for Korean food culture and iron. It was also a successful collaborative work among intangible cultural assets, contemporary artists and the industry.

[Reference]

Jumuljang, a casting master, is a person who is engaged in the work of melting cast iron to make tools and create craft items. Anseong Jumul was designated as Gyeonggi Provincial intangible cultural asset No. 45 in 2006. Kim Jong-jun from Anseong Jumul, a company that has been making cast iron pots in a traditional method for four generations, is the only person with the skills and techniques for creating Anseong Jumul.



Yi-Eum Exhibition

POSCO Center Music Concert, POSCO Concert

 Beneficiaries
12,195

From 1999 to 2014, POSCO Center Music Concert held a total of 167 concerts over 16 years at the POSCO center, providing the opportunity to enjoy cultural experiences for local communities. The concert was one of the most popular concerts on Teheran-ro presenting various genres from Korean traditional music, to K-pop, classical music and opera. It was renamed "POSCO Concert" in September 2017. This new cultural event with the significance of social contribution provides a stage for rising performers and an opportunity for the marginalized to enjoy culture. Since September of last year, POSCO has held the POSCO Concert four times for 2,150 audience members. The concert held in October 2017, in particular, was meaningful as we invited the key personnel of the PyeongChang Winter Olympics just 100 days before the commencement of the international event.

POSCO Concert 2017

Date	Performers	Rising Performers	Audiences Members
Sep. 9 (Sat.)	Choi, Baek-Ho, IU	Shin, Seol-Hee Band	550
Oct. 28 (Sat.)	In, Soon-Ni, Urban Zakapa	Cheese	550
Nov. 24 (Sat.)	Kim, Yeon-Woo, Duetto	Classical signers	550
Dec. 29 (Fri.)	Lee, Moon-Se	World Vision Korea Children's Choir	600

Started in 2015, POSCO Kids' Concert is one of POSCO's Mecenat activities. Over the last three years, we staged 18 productions a total of 36 times, which were loved by around ten thousand audience members. POSCO holds a variety of performances ranging from children's musicals to ballet around four to six times a year. POSCO Kids' Concert has established itself as POSCO's representative cultural event for all having taken place POSCO Center in Daechi-dong, which is easily accessible for both POSCO employees and local residents. POSCO is promoting family-friendly organizational culture by providing a space of entertainment in the heart of the city for the enjoyment of all family members.

POSCO Art Museum, POSCO Museum

 Beneficiaries
94,138

Since its opening in 1998, the POSCO Art Museum has contributed to introducing local residents to a wide variety of art exhibitions and discovering emerging artists. With the vision of 'an easy-to-reach museum and an open space in your life,' the POSCO Art Museum plans programs transcending the past and present, the traditional and modern era, and times and genres. In 2017, the POSCO Art Museum provided opportunities to enjoy seven exhibitions including "Message from Youth to Youth" and "King's Garden" to around 40,000 audience members.

Since 2003, POSCO Museum, located next to POSCO's head office in Pohang-si, has offered the display of the history, spirit, corporate culture and vision of POSCO. It systematically shows the history and success story of POSCO, which has grown to become the most competitive steel company in Korea which had been regarded as a wasteland for steel. As a space of culture that provides dreams and hopes to visitors, POSCO Museum has established itself as a local attraction with around 80,000 visitors a year. In 2017, it was visited by 54,138 domestic and foreign visitors. Since November 2017, POSCO Museum has been open full-time.

POSCO Hyoja Art Hall(Pohang)/ Baekun Art Hall(Gwangyang)

 Beneficiaries
Pohang: 129,172
Gwangyang: 57,000

POSCO runs Hyoja Art Hall(Pohang, opened in February 1980) and Baekun Art Hall(Gwangyang, opened in July 1992) to give residents in Pohang and Gwangyang better access to cultural life and expand the foundation for art and culture. The art halls present classical music, operas, ballet, plays, pop concerts, and movies which are open to the public for free. As such, Hyoja Art Hall is used as a space of cultural sharing for local residents. In 2017, 18 movies were shown in Hyoja Art Hall for 12,600 audience members, and eight local cultural organizations including a theater company and an orchestra borrowed the facilities free of charge. Baekun Art Hall held two invitational performances including a year-end concert, 33 events of local cultural organizations(including college student Korean traditional music festival) and 17 movie showings and exhibition events for around 57,000 audience members over the year. In particular, POSCO has held the Korean college traditional music festival for the popularization of Korean traditional music and the fostering of young Korean classical musicians at Baekun Art Hall every October since 2008.

Quality Education

Since the earlier phase of our foundation, POSCO has been dreaming of a world of inclusive and equitable quality education for all, and thus promoting to build schools providing free, equitable and quality primary and secondary education to all girls and boys leading to relevant and effective learning outcomes. In addition, we have been continuously providing scholarships to future talents and have strived to contribute to stable employment through affordable quality technical and vocational education. Furthermore, we entered into a strategic partnership framework agreement with UNESCO for the extension access of Out-of-school Children and Youth (OOSCY) education. For this project, POSCO will invest a total of USD 900,000 from 2018 to 2020 through the POSCO 1% Foundation to ensure that all youth achieve literacy and numeracy. In addition, for appropriate and effective education, we will cooperate with the education ministries of each country so that students can transfer into the formal school education system, and thus will not only resolve educational gaps, but also cultivate future talents.



POSCO Youth Volunteer Corps "Beyond"



The POSCO Youth Volunteer Corps "Beyond" was launched in 2007 with the goal of helping college students of the future generation experience and feel coexistence with global neighbors by providing them with education on sustainable lifestyles, global citizenship and cultural contribution for cultural diversity and sustainable development. Each year, 100 college students are selected as "Beyond" members to conduct sharing activities such as building the Love House, and exchanging culture. In January 2017, Beyond visited Ba Ria-Vung Tau Province in Vietnam to build ten houses of of the POSCO Steel Village in the Vung Tau Province and to provide educational services for local elementary school students. Also, they conducted joint voluntary services with the 4th Vietnam Beyond comprised of 20 local college students, including the holding of a Korea-Vietnam cultural performance.

Volunteering Activities of POSCO Youth Volunteers

2008	1 st 100	Delhi, India	• Built 10 houses in the impoverished village of Bawana
2009	2 nd 100	Chonburi, Thailand	• Conducted volunteering activities together with employees in Thailand and a visit to POSCO-TBPC
2010	3 rd 100	Bandung, Indonesia	• Home building volunteering activities for 10 houses in an area that suffered earthquake damages
2011	4 th 100	Bogor, Indonesia	• Employees of Krakatau, Indonesia participated in house-building volunteer work
2012	5 th 100	Tien Giang Province, Vung Tau Province, Vietnam	• Participated in the eVietnam POSCO Village project with house-building volunteering service
2013	6 th 100	Delhi, India	• Built an additional 10 houses in the impoverished village of Bawana
2014	7 th 80	Vung Tau Province, Vietnam	• Built 10 houses in Tan Thanh district • Conducted joint volunteering activities by launching the first "Vietnam Beyond" consisting of local college students
2015	8 th 100	Vung Tau Province, Vietnam	• Built 10 houses in Tan Thanh district • Held a cultural exchange event jointly with the Vung Tau Youth Association • Service activities with the 2 nd Beyond Vietnam
2016	9 th 100	Vung Tau Province, Vietnam	• Built 10 houses in POSCO Steel Village, Tan Thanh district, supported the construction of the Steel Bridge • Held a cultural exchange event jointly with the Vung Tau Youth Association • Performed joint service activities with the 3 rd Beyond Vietnam
2017	10 th 100	Vung Tau Province, Vietnam	• Built 10 houses in POSCO Steel Village, Tan Thanh district • Performed joint service activities with the 4 th Beyond Vietnam
2018	11 th 100	Rayong, Thailand	• Built eight houses for low-income families in Rayong • Held "Beyond Cultural Exchange" event to celebrate the 60 th anniversary of the establishment of diplomatic relations between Korea and Thailand • Provided educational service to local elementary school students(Chumchon Borisat Namtan Tawan-ok School)



Education service activities with Beyond Thailand 11th

Do Dream



Beneficiaries
Self-reliance Education: 30
Employment-linked Training: 3

Each year, around 1,000 children are forced to leave welfare facilities without proper preparations for independence, and thus face the hardships of life and emotional instability. Through the Do Dream project, which was started in 2017, POSCO makes efforts to ensure equal access to all levels of education and vocational training (UN SDG 4.5) for children leaving welfare facilities in the Pohang region. In each stage of preparation for independence, we provide the children with excellent mentees and our employment support programs so as to help them find jobs and stably settle down in society.

Step 1 Motivate spirit for self-reliance

We provide children who need protection after leaving welfare facilities with opportunities to participate in a career exploration camp through which they can explore diverse career paths and receive systematic training for independence.

Step 2 Assist in acquisition of technical licenses

We help children leaving welfare facilities obtain technical licenses by studying at government-affiliated educational institutions or Korea Polytechnics. We support their educational and living expenses for around one year so that the children can focus solely on studying while preparing for the licenses.

Step 3 Help in employment and support self-reliable life

When the children obtain technical licenses, we provide them with an opportunity for employment at our outsourcing partners following two months of camp training through the "Employment Steppingstone" system. Even after their employment is confirmed, we provide counseling services so that the children can adapt to their jobs swiftly and prepare a foundation for self-reliance.

[Reference]

Developed as a part of the government support programs, the Employment Steppingstone program is an educational and training program introduced by large enterprises and public organizations to help youth improve their vocational abilities and provide them with opportunities for employment. In general, high-quality job training is provided using excellent programs developed by large enterprises. Then, the trainees are recommended for employment at partner companies or other companies or provided with support in starting a business.



Self-reliance training through Do Dream project



Do Dream project presentation

Dream Bridge



Beneficiaries
339

POSCO is running the Dream Bridge, a tailored career counseling program to help middle school students find their dreams and talent. In particular, this program provides middle school students in island areas and impoverished villages with both career exploration workshops and visits to POSCO steelworks. The students meet with people from various job groups to receive information and ask questions about particular jobs. In 2017, POSCO collaborated with POSTECH and provided middle school students with a mentoring service from POSTECH students and opportunities to visit robot, nanotechnology and accelerator laboratories, the subsidiary research centers of POSTECH, to understand scientific principles and think about pursuing a career in science and technology.

Chin Chin Rainbow Project

The Chin Chin Rainbow Project is aimed at providing a one-on-one mentoring service to youth from multicultural families, low-income families and North Korean defectors in addition to customized career counseling and education for affordable quality technical, vocational and university entrance education. Each year, over 50 students are selected from across the country and provided with support in the fields of their choice, such as IT, art, cosmetic service, music, cooking, sports and continued learning, so as to help them realize their precious dreams. Scholarship students achieving their goal within the year as promised may continue to receive support after having been selected for an outstanding performance. Annual programs are vast in nature as they are comprised of not only career counseling, but also visitations to organizations, announcement of outstanding performances, scholarship student alumni, regular volunteer activities and more.

Chin Chin Rainbow Scholarship Goal Fulfillment Rate 66%

Selected **35** best practice cases from **53** in total



Cake made by Chin Chin Rainbow scholarship students

POSCO Educational Foundation

POSCO TJ Park Foundation

POSCO Educational Foundation and POSCO TJ Park Foundation, established by POSCO, has helped in the operation of local schools while implementing scholarship work. Also they have contributed to cultivating future talent in order to provide educational opportunities at home and abroad by offering a variety of supporting programs.

POSCO Educational Foundation

 Beneficiaries
117,000

Established in 1971, the POSCO Educational Foundation has been operating 12 schools in Pohang, Gwangyang and Incheon(two kindergartens, four elementary schools, two middle schools, and four high schools). It devotes itself to developing students' aptitude by promoting related education among those schools for 13 years of continuous education from kindergarten until high school, with the aim of fostering creative and ethical talents who can fulfill their duty and responsibility as global citizens.

Major Projects of POSCO TJ Park Foundation

POSCO TJ Park Prize



Aim to commemorate the achievements of the founder, TJ Park, and to stir up POSCO's founding spirit of "respecting creativity, nurturing talent, and promoting philanthropy"

- Awards given to 36 persons over 11 years since its inception in 2006
- Winners in 2017(held awards ceremony on March 29, 2017)
 - * Technology Prize added in 2017
 - Science Prize: Lee, Jong-heun(Professor of Materials Science and Engineering, Korea University)
 - Education Prize: Attached Middle School to the College of Education at Kyungpook National University
 - Philanthropy Prize: Jimmy Pham(Founder of KOTO, Vietnam)
 - Technology Prize: Kim, Myeong-hwan(President, LG Chem Battery Research Center)

POSCO Asia Fellowship



Academic and cultural exchange project aimed at enhancing mutual understanding among Asian countries and creating a friendly image of Korea and POSCO

Major projects

- **Scholarships to Asian students studying in Korea**
 - 352 students from 29 countries since 2005(including four African students)
- **Fostering Asia-specific professionals**
 - 136 persons from 22 countries since 2006
- **Support for research on Asian humanities and social sciences**
 - 281 projects from 15 countries since 2005(214 in Korea, 67 in other countries)
- **Scholarships to leading Asian universities**
 - 4,249 students in 33 universities of 17 countries since 2005(including 105 African students)
- **Quarterly literary journal "ASIA"**
 - Published 46 editions since its launch in May 2005

Major Activities of the POSCO Educational Foundation

School Operation **12 schools**
(two kindergartens, four elementary schools, two middle schools, and four high schools)

Donations (1976~2017) **KRW 1001.1 billion**
(KRW 927.9 billion for education and facilities, KRW 68.8 billion for profitable business, KRW 4.4 billion for employee welfare fund)

POSCO TJ Park Foundation

 Beneficiaries: 496
Accumulated: 10,841

Starting as the Steel Scholarship Foundation in 1971, the POSCO TJ Park Foundation is running diverse scholarship projects named POSCO TJ Park Prize, POSCO Asia Fellowship, TJ Park Science Fellowship, and POSCO Regional Scholarships. The POSCO TJ Park Foundation continuously has been awarding scholarships to future talent in Korea and other Asian countries in order to provide advanced education for the talent of emerging countries.

TJ Park Science Fellowship



Select 30 graduates in doctoral studies, post-doctoral researchers, and young assistant professors in the fields of mathematics, physics, chemistry, and biology and support them for two to three years in order to cultivate world-class scientists

- **Convergence field added in 2017**
 - Supported a total of 275 persons since November 2009

POSCO Regional Scholarships



Major projects

- **POSCO Rising Star Scholarship**
 - Promising high school students in Pohang and Gwangyang are selected and provided with high school tuition and a special scholarship when they enter university.
 - 785 students since 2006
- **POSCO Vision Scholarship**
 - Scholarship is awarded to students who work hard despite difficult circumstances
 - 439 students since 2006

Economic Empowerment

POSCO has been conducting social contribution activities to help individuals achieve stability in life through decent jobs which lead to the sustained, inclusive and sustainable economic growth. Also we are implementing social contribution programs to increase accessibility to employment and economic independence for vulnerable social groups. In particular, we have been provided various support for the marriage of migrant women to settle down as a member of Korean society. At the same time, we are helping local residents work and live stably by contributing to creating jobs and promoting local culture. We are also supporting all women and men, including young people and the disabled, in order to provide them with complete and productive employment, as well as quality work so that they may enjoy the benefits of labor.

Café O Asia



Beneficiaries
103

POSCO and SESNET(Social Enterprise Support Network) co-founded Café O Asia, which is the first social cooperative certified by the Ministry of Employment and Labor. It is a social franchise brand created by a cooperative of small-scale cafes. Café O Asia hires marriage migrant women as baristas to protect their labor rights, helps them in achieving self-reliance and supports them to adjust to their new life in Korea. It reduces costs through group purchasing and marketing and invests profits generated from the franchise business in campaigns for multicultural families and new job creation.

- Obtained certification as the first social cooperative by the Ministry of Employment and Labor on January 15, 2013
- 103 employees(including vulnerable class and migrant females) are working at 31 franchised cafes as of December 2017.

POSCO has conducted the “I’m CEO Project” to support married women in starting a café business so that they can settle down in society and achieve financial independence. As we improve their leadership by arranging them to participate in decision making at all levels, marriage migrant women can grow from trainees to baristas and then to managers and then CEOs. Last year, we helped women from the Philippines and North Korea open their own cafes. In 2017, Cambodian and Thai business women were able to begin their own business through a more systematic education on starting their own business.

Silver Home Care



Beneficiaries
30

Silver Home Care, which was developed from the Home Care for the Seniors started in Pohang in 2015, is a program where healthy elderly people(care providers) visit the homes of and help other elderly people with reduced mobility(care receivers). A care provider visits the home of a care receiver four times a month and cleans their house, helps the care receiver with eating and living and provides emotional support. In 2017, 180 elderly people received this service and 30 others found jobs through this program.

Sharing Happiness Lunch Box Project



Beneficiaries
10

Happiness Sharing Lunch Box Delivery Project is an activity to deliver warm and delicious lunch boxes to underprivileged senior citizens in the vicinity of Gwangyang Works. It also contributes to economic independence of other senior citizens in the local area by employing them to prepare the lunch boxes. Senior citizens cook delicious and nutritious dishes and pack the lunch boxes. Then it delivered to the elderly who may have mobility difficulties or live alone. On holidays, we invite senior citizens to celebrate together and share warm and delicious dishes.

Indonesian Social Enterprise



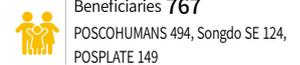
Beneficiaries
138

PT KPSE SI

In 2014, PT KPSE Services Indonesia(PT Krakatau POSCO Social Enterprise Services Indonesia) collaborated and established with the Korea International Corporation Agency(KOICA) in Cilegon City. It is the 1% Foundation Project to contribute to job creation within regional societies where POSCO is currently conducting business. This enterprise offers vocational training to youth in Samangraya, Kubangsari, and Tegalratu villages and returns its revenue and job opportunities to the local communities through social contribution activities. Over the course of six months, the selected trainee conduct in environmental management within the steelworks, including drainage way management and the recycling of resources. On the weekends, they also participate in training programs for enhancing job competence, including computing, mechanical maintenance and welding repair training. As their competency improves through such training, they are able to look for more stable jobs in subcontractors or external partner companies of the nearby the works.

Social Enterprises:

POSCOHUMANS, Songdo SE and POSPLATE



Beneficiaries 767
POSCOHUMANS 494, Songdo SE 124,
POSPLATE 149

POSCO has supported the establishment and development of social enterprises which helps to improve the quality of life through stable jobs by promoting productive activities and creation of jobs(UN SDG 8.3). Since the establishment of POSWITH in 2008, the nation’s first standard workplace for the disabled, we have established POSCO HOUSING in Pohang, POSPLATE in Gwangyang and Songdo SE in Incheon through which we employed the economically and socially vulnerable. Moreover, we provide support to social enterprises to build the foundation for their self-sufficient growth, and transferred our share of the social enterprise for free to the related organizations including competent NGOs.

POSCO 1% Foundation

The POSCO 1% Foundation is a non-profit organization which is operated by a fund that employees of POSCO, affiliated companies, and outsourcing companies donate 1% of their salary to every month.

Vision

With the vision of “Sharing 1% for a Better World,” the foundation is committed to spreading the value of sharing and creating a better tomorrow.

Purpose

We pursue sustainable growth together with local communities by engaging in diverse social contribution activities to spread the culture of 1% sharing.

Promoting the social welfare of marginalized people in Korea	Conducting relief activities in developing regions at home and abroad and supporting the self-reliance of people in such regions	Fostering culture and art and preserving traditional culture	Achieving other goals of the foundation
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Operation Direction

POSCO's Foundation Spirit Diffusion of the DNA for public interest Disseminating the DNA for public interest inherent in our spirit to lead national growth through steel Supporting the underprivileged	Global POSCO's Social Responsibilities Win-win growth with local communities Fulfilling our social responsibility as a global corporate citizen that operates diverse businesses at home and abroad Enhancing the competence of local communities at home and abroad	POSCO's Historic Meaning Preservation and diffusion of Korean values Supporting the preservation and succession of traditional heritage in accordance with POSCO's foundation background and corporate image as a national company Preservation and succession of cultural heritage
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1% Sharing for a Better World

Organization



03

Financial Statements

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Independent Auditors' Report

The Board of Directors and Shareholders
POSCO:

February 28, 2018

We have audited the accompanying consolidated financial statements of POSCO and its subsidiaries("the Company"), which comprise the consolidated statements of financial position as of December 31, 2017 and 2016, the consolidated statements of comprehensive income, changes in equity and cash flows for the years then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with Korean International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Korean Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2017 and 2016, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with Korean International Financial Reporting Standards.

Emphasis of matter

Without qualifying our opinion, we draw attention to the following key audit matters with regard to production-to-order transactions. Pursuant to "Practical Guide to Korean Standards on Auditing 2016-1", audit matters related to entities engaged in production-to-order transactions are of most significance in our audit of the consolidated financial statements, which determination is based on our professional judgment and communications with those charged with governance. These matters were addressed in the context of our audit of the consolidated financial statements as of and for the year ended December 31, 2017 as a whole, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have considered the results of audit procedures for the following key audit matters in forming our audit opinion of the consolidated financial statements.

(a) Overview

An overview of key audit matters related to the industry with production-to-order transactions described in this audit report is as follows. Certain subsidiaries of POSCO, including POSCO ENGINEERING & CONSTRUCTION CO., LTD. and POSCO ICT, are engaged in production-to-order transactions. Sales in relation to production-to-order transactions are approximately 11% of consolidated sales for the year ended December 31, 2017. When the outcome of a construction contract can be estimated reliably, the Company recognizes contract revenues and contract costs associated with the construction contract as revenue and expenses, respectively, based on the percentage-of-completion method at the end of the reporting period. The percentage-of-completion is calculated based on the ratio of contract costs incurred for work performed to date to estimated total contract costs. The gross amount due from customers for contract work is presented for all contracts in which costs incurred plus recognized profits(less recognized losses) exceeded progress billings. The gross amount due to customers for contract work is presented for all contracts in which progress billings exceed costs incurred plus recognized profits(less recognized losses). The related accounting policies and disclosures are included in notes 3 and 29 to the consolidated financial statements.

(b) Identification of significant risks and audit procedures

We identified the significant risks through discussions with auditors of certain subsidiaries in industry with production-to-order transactions and review of their audit documentation of identified significant risks. We also reviewed their audit procedures in responding to those significant risks, which were conducted based on their professional judgments. Our procedures included the review of the subsidiary auditors' audit results, inquiries and application of analytical and other procedures on their audit results. The identified significant risks and audit procedures for the Company's production-to-order transactions included the following:

1) Revenues recognized by the input method

We identified significant risks associated with revenues recognized by the input method. The variation of estimated amounts has significant impact on profit for the year ended December 31, 2017 and future periods because of the high degree of uncertainty of estimated total contract revenues and costs is for large-scale development constructions at initial stage, and constructions with delays and possibility of being discontinued.

Audit procedures regarding revenues recognized by the input method included the following.

- Evaluation and tests of the internal controls and computerized systems over the process of determination of accounting treatments in relation to revenue recognition by the input method
- Inquiries as to significant changes and progress of the contracts as of December 31, 2017
- Inquires as to rationale and reliability of estimated result of construction contract, the type of the contracts and classification of the contracts and obtaining confirmation letters on selected transactions
- Inspection of document regarding the terms of the contract

2) Uncertainty of estimated total contract costs

Construction contracts are generally performed for long term duration, and the total contract costs are estimated based on estimated future amounts such as material costs, labor costs, outsourcing costs and others which are expected to be incurred during construction period. The actual total contract costs can vary from the Company's original estimates because of changes in condition. Total estimated contract costs changed by W162,372 million for the year ended December 31, 2017(see note 29(d) to the consolidated financial statements). Considering possible impact from the uncertainty, we identified significant risks regarding uncertainty of estimated total contract costs.

Audit procedures regarding the impact of uncertainty of estimated total contract costs on the consolidated financial statements included the following.

- Evaluation and tests of the internal controls over the process of estimation of total contract costs
- Analytical review of the components of the total contract costs of major projects
- Inquiries to person in charge of construction field regarding rationale and reliability of the estimated result of total construction contract for major projects
- Inquiries and inspection of documents as to the cause of the changes for major projects in which significant changes in estimated total contract costs were made
- Inquiries and inspection of documents as to the cause of significant differences between estimated total cost ratio and the actual total cost ratio for completed projects

3) Assessment of the percentage-of-completion

Changes in the percentage-of-completion have significant impact on current and future profit of construction contract and may result in misstatement of profit or loss of construction contract. We identified significant risks regarding assessment of the percentage-of-completion as uncertainty of the percentage-of-completion has significant impact on profit or loss of construction contract in case the Company fails to estimate the percentage-of-completion reliably.

Audit procedures regarding total contract costs and cumulative incurred contract costs in assessing of the percentage-of-completion included in following.

- Evaluation and tests of the internal controls over the estimation of percentage of completion
- For selected samples from contract costs incurred during the year ended December 31, 2017, inspection of documentation on existence and timing of occurrence, and performance of cut-off test
- Recalculation of percentage-of-completion for major construction projects
- Inquiries as to the reasonableness of cumulative incurred contract costs and the progress rate

- Analytical review of major projects to see if there was a significant difference between the progress and the percentage of completion according to the input method as of December 31, 2017 and evaluation of the reasonableness of such difference by document inspection
- Inquiries and inspection of documents as to the cause of slow progress in the percentage of completion compared to the timeline of project

4) Recoverability of due from customers for contract work

As of December 31, 2017 and 2016, the amounts of due from customers for contract work are W850,301 million and W964,304 million, or 9% and 10% of consolidated trade accounts and note receivable(see note 29(b) to the consolidated financial statements) as of the respective reporting dates. We identified significant risks regarding the recoverability of due from customers for contract work as the amounts of due from customers for contract work are significant.

Audit procedures regarding the recoverability of due from customers for contract work included the following.

- Evaluation and tests of the internal controls over the process to assess recoverability of due from customers and measure impairment of related receivables
- Inquiries and inspection of documents to identify a project which has a significantly abnormal balance of due from customers compared to payment condition and condition of billing terms
- Assess the reasonableness of the basis for the evaluation of the possibility of the recovery of the amount related to the due from customers
- Inquiries and obtaining other related information on a sample basis to evaluate the credit risk of customer
- Assess the reasonableness of recoverability of due from customer of which balance has not changed for an extended period of time

5) Accounting for the variation of construction contract

Variation of construction contracts occurred during the year ended December 31, 2017 and had significant impact on profits or loss of the construction contract(see note 29(d) to the consolidated financial statements). We identified significant risks regarding the accounting for the variation of construction contract, including disclosures.

Audit procedures regarding accounting of the variation of construction contract and disclosures included the following.

- Evaluation and tests of the internal controls over risks associated with measurement and change the total contract revenue for each project
- For selected samples on contracts with changes, inspection of document and evaluation of appropriateness of the basis used for the calculating total contract revenue
- Inquiries and inspection of documents related to the causes of change when the contracted revenue significantly changed through the construction work change other than the initially agreed upon contracted amount
- Assess whether additional contract costs according to changes in construction work were reflected in the estimated total contract costs and percentage of completion
- Assess the contract information of major projects such as initially agreed upon contracted amount and others and inquiries to the person in charge of construction field

Other Matter

The procedures and practices utilized in the Republic of Korea to audit such consolidated financial statements may differ from those generally accepted and applied in other countries. Accordingly, this report and the accompanying consolidated financial statements are for use by those knowledgeable about Korean auditing standards and their application in practice.

152, Teheran-ro, Gangnam-gu, Seoul, Korea
(27th Floor, Gangnam Finance Center, Yeoksam-dong)

KPMG Samjong Accounting Corp.

CEO of Samjong KPMG
Kim Kyo-tae

This report is effective as of February 28, 2018, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that the above audit report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

Consolidated Statements of Financial Position

As of December 31, 2017 and 2016

(KRW in million)

	Notes	December 31, 2017	December 31, 2016
Assets			
Cash and cash equivalents	4,523	2,612,530	2,447,619
Trade accounts and notes receivable, net	6,17,23,29,37	8,950,548	9,786,927
Other receivables, net	7,23,37	1,636,006	1,539,742
Other short-term financial assets	8,23	7,045,880	5,224,911
Inventories	9	9,950,955	9,051,721
Current income tax assets	35	38,489	46,473
Assets held for sale	10	71,768	311,958
Other current assets	16	821,242	894,484
Total current assets		31,127,418	29,303,835
Long-term trade accounts and notes receivable, net	6,23	731,570	51,124
Other receivables, net	7,23,37	879,176	762,912
Other long-term financial assets	8,23	1,911,684	2,657,692
Investments in associates and joint ventures	11	3,557,932	3,882,389
Investment property, net	13	1,064,914	1,117,720
Property, plant and equipment, net	14	31,883,535	33,770,339
Intangible assets, net	15	5,952,269	6,088,729
Defined benefit assets, net	21	8,224	83,702
Deferred tax assets	35	1,419,226	1,476,873
Other non-current assets	16	489,011	567,680
Total non-current assets		47,897,541	50,459,160
Total assets		79,024,959	79,762,995
Liabilities			
Trade accounts and notes payable	23,37	3,465,146	4,073,286
Short-term borrowings and current installments of long-term borrowings	4,17,23	11,274,516	10,194,807
Other payables	18,23	1,753,461	1,851,659
Other short-term financial liabilities	19,23,37	129,812	149,748
Current income tax liabilities	35	515,538	446,071
Provisions	20	110,946	114,865
Other current liabilities	22,29	1,696,597	2,084,961
Total current liabilities		18,946,016	18,915,397
Long-term trade accounts and notes payable	23,37	12,532	44,512
Long-term borrowings, excluding current installments	4,17,23	9,789,141	12,510,191
Other payables	18,23	147,750	208,559
Other long-term financial liabilities	19,23	114,105	81,309
Defined benefit liabilities, net	21	137,193	123,604
Deferred tax liabilities	35	1,904,242	1,642,939
Long-term provisions	20	477,172	337,739
Other non-current liabilities	22	32,800	60,351
Total non-current assets		12,614,935	15,009,204
Total assets		31,560,951	33,924,601
Equity			
Share capital	24	482,403	482,403
Capital surplus	24	1,412,565	1,397,791
Hybrid bonds	25	996,919	996,919
Reserves	26	(682,556)	(143,985)
Treasury shares	27	(1,533,054)	(1,533,468)
Retained earnings		43,056,600	41,173,778
Equity attributable to owners of the controlling company		43,732,877	42,373,438
Non-controlling interests	25	3,731,131	3,464,956
Total equity		47,464,008	45,838,394
Total liabilities and equity		79,024,959	79,762,995

Consolidated Statements of Comprehensive Income

For the years ended December 31, 2017 and 2016

(KRW in million, except per share information)

	Notes	2017	2016
Revenue	28,29,37	60,655,100	53,083,513
Cost of sales	29,31,34,37	(52,299,189)	(46,393,962)
Gross profit		8,355,911	6,689,551
Selling and administrative expenses	30,34		
Administrative expenses	31	(2,176,800)	(2,291,540)
Selling expenses		(1,557,277)	(1,553,686)
Operating profit		4,621,834	2,844,325
Share of profit(loss) of equity-accounted investees, net	11	10,540	(88,677)
Finance income and costs	23,32		
Finance income		2,372,667	2,231,980
Finance costs		(2,484,277)	(3,014,190)
Other non-operating income and expenses	33,37		
Other non-operating income		451,224	215,136
Other non-operating expenses	34	(792,296)	(755,720)
Profit before income tax		4,179,692	1,432,854
Income tax expense	35	(1,206,223)	(384,685)
Profit		2,973,469	1,048,169
Other comprehensive income(loss)			
Items that will not be reclassified subsequently to profit or loss:			
Remeasurements of defined benefit plans, net of tax	21	(47,543)	20,540
Items that are or may be reclassified subsequently to profit or loss:			
Capital adjustment arising from investments in equity-accounted investees		(217,388)	134,590
Net changes in unrealized fair value of available-for-sale investments, net of tax	23	(31,389)	310,608
Foreign currency translation differences, net of tax		(264,695)	(11,491)
Gain or losses on valuation of derivatives, net of tax	23	(143)	-
Other comprehensive income(loss), net of tax		(561,158)	454,247
Total comprehensive income		2,412,311	1,502,416
Profit attributable to:			
Owners of the controlling company		2,790,106	1,363,310
Non-controlling interests		183,363	(315,141)
Profit		2,973,469	1,048,169
Total comprehensive income attributable to:			
Owners of the controlling company		2,218,278	1,822,533
Non-controlling interests		194,033	(320,117)
Total comprehensive income		2,412,311	1,502,416
Basic and diluted earnings per share(in Won)	36	34,464	16,627

Consolidated Statements of Changes in Equity

For the years ended December 31, 2017 and 2016

(KRW in million)

	Attributable to owners of the controlling company							Non-controlling interests	Total
	Share capital	Capital surplus	Hybrid bonds	Reserves	Treasury shares	Retained earnings	Sub total		
Balance as of January 1, 2016	482,403	1,383,623	996,919	(594,756)	(1,533,898)	40,501,059	41,235,350	3,834,872	45,070,222
Comprehensive income:									
Profit	-	-	-	-	-	1,363,310	1,363,310	(315,141)	1,048,169
Other comprehensive income(loss)									
Remeasurements of defined benefit plans, net of tax	-	-	-	-	-	9,787	9,787	10,753	20,540
Capital adjustment arising from investments in equity-accounted investees, net of tax	-	-	-	124,626	-	-	124,626	9,964	134,590
Net changes in the unrealized fair value of available-for-sale investments, net of tax	-	-	-	314,428	-	-	314,428	(3,820)	310,608
Foreign currency translation differences, net of tax	-	-	-	10,382	-	-	10,382	(21,873)	(11,491)
Total comprehensive income	-	-	-	449,436	-	1,373,097	1,822,533	(320,117)	1,502,416
Transactions with owners of the controlling company, recognized directly in equity :									
Year-end dividends	-	-	-	-	-	(479,974)	(479,974)	(50,333)	(530,307)
Interim dividends	-	-	-	-	-	(179,992)	(179,992)	-	(179,992)
Changes in subsidiaries	-	-	-	-	-	-	-	49,250	49,250
Changes in ownership interests in subsidiaries	-	8,650	-	-	-	-	8,650	(16,544)	(7,894)
Interest of hybrid bonds	-	-	-	-	-	(43,832)	(43,832)	(24,253)	(68,085)
Disposal of treasury shares	-	32	-	-	430	-	462	-	462
Others	-	5,486	-	1,335	-	3,420	10,241	(7,919)	2,322
Total transactions with owners of the controlling company	-	14,168	-	1,335	430	(700,378)	(684,445)	(49,799)	(734,244)
Balance as of December 31, 2016	482,403	1,397,791	996,919	(143,985)	(1,533,468)	41,173,778	42,373,438	3,464,956	45,838,394
Balance as of January 1, 2017	482,403	1,397,791	996,919	(143,985)	(1,533,468)	41,173,778	42,373,438	3,464,956	45,838,394
Comprehensive income:									
Profit	-	-	-	-	-	2,790,106	2,790,106	183,363	2,973,469
Other comprehensive income(loss)									
Remeasurements of defined benefit plans, net of tax	-	-	-	-	-	(38,043)	(38,043)	(9,500)	(47,543)
Capital adjustment arising from investments in equity-accounted investees, net of tax	-	-	-	(214,794)	-	-	(214,794)	(2,594)	(217,388)
Net changes in the unrealized fair value of available-for-sale investments, net of tax	-	-	-	(45,953)	-	-	(45,953)	14,564	(31,389)
Foreign currency translation differences, net of tax	-	-	-	(272,902)	-	-	(272,902)	8,207	(264,695)
Gain or losses on valuation of derivatives, net of tax	-	-	-	(136)	-	-	(136)	(7)	(143)
Total comprehensive income	-	-	-	(533,785)	-	2,752,063	2,218,278	194,033	2,412,311
Transactions with owners of the controlling company, recognized directly in equity :									
Year-end dividends	-	-	-	-	-	(459,987)	(459,987)	(42,909)	(502,896)
Interim dividends	-	-	-	-	-	(359,993)	(359,993)	-	(359,993)
Changes in subsidiaries	-	-	-	-	-	-	-	(7,151)	(7,151)
Changes in ownership interests in subsidiaries	-	16,287	-	-	-	-	16,287	147,420	163,707
Interest of hybrid bonds	-	-	-	-	-	(43,600)	(43,600)	(24,187)	(67,787)
Disposal of treasury shares	-	126	-	-	414	-	540	-	540
Others	-	(1,639)	-	(4,786)	-	(5,661)	(12,086)	(1,031)	(13,117)
Total transactions with owners of the controlling company	-	14,774	-	(4,786)	414	(869,241)	(858,839)	72,142	(786,697)
Balance as of December 31, 2017	482,403	1,412,565	996,919	(682,556)	(1,533,054)	43,056,600	43,732,877	3,731,131	47,464,008

Consolidated Statements of Cash Flows

For the years ended December 31, 2017 and 2016

(KRW in million)

	Notes	2017	2016
Cash flows from operating activities			
Profit		2,973,469	1,048,169
Adjustments for:			
Depreciation		2,887,646	2,835,843
Amortization		409,774	378,004
Finance income		(1,376,324)	(882,905)
Finance costs		1,440,282	1,501,953
Income tax expense		1,206,223	384,685
Impairment losses on property, plant and equipment		117,231	196,882
Gain on disposal of property, plant and equipment		(32,145)	(23,826)
Loss on disposal of property, plant and equipment		151,343	86,622
Impairment losses on goodwill and intangible assets		167,995	127,875
Gain on disposal of investments in subsidiaries, associates and joint ventures		(81,794)	(23,305)
Loss on disposal of investments in subsidiaries, associates and joint ventures		19,985	22,499
Share of loss(profit) of equity-accounted investees		(10,540)	88,677
Impairment losses on assets held for sale		-	24,890
Gain on disposal of assets held for sale		(1,180)	(23,112)
Expenses related to post-employment benefits		199,926	333,139
Bad debt expenses		271,871	202,717
Loss on valuation of inventories		78,560	152,249
Increase to provisions		215,383	189,914
Others, net		(32,484)	8,133
		5,631,752	5,580,934
Changes in operating assets and liabilities	39	(1,926,274)	(425,815)
Interest received		244,980	206,839
Interest paid		(735,735)	(691,264)
Dividends received		225,514	152,559
Income taxes paid		(806,396)	(602,004)
Net cash provided by operating activities		5,607,310	5,269,418
Cash flows from investing activities			
Acquisitions of short-term financial instruments		(20,843,530)	(18,578,809)
Proceeds from disposal of short-term financial instruments		19,146,634	17,177,409
Increase in loans		(1,055,895)	(603,332)
Collection of loans		667,045	557,064
Acquisitions of available-for-sale investments		(66,278)	(328,151)
Proceeds from disposal of available-for-sale investments		1,006,856	280,066
Acquisitions of investment in associates and joint ventures		(60,277)	(173,769)
Proceeds from disposal of investment in associates and joint ventures		74,881	7,914
Acquisitions of investment property		(69,169)	(45,735)
Proceeds from disposal of investment property		5,771	11,624
Acquisitions of property, plant and equipment		(2,287,580)	(2,324,112)
Proceeds from disposal of property, plant and equipment		39,183	44,330
Acquisitions of intangible assets		(343,423)	(138,181)
Proceeds from disposal of intangible assets		28,502	8,672
Proceeds from disposal of assets held for sale		203,958	305,813
Increase in cash(payment for) acquisition of business, net of cash acquired		(174,165)	4,503
Cash received(decrease in cash) from disposal of business, net of cash transferred		(53,008)	21,223
Others, net		(37,379)	18,844
Net cash used in investing activities		(3,817,874)	(3,754,627)
Cash flows from financing activities			
Proceeds from borrowings		1,725,983	1,988,665
Repayment of borrowings		(3,136,016)	(4,274,895)
Proceeds from(repayment of) short-term borrowings, net		558,083	(885,861)
Capital contribution from non-controlling interests		266,219	24,704
Payment of cash dividends		(863,450)	(708,970)
Payment of interest of hybrid bonds		(67,783)	(68,097)
Others, net		(48,564)	(26,513)
Net cash used in financing activities	39	(1,565,528)	(3,950,967)
Effect of exchange rate fluctuation		(58,997)	12,611
Net increase(decrease) in cash and cash equivalents		164,911	(2,423,565)
Cash and cash equivalents at beginning of the year	5	2,447,619	4,871,184
Cash and cash equivalents at end of the year	5	2,612,530	2,447,619

Separate Statements of Financial Position

As of December 31, 2017 and 2016

(KRW in million)

	Notes	December 31, 2017	December 31, 2016
Assets			
Cash and cash equivalents	4,5,22	332,405	120,529
Trade accounts and notes receivable, net	6,22,36	3,867,714	3,216,209
Other receivables, net	7,22,36	210,230	246,061
Other short-term financial assets	8,22	5,824,087	4,130,963
Inventories	9,33	4,543,533	3,995,291
Assets held for sale	10	34,545	764
Other current assets	15	27,907	22,859
Total current assets		14,840,421	11,732,676
Long-term trade accounts and notes receivable, net	6,22	12,774	14,040
Other receivables, net	7,22	62,421	87,669
Other long-term financial assets	8,22	1,393,316	2,145,570
Investments in subsidiaries, associates and joint ventures	11	15,098,856	15,031,385
Investment property, net	12	97,307	86,296
Property, plant and equipment, net	13	21,561,270	22,257,409
Intangible assets, net	14	528,074	508,890
Defined benefit assets, net	20	-	81,621
Other non-current assets	15	97,819	110,197
Total non-current assets		38,851,837	40,323,077
Total assets		53,692,258	52,055,753
Liabilities			
Trade accounts and notes payable	22,36	1,025,027	1,082,927
Short-term borrowings and current installments of long-term borrowings	4,16,22,38	1,235,707	364,840
Other payables	17,22,36,38	862,535	866,074
Other short-term financial liabilities	18,22,38	23,164	16,508
Current income tax liabilities	34	351,148	315,530
Provisions	19	18,166	14,154
Other current liabilities	21	54,401	37,219
Total current liabilities		3,570,148	2,697,252
Long-term borrowings, excluding current installments	4,16,22,38	2,665,517	3,778,014
Other payables	17,22,38	78,481	117,310
Other long-term financial liabilities	18,22,38	129,176	72,742
Defined benefit liabilities, net	20	43	-
Deferred tax liabilities	34	1,273,896	1,015,966
Long-term provisions	19	19,250	29,506
Other non-current liabilities	21	14,292	15,516
Total non-current liabilities		4,180,655	5,029,054
Total liabilities		7,750,803	7,726,306
Equity			
Share capital	23	482,403	482,403
Capital surplus	23	1,156,429	1,156,303
Hybrid bonds	24	996,919	996,919
Reserves	25	233,390	284,240
Treasury shares	26	(1,533,054)	(1,533,468)
Retained earnings	27	44,605,368	42,943,050
Total equity		45,941,455	44,329,447
Total liabilities and equity		53,692,258	52,055,753

Separate Statements of Comprehensive Income

For the years ended December 31, 2017 and 2016

(KRW in million, except per share information)

	Notes	2017	2016
Revenue	28,36	28,553,815	24,324,933
Cost of sales	9,20,30,33,36	(23,832,804)	(19,903,596)
Gross profit		4,721,011	4,421,337
Selling and administrative expenses			
Administrative expenses	20,22,29,30,33	(896,061)	(889,277)
Selling expenses	29,33	(922,497)	(896,723)
Operating profit		2,902,453	2,635,337
Finance income and costs			
Finance income	22,31	1,143,692	756,480
Finance costs	22,31	(667,207)	(882,511)
Other non-operating income and expenses			
Other non-operating income	32,36	436,075	81,869
Other non-operating expenses	32,33,36	(460,272)	(401,841)
Profit before income tax		3,354,741	2,189,334
Income tax expense	34	(809,056)	(404,288)
Profit		2,545,685	1,785,046
Other comprehensive income(loss)			
Items that will not be reclassified subsequently to profit or loss:			
Remeasurements of defined benefit plans, net of tax	20	(19,787)	(768)
Items that are or may be reclassified subsequently to profit or loss:			
Net changes in unrealized fair value of available-for-sale investments, net of tax	8,22,25	(50,850)	314,258
Total comprehensive income		2,475,048	2,098,536
Basic and diluted earnings per share(in Won)	35	31,409	21,899

Separate Statements of Changes in Equity

For the years ended December 31, 2017 and 2016

(KRW in million)

	Share capital	Capital surplus	Hybrid bonds	Reserves	Treasury shares	Retained earnings	Total
Balance as of January 1, 2016	482,403	1,247,581	996,919	(30,018)	(1,533,898)	41,862,570	43,025,557
Comprehensive income:							
Profit	-	-	-	-	-	1,785,046	1,785,046
Other comprehensive income(loss)							
Remeasurements of defined benefit plans, net of tax	-	-	-	-	-	(768)	(768)
Net changes in unrealized fair value of available-for-sale investments, net of tax	-	-	-	314,258	-	-	314,258
Transactions with owners of the Company, recognized directly in equity:							
Year-end dividends	-	-	-	-	-	(479,974)	(479,974)
Interim dividends	-	-	-	-	-	(179,992)	(179,992)
Business combination	-	(91,310)	-	-	-	-	(91,310)
Interest of hybrid bonds	-	-	-	-	-	(43,832)	(43,832)
Disposal of treasury shares	-	32	-	-	430	-	462
Balance as of December 31, 2016	482,403	1,156,303	996,919	284,240	(1,533,468)	42,943,050	44,329,447
Balance as of January 1, 2017	482,403	1,156,303	996,919	284,240	(1,533,468)	42,943,050	44,329,447
Comprehensive income:							
Profit	-	-	-	-	-	2,545,685	2,545,685
Other comprehensive income(loss)							
Remeasurements of defined benefit plans, net of tax	-	-	-	-	-	(19,787)	(19,787)
Net changes in unrealized fair value of available-for-sale investments, net of tax	-	-	-	(50,850)	-	-	(50,850)
Transactions with owners of the Company, recognized directly in equity:							
Year-end dividends	-	-	-	-	-	(459,987)	(459,987)
Interim dividends	-	-	-	-	-	(359,993)	(359,993)
Interest of hybrid bonds	-	-	-	-	-	(43,600)	(43,600)
Disposal of treasury shares	-	126	-	-	414	-	540
Balance as of December 31, 2017	482,403	1,156,429	996,919	233,390	(1,533,054)	44,605,368	45,941,455

Separate Statements of Cash Flows

For the years ended December 31, 2017 and 2016

(KRW in million)

	Notes	2017	2016
Cash flows from operating activities			
Profit		2,545,685	1,785,046
Adjustments for:			
Costs for defined benefit plans		102,884	111,086
Depreciation		2,092,603	2,061,408
Amortization		91,603	79,655
Bad debt expenses		18,133	54,130
Finance income		(940,180)	(508,824)
Finance costs		448,249	565,366
Loss on valuation of inventories		2,363	11,843
Gain on disposal of property, plant and equipment		(26,284)	(19,579)
Loss on disposal of property, plant and equipment		140,987	93,536
Impairment losses on property, plant and equipment		17,651	58,388
Gain on disposal of intangible assets		(24,542)	(4,963)
Impairment losses on intangible assets		11,822	1,545
Impairment losses on investments in subsidiaries, associates and joint ventures		173,284	184,283
Reversal of impairment loss on investments in subsidiaries, associates and joint ventures		(225,860)	—
Gain on disposal of assets held for sale		(87)	(6,814)
Impairment loss on assets held for sale		21,873	—
Increase to provisions		403	15,520
Income tax expense		809,056	404,288
Others		8,241	(9,725)
Changes in operating assets and liabilities		(1,338,714)	(694,145)
Interest received		89,041	80,865
Interest paid		(139,766)	(192,795)
Dividends received		159,506	144,388
Income taxes paid		(483,988)	(375,393)
Net cash provided by operating activities		3,553,963	3,839,109
Cash flows from investing activities			
Proceeds from disposal of short-term financial instruments		18,791,233	17,038,277
Proceeds from disposal of long-term financial instruments		1	—
Proceeds from disposal of available-for-sale financial assets		994,901	266,976
Proceeds from disposal of investments in subsidiaries, associates and joint ventures		6,112	4,850
Proceeds from disposal of intangible assets		23,431	7,076
Proceeds from disposal of assets held for sale		667	166,791
Proceeds from business combination		—	24,250
Acquisition of short-term financial instruments		(20,482,051)	(17,870,819)
Acquisition of available-for-sale investments		(15,264)	(271,434)
Increase in long-term loans		(60)	(66)
Acquisition of investment in subsidiaries, associates and joint ventures		(115,147)	(329,071)
Acquisition of property, plant and equipment		(1,594,897)	(1,875,111)
Payment for disposal of property, plant and equipment		(3,654)	(18,358)
Acquisition of intangible assets		(69,923)	(21,050)
Net cash used in investing activities		(2,464,651)	(2,877,689)
Cash flows from financing activities			
Proceeds from borrowings		654,242	1,082,339
Increase in long-term financial liabilities		2,517	4,422
Repayment of borrowings		(658,144)	(2,844,151)
Decrease in long-term financial liabilities		(9,136)	(8,720)
Payment of cash dividends		(820,102)	(665,168)
Payment of interest of hybrid bonds		(43,600)	(43,719)
Net cash used in financing activities		(874,223)	(2,474,997)
Changes in cash due to foreign currency translation		(3,213)	—
Net increase(decrease) in cash and cash equivalents		211,876	(1,513,577)
Cash and cash equivalents at beginning of the year		120,529	1,634,106
Cash and cash equivalents at end of the year		332,405	120,529

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Assurance Report

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Independent Assurance Report

To the management of POSCO

We have been engaged by POSCO (the “Company”) to perform an independent assurance engagement in regard to the following aspects of POSCO REPORT 2017 (the “Report”).

Scope and subject matter

The information for the year ended December 31, 2017 (hereinafter, collectively referred to as the “Sustainability information”) on which we provide limited assurance consists of:

- The Company’s conclusion on meeting the principles of Inclusivity, Materiality and Responsiveness in the AA1000 AccountAbility Principles.
- The non-financial information, stated in “GRI (Global Reporting Initiative) Standard Index (the pages 157 through 162)” as subject to an external assurance (the “Sustainability Data”) is prepared based on the reporting principles set out on GRI Standard with Core option

We read the other information included in the Report and considered whether it was consistent with the Sustainability Information. We considered the implications for our report in the case that we became aware of any apparent misstatements or material inconsistencies with the Sustainability Information. Our responsibilities do not extend to any other information.

Assurance work performed

We conducted our engagement in accordance with ISAE 3000⁽¹⁾ and AA1000AS⁽²⁾. The term ‘moderate assurance’ used in AA1000AS(2008) is designed to be consistent with ‘limited assurance’ as articulated in ISAE 3000. Our assurance is a Type II assurance engagement as defined in the AA1000AS(2008).

Our work involved the following activities:

1. Interviews with the personnel responsible for internal reporting and data collection to discuss their approaches to stakeholder inclusivity, materiality and responsiveness
2. Visits to the Company’s headquarter in Pohang, Pohang Works, Seoul office and 7 POSCO subsidiaries’ headquarters to understand the systems and processes in place for managing and reporting the Sustainability Data
3. Review of samples of internal documents relevant to output from the risk assessment process, sustainability-related policies and standards, the sustainability materiality assessment matrix and other documents from stakeholder-engaged activities
4. Evaluating the design and implementation of key processes and controls for managing and reporting the Sustainability Data
5. Limited testing, through inquiry and analytical review procedures, of the preparation and collation of the Sustainability Data
6. Interviews with the management of the Company

Respective responsibilities of the management of the Company and Samil PricewaterhouseCoopers

The management of the Company is responsible for establishing reporting principles that meet the principles of Inclusivity, Materiality and Responsiveness in the AA1000APS, measuring performance based on the reporting principles, and reporting this performance in the Report.

Our responsibility is to provide a conclusion based on our assurance procedures in accordance with ISAE 3000 and AA1000AS.

This report, including the conclusion, has been prepared for the management of the Company as a body, to assist the management in reporting on the Company’s sustainability performance and activities. We do not accept or assume responsibility to anyone other than the management of the Company as a body and the Company for our work or this report save where terms are expressly agreed and with our prior consent in writing.

Inherent limitations

Non-financial performance information is subject to more inherent limitations than financial information, given the characteristics of the subject matter and the methods used for determining such information. Qualitative interpretations of relevance, materiality and the accuracy of data are subject to individual assumptions and judgments.

A limited assurance engagement is less in scope than a reasonable assurance engagement under ISAE 3000. Consequently, the nature, timing and extent of procedures for gathering sufficient, appropriate evidence are deliberately limited relative to a reasonable assurance engagement.

In particular:

- We did not attend any stakeholder-engaged activities. Therefore our conclusion is based on our discussions with the management and the staff of the Company, and our review of sampled documents provided to us by the Company.
- The scope of our work was restricted to 2017 performance only, as set out in the scope and subject matter section above. Information related to the year ended December 31, 2016 and earlier periods have not been subject to assurance by us.

1) International Standard on Assurance Engagements 3000 – ‘Assurance Engagements other than Audits or Reviews of Historical Financial Information’ issued by International Auditing and Assurance Standards Board

2) AA1000 Assurance Standard(2008), issued by AccountAbility

Conclusion

Based on the results of the assurance work performed, our conclusion is as follows

On the AA1000APS principles

- Inclusivity
 - The Company has collected concerns and opinion through stakeholder communication channels that include those of Customers, Partners, Stakeholders, Communities and Employees.
 - Nothing has come to our attention to suggest that material stakeholder groups were excluded from these channels.
- Materiality
 - The Company has identified most relevant and significant sustainability issues through process for identifying material issues.
 - Nothing has come to our attention to suggest that material issues were omitted in this process.
- Responsiveness
 - The Company has included in the Report its response to the material sustainability issues which are defined through process for identifying material issues.
 - Nothing has come to our attention to suggest that there were material deficiencies in the issue management system.

Nothing has come to our attention that causes us to believe that the Sustainability Data for the year ended December 31, 2017 is not fairly stated, in all material respects, in accordance with the Company's internal reporting principles set out on GRI Standard with Core option.

Recommendations

As a result of our work, we have provided the following recommendations to the management.

- POSCO will need to strengthen the process of data compilation in accordance with the GRI standard, the guideline for sustainability management, in order to achieve a systematic and consistent explanation of the company's sustainability management performances to external stakeholders. Moreover, a quantitative target should be set on the basis of UN SDGs and disclose the company's progress on achieving the target.
- POSCO will need to continuously monitor the changing business environment, such as the introduction of the Stewardship Code, revision of the Industry Development Law which are the results of Korean government efforts to enhance company's sustainability management performances.
- In order to materialize the value of POSCO's group-wide sustainable activities, POSCO will need to measure and share the financial value of the social and environmental impact the company has created with its internal and external stakeholders

Samil PricewaterhouseCoopers
Seoul, Korea
Jae Heum Park, Partner

Samil PricewaterhouseCoopers
Jaeheum Park

May 25th, 2018



Independent Assurance Report On Carbon Reporting

To the management of POSCO

We have been engaged by POSCO(the “Company”) to perform an independent assurance engagement in regard to the following aspects of Climate Change of POSCO REPORT 2017(the “Report”) on the pages 82 through 97.

Scope and subject matter

The information for the year ended December 31, 2017 (hereinafter, collectively referred to as the subject matters) on which we provide limited assurance consists of:

- Direct(Scope 1) and indirect(Scope 2) CO₂ emissions per ton of crude steel for the year ended December 31, 2017 as described in table on page 85 and page 87.
- Social GHG Reduction Effect data and the amount of investments in energy recycling facilities and process innovation that were completed in 2017 and investments initiated in 2017 for the research and development projects to reduce CO₂ emissions on page 87 through 89.

We read the other information included in the Report and considered whether it was consistent with the subject matters. We considered the implications for our report in the case that we became aware of any apparent misstatements or material inconsistencies with the subject matters. Our responsibilities do not extend to any other information.

Assurance work performed

We conducted our limited assurance engagement in accordance with the International Standard on Assurance Engagements 3000 – Assurance Engagements Other than Audits or Reviews of Historical Financial Information(“ISAE 3000”) and in respect of direct(Scope 1) and indirect(Scope 2) CO₂ emissions per ton of crude steel, International Standard on Assurance Engagements 3410 - Assurance Engagements on Greenhouse Gas Statements(“ISAE 3410”) issued by the International Auditing and Assurance Standard Board.

For the subject matters of limited assurance, our work included primarily inquiries of Company’s personnel and analytical procedures applied to the subject matters. We planned and performed our work so as to obtain moderate assurance as to whether the subject matters are free of material misstatement.

Respective responsibilities of the management of the Company and Samil PricewaterhouseCoopers

The Company’s management is responsible for the preparation and fair presentation of the subject matters in accordance with the criteria set forth in the POSCO GHG Accounting Guidelines and the POSCO Carbon Reporting Procedures.

Our responsibility is to provide a conclusion on the subject matters based on our assurance procedures.

This report, including the conclusion, has been prepared for the management of the Company as a body, to assist the management in reporting on the Company’s carbon emissions performance and activities. We do not accept or assume responsibility to anyone

other than the management of the Company as a body and the Company for our work or this report save where terms are expressly agreed and with our prior consent in writing.

Inherent limitations

Non-financial performance information is subject to more inherent limitations than financial information, given the characteristics of the subject matters and the methods used for determining such information. The absence of a significant body of established practice on which to draw allows for the selection of different but acceptable measurement techniques that can result in materially different measurements and can impact accuracy and comparability. The precision of different measurement techniques may also vary. Furthermore, the nature and methods used to determine such information, as well as the measurement criteria and the precision thereof, may change over time. It is important to read the subject matters in the context of the POSCO GHG Accounting Guidelines and the POSCO Carbon Reporting Procedures.

A limited assurance engagement is less in scope than a reasonable assurance engagement under ISAE 3000. Consequently, the nature, timing and extent of procedures for gathering sufficient, appropriate evidence are deliberately limited relative to a reasonable assurance engagement.

In particular, the conversion of material used to carbon emissions is based upon, inter alia, information and factors derived by independent third parties and our assurance work has not included examination of the derivation of those factors and other third party information.

Conclusion

Based on the results of the assurance work performed, our conclusion is as follows.

- Direct(Scope 1) and indirect(Scope 2) CO₂ emissions per ton of crude steel for the year ended December 31, 2017 are fairly stated, in all material respects, in accordance with the POSCO GHG Accounting Guidelines.
- Nothing has come to our attention that causes us to believe that Social GHG Reduction Effect data for the year ended December 31, 2017, and the amount of investments in energy recycling facilities and process innovation that were completed in 2017 and investments initiated in 2017 for the research and development projects to reduce CO₂ emissions are not presented fairly, in all material respects, in accordance with the POSCO Carbon Reporting Procedures set out on GRI Standard guidelines with Core option.

Samil PricewaterhouseCoopers
Seoul, Korea

Jae Heum Park, Partner

Samil PricewaterhouseCoopers

Jae Heum Park

May 25th, 2018

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Norms and Guidelines

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Code of conduct for POSCO Group supplier

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Code of Ethics

I . CEO Message

The proud foundational spirit of patriotism in steelmaking based on sacrifice and service is the spiritual foundation that must be permanently preserved and cultivated by all POSCO members.

The values of integrity, fairness and trust have been the greatest assets that made POSCO what it is today, and they also embody the greatest value criteria that will sustain POSCO and open up a new future.

POSCO's business focus, which first began from steel, is broadening its scope; and its sphere of activity is also now reaching out to the world beyond Korea. Our ethical standards should also be enhanced to meet those of world-class levels.

I will place utmost priority to ethics in management, and raise the company to the upper echelon of the global business community. To this end, I will channel all necessary interests and efforts as a CEO and spare no management resources. We must keep in mind that with regards to POSCO's management philosophy, ethics should always take priority over benefits when the two are in conflict; and we must always give top priority to ethics in all judgments and behaviors.

We will strictly adhere to a zero tolerance policy for the four unethical practices, such as accepting bribes, embezzlement, fabrication of information, and violation of sexual ethics. Our esteemed employees! We must firmly establish an ethical corporate culture and allow ourselves to become the best trading partner for clients, the best investment for shareholders, and the best workplace for the enduring happiness of employees.

Accordingly, we must evolve POSCO into a company that achieves win-win growth and development alongside all of our stakeholders. This is the way for us to fulfill our vision of POSCO the Great.

II . Ethics Charter

1 Preamble

This code of ethics establishes the ethical values and behavioral standards that must be preserved and developed by all POSCO Group employees by inheriting the foundation spirit of patriotism in steelmaking based on sacrifice and service while reflecting the new spirit of the times.

It is our unchanging value to establish a corporate image that can be trusted by all stakeholders with the highly prioritized value criteria of integrity, fairness and honesty.

As a result, POSCO enacted the code of ethics in 2003 that must be adhered to by all employees, and explicitly included the US Human Rights that claim to support respect for human life and dignity in 2014. At this time, POSCO has amended the code of ethics with tighter ethical standards according to the intent of management innovation that places the highest value on ethics in management.

This code of ethics consists of the preamble, followed by the principles of ethics that reflect compliance and responsibility of employees regarding the code of ethics, and practical guidelines that set the standard for ethical decision-making.

All employees of POSCO Group must strictly comply with the principles of ethics and practical guidelines set by this code of ethics in all aspects of business.

This is how we all can proudly preserve the credibility of POSCO as we know it today, formed by the blood, sweat, and tears of our founding members.

2 Principles of Ethics

① Duty of Compliance with the Code of Ethics

- We must comply with related rules and regulations in all areas of the world where POSCO is conducting business operations.
- We must retain our dignity as POSCO employees and make efforts to maintain the company's reputation.
- We must preserve integrity, fairness and trust throughout all jobs and business relations.
- We must not become engaged in activities in which there are conflicts of interests between the company and individual.
- We must not irrationally discriminate against other employees or stakeholders based on race, nationality, gender, age, academic background, religion, disability, marriage, and gender identity, and respect individual dignity and diversity.
- We must make efforts to create a safe workplace and protect the environment.
- We must be devoted to establishing an ethical culture by taking responsibility and practicing ethical conduct.

② Role and Responsibility of Employees

Employees must understand and practice all aspects of the code of ethics, and comply with domestic and international laws regarding anti-corruption as members of a global company.

Understanding and Complying with the Code of Ethics.

- We must fully understand and faithfully comply with all aspects of the code of ethics.
- Regarding situations in which there are conflicts concerning the code of ethics, decisions must be made after consulting with the department head or the Ethics Management Office.
- We must take responsibility for unethical conduct.

Reporting and Consulting Unethical Conduct

- If we find out that our or others' behavior conflicts with the code of ethics, we must immediately report to and consult with the department head or the Righteous Management Office.
- We must be aware of various methods to report or consult about cases in which there are conflicts over the code of ethics.

Role and Responsibility of the Leader

The leader must perform a key role in enhancing the competitiveness of the company by preventing and eradicating unethical conduct through ethical compliance.

- ① Decision-making
 - The leader has the obligation to make decisions with ethics being the top priority whenever the company's benefits conflict with ethics.
- ② Operational accountability
 - The leader possesses unlimited liability in unethical conduct, and must take supervisory responsibility in case of unethical conduct by his or her subordinates.
- ③ Job performance
 - The leader strictly abides by the laws and company regulations, does not pursue private interests, is devoted to creating corporate values, and does not deal with corrupt stakeholders.
- ④ Elimination of favors and solicitations
 - The leader eliminates all forms of favors and solicitations and prohibits business influence in relation to outsiders.
- ⑤ Respect for humans
 - The leader strives to eliminate conduct that impairs respect for fellow humans such as sexual harassment and verbal abuse in the organization.

⑥ Practical activities

- The leader is devoted to increasing the level of ethical practice to that of world-class levels by taking the initiative in operating the 'Ethical Practice Programs'.

The leader must prevent unethical conduct of affiliated members, and take the following measures in case of occurring such conduct.

① Training and counseling on ethics

- The leader must provide training and counseling on ethics for relevant staff.
- The leader must have relevant staff understand the importance of compliance with the code of conduct and practice of ethical conduct.

② Precautions for unethical conduct

- In case of unethical conduct that occurs habitually, the leader must isolate the cause, improve the process, and fundamentally take preventive measures.
- The leader must report to or consult with the Righteous Management Office immediately after receiving a report that a member has violated the code of ethics.

③ Penalties for Violation of the Code of Ethics

Employees violating the code of ethics may receive certain penalties including dismissal according to related regulations. In particular, the zero-tolerance policy is applied to unethical conducts such as accepting bribes, embezzlement, fabrication of information, and violation of sexual ethics*.

Conducts Subject to Penalty

- If one has violated the code of ethics or demanded others to do so
- If one has not immediately reported a violation of the code of ethics that he or she is aware of or is skeptical about
- If one does not cooperate with the investigation of the Righteous Management Office regarding matters that may have violated the code of ethics
- If one takes retaliatory action against other employees who reported an issue regarding ethical management

* Accepting bribes: Conduct that receives money or valuables exceeding the scope which is socially acceptable from stakeholders, Embezzlement: Conduct that misappropriates company's money or assets illegally, Fabrication of information: Conduct that forges, conceals, and distributes business information in an untruthful manner, Violation of sexual ethics: Conduct that causes sexual humiliation by sexual harassment or assault.

III. Practice Guidelines

① Practice of Ethics and Compliance with Law

As a global enterprise, we will nurture ethical corporate culture by performing management activities faithful to basic principles and complying with laws and ethics.

① Money and Other Valuables

- Money and other valuables mean money (e.g. cash, gift certificates, and memberships) and things that can bring economic benefits.
- By all means, employees must not offer or receive money or valuables from stakeholders*. However, any of the following conditions is excluded.
- Gifts for promotion or publicity that do not exceed 50,000 KRW
 - However, only 100,000 won is allowed for agricultural and fishery and processed goods (including wreath).
- Souvenirs which are imprinted with stakeholder companies' logos that do not exceed 50,000 KRW and are generally offered to participants in the events hosted by stakeholders
- If money and other valuables were received unknowingly or involuntarily, such money and valuables should be returned, or if not returnable, should be reported to the compliance department.

* Stakeholders: Employees, customers, business partners, subsidiaries, outsourcing partners, public institutions at home and abroad, and international organizations (including their employees) that can give or take direct or indirect influences on rights or interest in line with business operation.

② Entertainment

- Entertainment means a variety of activities carried out for the purpose of business networking and business meetings including meals, drinks, golf, shows and games.
- Employees must not exchange in forms of entertainment with stakeholder that exceed 100,000 KRW per person. If this is required due to the nature of the business, employees must obtain approval from their department head in advance. If they have inevitably participated in a form of entertainment that exceeds 100,000 KRW, they must report to the Righteous Management Office. Entertainment at drinking places with hosts/hostesses is prohibited regardless of the amount.
- However, food and drink not exceeding 30,000 won per person is permitted to be offered to relevant persons, including public officials, journalists and school employees only when strictly necessary to facilitate the performance of duties or for social relationships.

③ Convenience

- Convenience means provision or receipt of benefits such as transportation, accommodation, sight-seeing and support for an event.
- Provision or receipt of convenience exceeding customary level whether transportation or accommodation is prohibited, except for the convenience generally provided to all participants in the event.
- In the event that entertainment exceeding customary level was received or provided unavoidably, such activity should be reported to the compliance department.

④ Congratulatory or Condolatory Money

- Employee should not notify his or his co-worker's congratulatory or condolatory event to interested parties. Notification through a third party will be deemed notification by the employee himself/herself.
- Information on congratulatory or condolatory event should be provided through the congratulatory/condolatory bulletin board, and use of work e-mail or sending out a written notice (wedding invitation or obituary notice) for such purpose is prohibited. The permitted scope of the relatives for the purpose of notification of congratulatory or condolatory event is limited to the employees or their spouses' grandparents, parents and children.
- Employees are encouraged not to spend more than 50,000 KRW, which is a generally accepted amount based on social customs, as expenditure for congratulations and condolences among employees. However, the amount of congratulatory or condolence money including wreaths or condolence flowers for stakeholders should not exceed 100,000 won.
- In no event employees may receive any congratulatory or condolatory money from an interested party. In the event that any congratulatory or condolatory money was received unavoidably, the money should be returned to the provider or forwarded to the compliance department.
- Upon the request of the compliance department, employees and executives should submit a record relating to the congratulatory or condolatory money received from and returned to the interested party.
- One should not receive congratulatory or condolatory wreath from the interested party. In the event that the wreath was received unavoidably, it should not be displayed.
- Executives and employees will not throw an extravagant wedding at an expensive venue such as a five star hotel.

⑤ Requests/Recommendations

- Employees must not make requests/recommendations regarding the following matters through in-house acquaintances or outsiders, and must register on the 'Clean POSCO System' upon receiving requests/recommendations. However, registration is not necessary if such requests/recommendations are immediately refused and thus are withdrawn by those who requested.

- Request for special favors in equipment/material purchasing and various contracts
- Request for preferential treatment and special favors in various personnel affairs such as employment, promotions, rewards and punishment, and change of assignment
- Request for preferential treatment such as excessive conveniences and favors beyond conventional procedure
- Request for negligence in management and supervision such as inspection or repair
- No one shall solicit a public official or person performing his or her duties specified in the Improper Solicitation and Graft Act directly or through a third party to commit improper acts.

⑥ Pecuniary Transactions

- One should not engage in pecuniary transactions with an interested party such as lending or borrowing of money, providing a guarantee, or leasing of a real estate.
- In the event one had to enter into a pecuniary transactions with an interested party unavoidably, it should be reported to the compliance department.
- One should legitimately obtain and use other company information including competitor's information.

⑦ Support for Events

- One should not receive any support from an interested party, whether money or other valuables, in relation to any event organized by the department or as company extracurricular activities.
- Any form of convenience received from an interested party such as transportation, venue or services in relation to such event will be deemed receipt of money or other valuables for the event.
- In the event that the interested party's support to an event was received unavoidably, it should be reported to the compliance department.

⑧ Inappropriate Use of Budget Resources

- One should not use budget resources(such as meeting expenses and business promotion expenses) for personal purposes.
- As a general rule, company expenditure should be paid by a corporate credit card in accordance with the purpose of the budget and the guidelines prescribed by law.

⑨ Protection of Information and Assets

- One should strictly protect confidential or important information of the company.
- One should relay important information that comes to one's attention promptly to the person who needs to know such information for performance of his job.
- One should not fabricate information or disseminate false information.
- One should refrain from using company supplies and facilities for purposes not directly related to work.

⑩ Compliance with Antitrust Laws

- One should comply with relevant international and local antitrust laws and not engage in anti-competitive practices such as collusion with competitors with respect to production, prices, bidding or market segmentation.
- One should not demand any form of compensation or make inappropriate request to customers or business partners using one's dominant position.
- One should respect the rights and property of others including their intellectual property rights, and should not try to enter into transactions or make profits by infringing upon such rights.

② Employees and Executives' Work Life Balance

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

① Pursuit of Work Life Balance

- We will try to improve the quality of life of the executives and employees by providing benefits helpful for maintaining stable life.
- We will support executives and employees to achieve their individual visions, and allow them flexibility in terms of the time, places and methods in performing the work.

② Provision of Opportunity for Education and Growth

- We will organize work environment and systems where creativity can be enhanced.
- We will support executive's and employee's education and participation in development programs such that they can fully develop their potentials.

③ Fair Evaluation and Compensation

- We will make impartial and systematic evaluation system of the executives and employees based on their individual competency and performance and provide appropriate compensation therefor.

④ Creation of Healthy Organizational Culture

- Executives and employees will work for open corporate culture through open communication.
- Executives and employees will remove barriers between departments and pursue cooperative atmosphere.

③ Creation of Customer Value and Building Trust

Recognizing that customers' trust and success is the future for us, we will always respect customers' opinions, understand customers and create values that are helpful for customers' growth.

① Realization of Customer Satisfaction

- We will perform customer-oriented work where the voice of customers is heard and respected.
- We will actively accommodate customer's legitimate demand and reasonable suggestions.

② Creation of Customer Value

- We will satisfy customer's needs by providing the best products through continuous technology development.
- Executives and employees will try to understand the domestic and overseas market situation and develop service mind that respects customers' culture and practices.

③ Obtaining Customer Trust

- We will pay due attention to the safety and health issue of the customers in our management activities, and not provide any product or service that might threaten customer's safety and health.
- We will protect customer information and comply with relevant laws and regulations.
- We will provide accurate information to customers on a timely basis.

④ Duty of Good Faith and Fair Dealings Toward Investors

We will maximize investors' values by realizing legitimate profits through transparent decision making and effective management activities.

① Pursuit of Increased Shareholder Value

- We will make profits through transparent decision making and efficient management, and increase corporate and shareholder value at the same time.

② Impartial Provision of Investment Information

- We will not provide information that might affect the decision making of investors to only certain investors, nor provide partial information.
- We will not directly trade stocks or securities nor recommend trading to others using insider information obtained while working for the company.

③ Transparent Calculation and Provision of Financial Information.

- We will process all financial information based on accurate transactions records implementing appropriate process and control.
- We will prepare financial reports in accordance with generally accepted accounting standards.
- We will provide sufficient and accurate information regarding management of the company to investors so that investors may freely make investment decisions at its own responsibility.

⑤ Building Win-Win Relations with Business Partners

We will establish fair trade system based on mutual trust and build a corporate eco-system where interested parties co-exist and grow together.

① Building Mutual Trust

- We will pursue fair dealings with our business partners on equal footing and based on mutual respect.
- We will strictly protect information received from transactions with business partners in accordance with the terms of the relevant contract and the relevant laws.
- We will support business partners to comply with anti-competition related laws and regulations.

② Pursuing Mutual Growth with Business Partners

- We will pursue mutual benefits by sharing fruitful outcome with business partners.
- We will cooperate and communicate openly with business partners such that business partners may provide high quality products and services.
- We will provide fair opportunities and reasonable transaction terms to business partners so that they could grow as our long term business partner.

③ Support for Continuing Development of Business Partners

- We will endeavor to build a stable supply chain by providing technical and financial supports to business partners.
- We will endeavor to expand the potential pool of business partners that can grow with us in harmonious development of overall corporate eco-system.

⑥ Contribution to the Country and Society

We will contribute to the growth of the country and society by fulfilling our responsibilities and duties as a global corporate citizen.

① Roles and Attitude as a Corporate Citizen

- We will respect the laws and the regulations of the local laws and regulations as well as local culture and tradition, and endeavor for mutual development with the country and society.
- We will encourage participation of and endeavor to communicate with interested parties in performing management activities that may affect country and society.
- We will encourage business partners to participate in activities for the development of the country and the society.

② Contribution to the Development of the Country and the Society

- We will discharge our obligations in the community by creating and maintaining stable jobs and paying taxes in time.
- We will actively participate in social service activities, such as volunteer works and disaster relief work, and initiate nonprofit activities in various fields including culture, arts, sports and education.
- We will provide support for resident's effort to improve quality of their lives and pursuit of happy life.

⑦ Protection of Environment and Preservation of Eco-system

We will establish an environmental management system, strengthen our ability to deal with environmental risks and implement environment-friendly management through open communication.

① Implementation of Environmental Management System

- We will effectively implement environmental management system, evaluate impacts and risk of business activities on environment and analyze and manage the results of environmental management.
- We will share benefits and issues with various interested parties, and jointly carry out environmental protection activities.
- We will convince business partners to believe that protection of environment is fundamental social responsibility of a company, and support business partners to comply with laws and regulations related to environmental protection.
- We will support business partners to manufacture products and provide services while protecting the public health and minimizing adverse effects on the environment and the natural resources of the community.

② Complying with Environmental Laws and Improvement on Environmental Impacts

- We will endeavor to comply with environmental laws and to improve impacts on the environment in the overall process of developing, producing and using products.
- We will minimize discharge of pollutants by introducing environment-friendly manufacturing process and applying technologies optimized for prevention of pollution.

③ Dealing with Climate Changes

- We will endeavor to reduce consumption of fossil fuels or materials, and to minimize discharge of greenhouse gas by improving energy efficiency.
- We will enhance competitiveness by developing innovative low-carbon technology.

④ Protection of Environment and Eco-system

- We will endeavor to restore the eco-system and preserve biological diversity through effective use of natural resources and by-products.

⑧ Protection of and Respect for Human Rights

We will respect human rights, support international standards for human rights and strengthen dignity of all interested parties by improving freedom, safety and quality of life.

① Respect for International Standards Regarding Human Rights

- We will support and respect internationally recognized standards on human rights, such as Universal Declaration of Human Rights, Guiding Principles on Business and Human Rights, UN Global Compact, and OECD Guidelines for Multinational Enterprises.
- We will establish clear policy and system for protection of human rights and endeavor not to violate human rights in our management activities.
- We will support business partners to comply with internationally recognized human rights standards and regulations, protect their employee's human rights and treat them fairly.

② Due diligence in Relation to Human Rights

- We may, at our discretion, conduct due diligence on management activities that might violate human rights or cause complaints.
- We will endeavor to find reasonable resolutions if, upon conclusion of the human rights due diligence, we believe our management activities have violated human rights or caused complaints.
- We will communicate with the relevant interested parties regarding human rights related activities and results thereof.

③ Protection of Executives and Employees

- We will not engage in verbal, physical or demonstrative acts that may offend others or infringes other’s human rights such as sexual harassment.
- We will respect privacy of executives and employees, will not slander or defame others, and will protect personal information.
- We will not compel works through mental or physical coercion.
- We will comply with local labor laws and international standards with respect to the age and labor conditions of minors.
- We will strictly comply with safety regulations, and will take appropriate actions upon discovery of risk factors.

④ Respect and Equality

- We will not discriminate or harass for reasons of race, nationality, gender, age, educational background, religion, regional origin, disability, marital status, and sexual orientation.
- We will provide equal employment opportunity to those who possess necessary qualification and capability.
- We will maintain work environment that respects cultural diversity.

⑤ Assurance for Legitimate and Humane Employment Terms

- We will take prompt actions for human rights issues raised by executives and employees through the company grievance procedure.
- We will offer adequate employment terms such as guaranteeing proper working hours to enable the employees to maintain life with dignity.

⑥ Efforts to Respect Community Human Rights

- We will endeavor to listen to the opinions of the community and resolve issues of violation of human rights caused by our management activities in the community.

Supplementary Provision_ Management and Operation of New Code of Conduct

① Compliance with the Ethics Code

- This Code should be referred to for one’s actions and decision-making, and complied with in good faith.
- The compliance department will handle overall management of this Code while operation of the detailed terms will be managed by the relevant department responsible therefor.
- Company may establish a separate standard for more efficient operation of this Code as it deems necessary.

* Department in charge of management responsible: Department responsible for control, reporting, and evaluation of risks in eight sectors(sales, purchasing, production, R&D, investment, management, raw materials, and facility) for the practice of the Code of Ethics

② Responsibility of the Executives and Department Head

- Executives and department heads should frequently provide education and advice to employees under their control to help them fully understand this Code.
- Executives and department heads should take appropriate preventive measures to ensure that employees under their control do not violate this Code.

③ Obligation to Report and Protection of the Whistleblower

- Violation of this Code should be reported to the compliance department in the most expeditious and convenient manner.
- When reported of its employee’s violation of this Code, executives and department heads should immediately report the same to the compliance department.
- Compliance department may verify the relevant facts with respect to the violation of this Code at its discretion, and the relevant executives and employees should fully cooperate therewith.
- Executives and employees should not discriminate or disclose the whistleblower.

- If the whistleblower’s right is likely to be prejudiced, whistleblower may be assigned to a different position as per his wishes.
- When executives and employees become aware of a whistle blowing, whether due to his job or inadvertently, they should keep it in confidence. Disclosure of the same may subject him to disciplinary actions.
- The guidelines for reporting of any unethical behavior including receiving or giving of money from or to the interested parties and compensation for the reporting will be separately established.

④ Reward and Disciplinary Actions

- Company may, in accordance with the relevant regulations, offer a reward or appropriate compensation to executives or employees who contributed for accomplishing the objective of this Code.
- Company will sanction executives and employees who violated this Code in accordance with the relevant regulations.
- Company may restrict access of former executives and employees to the company whose employment was terminated due to violation of this Code.

⑤ Operation of Ethics Management Committee

- Company may establish and operate an Ethics Management Committee for reporting, examination and resolution of important ethics matter. The guidelines therefor will be separately established.

⑥ Interpretation

- If any of the family members, relatives, or acquaintances of executives or employees violates this Code while acting under the name of the executives or employees, such violation will be deemed violation of the executives and employees.
- Any questions regarding interpretation of this Code or matters not specifically set out herein will be directed to the compliance department for guideline.

⑦ Amendment

- Compliance department may amend this Code as it deems necessary, provided that the amendment the head of the compliance department deems significant will require signature of the representative director.
- Additional clause(revised on Aug. 13, 2003): (enforcement date). These guidelines begin to take effect on Aug. 13, 2003.
- Additional clause(revised on Apr. 1, 2004): (enforcement date). These guidelines begin to take effect on Apr. 1, 2004.
- Additional clause(revised on Aug. 24, 2004): (enforcement date). These guidelines begin to take effect on Aug. 24, 2004.
- Additional clause(revised on Jun. 9, 2006): (enforcement date). These guidelines begin to take effect on Jun. 9, 2006.
- Additional clause(revised on Jun. 24, 2009): (enforcement date). These guidelines begin to take effect on Jun. 24, 2009.
- Additional clause(revised on Nov. 9, 2009): (enforcement date). These guidelines begin to take effect on Nov. 9, 2009.
- Additional clause(revised on Jan. 3, 2011): (enforcement date). These guidelines begin to take effect on Jan. 3, 2011.
- Additional clause(revised on Aug. 13, 2012): (enforcement date). These guidelines begin to take effect on Aug. 13, 2012.
- Additional clause(revised on Jun. 2, 2014): (enforcement date). These guidelines begin to take effect on Jun. 2, 2014.
- Additional clause(revised on Sep. 1, 2015): (enforcement date). These guidelines begin to take effect on Sep. 1, 2015.
- Additional clause(revised on Sep. 28, 2016): (enforcement date). These guidelines begin to take effect on Sep. 28, 2016.
- Additional clause(revised on Apr. 28, 2017): (enforcement date). These guidelines begin to take effect on Apr. 28, 2017.
- Additional clause(revised on Aug. 1, 2017): (enforcement date). These guidelines begin to take effect on Aug. 1, 2017.
- Additional clause(revised on Jan. 26, 2018): (enforcement date). These guidelines begin to take effect on Jan. 26, 2018.
- Additional clause(revised on May. 14, 2018): (enforcement date). These guidelines begin to take effect on May. 14, 2018.
- Additional clause(revised on June 1, 2018): (enforcement date). These guidelines begin to take effect on June 1, 2018.

Code of conduct for POSCO Group supplier

The Code of Conduct for POSCO Group Supplier states fundamental principles which suppliers who supply goods and services to POSCO Group including POSCO, its affiliates and joint venture companies.

Every Clause of this document is equally important and consists of 7 parts which suppliers should comply with, such as respect for basic rights of employees, safety and health, environment, ethics, protection of business secrets and intellectual property rights, quality management, win-win growth and contribution to the local community.

① Respect for basic rights of employees

Suppliers shall protect and respect employee's rights and treat them fairly.

① Freely Chosen Employment

- Every work shall be voluntary and employees can retire freely if there is a reasonable notification.
- Supplier cannot force employees to transfer their ID, passport or work permit that government issued, on condition that supplier hires them.

② Prohibition of Child Labor

- Suppliers shall follow ILO Convention No. 138 and domestic regulation on the minimum age for admission to employment and work.
- In other words, suppliers shall not hire a child under 15(in case of a developing country that exempt from ILO Convention No. 138, under 14) or minimum age that is regulated by domestic law.
- Suppliers shall follow every legislation and regulation about internship program.
- Employees under 18 shall not carry out dangerous work in terms of the safety and health.

③ Non-Discrimination

- Suppliers shall not discriminate employees based on race, color, religion, gender, sexual orientation, age, physical condition, political view, nationality, nation and marital status and treat them fairly for hiring practices such as employment, promotion, compensation and training opportunities.

④ Working Hours

- Except for an urgent situation, suppliers shall follow working hours; include overtime determined by law. And all of overtime work shall be voluntary and awarded as extra pay of appropriate level.

⑤ Wages

- When suppliers pay wage to employees, suppliers shall follow all the relevant law that is related to wages such as minimum wages, overtime payment and welfare benefits.

⑥ Humane treatment

- There shall not be inhumane treatment that includes sexual harassment, sexual abuse, physical punishment, physical or psychological coercion, and insulting as well as intimidating employees by giving them inhumane treatment.

② Safety and Health

Suppliers shall provide safe and healthy working environment to employees and take proper measures to prevent employees from being exposed to potential safety hazards.

① Working Environment

- Suppliers shall follow the relevant law, regulations and orders in order to manage every workplace safely and healthily where producing or working is executed. To achieve this, suppliers shall make the best effort to use an authorized safety management system and provide potable water and hygienic toilet and also furnish minimum facilities of safety and convenience such as a fire and emergency response system, appropriate light and ventilation.

③ Environment

Suppliers shall follow laws and regulations related to protection of the environment and understand that protection of the environment is the fundamental social responsibility of enterprises. They also comply with public health and safety in the course of manufacturing process, and minimize negative effects on the environment of the local community and natural resources.

① Hazardous Substance

- Suppliers shall comprehend chemicals and other substances that have possibilities to pollute environment and manage to assure of safe handling, moving, storing, using, recycling or reusing and definite discarding.

② Waste water, Solid waste and Air Pollution

- Suppliers shall understand the nature of substances and control and handle them within the legal limits before emitting or discarding the waste water, solid waste, Volatile Organic Compounds, aerosol, corrosive, mercuric oxide, ozone-unfriendly substance and byproduct of combustion from facility operation, industrial process and sanitary facility.

③ Pollution Prevention and Reduction of Resource Usage

- Suppliers shall fundamentally reduce or eliminate all kinds of waste including waste water and energy by making an endeavor for improvement such as alteration of production, maintenance and facilities, replacement of raw materials, preservation, recycling and material reuse.

④ Ethics and Fair Trade

POSCO Group and suppliers shall abide by the following articles to satisfy the social responsibilities and sustainable growth.

① Business Integrity

- POSCO Group and suppliers shall keep the highest level of integrity in all kinds of business and an inappropriate action is strictly prohibited such as corruption, coercion, intimidation and embezzlement.

② Observance of the special clause of ethics practice

- Suppliers ought to follow regulations on "the Special Clause of Ethics Practice" of POSCO Group and will face sanctions under the same clauses when they violate it.

③ Observance of Fair Trade

- Suppliers shall follow laws and regulations related to fair trade and try not to offense against the fair trade order such as unfair practice of trading.

④ Confidence-Building

- Suppliers shall not offend against confidence of the whole POSCO supply chain by libeling other people or companies through spreading false information on the purpose of slandering other interested parties such as members of POSCO Group and competitors.

⑤ Protection of Business Secrets and Intellectual Property Rights

Suppliers shall not reveal or provide any kinds of technical data, information and intellectual properties obtained from business with POSCO Group, to other parties without a prior written consent of POSCO Group.

① Management and protection of confidential information

- Suppliers shall use technical data, information and intellectual properties obtained from the process of supplying products and services to POSCO Group within permits of POSCO Group, and protect them actively.

② Protection of intellectual property rights

- Suppliers shall not infringe intellectual property rights or illegally use patents, design, trademark of others when supplying products and services to POSCO Group.

⑥ Quality Management

Suppliers shall make the best of realizing the World Best Supply Chain by providing products and services of the best quality to POSCO Group.

① Quality Control

- Suppliers shall try to supply guaranteed products in order for POSCO Group to produce and supply the world-class products.

② Change Control

- When something that influences quality, caused by changing facilities, materials and working methods, suppliers shall inform that in advance and prevent defects beforehand.

③ Mutual quality control by suppliers

- Suppliers shall try to contribute the quality of products and services of other suppliers in business relationship through supporting technology and quality to them.

⑦ Win-win Growth and Contribution to the Local Community

Suppliers shall actively participate in win-win growth and contribution activity to the society for constructing healthy corporate ecosystem and developing the local community.

① Win-win growth

- Suppliers shall make the best to participate in win-win growth for constructing healthy corporate ecosystem and spread to other companies who are in business relationship with them.

② Contribution to society

- Suppliers shall actively carry out a contribution activity to the local community for continuous job creation and economic development of the region.

POSCO Group hopes for good communication with suppliers in order to run a better business. And POSCO Group expects suppliers to suggest specific ways that POSCO Group can help suppliers perform the Code of Conduct for POSCO Group Suppliers.

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Appendix

Major Issues with Sustainability in 2017	156
GRI Index	157
UN SDGs(Sustainable Development Goals)	163
UN Global Compact Index	164

Major Issues with Sustainability in 2017

Issue	Description
1	Stimulating R&D Activities of researching and developing new technologies such as IP projects and smartification, WP, WP+ products, etc. to promote future growth
2	Safety and health activities Activities for providing a safe workplace through the spread of smart safety to integrate new technologies such as IoT and big data with safety, occupational safety and health certification, etc.
3	Climate change response activities Activities of responding to climate changes through implementation of the Emissions Trading Scheme and investments in facilities and R&D for GHG reduction
4	Compliance with laws and global regulations Compliance and monitoring activities of laws and global regulations related to overall areas of businesses
5	Contributing to economic stimulation of society Activities of contributing to economic growth such as creating jobs and redistributing benefits
6	Energy efficiency Activities for reinforcing facility and process efficiency to reduce unnecessary energy use in production processes
7	Expanding ability to solve customer issues Activities for solving issues suggested by customers and providing services for customer satisfaction such as solutions marketing, customer satisfaction surveys, etc.
8	Reinforcement of product quality Activities for securing stability of product quality and reinforcing quality through operation of a quality control system, quality control training for employees, etc.
9	Water management Activities for utilizing water resources by minimizing wastewater and water used in manufacturing processes
10	Organization of Board of Directors and transparency of operations Activities for transparent disclosure of information related to Board of Directors and various committees, performing responsibilities of management faithfully and responsibly
11	Supply chain risk management Activities for minimizing supply chain risks including operation of CP, enactment of code of conduct for suppliers, supplier relationship management(SRM), etc.
12	Discovery of new businesses/markets Activities for advancing into new business areas and discovering new markets to reinforce business competitiveness
13	Air management Activities for managing NOx, SOx, and other major air pollutants
14	Expansion of waste recycling Activities for expanding the recycling of wastes, including recycling of byproducts, development of utilization technology, etc.
15	Securement and development of raw materials Activities for stably securing raw materials required for business activities and developing new raw materials
16	Management of harmful chemical substances Activities for managing chemical substances that are hazardous to humans and the environment, in accordance with the established laws and international standards
17	Ethical management Activities for pursuing transparency and fairness of management, including prevention of corruption and bribery
18	Preservation of biodiversity Activities for protecting endangered animal and plant species and their habitats for biodiversity
19	Protection of human rights Activities for observing international standards on human rights including prohibition of forced labor and discrimination
20	Talents Cultivation Activities for reinforcing employee skills, including provision of training for cultivating technologies and work proficiency
21	Reinforcement of diversity Activities for achieving diversity without distinction of race, disability, or gender, including improvement of working environments for female employees, hiring local employees, etc.
22	Sustainable management activities of partners Activities for supporting reinforcement of partner competencies, including expansion of benefit sharing, technical cooperation, supporting securement of outstanding talent, etc.
23	Participation in community and social contribution activities Practical social contribution activities to actively communicate with the local community for a better world
24	Fair performance evaluation and rewards Activities for evaluating and rewarding employees fairly and reasonably, including establishment of individual MBO objectives, etc.
25	Sustainable management activities of overseas offices Activities for securing sustainable management competence in overseas offices
26	Labor and management relations Activities for improving labor-management relations through operation of the labor-management council and establishing a cooperative culture between labor and management

GRI INDEX

GRI Standard	Disclosure	ISO26000	Page/URL	Assurance	
GRI 101: FOUNDATION 2016					
General Disclosures					
Organizational profile	102-1	Name of the organization	6.3.10, 6.4.1-6.4.5, 6.8.5, 7.8	8	●
	102-2	Activities, brands, products, and services		8	●
	102-3	Location of headquarters		8	●
	102-4	Location of operations		8	●
	102-5	Ownership and legal form		8	●
	102-6	Markets served		8	●
	102-7	Scale of the organization		8, 117	●
	102-8	Information on employees and other workers		117	●
	102-9	Supply chain		8, Business Report p59~60	●
	102-10	Significant changes to the organization and its supply chain		9, Business Report p44	●
	102-11	Precautionary Principle or approach		82~85	●
	102-12	External initiatives		78, 163	●
	102-13	Membership of associations		24, 78, 97	●
Strategy	102-14	Statement from senior decision-maker	4.7, 6.2, 7.4.2	6	●
Ethics and Integrity	102-16	Values, principles, standards, and norms of behavior	7.7.5, 4.4, 6.6.3	148~154	●
Governance	102-18	Governance structure	6.2, 7.4.3	9	●
Stakeholder Engagement	102-40	List of stakeholder groups	5.3	23	●
	102-41	Collective bargaining agreements		19, 106	●
	102-42	Identifying and selecting stakeholders		23	●
	102-43	Approach to stakeholder engagement		23~24, 77~78	●
Reporting Practice	102-44	Key topics and concerns raised		23, 28	●
	102-45	Entities included in the consolidated financial statements	7.5.3, 7.6.2	Business Report p3~10	●
	102-46	Defining report content and topic Boundaries		2	●
	102-47	List of material topics		28	●
	102-48	Restatements of information		8	●
	102-49	Changes in reporting		28, 156	●
	102-50	Reporting period		2	●
	102-51	Date of most recent report		May, 2017	●
	102-52	Reporting cycle		2	●
	102-53	Contact point for questions regarding the report		2	●
102-54	Claims of reporting in accordance with the GRI Standards		2	●	
102-55	GRI content index		157~162	●	
102-56	External assurance		144~146	●	
Material Topics _ GRI 200 Economic Topics					
Economic Performances					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		14~17	●
	103-2	The management approach and its components		14~17	●
	103-3	Evaluation of the management approach		14~17	●
GRI 201: Economic Performances 2016	201-1	Direct economic value generated and distributed	5.3	30~31, 38~39	●
	201-2	Financial implications and other risks and opportunities due to climate change		79~96	●
	201-3	Defined benefit plan obligations and other retirement plans		109~110	●
	201-4	Financial assistance received from government		Business Report p182~183	●

GRI Standard	Disclosure	ISO26000	Page/URL	Assurance
Market Presence				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	35~37	●
	103-2	The management approach and its components	35~37	●
	103-3	Evaluation of the management approach	35~37	●
GRI 202: Market Presence 2016	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	6.3.7, 6.3.10, 6.4.3-6.4.4, 6.8.1-6.8.2	
	202-2	Proportion of senior management hired from the local community	6.4.3, 6.8.1-6.8.2, 6.8.5, 6.8.7	42 ●
Indirect Economic Impacts				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		118 ●
	103-2	The management approach and its components		118 ●
	103-3	Evaluation of the management approach		118 ●
GRI 203: Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	6.3.9, 6.8.1-6.8.2, 6.8.7, 6.8.9	118~130 ●
	203-2	Significant indirect economic impacts	6.3.9, 6.6.6-6.6.7, 6.7.8, 6.8.1-6.8.2, 6.8.5, 6.8.7, 6.8.9	119~121, 129~130 ●
Procurement Practices				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		55 ●
	103-2	The management approach and its components		55 ●
	103-3	Evaluation of the management approach		55 ●
GRI 204: Procurement Practices 2016	204-1	Proportion of spending on local suppliers	6.4.3, 6.6.6, 6.8.1-6.8.2, 6.8.7	24 ●
Anti-Corruption				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		103~105 ●
	103-2	The management approach and its components		103~105 ●
	103-3	Evaluation of the management approach		103~105 ●
GRI 205: Anti-Corruption 2016	205-1	Operations assessed for risks related to corruption	6.6.1-6.6.3	
	205-2	Communication and training about anti-corruption policies and procedures	6.6.1-6.6.3, 6.6.6	103~105 ●
	205-3	Confirmed incidents of corruption and actions taken	6.6.1-6.6.3	104 ●
Anti-Competitive Behavior				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		53~54 ●
	103-2	The management approach and its components		53~54 ●
	103-3	Evaluation of the management approach		53~54 ●
GRI 206: Anti-Competitive Behavior 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	6.6.1-6.6.2, 6.6.5, 6.6.7	None ● ¹⁾
GRI 300 Environmental Topics				
Materials				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		66~68 ●
	103-2	The management approach and its components		66~68, 73~74 ●
	103-3	Evaluation of the management approach		66~68, 73~74 ●
GRI 301: Materials 2016	301-1	Materials used by weight or volume	6.5.4	73~74 ●
	301-2	Recycled input materials used	6.5.4	73~74, 94 ●
	301-3	Reclaimed products and their packaging materials	6.5.4	73~74 ●
Energy				
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	6.5.4	82~85 ●
	103-2	The management approach and its components		82~85 ●
	103-3	Evaluation of the management approach		82~85 ●
GRI 302: Energy 2016	302-1	Energy consumption within the organization	6.5.4	8, 39 ●
	302-2	Energy consumption outside of the organization	6.5.4	8, 39 ●
	302-3	Energy intensity	6.5.4	8, 39 ●
	302-4	Reduction of energy consumption	6.5.4-5	88~92 ●
	302-5	Reduction in energy requirements of products and services	6.5.4-5	79~81, 92~96 ●

GRI Standard	Disclosure	ISO26000	Page/URL	Assurance	
Water					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	66-68	●	
	103-2	The management approach and its components	69-70	●	
	103-3	Evaluation of the management approach	69-70	●	
GRI 303: Water 2016	303-1	Water withdrawal by source	6.5.4	39, 69-70	●
	303-2	Water sources significantly affected by withdrawal of water	6.5.4	39, 69-70	●
	303-3	Water recycled and reused	6.5.4	69	●
Biodiversity					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		75-76	●
	103-2	The management approach and its components		75-76	●
	103-3	Evaluation of the management approach		75-76	●
GRI 304: Biodiversity 2016	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	6.5.6	75-76	●
	304-2	Significant impacts of activities, products, and services on biodiversity	6.5.6	75-76	●
	304-3	Habitats protected or restored	6.5.6	75-76	●
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	6.5.6	75-76	●
Emissions					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	6.5.5	82-86, 90	●
	103-2	The management approach and its components		82-87, 90-91	●
	103-3	Evaluation of the management approach		82-87, 90-91	●
GRI 305: Emissions 2016	305-1	Direct(Scope 1) GHG emissions	6.5.5	8, 39, 87	●
	305-2	Energy indirect(Scope 2) GHG emissions	6.5.5	8, 39, 87	●
	305-3	Other indirect(Scope 3) GHG emissions	6.5.5	8, 39, 87	●
	305-4	GHG emissions intensity	6.5.5	8, 39, 87	●
	305-5	Reduction of GHG emissions	6.5.5	88-96	●
	305-6	Emissions of ozone-depleting substances(ODS)	6.5.3, 6.5.5		
	305-7	Nitrogen oxides(NOx), sulfur oxides(SOx), and other significant air emissions	6.5.3	70-71	●
Effluents and Waste					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		66-68	●
	103-2	The management approach and its components		69-70	●
	103-3	Evaluation of the management approach		69-70	●
GRI 306: Effluents and Waste 2016	306-1	Water discharge by quality and destination	6.5.3-4	69-70	●
	306-2	Waste by type and disposal method	6.5.3	8, 39	●
	306-3	Significant spills	6.5.3	72	●
	306-4	Transport of hazardous waste	6.5.3	72	●
	306-5	Water bodies affected by water discharges and/or runoff	6.5.3	69-70	●
Environmental Compliance					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		66-68	●
	103-2	The management approach and its components		66-68	●
	103-3	Evaluation of the management approach		66-68	●
GRI 307: Environmental Compliance 2016	307-1	Non-compliance with environmental laws and regulations	4.6	None	● ¹⁾
Supplier Environmental Assessment					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		62-64	●
	103-2	The management approach and its components		62-64	●
	103-3	Evaluation of the management approach		62-64	●
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	6.3.5, 6.6.6, 7.3.1		
	308-2	Negative environmental impacts in the supply chain and actions taken	6.3.5, 6.6.6, 7.3.1	62-64	●

GRI Standard	Disclosure	ISO26000	Page/URL	Assurance	
GRI 400 Social Topics					
Employment					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	6.4.3	111	●
	103-2	The management approach and its components		111	●
	103-3	Evaluation of the management approach		111	●
GRI 401: Employment	401-1	New employee hires and employee turnover	6.4.3	119	● ²⁾
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	6.4.4,6.8.7	109~110	●
	401-3	Parental leave	6.4.4	8, 39, 117	●
Labor/Management Relations					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		13, 110	●
	103-2	The management approach and its components		13, 110	●
	103-3	Evaluation of the management approach		13, 110	●
GRI 402: Labor/Management Relations	402-1	Minimum notice periods regarding operational changes	6.4.3, 6.4.5	109	●
Occupational Health and Safety					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	6.4.6	98~102	●
	103-2	The management approach and its components		98~102	●
	103-3	Evaluation of the management approach		98~102	●
GRI 403: Occupational Health and Safety 2016	403-1	Workers representation in formal joint management-worker health and safety committees	6.4.6	110	●
	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	6.4.6, 6.8.8	8, 39, 102	●
	403-3	Workers with high incidence or high risk of diseases related to their occupation	6.4.6, 6.8.8	98~102	●
	403-4	Health and safety topics covered in formal agreements with trade unions	6.4.6, 6.8.8	110	●
Training and Education					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary		112	●
	103-2	The management approach and its components		103	●
	103-3	Evaluation of the management approach		103	●
GRI 404: Training and Education 2016	404-1	Average hours of training per year per employee	6.4.7	116	● ²⁾
	404-2	Programs for upgrading employee skills and transition assistance programs	6.4.7, 6.8.5	112~116	●
	404-3	Percentage of employees receiving regular performance and career development reviews	6.4.7	109	●
Diversity and Equal Opportunity					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	6.2.3, 6.3.7, 6.3.10, 6.4.3	109	●
	103-2	The management approach and its components		109	●
	103-3	Evaluation of the management approach		109	●
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	6.2.3, 6.3.7, 6.3.10, 6.4.3	117	●
	405-2	Ratio of basic salary and remuneration of women to men	6.3.7, 6.3.10, 6.4.3, 6.4.4	106, 109	●
Non-discrimination					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	6.3.6, 6.3.7, 6.3.10, 6.4.3	106, 109	●
	103-2	The management approach and its components		106~107, 109	●
	103-3	Evaluation of the management approach		106~107, 109	●
GRI 406: Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	6.3.6, 6.3.7, 6.3.10, 6.4.3	104, 106, 109	●

GRI Standard	Disclosure	ISO26000	Page/URL	Assurance	
Freedom of Association and Collective Bargaining					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	13, 110	●	
	103-2	The management approach and its components	13, 110	●	
	103-3	Evaluation of the management approach	13, 110	●	
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	6.3.3, 6.3.4, 6.3.5, 6.3.8, 6.3.10, 6.4.5, 6.6.6	110	●
Child Labor					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	19, 62, 106	●	
	103-2	The management approach and its components	19, 62-63, 106-107	●	
	103-3	Evaluation of the management approach	19, 62-63, 106-107	●	
GRI 408: Child Labor 2016	408-1	Operations and suppliers at significant risk for incidents of child labor	6.3.3, 6.3.4, 6.3.5, 6.3.7, 6.3.10, 6.6.6, 6.8.4	19, 62-63, 106-107	●
Forced or Compulsory Labor					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	19, 62, 106	●	
	103-2	The management approach and its components	19, 62-63, 106-107	●	
	103-3	Evaluation of the management approach	19, 62-63, 106-107	●	
GRI 409: Forced or Compulsory Labor 2016	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	6.3.3, 6.3.4, 6.3.5, 6.3.10, 6.6.6	19, 62-63, 106-107	●
Security Practices					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	106-107	●	
	103-2	The management approach and its components	106-107	●	
	103-3	Evaluation of the management approach	106-107	●	
GRI 410: Security Practices 2016	410-1	Security personnel trained in human rights policies or procedures	6.3.4, 6.3.5, 6.6.6		
Rights of Indigenous Peoples					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	-		
	103-2	The management approach and its components	-		
	103-3	Evaluation of the management approach	-		
GRI 411: Rights of Indigenous Peoples 2016	411-1	Incidents of violations involving rights of indigenous peoples	6.3.4, 6.3.6, 6.3.7, 6.3.8, 6.6.7, 6.8.3	N/A ³⁾	
Human Rights Assessment					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	106-107	●	
	103-2	The management approach and its components	106-107	●	
	103-3	Evaluation of the management approach	106-107	●	
GRI 412: Human Rights Assessment 2016	412-1	Operations that have been subject to human rights reviews or impact assessments	6.3.3-6.3.6	106-107	●
	412-2	Employee training on human rights policies or procedures	6.3.3-6.3.6	106-107	●
	412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	6.3.3-6.3.6		
Local Communities					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	117	●	
	103-2	The management approach and its components	117	●	
	103-3	Evaluation of the management approach	117	●	
GRI 413: Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs	6.3.9, 6.5.1-6.5.3, 6.8	117	●

GRI Standard	Disclosure	ISO26000	Page/URL	Assurance	
Supplier Social Assessment					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	62~63	●	
	103-2	The management approach and its components	62~63	●	
	103-3	Evaluation of the management approach	62~63	●	
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	6.3.5, 6.6.1-6.6.2, 6.6.6, 6.8.1-6.8.2, 7.3.1	62	●
	414-2	Negative social impacts in the supply chain and actions taken	6.3.5, 6.6.1-6.6.2, 6.6.6, 6.8.1-6.8.2, 7.3.1	63	●
Public Policy					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	-	-	-
	103-2	The management approach and its components	-	-	-
	103-3	Evaluation of the management approach	-	-	-
GRI 415: Public Policy 2016	415-1	Political contributions	6.6.1-6.6.2, 6.6.4	N/A ³⁾	-
Customer Health and Safety					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	-	150	-
	103-2	The management approach and its components	-	150	-
	103-3	Evaluation of the management approach	-	150	-
GRI 416: Customer Health and Safety 2016	416-1	Assessment of the health and safety impacts of product and service categories	6.7.1-6.7.2, 6.7.4- 6.7.5, 6.8.8	80~82	●
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	4.6, 6.7.1-6.7.2, 6.7.4-6.7.5, 6.8.8	None	● ¹⁾
Marketing and Labeling					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	-	81, 150	-
	103-2	The management approach and its components	-	81, 150	-
	103-3	Evaluation of the management approach	-	81, 150	-
GRI 417: Marketing and Labeling 2016	417-1	Requirements for product and service information and labeling	6.7.1-6.7.5, 6.7.9	81	●
	417-2	Incidents of non-compliance concerning product and service information and labeling	4.6, 6.7.1-6.7.5, 6.7.9	None	● ¹⁾
	417-3	Incidents of non-compliance concerning marketing communications	4.6, 6.7.1-6.7.3	None	● ¹⁾
Customer Privacy					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	-	41	-
	103-2	The management approach and its components	-	41	-
	103-3	Evaluation of the management approach	-	41	-
GRI 418: Customer Privacy 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	6.7.1-6.7.2, 6.7.7	None	● ¹⁾
Socioeconomic Compliance					
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its Boundary	-	150~152	-
	103-2	The management approach and its components	-	150~152	-
	103-3	Evaluation of the management approach	-	150~152	-
GRI 419: Socioeconomic Compliance 2016	419-1	Non-compliance with laws and regulations in the social and economic area	4.6, 6.7.1-6.7.2, 6.7.6	None	● ¹⁾

1) 206-1, 307-1, 416-2, 417-2, 417-3, 418-1, and 419-1 were verified in the sanctions status of POSCO(special standard) during the reporting period in accordance with the 2017 POSCO Business Report Sanctions(448-450p) announced on DART.

2) 401-1 is the reporting index related to new employees and displaced employees. In the case of POSCO, verification was only made on the status of displaced workers. 404-1 is the reporting index related to education and training of employees. Verification was made on overall employees without distinction of employment type or gender.

3) 411-1 and 415-1 indexes do not pertain to the key topics of POSCO due to the legal and geographical characteristics of the Republic of Korea.

UN SDGs(Sustainable Development Goals)

NO.	SDGs	Related content in the Report	Page
Goal 1.	End poverty in all its forms everywhere		
Goal 2.	End hunger, achieve food security and improved nutrition and promote sustainable agriculture		
Goal 3.	Ensure healthy lives and promote well-being for all at all ages		
Goal 4.	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	<ul style="list-style-type: none"> · POSCO Center Music Concert, POSCO Concert and music concerts in the company building · POSCO Art Museum, POSCO Museum, POSCO Hyoja Art Hall/ Baekun Art Hall · POSCO Youth Volunteer Corps, "Beyond" · Do Dream · Dream Bridge · Chin Chin Rainbow Projects · POSCO Educational Foundation and POSCO TJ Park Foundation 	124-128
Goal 5.	Achieve gender equality and empower all women and girls		
Goal 6.	Ensure availability and sustainable management of water and sanitation for all	<ul style="list-style-type: none"> · Participation in 'Water Management Project' hosted by World Steel · Improvement of the water management program using the 'WBSCD Water Tool' of the World Business Council for Sustainable Development(WBCSD) · Participation in the CDP Water Disclosure project 	70
Goal 7.	Ensure access to affordable, reliable, sustainable and clean energy for all	<ul style="list-style-type: none"> · 2020 POSCO Greenhouse Gas Reduction Target · Recovery and use of byproduct gas or use in independent power generation · Development of direct heating pulsating combustion technology for gas stoves · Development of low-temperature waste heat power generation technology 	85, 89, 90-92
Goal 8.	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	<ul style="list-style-type: none"> · Employment of married immigrant women through operation of the multicultural Café O Asia · Employment of senior citizens through silver home care · Operation of social enterprises in Indonesia · Operation of social enterprises such as POSCOHUMANS, Songdo SE, POSPLATE, etc. 	118, 129-130
Goal 9.	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation		
Goal 10.	Reduce inequality within and among countries		
Goal 11.	Make cities and human settlements inclusive, safe, resilient and sustainable	<ul style="list-style-type: none"> · Steel Village · Steel House · Steel Bridge · Steel Dorm · Talent Volunteer Group, POSCO Global Volunteer Corps 	119-123
Goal 12.	Ensure sustainable consumption and production patterns	<ul style="list-style-type: none"> · Preparation of code of conduct for suppliers · Performance evaluation of suppliers · Operation of technical support for small and medium enterprises, financial support, and partnership programs 	56-57, 62-63, 153-154
Goal 13.	Take urgent action to combat climate change and its impacts	<ul style="list-style-type: none"> · Increase of energy efficiency(high tensile car automotive steel, high efficiency electric steel) · Reduction of social GHG(recycling of granulated blast furnace slag) 	85, 87, 89, 92-94
Goal 14.	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	<ul style="list-style-type: none"> · Sea Forest Creation Project · Clean Ocean Volunteer Group collection of ocean wastes 	75-76
Goal 15.	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss		
Goal 16.	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	<ul style="list-style-type: none"> · Introduction of the compliance program(CP) · Declaration of POSCO ethics standards 	53-54, 106, 148-152
Goal 17.	Strengthen the means of implementation and revitalize the global partnership for sustainable development	<ul style="list-style-type: none"> · UN Global Compact · World Steel · KCCI Business Institute for Sustainable Development, Business Council for Sustainable Development 	18, 70, 78

UN Global Compact Index

NO.	SDGs	Related content in the Report	Page
Human Rights	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and	Sustainability Management at POSCO	18
	Principle 2: make sure that they are not complicit in human rights abuses.	Business Ethics Global Human Rights Management Code of Ethics	103 106 148
Labour Standards	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	Global Human Rights Management Supply Chain Management	106 53
	Principle 4: the elimination of all forms of forced and compulsory labour;	Enhancing Suppliers' CSR Competitiveness	62
	Principle 5: the effective abolition of child labour; and	Code of Ethics	148
	Principle 6: the elimination of discrimination in respect of employment and occupation.	Non-Discrimination and Diversity Employment Stability and Job Security	109 109
Environment	Principle 7: Businesses should support a precautionary approach to environmental challenges;	Environmental Management Environmental Performance	66 69
	Principle 8: undertake initiatives to promote greater environmental responsibility; and	Biodiversity Policy and Activities Climate Change	75 82
	Principle 9: encourage the development and diffusion of environmentally friendly technologies.		
Anti-Corruption	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.	Business Ethics	103
		Code of Ethics	148
		Enhancing Suppliers' CSR	62
		Competitiveness	

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