

Integrated Report of Economic,  
Environmental and Social Sustainability

# POSCO REPORT 2015



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## ABOUT THIS REPORT

### Integrated Report

The POSCO Report ("Report") is an integrated report of POSCO's economic, social and environmental performances in 2015. POSCO has been publishing the Environmental Report since 1995, the Sustainability Report since 2004, and began publishing the POSCO Report that integrates the Annual Report and Sustainability Report since 2012. Also we have integrated the Carbon Report into this report since 2014.

### Reporting Approach

This Report was produced according to POSCO's own reporting process, referring to the following as guidelines.

- GRI (Global Reporting Initiative) G4 guideline
- The International Integrated Reporting Framework set forth by the International Integrated Reporting Council (IIRC)
- ISO 26000
- Principles of the UN Global Compact

### Financial Information Reporting Standard

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

### Report Publication Cycle

POSCO has published the report annually since 2004.

### Reporting Period

This Report contains information from January 1st, 2015 to December 31st, 2015. Quantitative data includes figures from the three recent years, while some parts of qualitative data include those up to March 2016. The corporate governance section is based on the decisions made by the Board of Directors at the meeting held on March 11, 2016.

### Scope of Reporting

The Report contains the economic, social, and environmental performances of Pohang Works, Gwangyang Works, Pohang Head Office and Seoul Office. The Section of 'Performances in 2015 and plans for 2016' include economic performances of POSCO's subsidiaries. The Integrated Sustainability Performance Index accounts for POSCO and its seven affiliates. Some information such as fair trade, quality management, safety and health contains information of all group affiliates which encompass POSCO, domestic and overseas subsidiaries and outsourcing partners.

### Independent Assurance

Samil PwC, an independent assurance institution, conducted assurance on this Report in order to assure stakeholders on the credibility of the data and reporting process. Assurance was conducted in accordance with ISAE3000 and AA1000AS Type II. The assurance information pertaining to this Report is as follows.

- Independent Assurance Report (page 143)
- Assurance Report for POSCO Carbon Report (page 145)

### Report Distribution and Feedback

This Report was published in Korean, English, and Chinese and can be downloaded at POSCO's website. We receive feedback from the stakeholders through various channels including the internet, phone and mail.

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### Cover Photo

This photo shows a research fellow conducting an axial loading fatigue test of a steel product for an auto parts company. POSCO incorporates technical solutions into products to deliver what customers truly need.

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## CEO'S MESSAGE



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2016 promises to be another year for POSCO to grow with all our stakeholders to become even more nationally loved and globally respected. We ask for your continued interest and support.

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Dear stakeholders,

Last year, for the first time in POSCO's history, we encountered a net loss on a consolidated basis, caused in part by a confluence of negative external factors, including a stagnant domestic economy, increased global competition and ongoing recession in the global steel industry, as well as poor internal performance, including operating loss and foreign exchange losses.

Despite these challenges, steel segment within POSCO was able to maintain higher level of profitability compared to other business sectors. In fact, we were able to accelerate the process of organizational restructuring, and reinforce ethical management through IP 2.0, an upgrade version of IP 1.0. This report aims to highlight POSCO's achievements in 2015 in order to assert its competitiveness in spite of unprecedented market challenges, and to outline corporate plans and goals for 2016.

Over the past two years, POSCO was able to raise 3.6 trillion won of non-debt capital through intensive restructuring and divestment efforts. So far, our restructuring initiatives have focused primarily on improving the financial structure. This year, however, we plan to carry out thorough restructuring by eliminating any latent financial issues that may emerge. Through this plan, the steel sector will serve faithfully as the cash cow to allow continuous growth. In other sectors, differentiated competitiveness needs to be achieved in each of the respective segments to gradually expand importance through comprehensive reorganization of the company's portfolio.

Also, we will redouble our marketing efforts to minimize the impact of the drop in iron and steel prices and build on the success we have already had in solutions marketing, which allowed an increase in sales of high value-added products. Last year, we introduced the concept of "human solutions" to win customer loyalty by going beyond technical sales. We will continue to execute leading solutions marketing initiatives for greater customer satisfaction, underpinned by a cohesive approach to R&D, production and sales. The organic links we forge between our different divisions will help us further expand our sales of World Premium products. Furthermore, we will generate new sources of profit through sales of engineering technology, such as designs and operations, as well as steelmaking technology, particularly FINEX.

Another key part of our approach to embedding IP 2.0 is to innovate our corporate culture in ethics, safety, environment, and social responsibility. POSCO introduced a corporate-wide adoption of a One Strike-Out System aimed to foster an ethical culture. In particular, POSCO adheres to a zero-tolerance policy, regardless of one's title, position, or the degree of gravity for any of the following four major unethical practices: accepting bribes, embezzlement, violation of sexual ethics, and fabrication of information. We will strengthen performance-driven compensation for a high performance-oriented virtuous circle, rigorously enforced by strict ethical management.

With regard to safety, the number of accidents dropped significantly in 2015 compared to 2014; however, we will continue to push forward until

we achieve the goal of zero harm in 2016. To this end, we will establish and promote four key strategies: reinforcing self-directed safety spread activities; creating a culture that practices the basics of safety; enhancing the management of enhancing the management of health and prevention of disasters; and elevating the level of safety among POSCO and its affiliates and overseas subsidiaries.

In terms of environmental management practices, POSCO has been diagnosing and improving various environmental risks, particularly pollution around the group's major work sites since 2013. This year, we will once again take every possible measure to mitigate latent risks by reducing the use of chemical materials, developing alternative technologies and strictly managing safety. POSCO has already implemented carbon accounting in response to the Emissions Trading Scheme and, since its implementation last year, we have reduced the emission of greenhouse gases by improving energy efficiency. To prepare for the inevitable strengthening of the carbon policy under the Paris Agreement, we will make efforts to develop low-carbon core technologies, such as developing energy-efficient steel materials and recovering medium-low temperature heat.

With regard to social responsibility, POSCO is proud to promote various social programs through POSCO 1% Sharing Foundation, an organization created and funded by employee donations from across all POSCO and its affiliates and outsourcing partners. The foundation encourages employees to take part in voluntary activities that benefit social welfare, such as supporting neglected class groups; protecting and preserving traditional culture; and talent donations. Last year, construction began for steel-frame daycare facilities to assist low-income working families in Pohang, Gwangyang, Seoul, and even in Incheon. Outside Korea, we have built a tailor-made POSCO Steel Village in Vietnam to meet local residents' needs for economic participation, while also giving back within a broader social contribution model.

Dear stakeholders,

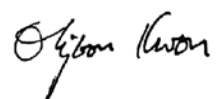
Challenges still remain in the global business environment that may impede the recovery of the steel industry. However, the efforts of POSCO and its affiliates as a whole over the past two years are starting to show hope for a better tomorrow. Now is the time for another leap forward. We will further accelerate our efforts to fundamentally revamp the organization and innovate the corporate structure. We hope to achieve this by increasing our operating income, strengthening our ethical practices, and identifying greater financial savings.

2016 promises to be another year for POSCO to grow with all our stakeholders to become even more nationally loved and globally respected. We ask for your continued interest and support.

Thank you.

April 2016

Ohjoon Kwon  
Chief Executive Officer



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<http://www.posco.co.kr/homepage/docs/eng5/jsp/sustain/customer/s91d700020l.jsp?mdex=posco116A>

POSCO Social Responsibility homepage  
<http://poscolove.co.kr/>

POSCO 1% Sharing Foundation homepage  
<http://www.poscofoundation.org/>

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## ABOUT POSCO

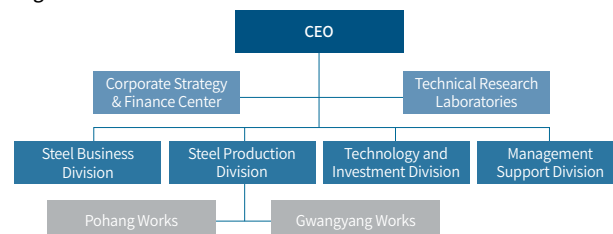
### POSCO Summary

Established in 1968, POSCO produces hot-rolled, cold-rolled and stainless steel at Gwangyang Works and Pohang Works, the largest single steel mill in the world. There were 17,045 employees working at POSCO as of December 31 2015. The CEO receives direct reports from Corporate Strategy & Finance Center, Technical Research Laboratories as well as four divisions – Steel Business Division, Steel Production Division, Technology and Investment Division, and Management Support Division.

<b>Name</b>	POSCO
<b>CEO</b>	Kwon Oh-Joon
<b>Date of Establishment</b>	April 1, 1968
<b>Area of Business</b>	Iron making, steel making, manufacture and sales of rolled steel products
<b>Number of Employees</b>	17,045

\* As of December 31, 2015

### Organization



<b>Head Office</b>	6261, Donghaean-ro (Goedong-dong), Nam-gu, Pohang-si, Gyeongsangbuk-do, Korea
<b>Works and Offices</b>	Pohang Works: 6262, Donghaean-ro, Nam-gu, East Coast, Pohang, Gyeongsangbuk-do (Dongchon-dong) Gwangyang Works: 20-26, Pokpo Sarang-gil, Gwangyang, Jeollanam-do (Geumho-dong) Seoul office: 440 Teheran-ro, Gangnam-gu, Seoul (Daechi-dong) Overseas Offices: 5 international offices to support international business (UAE, Europe, Brazil, Australia and Argentina)

### Financial Performance (consolidated basis)

	Unit	2013	2014	2015
Crude steel production	Thousand tons	38,261	41,428	42,027
Sales	KRW 1bn	61,865	65,098	58,192
Operating profit	KRW 1bn	2,996	3,214	2,410
Operating margin	%	4.8	4.9	4.1
Net profit	KRW 1 bn	1,355	557	△96
Assets	KRW 1 bn	84,455	85,252	80,409
Liabilities	KRW 1 bn	38,633	39,961	35,339
Liabilities-to-equity ratio	%	84.3	88.2	78.4
Equity	KRW 1 bn	45,822	45,291	45,070
ROE	%	3.1	1.2	△0.2

### Integrated ESG Performances<sup>1)</sup>

	Unit	2013	2014	2015		
Innovation	R&D expenditure <sup>2)</sup>	KRW 1 million	584,994	694,021	513,006	
	R&D to sales ratio <sup>3)</sup>	%	1.0	1.1	0.9	
Employee <sup>4)</sup>	Training hours per capita	Hours	162	109	92	
	Training expenses per capita	KRW	731,305	649,066	868,142	
	Employee satisfaction	Points	80.9	75.7	71.8	
	Turnover rate	%	3.0	6.1	4.0	
	Continuous service	Years	11.5	12.0	12.6	
	Ratio of non-regular workers	%	6.1	9.7	5.0	
	Rate of return from parental leave (male)	%	100	100	90	
	Rate of return from parental leave (female)	%	97	85	98	
Safety	Lost-time injury frequency rate	Per million hours	0.1	0.2	0.2	
	Number of accidents (average)	Number of cases	5.0	5.1	5.6	
Society	Volunteering hours per capita	Hours	30.3	27.4	26.4	
	Social contribution costs	KRW 1 million	22,622	20,995	16,354	
Environment	Energy usage	TJ	922,548	974,567	961,464	
	Greenhouse gas emissions scope 1 (direct)	1,000ton CO <sub>2</sub> e	79,928	84,451	82,741	
	Greenhouse gas emissions scope 2 (indirect)	1,000ton CO <sub>2</sub> e	4,539	5,032	4,431	
	Water use	Wastewater intake	1,000m <sup>3</sup> /year	140,497	144,054	144,761
		Wastewater discharge	1,000m <sup>3</sup> /year	81,794	86,291	82,743
	Waste	Waste generation	1,000ton/year	23,342	24,873	24,622
		Waste volume (disposal)	1,000ton/year	398	454	587
Waste volume (recycling)		1,000ton/year	22,760	24,319	24,024	

<sup>1)</sup> Scope of integrated sustainability performance index: Eight companies in total (POSCO, POSCO Daewoo, POSCO E&C, POSCO ENERGY, POSCO ICT, POSCO CHEMTECH, POSCO M-TECH, POSCO C&C)

<sup>2) 3)</sup> R&D to sales ratio: The consolidated R&D expenditure from POSCO's 2015 Annual Report is listed here.

<sup>4)</sup> The total number of employees is the total sum of the employee reported in annual reports of the eight companies. Number of employees was 29,727 in 2013, 30,912 in 2014 and 29,724 in 2015.

## GOVERNANCE

POSCO is steadily improving its corporate governance structure based on a "Corporate Governance Charter" which clarifies the vision and principles of POSCO's governance for the purpose of protecting the Board of Directors' (BOD) independence and shareholders' rights. The BOD consists of seven independent outside directors and five inside directors. POSCO has established a BOD operational structure that centers on outside directors who act as the chair of the BOD and as chairpersons of BOD's expert committees. In addition, outside directors convene exclusive meetings on a regular basis, systematically ensuring the opportunity to make independent decisions. POSCO has adopted cumulative and voting-in-writing systems to significantly enhance the rights of shareholders. It operates the Internal Transactions Committee to ensure transparent transactions with those parties who hold a special relationship with POSCO, such as affiliates. In 2006, the office of the CEO was separated from the Board's chairmanship in order to secure the independence of the BOD and its audit functions. The CEO Candidate Recommendation Committee was organized in 2007 and its operating principles were designed to ensure a transparent procedure for electing the CEO. In 2010, a Code of Ethics was established for outside directors to ensure responsible and transparent activities of outside directors. Operating rules for the Director Candidate Recommendation Committee were established in 2011 for a more efficient operation of the Committee. The operating rules of the BOD were revised for more than one expert committee to review matters related to internal transactions and strengthen the roles and rights of outside directors as well as expert committees. In 2012, the function and role of expert committees were heightened by holding separate meetings by committee, such as the Finance and Operation Committee.

### Outside Directors



**Lee, Myoung-Woo** (chairman)  
 • CEO and President of Dongwon Industries  
 • Former Special Duty Professor of Business Administration at Hanyang University  
 • Former CEO of SONY Korea  
 • BA in Philosophy at Seoul National University, MBA at University of Pennsylvania



**Shin, Chae-Chol**  
 • Former CEO and President of LG CNS  
 • Former Chairman of Logos Systems  
 • Former CEO of IBM Korea  
 • BA in Electrical Engineering at Seoul National University



**Kim, Il-Sup**  
 • President of Seoul School of Integrated Sciences & Technologies  
 • Former President of Deloitte Anjin LLC  
 • Former Vice President of Samil Pricewaterhouse Coopers  
 • Seoul National University Business School/BA, Master, PhD



**Sunwoo, Young**  
 • Senior Partner at Rhi & Partners  
 • Former Director of Seoul Eastern District Prosecutor's Office  
 • Former Director of Cheongju District Prosecutor's Office  
 • Seoul National University School of Law



**Ahn, Dong-Hyun**  
 • Professor at Seoul National University, Department of Economics  
 • Former Head of Quant Strategies, Royal Bank of Scotland  
 • Former professor at North Carolina State University  
 • Korea University Business School, PhD in Management NYU



**Bahk, Byong-Won**  
 • Chairman of Korea Employers Federation  
 • Former President of Woori Financial Group  
 • Former Vice Minister of Finance and Economy (currently renamed Ministry of Strategy and Finance)  
 • Seoul National University School of Law, MA in Economics at Washington University



**Kim, Joo-Hyun**  
 • Adviser at Hyundai Research Institute  
 • Former CEO of Hyundai Research Institute  
 • Former Senior Researcher at Goryeo Economic Research Institute  
 • BA in English at Seogang University, PhD in Finance at Arizona University Finance

### Inside Directors



**Kwon, Oh-Joon**  
 • CEO and Representative Director of POSCO  
 • Former President of POSCO  
 • Former CEO of Research Institute of Industrial Science & Technology (RIST)  
 • BA in Metal Engineering at Seoul National University, MA in Metal Engineering at University of Windsor, PhD in Materials Science and Engineering at University of Pittsburgh



**Kim, Jin-Il**  
 • President and Representative Director of POSCO (Head of Steel Production Division)  
 • Former CEO of POSCO CHEMTECH  
 • BA in Metal Engineering at Seoul National University



**Lee, Young-Hoon**  
 • Senior Executive Vice President of POSCO (Head of Technology Investment Division)  
 • Former Vice President of POSCO E&C  
 • BA in Economics at Seoul National University, PhD in Economics at University of London



**Oh, In-Hwan**  
 • Senior Executive Vice President of POSCO (Head of Steel Production Division)  
 • Former Senior Director of POSCO P&S  
 • BA in Sociology at Kyungpook National University, MA



**Choi, Jung-Woo**  
 • Vice President of POSCO (director of Corporate Strategy & Finance Center)  
 • Former Vice President of POSCO Daewoo  
 • BA in Economics at Busan National University

## BOARD OF DIRECTORS

### Board Composition

Inside director candidates recommended by the company are screened by the Director Candidate Recommendation Committee, which is responsible for recommending the final candidates to the annual general meeting for a decision on appointments. As for nominations of outside directors, the outside director Candidate Recommendation Advisory Group is comprised of five experts with various backgrounds from industry, academia or law to select a threefold roster of candidates for BOD diversity. The Director Candidate Recommendation Committee evaluates the candidates' qualifications and makes the recommendation to the annual general meeting where the final decision is made on whether to appoint them.

At the 48th annual general shareholders meeting held on March 11, 2016, Lee Myoung-Woo, CEO and President of Dongwon Industries was reappointed as an outside director and Vice President Choi Jung-Woo was newly appointed as an inside directors. At the subsequent BOD meeting, outside director Lee Myoung-Woo was appointed as chairman of the BOD. During 2015, the POSCO BOD meeting was held a total of eight times. Inside directors and outside directors recorded attendance rates of 98% and 100%, respectively. The major agendas decided at the 2015 BOD meetings were as follows: POSCO E&C's stake sale, management plans for 2016, and year-end charitable donations.

### BOD Key Agendas

1.29	<ul style="list-style-type: none"> <li>Approval of the 47th business report and gathering of the annual general meeting</li> <li>Change of remuneration system for externally appointed directors (draft)</li> </ul>
2.16	<ul style="list-style-type: none"> <li>Recommendation for internally appointed director candidates</li> <li>Agendas to be submitted for discussion at the 47th annual general meeting</li> </ul>
3.13	<ul style="list-style-type: none"> <li>Appointment of the chair of the board of directors</li> <li>Appointment of expert committee members</li> <li>Appointment of the president and designation of the internally appointed director title</li> <li>Sell-off of Equities in POSCO E&amp;C</li> </ul>
5.14	<ul style="list-style-type: none"> <li>Funding for the POSCO Educational Foundation</li> <li>Trade plan with people with special relations in 2015</li> <li>Report of results of checking whether the company abided by compliance standards and appointment of compliance supporters</li> </ul>
8.4	<ul style="list-style-type: none"> <li>Interim dividend payment plan for the fiscal year 2015</li> <li>Revision of regulations on BOD operation</li> <li>Revision of standards on directors' remuneration</li> </ul>
11.6	<ul style="list-style-type: none"> <li>Delisting at London and Tokyo Stock Exchanges</li> <li>Change operation contact for lime calcination plants at Pohang and Gwangyang Works with POSCO Chemtech</li> </ul>
12.11	<ul style="list-style-type: none"> <li>Mid-term management strategies and plans for 2016</li> <li>Donation to year-end charity campaign</li> </ul>

### Directors' Remuneration

Remuneration limit:

KRW **7** billion

Total amount paid:

KRW **5.5** billion

### Expert Committees

There are six expert committees within the Board of Directors. The Management Committee that reviews and deliberates on steel investments is chaired by an inside director, and the other five expert committees are chaired by outside directors. The Audit Committee, Evaluation and Compensation Committee, and Internal Transactions Committee are comprised solely of outside directors to ensure independent decision-making.

#### Major Roles and Composition of Expert Committees

##### Director Candidate Recommendation Committee

(Three outside directors, one inside directors / chair Shin, Chae-Chol)  
Meetings held in 2015: 4 times

Major reviews/decisions: review of qualification of externally appointed director candidates and recommendation, review of qualification of internally appointed director candidates, appointment of expert committee members, appointment of CEO and giving titles of internally appointed directors

##### Evaluation and Compensation Committee

(Four outside directors / chair Sunwoo, Young)

Meetings held in 2015: 2 times

Major reviews/decisions: assessment of 2014 companywide business performance and revision of remuneration standards for directors

##### Finance and Management Committee

(Three outside directors, two inside directors / chair Ahn, Dong-Hyun)

Meetings held in 2015: 5 times

Major reviews/decisions: POSCO E&C's stake sale, year-end donations to the marginalized and approval of short-term borrowing limit for 2016

##### Audit Committee

(Three outside directors / chair Kim, Il-Sup)

Meetings held in 2015: 8 times

Major reviews/decisions: operation status of an internal accounting control system in 2014, inside audit results of the 47th consolidated financial statements

##### Internal Transactions Committee

(Three outside directors / chair Kim, Il-Sup)

Meetings held in 2015: 6 times

Major reviews/decisions: funding for the POSCO Educational Foundation and signing contract to use POSCO E&C brand

##### Management Committee

(Five inside directors / chair Kwon, Oh-Joon)

Meetings held in 2015: 11 times

Major reviews/decisions: sale of treasury stocks linked to awards, phase 3 improvement of Gwangyang Blast Furnace 3 and replacement of antiquated stevedoring facilities with new ones at Gwangyang Wharf for Materials

\* The composition and the chairperson of the expert committees were as of March 11, 2016.

## INTERVIEWS WITH EXECUTIVES

**Kim, Jin-Il**  
President and Representative  
Director of POSCO  
(Head of Steel Production Division)

POSCO's Steel Business Division diminished the production cost of slabs by KRW 15,000 per ton in 2015 thanks to the completion of the recovery of facility performance. We will lessen it by an additional KRW 100,000 per ton in 2016. Moreover, we will make 2016 the first year of preparing another great 30 years for POSCO by cementing the World Premium Product 50% System.

First, we will make a 15-percent improvement to quality inadequacy to maintain a commanding lead over our competitors. We will raise the quality of our World Premium products to that of general steel and expedite the development of steel for mass-production. We will continue to do everything necessary to help overseas production corporations enhance their quality level to that of our parent company by transferring the parent company's technology and know-how in facility management.

As for safety, we will make the POSCO family disaster-free by conducting substantial self-directed safety management activities and immersing ourselves in a culture of putting the basics into practice. The promotion of greetings for safety, the Good Driver Campaign, the TBM (Tool Box Meeting) and other such checks will raise employees' awareness of safety issues and disseminate an upright and well-respect corporate culture. We will boost the safety capabilities of the entire POSCO family through the provision of strong support in this area, particularly safety check-ups of family companies and overseas production corporations and customized education of their employees. We have built a safety culture by selecting key activities for our 15 corporations in order to advance overseas production corporations' safety management systems and raise the level of employees' safety awareness. This is chiefly because overseas production corporations' systems are more vulnerable to attack than that of the main office. Meanwhile, the main office will provide extensive support, such as remotely controlled visual education, so that locally-hired employees can build their safety knowledge. It's impossible to overstate the importance of safety. That's because, when it comes to safety, even the smallest of mistakes can lead to total disaster. In 2016, all of our employees will realize a safe workplace by honoring corporate policies and procedures that put safety first.



**Hwang, Eun-Yeon**  
President  
(Head of Management Support Division)

POSCO was founded to provide steelmaking for the nation. Ever since, it has led the growth of the Korean economy and the development of its industry. One of the factors that defines POSCO as distinct from other companies is its inclusive approach to shared growth through cooperation with small and mid-sized companies, which remains a major axis of our management activities. Continued low global growth and the prolonged economic downturn are expected to impede any

quick solution to the tough economic conditions we are seeing in 2016. POSCO's mutual growth activities are being implemented as part of a push to create shared value in order to practically help small and mid-sized companies enhance their competitiveness.

Next, under the leadership of our CEO Kwon Oh joon, we have successfully raised our innovation to the next level through POSTIM, POSCO's Total Innovation Methodology. As a consequence, 3,800 employees (including those who held two or more positions) took part in a total of about 800 projects over the space of two years and inked about KRW 2 trillion in financial achievements. This year, we will shorten our lead times. This is so that compensation for achievements can be made more quickly by gathering employees' creative ideas, constantly developing projects and screening them to select appropriate projects and project members.

In terms of our approach to human resources, we have prioritized the cultivation of talented people who mix well with POSCO's business and corporate culture on the basis of job specialties. We significantly improved our recruitment process last year by removing the focus from jobseekers' college majors to switch to a division-oriented system. We put considerable effort into sourcing and recruiting people with the right mindset, personality and job competence, rather than those with impressive resumes and high test scores. Going forward, POSCO will steadily embed greater capability development through stretch tasks and a comprehensive performance management approach.



**Oh, In-Hwan**  
Senior Executive  
Vice President of POSCO (Head of Steel Production Division)

All steelmakers are thinking about how to overcome the slowdown in market growth due to a structural overcapacity and an economic downturn, which forced the entire steel industry to enter an era of low growth and low income. Most steelmakers in China have decreasing sales. They have continued to export products at low prices but it has its limits. We need to put in place customer value enhancement activities, such as securing technology-based quality and price competitiveness for our long-term survival, combined with solution marketing to sustain performance, rather than focusing solely on producing short-term results. These activities are enabling POSCO to expand the development and sale of World Premium products with our market-leading technological prowess and profitability. We are planning to raise the percentage of World Premium products' sales from 38% in 2015 to 48% in 2016 and over 50% in 2017. From a strategic perspective, our company's differentiated competitiveness will help us generate profits in the long term.

Employees concentrated their capabilities on scaling up sales of World Premium products through solution marketing in 2015. Despite the tough market conditions, we were rewarded for the effort with greater profitability than competitors. We aim to build on this success by promoting solution marketing in 2016. We will embed solution marketing at the enterprise level into the group's affiliates and overseas corporations and carry out activities such as the development of specialized solutions by industry. Reinforcing our design solutions will enable us to differentiate ourselves from other companies. To accomplish this goal, we will strengthen our leadership in the domestic market by creating new demand for WP products and steadily expanding the scope of solution marketing to secondary corporate customers. Securing a sales foundation for overseas business and management soundness at an early stage will help us boost our overseas sales capabilities through effective collaboration between head office and affiliates.

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**Jang, In-Hwa**  
Vice President  
(Head of Technology and Investment Division)

POSCO has put a great deal of effort into improving its business environment in recent years. Market uncertainty and lack of awareness over the worldwide overcapacity have resulted in over-investment in many new business projects. We reduced the volume of new business projects by about 60% in accordance with our current strategy to enhance financial soundness and reorganize its business. We will adopt and sustain a "selection and Concentration" strategy to eliminate irrational business diversification going forward. POSCO will therefore enhance its product and price competitiveness in our core business sector: the steel business. The general shareholders' meeting of POSCO in March made our original technology sale business by adding the technology sale and engineering business to our business portfolio. POSCO began selling its technologies to mitigate the global supply overcapacity that have hampered the creation of big profits through the sale of steel products and R&D achievements. In this way, we are leveraging POSCO's accumulated IP since the foundation of the company to become marketable enough to be sold to steelmakers, including steel industry leaders around the world. Our current sellable technologies are FINEX and compact endless cast-rolling mill (CEM) technologies. The two can be sold separately or in a set.

POSCO will steadily seize new business opportunities and develop new value by adding solution concepts to our four domains—solution trading, smart infrastructure, independent power producer (IPP) and energy materials. To put it concretely, we will strengthen our global leadership in steel product market by promoting sales based on our competitive edge in the high manganese steel sector and expanding the high-strength steel market. We are very much determined to prepare next-generation processes such as environmental technologies, particularly around process technologies such as FINEX, as well as CEM and high-volume capture technology for power generation.

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## VISION AND STRATEGY



### Results in 2015

The world economy has continued its low growth at the 2% level over the last four years, with developed nation’s quantitative easing policies failing to sufficiently recover demand. The economic slowdown will be deepened when the slowdown in the growth of Chinese economy leads to the restructure of the excessive facilities and the bursts of financial and real estate bubbles. The expansion of financial and foreign exchange volatility triggered by America’s interest rate hikes have seen emerging markets, including China, go from nations powering global economic growth to elements which may destabilize it. Emerging markets which tend to be more reliant on commodity exports continue to struggle with the burden of low oil prices, which raises the specter of possible deflation in the years to come.

A slowdown in the economic growth of China and newly emerging markets is hindering Korea’s exports. Despite the government’s pump-priming policies, a spike in the level of household debt has delayed the recovery of domestic demand, resulting in a trade surplus that, for an export-driven economy such as Korea, is more usually associated with times of recession. The steel industry continues to grapple with an ongoing steel supply overcapacity coupled with weak demand brought on a slowdown in the global economy. Steel prices, which have dropped to 20-year lows, clearly reflect this new reality. The flood of CIS-made low-priced slabs on the market sparked by a devaluation in the ruble has further exacerbated the distortion in market prices.

To overcome these internal and external crises, POSCO established the Innovation POSCO 2.0 Vision System with a focus on four major innovation agendas and business philosophies – ethical Management, harmonious management, creative management, first-class management – which together lay the foundation for the realization of the “POSCO

the Great” vision. The following are major management activities implemented in 2015 in line with the four innovation agendas.

#### First, we reinforced our fundamental competitiveness as a steelmaker.

POSCO continues to strengthen customer value by providing technical and commercial support, as well as steel of the highest performance through marketing solutions which mix technology with marketing promotion. The percentage of World Premium product sales rose to 38.4% in 2015, which has greatly contributed to total operating profit. We strive to advance facility performance as much as possible by strengthening our facilities and through daily on-site check-ups. Our extreme cost cutting has already accomplished a cost reduction of KRW 400 billion, which is a significant boost to our competitiveness in the steel sector. Thanks to such efforts, POSCO recorded KRW 2,238.2 billion in operating income and an operation profit ratio of 8.7%, a year-on-year increase of 0.7% on a non-consolidated basis despite the slowdown in the steel market. On a consolidated basis, the company posted KRW 2,410.0 billion in operating income and an operation profit ratio of 4.1%.

#### Second, POSCO accelerated the innovation of its business structure by restructuring low-income non-core business areas and improving the company’s financial structure through financial soundness-centric management.

In 2015, we restructured a total of 34 subsidiaries by selling off non-core business areas including POREKA and NewAltec, and by merging POSCO Investment and POSCO Asia to enhance competitiveness. Pre-emptive financial soundness-centric management has already made our financial structure sound against the backdrop of a sluggish steel market which threatens to undermine our company’s profit base.

We cut working capital by KRW 3.6 trillion by steadily reducing inventories and account receivables to secure cash liquidity and enhance our financial soundness in preparation for a long-term recession in the industry. Moreover, we secured an additional KRW 2.5 trillion won in liquidity by procuring non-debt capital such as the sell-off of equities in POSCO E&C and POSCO Specialty Steel.

We have enhanced the soundness of our financial structure through financial soundness-centric management. As a result, on a consolidated basis, borrowing fell by KRW 2.2 trillion year-on-year, while the amount on hand rose by KRW 3.5 trillion and net borrowing dwindled by KRW 5.7 trillion. Moreover, our debt ratio improved to 78.4% from 88.2%.

#### Third, we laid the foundation for producing tangible results in new growth engine businesses.

The company is pushing forward with several new growth engine projects based on its unique technologies, particularly FINEX, CEM and lithium extraction. At the moment, the company is selling its unique technologies such as POIST (POSCO Innovative Steelmaking Technology), FINEX and CEM (Compact Endless casting and rolling Mill). We are currently in negotiations regarding 13 technology transfer cases in total. In particular, with regard to POSCO’s CEM technology, we accomplished a technology license and joint marketing deal with Germany’s SMS Group and are now selling its original technology.



At the same time, we are devoting greater effort into building a high-grade production and sale cluster through the diversification of regional cooperation with global steelmakers and the commercialization of lithium extraction technology by implementing an SPB (Solution-based Platform Biz.) strategy.

#### **Fourth, we have built an ethics-based infrastructure.**

POSCO has designated “Clean POSCO” as our supreme business philosophy. We applied the One Strike Out Rule to bribery, embezzlements, violations of sexual ethics and information manipulation by revising and implementing our code of ethics in line with global leaders. Moreover, we eradicated abnormal business practices by applying three 100% principles – 100% competition, 100% recording and 100% disclosure – and the operation of the anti-illegal solicitation Clean POSCO System. What’s more, POSCO beefed up the competitiveness of our affiliates and produced tangible results. POSCO Daewoo improved its level of profit by increasing gas sales in the Myanmar gas field, improving the level of income in the Petroleum and Gas Development Division. The company is carrying out additional exploration for resources development projects.

The stake sale to the PIF (Public Investment Fund, a Saudi sovereign wealth fund) and a capital increase has solidified POSCO E&C’s business foundation in the Middle East. In addition, the builder received more orders for Haeundae LCT and housing complexes in Gwangju and Ulsan. POSCO Energy completed a 1,200 MW coal-fired power plant in Vietnam and is successfully test-running the power plant by sealing a PPA agreement for 25 years with a Vietnamese power supply company.

These major business activities have earned POSCO the honor of being selected as an excellent company for 11 consecutive years and the best company in the steel industry for two years in a row in the 2015 DJSI (Dow Jones Sustainability Indexes), a global first for a steel company. What’s more, we were also named the most competitive steel company by WSD (World Steel Dynamics) for 6 consecutive years, proving our status as the company with the strongest competitiveness in the world.

## **RISKS AND OPPORTUNITIES IN 2016**

### **Economic and Industrial Outlook**

The world economy and the Korean economy are both forecast to continue to maintain a low-growth trend in 2016. In reference to the world economy, developed countries are expected to make a gradual economic recovery, but sharp drops in commodity prices and hikes in US interest rates are expected to further exacerbate slowdowns of newly emerging economies.

It is forecast that China’s faster-than-expected economic slowdown and a drop in exports caused by falling oil prices will combine with a drop in the level of domestic consumption caused by a sharp increase in household debt to increase the burden on the Korean economy, in spite of the Korean government’s pump-priming policies.

The steel market is expected to continue to have difficulties in 2016 due to worldwide supply gluts and the ongoing slowdown in the growth of steel-consuming industries. In particular, an increase in low-priced products due to supply gluts in China is expected to bring greater uncertainty into the Asian steel market.

As mentioned above, with world economies having entered a long low-growth period, POSCO analyzed that the company would not be able to survive if it continued to rely on an old system that which worked in times of growth. We will put our utmost efforts into accelerating restructuring our business, cost and income and changing employees’ way of thinking.

### **Strategy for 2016**

#### **First, we will innovate our group’s business from the perspective of profitability.**

The company enforced restructuring to eliminate hidden potential elements in terms of profitability by taking another step, following two years’ restructuring focused on an improvement in the financial structure.

The steel industry became the group’s cash cow and the center of growth. The group’s business portfolio consists of four domains – trading, infrastructure, energy and materials. We will obtain differentiated competitiveness in solution trading, smart system, power projects, and energy materials, all of which are areas where we could create great synergies. With reinforcing the responsible management, we try that each businesses have the viability through reorganizing the business system by priority on the representative companies.

In addition, we will change the group’s system for future growth to the creation of new growth engines based on unique technologies that we successfully commercialize, while also pushing the use of existing technology within new growth areas.



**Second, we will innovate our current high-cost and inefficient operating structure.**

To change the operating system to an extreme low cost structure commensurate with a low-margin era, we will convert all parts of organizational operations from purchasing to production, technology, and resources management to achieve a high-efficiency and low-cost operating structure.

To this end, by the end of 2016 we will achieve cost savings of KRW 1 trillion on a consolidated basis by reviewing the best operating plans, such as the suspension of the operation of low-margin and inefficient facilities, and by accelerating the removal of waste through expanding and systemizing the IP project (Innovation POSCO Project).

In addition, to maximize management efficiency, we will streamline overall business management methods such as budget, investment and performance management.

**Third, we will innovate our revenue structure.**

In 2015, POSCO maintained its profitability by expanding sales of high-value-added products through technological development for cost savings and active Solution Marketing, despite the continuous decline in steel prices. This proves that high value-added products and differentiated prices and services are crucial for our survival in this fiercely competitive environment.

Therefore, we will do everything we can do to execute on our strategy of expanding World Premium products. We will carry advanced solution marketing to impress customers by setting higher sales goals for highly profitable steel products than 2015. At the same time, we will strengthen solution marketing in connection with headquarters of those overseas corporations where profitability improvements are urgently needed.

We will develop large vertically integrated tasks in the steelmaking process through a work system based on projects and do everything possible to cut cost through relevant departments' total and combined efforts. POSCO affiliates will achieve an early turnaround by implementing their own structural innovation and undertake cost-cutting plans without delay.

In the case of the group's business, we will sharpen our competitiveness by breaking away from the current profit structure which depends on captive markets.

In the trading business, we will build momentum for a new take-off by creating an advanced marketing system for high-value-added products such as steel and food and by expanding business opportunities in strategic regions through solution trading from a customer perspective.

The smart system business will focus on the group's fundamental competitiveness and creation of profit by creating new opportunities in the smart factory sector to build a best system for the smart energy sector, which aims to efficiently produce and distribute energy and the smart city/building sector which gives life spaces intelligent new functions.

In the IPP (Independent Power Plant) business, our group's affiliates such as POSCO E&C and POSCO Daewoo will maximize income by strengthening their roles to create synergies on supply chains from project planning, construction and operation.

Moreover, the company will develop technology in the energy material sector to extract basic materials for battery production, such as Li, Ni and Co, in the lithium ion cell market, which continues to grow rapidly.

**Fourth, POSCO will establish a definitive ethical management and performance-based corporate culture.**

Ethical management underpins POSCO's management approach. This means that all employees, management, owners and affiliates must abide by the code of ethics. A zero tolerance approach will be taken with any unethical behavior, regardless of the wrongdoer's rank or the severity of the case. In addition, we will continue to apply three 100% principles (100% competition, 100% recording and 100% disclosure) to the trade and outsourcing sectors in order to establish a market-oriented and ethical corporate culture. At the same time, the Clean POSCO System will tightly manage favor and recommendation records.

Moreover, introducing a job grade system will help to reinforce awareness of role and responsibilities at different levels, while encouraging progression through clear salary banding. We will create a corporate culture based on a virtuous cycle of inspiring higher performance by strengthening performance evaluation and rewarding compensation for achievement underpinned by ethical management.

**The keyword of 2016 is "accelerating structure innovation."**

Entering the third year of the new vision of "POSCO the Great," all employees of POSCO Group will move forward with an innovation mindset to change the existing framework through effective collaboration, despite the tough operating conditions.

We will take a great step toward the accomplishment of our vision in 2016 as a mark of our gratitude to shareholders and customers for their ceaseless support and interest.

## SUSTAINABLE MANAGEMENT

### Sustainability Policies

POSCO defines sustainability as achieving economic performance based on environmental and social responsibility. POSCO's sustainability policies to meet this goal are ensuring responsible management based on stakeholder trust and providing sustainable solutions for customers and society.

**Building Trust with Stakeholders** We are deeply aware that a company's sustainability can only be achieved through a long-term trusting relationship with stakeholders, particularly investors, partners, customers and employees, as well as society more broadly. The Technology Investment, Management Infrastructure, Steel Business and Steel Production Divisions continue to communicate with internal and external stakeholders to identify ways to enhance stakeholder value. We will strive to make the result of our continued communication with stakeholders result in value creation that our stakeholders can recognize.

**Responsible Management** As a member of society, POSCO strives to practice responsible management. POSCO strictly adheres to its code of conduct, safety and health policies and human rights policies, and tries to ensure that these regulations are compatible with global standards. Hence, POSCO recognizes and supports internationally accepted sustainability management standards such as the UN Global Compact, OECD Guidelines for Multinational Enterprises and ISO 26000. In addition, we prohibit child labor and forced labor both at domestic and overseas business sites, while also supporting international human rights-related regulations, such as the Universal Declaration of Human Rights and United Nations Guiding Principles on Business and Human Rights.

- The 10 principles of the United Nations Global Compact (POSCO joined on 31 May, 2012)
- The OECD Guidelines for Multinational Enterprises
- The Universal Declaration of Human Rights and United Nations Covenant on Human Rights
- ISO 26000 (Guidance on social responsibility)

**Providing Sustainable Solutions** POSCO strives to enhance customer value through product development and continuous innovation. Last year, POSCO declared the launch of solution marketing in order to foster POSCO's fundamental steel competitiveness. This year, we will continue our efforts to secure a global competitive edge and grow together with our customers. To this end, we will achieve two goals – increased revenue and enhanced competitiveness – by developing world premium products that bring high added value to our customers and advanced solution marketing. In addition, we will continue our efforts to develop eco-friendly and high-energy efficiency technologies and products that can contribute to global sustainable development.

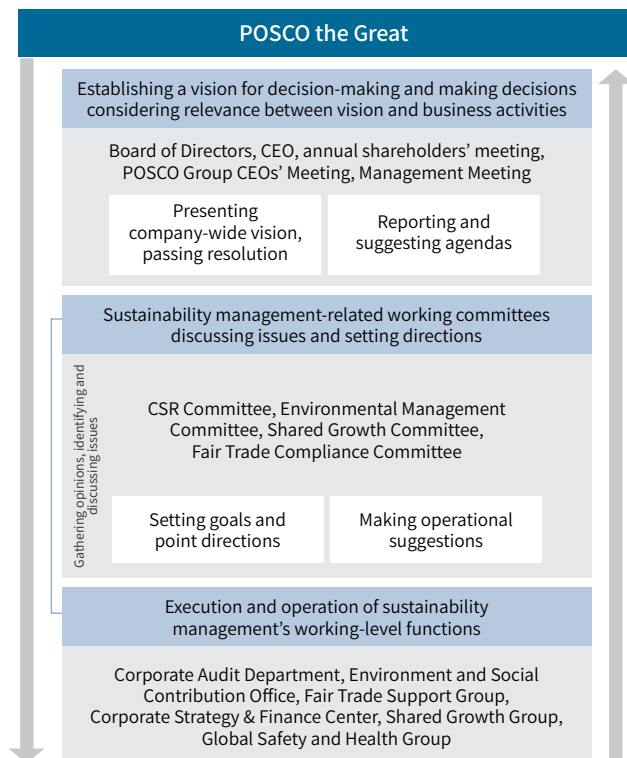
### The core of sustainability management policies



### Sustainability Management System

In 2013, we launched the CSM (Corporate Sustainability Management) Team and declared a sustainability management philosophy that combines economic profitability, environmental soundness and social responsibility as part of a broader push to systematically execute socially responsible corporate management. The Environment and Social Contribution Office within the Technology Investment Division is responsible for corporate-wide sustainability management activities. The Environment and Social Contribution Office leads sustainability management evaluation and internal sustainability activities, as well as providing diagnosis and consultation for the sustainability management capacities of group affiliates. The results of their activities are reported regularly to the CEO at the POSCO Group CEOs' Meeting and Management Meeting, held annually.

### Sustainability Management Governance



### Sustainability Management Committees

Category	Meeting interval	Chairperson	Participants	Activities
Environmental Management Committee	Once/year	CEO	CEOs of POSCO Family companies	Establish medium-term environment and energy strategy at the POSCO Family level
Shared Growth Conference	Twice/year	CEO/representatives of SMEs	POSCO executives, CEOs of subsidiaries, presidents of SMEs	Establish strategies for shared growth activities, review and share POSCO Family's performance
POSCO Family Safety Committee	Twice/year	CEO/Head of Steel Production Division	POSCO's executive in charge, CEOs of subsidiaries	Review safety activities and share future plans to achieve Zero Safety goals
Fair Trade Compliance Conference	Twice/year	Head of Corporate Audit Department	Executives from relevant departments (marketing, purchasing, etc.)	Report CP (Compliance Program) activities and establish plans

### Integrated Management and Report of POSCO Group's ESG Performances

From 2011 to 2014, POSCO has conducted diagnoses for the reinforcement of CSR capabilities and the management of non-financial risks, including environmental and social risks. As a consequence, the number of affiliates which have published sustainability reports increased from two to six as of the end of 2015. The levels of reporting and management sustainability management performance were raised at companies which do not publish reports, as they have managed and made public their ESG performance. We have thus proceeded since 2015 with the group's affiliates' CSR management by upgrading the foundation for implementing CSR from CSR capability management to CSR performance management. To this end, we are building an integrated ESG performance data system in concert with the verifying company Samil PwC. We have also integrated separate data and disclosed the outcomes in the report.

In 2016, as in 2015, we disclosed major POSCO affiliates' CSR performance data. An independent third party, Samil-PwC, conducted data verification and on-the-spot verification interview.

■ Integrated ESG performance data can be found on page 9.

### POSCO Subsidiaries CSR Assessment Score in 2015

year	No. of assessed firms	Score (out of 100 points)
2011	8	65
2012	8	71
2013	12	76
2014	11	76
2015	8	81

■ Companies diagnosed in 2015: POSCO, POSCO Daewoo, POSCO E&C, POSCO Energy, POSCO Chemtech, POSCO ICT, POSCO Mtech and POSCO C&C

### CSR Diagnostic Indicators for POSCO Group's Affiliates

Category	Areas
Economy	CSR governance
	Customer relationship management
	Supply chain management
	Ethical management
	Innovation management activities
Environment	Climate change strategy
	Environmental management
	Environmental risk management
Society	Occupational health and safety
	Human rights management
	Human resources development
	Employees
	Social contribution


## RISK MANAGEMENT

Amidst continuous crises such as the prolonged global recession, low growth in the steel industry, and the expansion of emerging market risk, POSCO is acting at the enterprise-level to preemptively detect internal and external risks. These efforts will enable POSCO to prevent risks by responding to the rapidly changing business environment on time and to secure the basis for sustainable growth by maintaining an amicable relationship with stakeholders.

### Risk Management Overview

With complex global risk becoming commonplace in the wake of the financial crisis, POSCO laid the foundation for an ERM System (Enterprise Risk Management) by establishing risk management policies, enforcing regulations and setting up a risk management organization with a view to coping with uncertain business environments preemptively and effectively. POSCO’s Risk Management System has since evolved in harmony with internal and external conditions. We stepped up the management of risk of our new growth engine business by setting up the IRM (Investment Risk Management) Department in 2011 to deal with what was then skyrocketing levels of domestic and overseas investment. In 2012, we bolstered the risk management process through the integration with management diagnoses covering risk monitoring, detection, diagnosis and improvement.

In addition, we have enhanced the effectiveness of risk management and power to respond to risk by breaking away from a system where a specific ERM department manages risk and assigning the work to Corporate Strategy & Finance Center, which since 2015 has been in charge of the group’s strategies and plans. By harnessing these factors in 2016, we will operate a system for constant checking of key risk elements at a global level that may hinder the group from achieving its management goals. We will then use this analysis to inform specific risk mitigating activities to increase our corporate value.

 Risk Management Policies:  
<http://www.posco.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000010c.jsp>  
 Risk Management Regulations:  
<http://www.posco.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000030c.jsp>

### Risk Management System & Governance

POSCO’s risk management system has been comprehensively designed to make relevant departments management latent risks. POSCO divides risk into “business risks”, “non-business risks” and “disasters and crises.” Among them, four offices of Corporate Strategy & Finance Center are in charge of business risk. More specifically, the Management Strategy Office is in charge of strategy and investment risk, while the Financial Affairs Office manages financial risks,

including funds and exchange rate risks. The Domestic Business Office and the Overseas Business Office manage risks with major business groups in Korea and overseas in the upstream and downstream process risk. The POSCO Research Institute constantly monitors external business risks, including those relating to the steel market, financial market, raw material market and competitor moves. The results of the monitoring are regularly reported to POSCO and distributed across the company through the Global Information Hub (GIH). Working alongside, the Corporate Audit Department proactively manages non-business risks through a self-controlled risk prevention system, including those related to ethics, legal compliance and reputation. As for disasters and crises, we are going ahead with the operation of safe and accident-free worksites with the Safety and Hazard Prevention Department at the center.

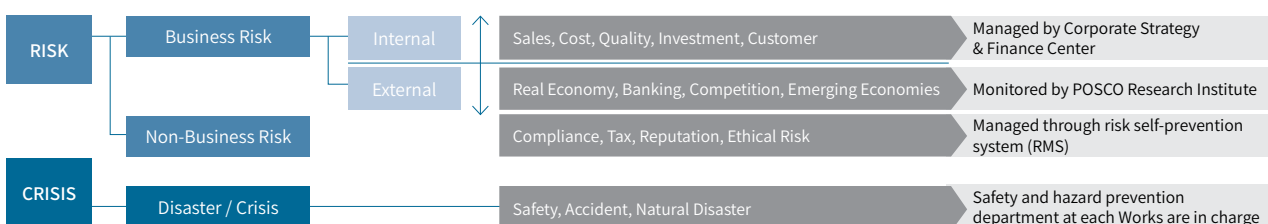
### Monitoring External Economic Risk

POSCO needs to constantly monitor the economy, steel and raw material markets since the steel industry hinges heavily on changes in the domestic and overseas economic situations. In particular, the expansion of POSCO’s global worksites has made the task of managing overseas business risk a critical component of corporate success. We are constantly monitoring external economic risks under the leadership of the POSCO Research Institute. We publish a monthly Global Steel Market Outlook on the steel and fuel markets and forecast quarterly steel supply and demand and prices. Moreover, with the weekly monitoring of changes in foreign exchange rates, POSCO analyzes markets for major raw materials such as iron ore, coking coal and nickel and forecasts the likely trends in demand and supply. The results of the monitoring and analysis activities are regularly reported to POSCO and in quarterly business plans and mid-term management plans. Furthermore, we post daily information about major industries, the global economy, competitor moves and technologies in our GIH, which is the central information hub of POSCO Group. In this way, we are actively bolstering the monitoring of external economic risk by publishing issue reports in regard to key issues.

### Sensitivity Analysis on Major Risk Factors and Stress Test

The main factors affecting POSCO’s business performance are foreign exchange rates and the prices of oil, iron ore and coal. POSCO and each of its affiliates monitor the likelihood of changes in sales, cost and profits caused by changes in these indices at least once a month. When big business risks are expected, we immediately draw up and execute response plans. In approving investment projects, we analyze sensitivity in accordance with changes in foreign exchange rates and prices and apply the results to investment decision making.

#### POSCO Group’s Risk Management System



POSCO's management plan consists of five (S1~S5) versions from the best scenario to the worst one. With a prolonged slowdown in the growth of in the steel market, we analyze our performance each month by setting goals with a focus on business plans for negative economic situations ranging from S3 to S5.

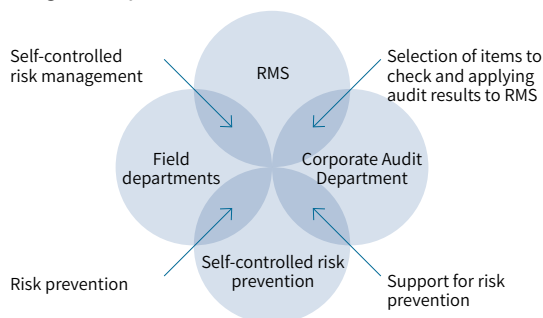
**External Risk Monitoring System**

Economy Risk	Real economy	Foreign exchange rate	Raw material	
	Interest rate	Oil price	Trade friction	
Steel Risk	Steel market	Raw material market	Demand industry	
	Moves of competitors	Imported goods	Restructuring of steel industry	
Group Risk	Construction	Energy	Material	
	ICT	Trade	New business	
Emerging Market Risk	China	India	Thailand	Vietnam
	India	Mexico	Turkey	Iran

**Risk Management System (RMS)**

For systematic risk management, POSCO built an RMS that manages risks in company-wide processes in 2004 and has since continually executed this system. The RMS systematically classifies planning, investment, general affairs, human resource management, public relations, technology development, operation, facility management and procurement across the company and selects and assesses each risk and manages them by grade. With the goal of realizing an effective and sound RMS affected by changes in business environments, POSCO has steadily renewed the system by linking risk management and internal auditing activities and taking into consideration feedback from field departments. At the same time, by letting field departments inquire and check the level of risk, the company sought to build a risk management system that facilitates close collaboration between field departments and the internal audit department. Since 2013, we have built a real-time self-controlled risk prevention system which collects data in real time by through an ERP system and utilizes this data for risk assessment with RMS. The Corporate Audit Department support steady updates of risk by way of the steady se-

**Risk Management System**



lection and assessment of risks, risk controls through audits and risk monitoring circulation process. We strive to establish and operate a self-controlled risk prevention system by publicizing excellent cases.

**Internal Control of Financial Report**

We have established a system to evaluate an internal control of the financial reporting process, in line with our listing on both the Korea and the New York Stock Exchanges. Such measures include setting CEO/CFO approval procedures on public disclosure and internal controls and launching a Public Disclosure Committee in December 2003. We have conducted self-evaluations of internal controls since 2004. External audits were made compulsory since 2006 under the SOX Act<sup>1)</sup>. We thus completed an internal control evaluation system at the POSCO Group level that includes subsidiaries in March 2005.

In addition, POSCO has enhanced the reliability of its financial reports and public announcements through external audits since 2006. For the financial report and internal control system, we documented 10 major processes and evaluated work-related risks using the Standard Control Activity Framework recommended by COSO<sup>2)</sup> and the U.S. SEC with the consultation of an external institution, and have also designed and operated control activities. Furthermore, by taking into consideration the annual assessment of internal controls, POSCO built a web portal evaluation system capable of evaluating internal controls across all divisions at the same time. An auditor of an independent department who understands the current work process is responsible for conducting the evaluation of the efficacy of internal controls and supports management certification. The management reports the status of the internal accounting control system to the Board of Directors and the Audit Committee once a year in accordance with the Act on External Audit of Stock Companies that was revised in 2009.

<sup>1)</sup> SOX (Sarbanes-Oxley) Act: The Public Company Accounting Reform and Investor Protection Act that was enacted in July, 2002 in the United States. It imposes strong penalties for accounting fraud.

<sup>2)</sup> COSO (Committee of Sponsoring Organizations of the Treadway Commission): A joint initiative of the United States that evaluates corporate internal control systems.







**Internal Control Process for Financial Reporting**

1 Test of Design	The company evaluates whether its major control activities are well designed (whether the internal control covers all major processes of the entire company)
2 Audit of Test of Design	An audit firm audits a test of the design carried out by the company
3 Test of Control	The company evaluates whether the control activities that have undergone a test of design are conducted as per the design (for example, efficacy is determined through proofs, such as a screen capture of the operation system)
4 Audit of Test of Control	An audit firm audits a test of the controls carried out by the company

## STAKEHOLDER ENGAGEMENT

### Charter of Firm of Endearment

POSCO has achieved remarkable success and growth, becoming a global leader with outstanding competitiveness and strength. Already a great company, POSCO is now well-poised to make a second big leap toward becoming a much loved firm that contributes to sustainable welfare growth through its unique philosophy and value. At the same time, we shall pursue balanced value between business, people, society, and environment in order to become a firm that is truly loved by all stakeholders.

 Customer	 Employee	 Partner	 Environment	 Investor	 Society
Bring success to the customer	Practice human respect and encourage self-realization	Attain shared growth as family	Create harmony between humanity and nature	Make shareholders proud for investing in POSCO	Serve as a responsible corporate citizen for social development
<ul style="list-style-type: none"> <li>Satisfy customers with customer-oriented marketing and trust-based relationships.</li> <li>Realize customer value by facilitating their competence and competitiveness.</li> <li>Advance the market ecosystem and accomplish sustainable growth with customers.</li> </ul>	<ul style="list-style-type: none"> <li>Foster employees' abilities and qualities to nurture them into the best talents.</li> <li>Offer fair compensation to employees and help them strike a good work-life balance to improve their quality of life.</li> <li>Practice human respect as well as encourage employees' growth and self-realization founded on autonomy and trust.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure fair trade practice through healthy communication and mutual trust.</li> <li>Foster competitiveness and growth potential of suppliers via win-win cooperation.</li> <li>Establish a virtuous circle of sustainable and inclusive growth to enhance the competitiveness of the ecosystem.</li> </ul>	<ul style="list-style-type: none"> <li>Foster sustainable environment protection and green environment through low-carbon green growth.</li> <li>Lead the greenification of the industry by raising energy efficiency and developing clean technology.</li> <li>Develop new materials and energy sources to improve the ecosystem and promote eco-friendly lifestyles and culture.</li> </ul>	<ul style="list-style-type: none"> <li>Build shareholders' trust through transparent management and active communication.</li> <li>Protect shareholders' interests by increasing corporate value.</li> <li>Increase shareholders' future value through continued growth.</li> </ul>	<ul style="list-style-type: none"> <li>Develop the local community and fulfill social responsibilities to contribute to the society.</li> <li>Take a leading role in bringing forth a just society in cooperation with civic groups and the government.</li> <li>Contribute to creating social value and culture as a free corporate citizen.</li> </ul>
<b>Key Issues</b>					
<ul style="list-style-type: none"> <li>Customer satisfaction enhancement</li> </ul>	<ul style="list-style-type: none"> <li>Work-life balance</li> <li>Employee satisfaction enhancement</li> <li>Securing top talent</li> <li>Fair performance evaluation</li> </ul>	<ul style="list-style-type: none"> <li>Securing reliable supplier</li> <li>Quality Improvement</li> </ul>	<ul style="list-style-type: none"> <li>Compliance</li> <li>Environmental management</li> <li>Reducing GHG emissions</li> <li>Development of eco-friendly products</li> </ul>	<ul style="list-style-type: none"> <li>Stock price</li> <li>Stable governance structure</li> <li>Economic performance</li> </ul>	<ul style="list-style-type: none"> <li>Community contribution</li> <li>Strengthening local capabilities</li> <li>Local HR Development</li> </ul>
<b>Communication channels</b>					
<ul style="list-style-type: none"> <li>Customer relationship management system (CRM)</li> <li>Customer satisfaction survey</li> <li>Joint research (EVI: Early Vendor Involvement)</li> <li>Customer appreciation night</li> </ul>	<ul style="list-style-type: none"> <li>Labor- Management Council</li> <li>Young Board</li> <li>Employee satisfaction Survey</li> <li>POSCO Today</li> <li>Operational meeting</li> </ul>	<ul style="list-style-type: none"> <li>Supplier Relationship Management (SRM)</li> <li>Shared Growth Council</li> <li>POSCO Family meeting to exchange supplier information</li> <li>Meeting with invited PHPs (POSCO Honored Partners)</li> <li>Meeting for exchanges with outsourcing partners</li> <li>Information exchange</li> </ul>	<ul style="list-style-type: none"> <li>Environmental Improvement Council (Pohang, Gwangyang)</li> <li>Environmental Information System</li> <li>Steel conference</li> </ul>	<ul style="list-style-type: none"> <li>CEO Forum (annual)</li> <li>Company presentation (quarterly)</li> <li>Disclosure (website)</li> <li>Face to face meeting (if necessary)</li> <li>Regular consultations on credit ratings</li> </ul>	<ul style="list-style-type: none"> <li>Pohang / Gwangyang Community Cooperation Team</li> <li>POSCO News</li> <li>Corporate image survey</li> <li>Exchanges with NGOs</li> <li>Sustainability expert interview</li> </ul>



Based on our understanding that a company's management activities start from its stakeholders, we continuously communicate with our stakeholders to listen to their opinions. POSCO classifies stakeholders into six categories – society, partners, shareholders/investors, customers, employees, and environment – and seeks ways to be loved by all of them. In addition to stakeholder interviews and open communications across diverse communication channels, POSCO holds interviews with various stakeholders such as socially responsible investors, academicians, NGOs and sustainability rating agencies in order to listen to stakeholders' opinions prior to drafting and publishing the reports.

### Stakeholders at the business location and their involvement activities

POSCO is making endeavors to realize win-win growth by conveying correct information about the company through various exchanges and bond-building activities with local institutions and civic groups

in the Pohang and Gwangyang areas and by giving local communities targeted support. The Administration and Liaison Group at each works is responsible for stakeholder involvement activities.

#### Classification of Major Stakeholders

- Groups and organizations: local lawmakers, City Hall / City Council, Pohang / Gwangyang Chamber of Commerce, Pohang branch office of Daegu District Court.
- Social organizations: Pohang Root Group, Pohang Local Youth Group, Pohang Junior Chamber of Commerce, Pohang Regional Development Council, community groups in Gwangyang.

#### Company Activities for Relevant Stakeholders

- Presentation: Activities to deliver right information through the region when company-related issues arise.
- Meetings: Strategic information sharing and communication activities through the establishment of human networks by classes with stakeholders

### Activities for Local Stakeholders

#### 1 Vitalizing the Local Economy

POSCO is contributing to the promotion of local economies through steady investments such as wages for employees and placing orders with suppliers in the Pohang area and the successful Pohang Fireworks Festival.

##### Construction orders placed with local construction companies

Category	2011	2012	2013	2014	2015
Amount of orders (*ratio)	2,933 (68%)	2,945 (51%)	1,358 (47%)	1,199 (46.4%)	850 (31.6%)

##### Results of Pohang Fireworks Festival

Category	2011	2012	2013	2014	2015
No. of spectators (Unit: 10,000 people)*	80	80	80	50	58
Economic effects (Unit: KRW 100 million)	650	660	723	415	500

\* The number of spectators was estimated by Pohang City and Pohang Police Department. Economic effects estimated by Catholic University of Daegu.

<b>Local Investment (Pohang) (2005~ 2015)</b> A total of KRW <b>11,541.2</b> billion was invested	<b>Annual Average Investment</b> KRW <b>1, 150</b> billion
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#### 2 Developing Local Human Resources

POSCO operates 12 elementary, middle and high schools through the POSCO Education Foundation established in 1995 to foster excellent human resources and educate employees' children in Pohang and Gwangyang, POSCO's business bases.

- Pohang: POSCO High School, Pohang Jecheol Technical High School, POSCO Middle School, Pohang Jecheoldong Elementary School, Pohang Jecheolsoe Elementary School, Pohang Jecheol Jigok Elementary School, Pohang Jecheol Kindergarten
- Gwangyang: Gwangyang Jecheol High School, Gwangyang Jecheol Middle School, Gwangyang Jecheol Elementary School, Gwangyang Jecheolnam Elementary School, Gwangyang Jecheol Kindergarten

Sponsorship for Free Hangul Classroom (since 1994)	Students	in Pohang Low-income illiterates
	No. of students	4,198 people (1994-2015)
	Sponsored group	Pohang YWCA
	Support funds	KRW 176 million (1994-2015)

#### 3 Junior Engineering School

Background: The National Academy of Engineering of Korea's project to offer science class where employees of companies conduct science experiments under the sponsorship of the Ministry of Knowledge Economy

Target school	8 elementary schools near Pohang Works (6th graders)
Operating cycle	Twice a year (one in the first half and the other in the second half)
Instructors	20 people (researchers and engineers, faculty of technical education group)
Education contents	Education on science project
Company's support	All materials for practice (1 kit / person)
Students	16,211 (KRW 227 million in support funds)

#### 4 Support Programs for the Marginalized

We operate a wide array of activities to help the marginalized in local communities and support both their welfare and happiness.

Running Soup Kitchen (2004-)	Beneficiaries	Local elderly and disabled people
	Operating locations	Operating locations in two places (Haedo and Songdo)
	No. of users	520 people a day on average (Haedo: 320, Songdo: 200)
Mentoring nearby elderly living alone (2009-)	Operating costs	280 million won per year
	Beneficiaries	46 The Seniors living alone near works
	Activities	Becoming their friends, shopping for them and listening to their troubles.
Free nursing projects (2006-)	Frequency of visits	At least once a week
	Beneficiaries	People with difficulty going to hospitals (elderly and disabled people)
	Nursing assistants	9 (163 people in total)
	Results	2,946 people
	Costs	KRW 2.9 billion
	*Offering nursing and housework service through direct visits	

## INTERVIEW WITH STAKEHOLDERS

POSCO is endeavoring to listen to the opinions of stakeholders. We listen to various stakeholder opinions prior to publishing our sustainability report from socially responsible investors, NGOs, sustainability evaluation institutions and scholars, and take them into consideration for the development of POSCO's sustainability management.

**Stakeholder involvement** In 2015, we listened to the opinions of CSR experts and NGOs. The individual interviews were conducted together with Samil-PwC, the assurance provider. The interview was reorganized into a dialogue format to make it easier for stakeholders to understand.

### Stakeholder Interview History

2003~2009	Surveys were conducted targeting domestic and overseas stakeholders
2010~2011	Interviews with sustainability management experts and talks with college students who will be the leaders of the next generation
2012	Separate interviews for each stakeholder group (society, partners, investors, customers, employees, and environment)
2013~2015	Interviews with sustainability management experts

### Stakeholder Interviewees



**Kim Yong-Beom**  
Director at Midas Asset Management Assets



**Yun Sang-Hun**  
Secretary general of Green Korea



**Jeon Eui-chan**  
Professor at Sejong University



**Jung Sun-Hee**  
Chairwoman of SESNET

What do you think is the most important event or issue facing POSCO in 2015? Why do you think that is the case?

**A Prof. Jeon Eui-Chan** In 2015, the most important issue in the environment/climate change is the signing of the Paris Agreement and the implementation of the Emissions Trading System. This is arguably the most important issue facing POSCO since the steelmaker discharges about 10% of total domestic GHG emissions. In the past, only 37 mandatory reduction nations were given obligations to cut GHG emissions. Under the Paris Agreement, however, all participating nations including developing countries signed up to reduce GHG emissions on a global scale. All countries will voluntarily set GHG emissions reduction targets that have they agreed to achieve. Deeper discussions are expected to take place going forward to define the specifics around the broader framework.

**A Chairwoman Jung Sun-Hee** I remember two things clearly. The first thing is POSCO 1% Sharing Foundation's activities. I participated in the early stage of the foundation as a director. The establishment of the foundation started with 1% contributions from employees. Outsourcing partners have also recently joined in with the initiative. This made POSCO the first company in Korea to make social contributions with outsourcing partners, which differentiates POSCO from other companies. Second, we now have the first migrant woman to be manager of a branch of Cafe Oasia, which is supported by POSCO and offers many migrant wives stable jobs. Although a small achievement, I think it marks an important milestone in their economic independence and social settlement.

**A Director Kim Yong-Beom** I understand that recent events concerning POSCO are the settlement of patent lawsuits against Nippon Steel & Smitomo Metal Corporation and a slush fund issue at POSCO E&C.

I understand that corporate social responsibility activities concern a company acting to support social welfare. What kind of activities are particularly high on the agenda for socially responsible investors?

**A Director Kim Yong-Beom** An important point in responsible investment-related activities from a shareholders' view is the establishment of a transparent governance structure to minimize volatility in the company's value. Global companies such as POSCO need to study and actively respond to whether they meet environmental, social and corporate governance guidelines set by domestic and overseas pension funds with reference to issues such as child labor and climate change.

Would tell us POSCO's roles in relation to climate change and environmental issues?

**A Prof. Jeon Eui-Chan** Once climate change and environmental regulations are enforced, it's difficult to change the system. Therefore, the industrial sector should continue to express its views on issues related to it. It's necessary for POSCO to take the lead in representing the views of the industry in relation to climate change and environmental issues on behalf of the industrial sector.

In 2015, the UN selected global issues touching its sustainable development agenda. What are the key things for leading companies to consider when examining current social issues and trends?

**A Secretary General Yun Sang-Hun** According to a report issued by the UN, it's important to consider the roles of communities, civil society, companies and joint networks. Currently, both communities and businesses seem reluctant to build joint networks. Building a joint network requires taking a lot of thought over how to change the very fabric of society. For example, when a building bigger than a certain size is built in Seoul, various regulations apply to its construction. In such cases, the construction company needs to think about how to educate its workforce about the construction site. In other words, looking at society as a whole, companies must actively create common interests as responsible corporate citizens concerned about coexistence. This is an essential part of the transition from a capitalist society to a green society.

Have you heard about POSCO's social responsibility activities or do you utilize POSCO's sustainability reports? What advice do you have regarding points where improvements can be made?

**A Director Kim Yong-Beom** POSCO's Integrated Report at a very high level reflects the analysis of ESG factors - E (environment), S (society), and G (governance). In particular, we believe that the report informs that the company is coping with environmental matters well. As the average number of accidents is on the rise, it will be better to describe how POSCO is dealing with social issues about youth unemployment and inequality in employment and how safety regulations are applied to the group's affiliates and subcontractors rather than internal work process innovation and the human resources development system in the report.

What has particularly impressed you among POSCO's social contribution activities? Would you tell us about what direction we should take to improve going forward?

**A Chairwoman Jung Sun-Hee** POSCO plays a significant role at a national level supporting job creation for marginalized groups through social companies. The case of POSCO Humans which links the underprivileged and jobs shows a differentiated approach to what a social enterprise can be. Social contribution was once regarded simply as a cost in terms of corporate management strategy. Little by little, though, companies are mulling over how to connect social contribution to corporate strategy to create value. There is an increase in cases where social contribution has been connected to marketing and investment in PR activities for it is needed. What's required is linking social contribution to marketing and corporate strategy through a leading social contribution program. I think that in the case of POSCO, multicultural youth projects can be our leading social contribution programs. As multicultural youth issues present a big risk to the future of society, it is important to raise public interest in and support for projects to aid multicultural youths.

Finally, would you tell us about what you want from POSCO? Do you have any advice for the company?

**A Prof. Jeon Eui-Chan** On April 22, the Paris Agreement will be ratified at the United Nations. In the case of our country, the agreement is expected to have a big impact on Korean industry, as Korea has agreed to a voluntary reduction target of 37%. POSCO needs to continually monitor this area to ensure it's always up to date. For example, international emissions trading systems can be ratified, including the Korea-China emissions trading system. A carbon tax may be imposed on products exported to Europe by steel companies from non-European countries to level the playing field for European steel companies who have been reducing their level of GHG emissions considerably. POSCO needs to steadily monitor this part, too. I think that it's necessary to expand the scope of environmental information disclosure. If POSCO elevates the level of its environmental management through enhanced communication with local residents, the company will be able to build a positive image of its environmental management.

**A Chairwoman Jung Sun-Hee** POSCO has many employees who have great skills and talents. Their skills and talents can lead to efficient and effective social contribution activities through talent donation or pro bono activities. Pro bono services to donate employees' professional experience, knowledge and skills can become a very valuable activity to those who receive such benefits. We need to pay greater attention to these talent donation and pro bono activities, as this is a service area that will become ever more popular abroad thanks to the many advantages of HR, such as the development of employees' competences, teamwork and leadership. In the case of the POSCO 1% Sharing Foundation, it's necessary to provide a variety of programs to improve employees' participation by being open to different employee ideas and allowing employees to participate in making decisions about fund use, I think.

**A Secretary General Yun Sang-Hun** There has been recent discussion about workers' health rights. A list of carcinogens has not been properly made available in Korea. A list commonly used in the international community cannot be accepted in Korea. POSCO needs to actively deal with employees' health rights because of the unique characteristics of the steel business, where health issues are critically important. In terms of communications with local communities, it's more important to strengthen our cooperation with local residents and organizations, rather than local systems. As public goods called "the environment" are used by POSCO, the company needs to carry out responsible activities for local communities and organizations in terms of their ecosystems.

**A Director Kim Yong-Beom** We ask POSCO to make steady and consistent efforts about and pay attention to reports on outcomes through sustainability reports and stakeholders' opinions.

# MATERIALITY ANALYSIS

POSCO identifies stakeholders' areas of interest and their business impact, which are duly reported as part of its sustainability performance. In 2008, POSCO designed its own materiality test process, which is updated every year by taking into consideration areas of improvements and feedback. POSCO has used the materiality test scheme to identify issues of common interest to its stakeholders and any issues with a high potential impact on its business activities are included as part of this Report.

## Characteristics of Material Test

### Including Cases of Material Issues in the Report

We developed cases based on issues of stakeholders' interest in order to provide more detailed information to stakeholders. In addition, we created Case Report about stakeholders' key questions and issues in 2015.

### Taking Stakeholders' Opinions into Account in Carrying Out Materiality Test

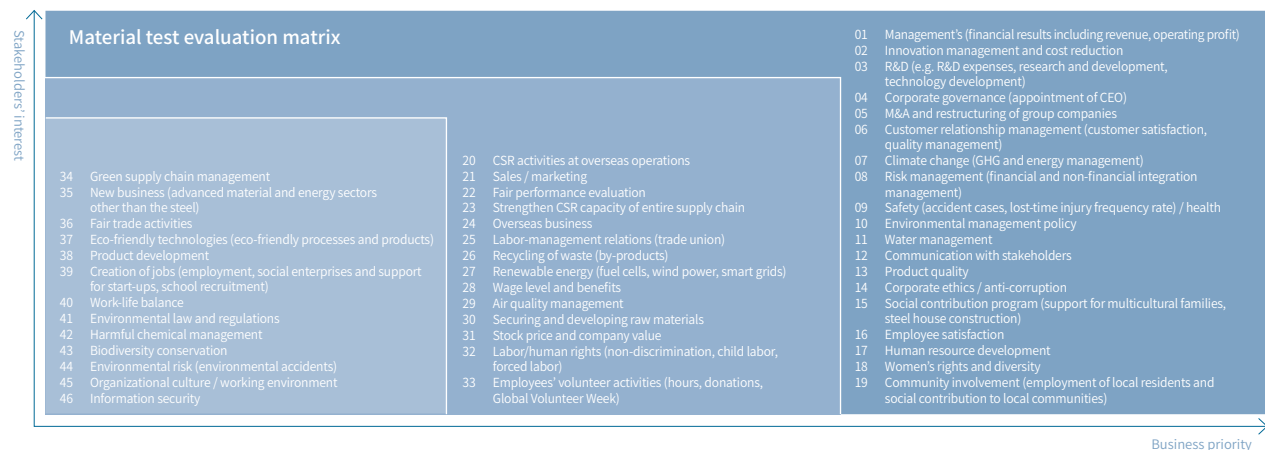
We utilized stakeholders' opinions in conducting the materiality test. We gathered stakeholder opinions through interviews with sustainability experts, as well as experts in the fields of the environment and social sciences.

## Materiality Test Process

1	Identifying Internal and External Issues	<p><b>Social Issues</b></p> <ul style="list-style-type: none"> <li>Analyzing media, SNS</li> <li>Interviewing stakeholders</li> <li>Analyzing peer group's KPI</li> <li>Sustainability management evaluations: SAM-DJSI, Global 100</li> </ul> <p>• Sustainability management guidelines: GRI, ISO 26,000 etc.</p> <p>• CSR trends, WBCSD vision</p> <p>• Suggestions from verification agency of 2014</p>	<p><b>Business Issues</b></p> <ul style="list-style-type: none"> <li>Agendas at management meetings</li> <li>Agendas at BOD meetings</li> <li>Innovation tasks</li> <li>Enterprise-wide KPI</li> </ul> <ul style="list-style-type: none"> <li>Company policies and guidelines</li> <li>Employee survey</li> </ul>
2	Creating Materiality Matrix	We created a matrix according to stakeholders' interest and business impact in order to identify major issues.	
3	Identifying and Reflecting Main Issues	We drew material issues from the matrix and added the congregate opinions of internal and external stakeholders, as well as improving our sustainability management reporting method.	
		<p><b>Internal Stakeholders</b></p> <p>We gather opinions from the heads and working-level staff from sustainability management departments such as the IR Group, HR, Environment and Energy Group, Social Contribution Group, Corporate Audit Department, Value Management Office and Shared Growth Group</p>	<p><b>External Stakeholders</b></p> <p>We report on stakeholders' issues of interest through key issues in each sector.</p> <p>* Please refer to the stakeholders' opinion (p. 22)</p>
4	Verification and Reporting to Management Level	After interviews with management and working-level staff, the assurance provider draws up an assurance report with their professional opinions regarding verification. The report is then briefed to the management level to be applied to corporate management activities.	
5	Monitoring of Stakeholders' Opinion	The opinions gathered during the report publishing process for the year and through the assurance report are used to readjust the report publishing process for the following year, and to prepare for identifying internal and external issues and listening to stakeholders' opinions.	

## Top 10 Issues of 2015 Material Test

Rank	Sub-category	Rank Change	Rank	Sub-category	Rank Change
1	Business performance (financial results including revenue, operating profit)	-	6	Customer relationship management (customer satisfaction, quality management)	▲ 6
2	Innovation management and cost reduction	-	7	Climate change (GHG and energy management)	-
3	R&D (for example, R&D expenses, outcomes of research and development, new technology development.)	▲ 9	8	Risk management (financial and non-financial integration management)	▲ 12
4	Corporate governance (appointment of CEO)	▼ 1	9	Safety (accident cases, lost-time injury frequency rate) / health	▼ 5
5	M&A and restructuring of group companies	▲ 14	10	Environmental management policy	▲ 3



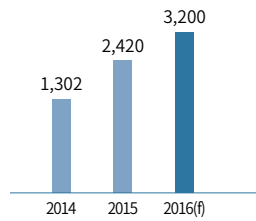
Business Cases of Top 3 Key Issues

1

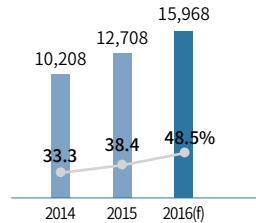
**Business Performance Case:**  
Increase in WP product sales

**Stronger solution marketing led to an increase in WP sales: stretch target which is up 26% from previous year**

Sales volume connected to solution marketing (Unit: 1,000 tons)



Sales volume of WP products (Unit: 1,000 tons)



- **Strengthening base for WP demand through marketing solutions**
  - Participating in development of new cars by global automakers such as Renault Nissan and VW as partner
  - Holding technology exhibitions at Detroit Motor Show and for Chinese automakers for Chinese automakers

• **Product diversification through the development of new steel products (42 cases in 2015)**

Third-generation X-AHSS * steel plate	Thick plate for icebreaking LNG carrier	Hyper NO for motors *
Development of automotive steel sheet which meet customer demand for lighter products	Improvement in weldability for high-strength structural design (supplied to Yamal PJT)	Development of electric steel sheets for wind power generation of "S" company in Germany
<small>* X-AHSS: Extra Advanced High Strength Steel</small>		<small>* NO: Non-Oriented magnetic steel</small>

• **Facility rationalization for WP product mass production / facility expansion**

No. of kinds of mass-produced WP steel products (Unit: cases)	
2014	1,557
2015	1,678
2016(f)	2,032

- (Pohang) No.2 steelmaking rationalization (Feb – May 2015)
- (Gwangyang) 3CGL rationalization (Aug – Nov 2015) Rationalization of 1st and 4th cold-rolled steelmaking facilities (2016) 7CGL completion (2017)

• **Expansion of internal investment projects/ENG development by applying WD products such as high-manganese steel products**

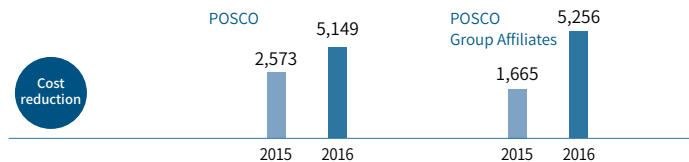
- Securing track records by expanding investment in in-house projects
- Creating demand at home and abroad through collaboration with global ENG firms across industry

2

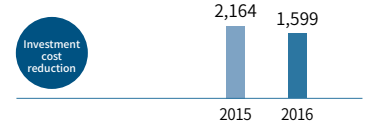
**Innovative management and Cost Reduction cases**

**Establishment of low-cost production system through improved execution structure for fixed expenses: Reduction of fixed expenses by KRW 1.4 trillion in 2015 and 2016 in POSCO Group**

Accumulated amount of reductions (Unit: KRW 100 million)



Reduction of KRW 376.3 billion in 2015 and 2016 (Unit: KRW 100 million)



• **Material/outsourcing expenses**

- Inducement of unit price decrease through long-term contracts on high-price equipment and materials, including FINEX/LNG
- Extension of repair cycle through effective equipment operation, and material recycling/localization
- Reduction of material/outsourcing unit costs through competitive bidding for items

• **Manufacturing overhead**

- Execution of R&D cost focusing on projects that can be commercialized
- Maximum reduction of overhead cost, including cost for repair and external consultation service
- Cost reduction in various areas, including meetings and committee size

- Reduction in labor cost through capacity increase in equipment engineering
- Reduction in purchase cost through split contracts or competitive contracts for equipment/construction
- Direct reduction of investment through increased equipment recycling and design improvements

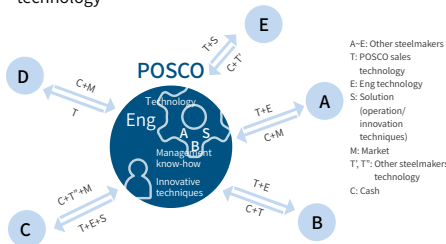
3

**R&D cases**

**Implementation of POSCO's unique technology and solution-based platform business (SPB): 22 technology introduction proposals, 13 contracts underway (3 MOUs and 3 MOAs concluded)**

**Solution-based platform business**

- Implementation of platform business based on solutions, such as engineering, manufacturing and operation know-how, and innovative methodology, along with commercialization of POSCO's unique technology



**SPB<sup>1)</sup> implementation status and cases**

- POST<sup>2)</sup>** Conducting 5 integrated steel mill projects with PKP, Uttam, and Chongqing
  - Promote MOA with Iranian company PKP after concluding MoU in September 2015
  - Technology export for Chongqing project approved by Korean and Chinese governments in 2015
  - Enter into MoU with Indian company Uttam for transferring Pohang #1 FINEX and Gwangyang CEM equipment
- FINEX** Negotiating 10 technology introduction deals with various companies, including Brazil's CB Steel
  - Negotiation with Brazilian company CB Steel to sell technology for construction of steel mills with 3 million tons per annum (1.5Mtpa<sup>2)</sup>) in the State of Maranhão
- CEM** Conducting 7 projects including bidding for project of Chinese steel company Shougang
  - Establishment of SPB foundation through license agreement with German company
- POS-LX<sup>3)</sup>** Selling lithium extract technology license to Argentina's "L" company

<sup>1)</sup> Solution-based Platform Business <sup>2)</sup> POSCO Innovative Steelmaking Technology <sup>3)</sup> POSCO Lithium extraction

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# INVESTOR

## INVESTOR INFORMATION

### Credit Rating

International credit rating agencies downgraded the ratings of major global steel makers due to a low growth and low earning trend that has continued for several years. In June 2015, S&P upgraded our rating outlook to BBB+ (Stable) from BBB+ (Negative) and lowered the outlook to Negative in February 2016 while Moody's lowered our rating outlook to Baa2 (Negative) from Baa2 (Stable).

Despite the downgrades, the ratings agencies highly rate our cost leadership and technology competitiveness and have given POSCO a high stand-alone rating compared to global major players.

### Changes in Credit Rating

category	2013	2014	2015	2016
S&P	BBB+ (Negative)	BBB+ (Negative)	BBB+ (Stable)	BBB+ (Negative)
Moody's	Baa2(Stable)	Baa2(Stable)	Baa2(Stable)	Baa2 (Negative)

### Dividend

In spite of the declining level of profitability and sluggish steel industry, POSCO has maintained a steady dividend policy to increase shareholder value. Over the past three years, it has recorded a dividend payout ratio of over 40% and dividend yield of 4.5%. POSCO is continuing the "Find and Give Back Unpaid Dividends" campaign, in which we identify listed shareholders who own stock certificates since POSCO's initial public offering in 1988, but have not received their dividends due to cancelled transfer accounts, and pay them their due dividends.

Category	2013	2014	2015	
Per share	Cash dividends (in KRW)	8,000	8,000	8,000
	Interims dividends (in KRW)	2,000	2,000	2,000
Total dividends paid (in billion KRW)	633	640	640	
Dividend payout ratio (%)	40.0	56.2	48.5	
Dividend yield (%)	2.4	2.8	4.5	

\* The dividend yield is the dividend per share divided by the average closing price of cum dividends in the previous week.

### Corporate Value and External Evaluation

With the global economic recession, drop in oil prices and low growth trend in 2015, POSCO's sales based on non-consolidated financial statements decreased to KRW 25,607.2 billion. Operating profit increased to KRW 2,238.2 billion and the operating profit ratio stood at 8.7% thanks to an increase in sales of world premium products and cost-cutting efforts. In 2015, POSCO achieved KRW 2.1 trillion in financial improvements by completing 46 restructuring cases, including a sell-off in the equities in POSCO E&C and non-core assets. The stock price fell from 275,500 won at the end of 2014 to 166,500 won at the end of 2015. It has since rebounded, surpassing the 200,000 won level in the first half of 2016. The steel market will continue to experience difficulties due to worldwide supply gluts and the slow-down in the growth of industries which consume steel with no sign of a recovery in the near future. We will continue with our efforts to improve our financial structure by enhancing our fundamental competitiveness through expanding the sales of high value products and selling non-core assets.

WSD (World Steel Dynamics), a leading global steel industry analyzer, held its 30th Steel Success Strategies (SSS) conference on June 9, 2015. A list of World-Class Steelmaker Rankings was announced, where POSCO was named the most competitive in the world for eight times straight over six years running.

WSD evaluated 36 steel companies as of June 2015 across the 23 criteria, including production capacity, profitability, technological innovation, market power, cost saving, financial soundness and raw materials procurement. POSCO received a perfect score of 10 points in four criteria, including technological innovation and human resources. Scoring an average of 7.91 points across all criteria, POSCO won first prize.

### RobecoSAM Dow Jones Sustainability Index



POSCO ranked 40th in the "2016 Global 100 Most Sustainable Corporations in the World" at the Davos Forum 2016



For 11 consecutive years, POSCO was selected as a leader at the RobecoSAM-DJSI<sup>1)</sup> (Dow Jones Sustainability Indexes) as reported in September 2015, which is an unprecedented feat in the steel industry. In particular, in 2015, the company became an “Industry Leader” for 2 consecutive years.

This year, only POSCO and China Steel Corporation were selected from among 42 companies in the steelmaking sector. The highest scores in crisis management, supplier management, social and environmental contribution and stakeholder engagement earned POSCO the honor of being an industry leader in the industry group. POSCO also received good evaluations in climate strategy, labor and human rights and human resource development. POSCO has thus been listed on the indexes for 11 consecutive years, the longest of any Korean company.

<sup>1)</sup> The SAM-DJSI, developed by Swiss sustainability rating agency RobecoSAM and Dow Jones, a U.S.-based publisher of financial information, is recognized as the world’s most authoritative sustainability assessment index.

**Most Competitive Steelmakers(2013~2015)**

Rank	June 2015	June 2014	June 2013	February 2013
1	POSCO (Korea)	POSCO (Korea)	POSCO (Korea)	POSCO (Korea)
2	Nucor (USA)	Nucor (USA)	Severstal (Russia)	NLMK (Russia)
3	NSSMC (Japan)	NSSMC (Japan)	Nucor (USA)	Severstal (Russia)
4	Gerdau (Brazil)	Gerdau (Brazil)	NLMK (Russia)	JSW (India)
5	Severstal (Russia)	Severstal (Russia)	JSW (India)	NSSMC (Japan)

**Results of the SAM-DJSI Assessment in 2015**

Category		Economic	Environment	Society	Total
POSCO’s score (points)		76	85	87	83
Steel Industry	Average	48	35	34	37
	Highest	78	89	87	83

**Awards Received in 2015**

Category	Date	Award Description
Overseas	2016.1	40th at Davos Forum’s Global 100 (Corporate Knights)
	2015.10	Innovation of the Year Award from the World Steel Association
	2015.9	Leading Company in the RobecoSAM Dow Jones Sustainability Index for 11 years running
	2015.6	Most Competitive Steelmaker, seven times in a row for six straight years (WSD)
	2015.3	“Excellent” Value Improvement Award for two years running (Toyota)
	2015.3	Supplier of the Year (GM)
Domestic	2015.12	“2015 Web Award Korea” (Grand Prize in General Corporate Division)
	2015.10	Korea SNS Grand Prize and International Business Grand Prize
	2015.8	Best Workplace for eight years running
	2015.7	"Best Mutual Growth Company" for three years running
	2015.7	Excellent Win-Win Company of Korea
	2015.3	Most Respected Company in Korea (12 years running)

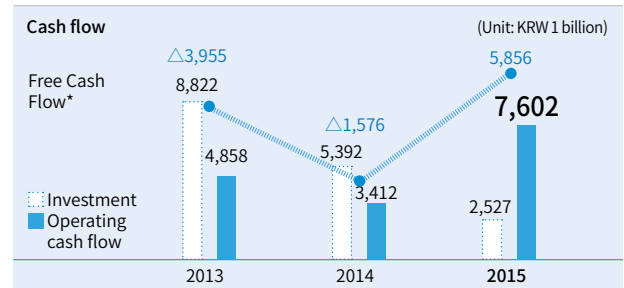
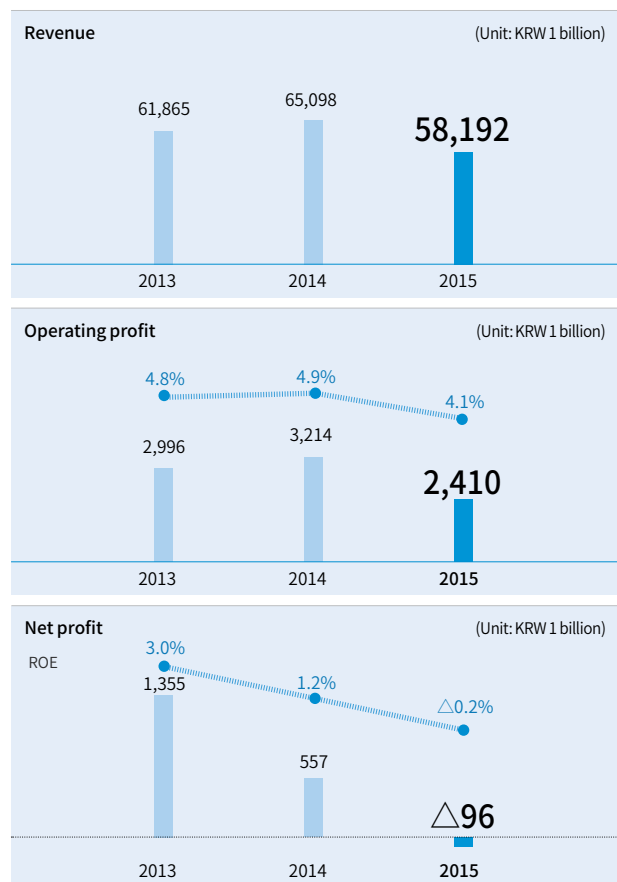
## 2015 PERFORMANCE AND 2016 OUTLOOK

POSCO's sales environment deteriorated due to a slowdown in the growth of the world economy and a drop in production cost due to an iron ore glut and the dullness of steel-consuming industries such as automobiles and shipbuilding in 2015. The weak level of demand for steel was exacerbated by oversupply and excessive capacity in countries such as China, where a sharp increase in steel exports, low yen and stagnant domestic demand have all contributed to making business circumstances particularly challenging in 2015. Despite these hurdles, POSCO announced it was taking up the former mantle of "POSCO the Great" and devoting itself to solidifying its reputation as the most competitive steelmaker.

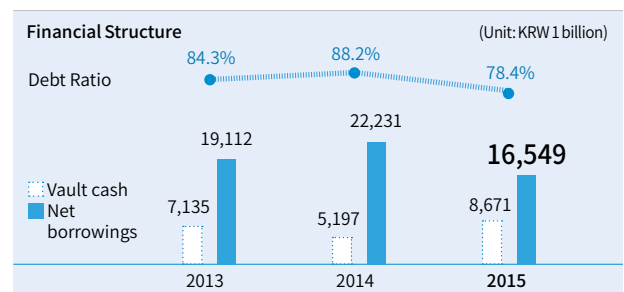
For POSCO's business performance in 2015 on a consolidated basis, we recorded sales of KRW 58,192.3 billion, operating profit of KRW 2,410.0 billion, and operating margin of 4.1 percent. On a separate basis, we recorded the operating profit of KRW 2,238.2 billion and the operating margin of 8.7 percent thanks to the increased sales of World Premium products and cost cutting efforts although our sales declined to KRW 25,607.2 billion compared to last year due to the decline in sales prices.

Assets on a consolidated basis stood at KRW 80,408.8 billion. Liabilities dropped by 11.6 percent to KRW 35,338.5 billion thanks to re-structuring and borrowings repayment efforts.

### POSCO Group's Consolidated Income



\* FCF = EBITDA - investment - net interest expense - income taxes + changes in net working capital (accounts receivable + inventories + trade payables)



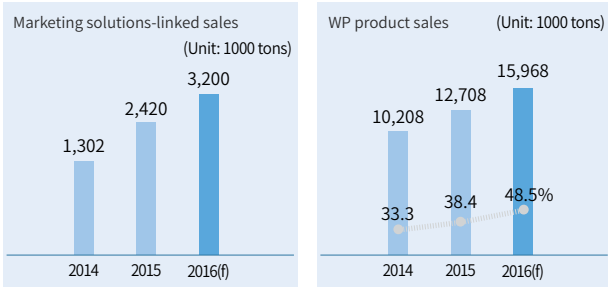
### STEEL SECTOR

POSCO produces hot-rolled, cold-rolled and stainless steel at Pohang Works and Gwangyang Works which are the largest single steel mills in the world. POSCO C&C specializes in coated steel; POSCO P&S is a global general materials machining company which specializes in machining and fabricating high-quality steel products. Within POSCO Group, there is also Zhangjiagang Stainless Steel in China, which produces and sells stainless steel products, as well as overseas processing centers. Aggregate consolidated crude steel production in 2015 stood at 42.03 million tons. POSCO, Zhangjiagang Pohang Stainless Steel Co., Ltd., PT.KRAKATAU POSCO, and POSCO SS-VINA produced 37.97 million tons, 1.17 million tons, 2.72 million tons, and 0.17 million tons, respectively. Total sales of POSCO products rose by 1 million tons to 35.34 million tons thanks to a year-on-year increase in sales of overseas corporations such as POSCO-Maharashtra.

POSCO's performance in 2015 is as follows.

First, we enhanced our fundamental steel competitiveness. We provided greater value to our customers through solution marketing that delivers not only the steel products but application technology and commercial support. As a result, the sales ratio of World Premium products increased to 38.4 percent and contributed greatly to increasing our operating income in 2015.

Stronger solution marketing has led to an increase in WP sales: the fabricating 2016 stretch target is up 26% from the previous year



In addition, we endeavored to maximize facility performances through the reinforcement of facilities at works and daily inspections which were rewarded with the completion of a low-cost high-efficiency production system. Extreme cost-cutting efforts saved POSCO KRW 400 million expenses in 2015, sharpening its price competitiveness in the steel sector.

The company recorded KRW 2,238.2 billion in operating income and an operation profit ratio of 8.7%, up 0.7%p from the previous year on a non-consolidated basis, despite the slowdown in the steel market. On a consolidated basis, POSCO posted KRW 2,410.0 billion in operating income and an operation profit ratio of 4.1%.

Second, we improved our company's financial structure by accelerating innovation of our business structure and implementing financial soundness as a key management principle, opening the way to restructuring our low-income and non-core business areas. POSCO completed restructuring of 34 affiliates by selling off non-core businesses such as Poreka and NewAltec and by merging POSCO Investment with POSCO Asia.

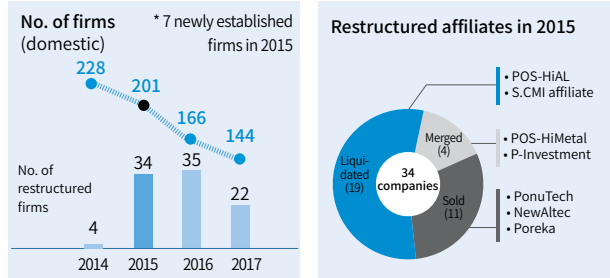
Moreover, we realized a sound financial structure by preemptively executing financial soundness-oriented management given the likely impact a weak steel market would have in terms of lowering the company's level of profit. We removed KRW 3.6 trillion of working capital in order to secure cash liquidity. This was to mitigate the impact of the long-term global recession through steadily reducing inventories and account receivables.

Moreover, we additionally secured liquidity of KRW 2.5 trillion by procuring non-debt capital through selling off equities in POSCO E&C and POSCO Specialty Steel. Financial soundness-oriented management reduced borrowing by KRW 2.2 trillion from the previous year and boosting the amount on hand by KRW 3.5 trillion on a consolidated basis. As a result, net borrowing fell by KRW 5.7 trillion. In addition, the debt ratio improved to 78.4% from 88.2%.

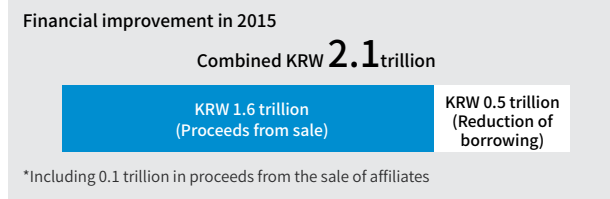
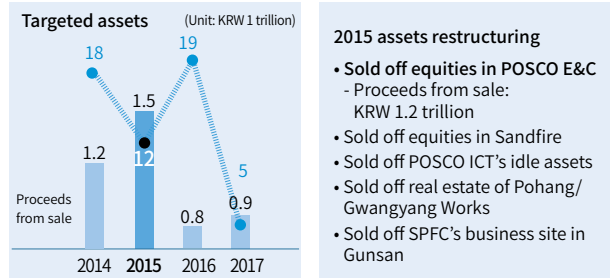
Accelerated restructuring: 46 completion cases in 2515 (34 affiliates and 12 assets), KRW 2.1 trillion won in financial improvement effects

Completed 68 affiliates (4 affiliates, 18 assets in 2014 and 34 affiliates, 12 assets in 2015) out of 149 cases (2014 - 2017)

• Restructuring of affiliates (targeted 95 → completed restructuring of 38)



• Asset restructuring (targeted 54 firms → completed restructuring of 30 firms)



Third, we laid the foundation for the creation of visible results in new growth engine businesses. POSCO is pushing forward with new growth businesses based on its unique technologies, which include FINEX, CEM and lithium extraction. The company is working to successfully commercialize its technologies. Such technologies include POIST (POSCO Innovative Steelmaking Technology), FINEX and CEM (Compact Endless casting and rolling Mill). We are in negotiations over exporting a total of 13 technologies. The company successfully sold its CEM (Compact Endless casting and rolling Mill) as stand alone sales of technologies by making an agreement on a technology license and joint marketing with German SMS Group. Moreover, we are striving to build a production and sale cluster for high-grade steel through the diversification of regional cooperation with steelmakers by going forward with our SPB (Solution-based Platform Biz.) strategy. We are also moving forward with the commercialization of our lithium extraction technology.

**Generation of tangible results in new growth engine business: Expansion of key component development and sales in preparation for rise of electric car market**

**Focusing on R&D in novel materials to reduce car weight**

- **Exhibiting electric car body in North American auto show**
  - Reducing car body weight by 26.4% through use of advanced high-strength steels (AHSS) in 65% of car body
  - Securing highest safety in all parts, including car body and battery
- **Developing material for lighter car bodies such as magnesium plates**

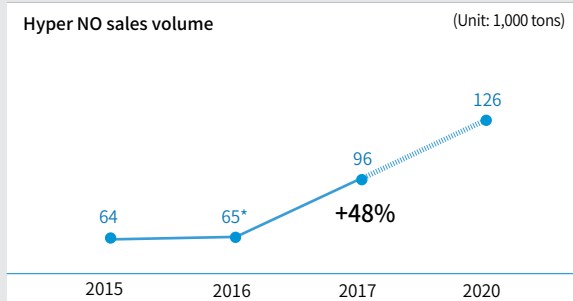


↑ Electric car body exhibited in North American auto show

2014	2015	2016~
<ul style="list-style-type: none"> <li>• Application to roof of Renault's hybrid concept car (EOLAP)</li> <li>• Power rear seat and trunk of SM7</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction of 10 kg through application to roof of new Porsche 911 GTS RS</li> </ul>	<ul style="list-style-type: none"> <li>• Expansion of application to roof and interior material of globally mass-produced cars</li> </ul>

**Sale of Hyper NO for electric car motor core**

- Held 2015 Hyper NO forum (October)
- To increase sales through strategies customized to global car manufacturers (4 car manufacturers in 2015 → 8 in 2020)



\* To keep premium material Hyper NO to maximum level despite decrease in NO capacity (△ 90,000 tons, yoy) due to streamlining construction

**Establishment of ethics-based management infrastructure: Reform of corporate culture by strengthening performance and ethics-based management system**

**Clean POSCO**

**Strengthening performance-centric management system**

- **Enhancing responsible management of investment business**
  - Establishment of responsible management by increasing authority by investment processes

Real-name investment system	• Recording all investment managers
Bad business management standards	• Strengthening of standards for judgment and handling of bad business - Establishment of exit standards in advance
Replacing those responsible for investment results	• Changing personnel after identifying cause of bad business

- **Establishment of outcome-centric performance management system**
  - Top-down KPI management focusing on financial performance indicators
  - Introducing job-based pay and increasing rewards based on performance

**Establishment of market-oriented ethical corporate culture**

- **Establishment of ethical management through a zero-tolerance approach to unethical acts**
  - Strictly applying one-strike-out policy to unethical acts



- **Four major unethical acts**
  - Bribery
  - Violations of sexual ethics
  - Embezzlement
  - Information manipulation
- **Registration in Clean POSCO system**
  - Management of soliciting/recommending records
  - Providing rewards in case of reporting unethical acts

- **Strengthening transparency in transactions and outsourcing areas**
  - Establishment of transparent transaction practices through 100% competition and record releasing
  - Reduction of material and outsourcing expenses by increasing competitive bidding

Fourth, we have built a management infrastructure based on ethics. The company established “Clean POSCO” as its supreme business philosophy. Revision of the code of ethics in line with global standards led us to apply the One Strike Out Rule to taking bribes, embezzlement, violations of sexual ethics and information manipulation.

In addition, we applied three 100% principles (100% completion, 100% recording and 100% disclosure) and rooted out abnormal practices in management through the operation of the Clean POSCO System to preemptively mitigate the risk of illegal solicitations.

Furthermore, we strengthened the competitiveness of the group’s affiliates and produced tangible outcomes. POSCO Daewoo improved the profit of the Oil and Gas Development Division thanks to an increase in sales of gas from Myanmar. The company is engaging in additional exploration for its resources development business. POSCO reinforced its business foundation in the Middle East market through the sell-off of its equities to PIF (Public Investment Fund) and received further orders, including for Haeundae LCT and housing complexes in Gwangju and Ulsan. POSCO Energy completed a 1,200MW coal-fired power plant in Vietnam and, having signed a PPA agreement for 25 years, now commercially operates the power plant.

**TRADE SECTOR**



As the POSCO's major trading company, POSCO Daewoo Corporation consists of three divisions: the Trade Division, which deals with import and export of steel/metal, chemical/petroleum products, machinery/transportation equipment, agricultural/livestock products; the Overseas Projects Division, which builds overseas plants and power infrastructure; and the Resource Development Division, which develops oil, gas, mineral and food resources. POSCO Daewoo also pursues new business items such as domestic and international manufacturing, distribution, and real estate development. The company also maintains over 100 networks, including overseas corporations and offices at major overseas locations.

As a general trading company, POSCO Daewoo made the expansion of sales via exports and trilateral trade by utilizing overseas networks its basic strategy. The company is geared towards becoming a top global company through this. The company recorded revenue of KRW 17,526.9 billion and operating profit of KRW 368.8 billion on a consolidated basis in 2015. Exports (including trilateral trade) accounted for 96.0 percent of POSCO Daewoo's revenue in 2015.

Asia accounted for 64.6 percent of exports, including 21.7 percent to China, while the company exported 7.4 percent to North America and 28.0 percent to other regions. Export portions by product were as follows: steel/non-ferrous metals (56.0 percent), chemicals/commodities (23.4 percent), automotive components and machinery (14.7 percent), minerals/energy (4.2 percent), and electronics/others (1.7 percent).

In the case of oil and gas development and mineral resources development, the company's revenue is closely linked to raw materials' prices due to the nature of the business. Revenues from a Myanmar gas field that recently started commercial production, an oil field in Peru, and Mining Area 11-2 in Vietnam comprise a major portion of our total revenues from resources development. Moreover, a nickel mine in Madagascar and coal development in Narrabri, Australia are becoming fully operational. It is thus expected that raw material prices, which are driven in part by the economic cycle, will further influence the company's revenues.

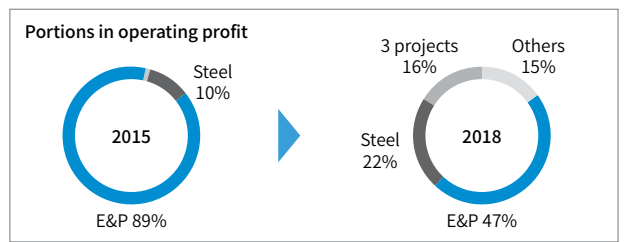
After the commencement of sales of gas from the Myanmar gas field in July 2013, the drilling and completion at Shwe Gas Field progressed in sequence. Accordingly, its production volume rose to 500 million cubic feet a day in December 2014. For the seabed area 6-1 in the East Sea, Stage 1 Exploration began in 2011. POSCO Daewoo is exploring Mining Area AD-7 near Shwe Gas Field in Myanmar.

In August 2013, POSCO Daewoo signed an agreement with Bellatrix of Canada to acquire a 50 percent share in the Baptiste area in a deal which saw it enter the tight oil and gas business. This represented a

particularly meaningful step for POSCO Daewoo, which will now have the opportunity to further upgrade oil and gas exploration and development techniques. The acquisition will also serve as a foothold for the expansion of its business scope to cover unconventional oil and gas developments in the North American region, which looks set to be a dominant theme of the latest energy revolution. In addition to its existing investment in oil field in Peru and gas field in Vietnam, POSCO Daewoo continues to participate in an Oman LNG plant project. POSCO Daewoo plans to grow into a world-class resource developing company with oil and gas development as its main area of business.

In the field of mineral resource development, POSCO Daewoo is participating in production in places such as the Ambatovy nickel mine (Madagascar) and Narrabri coal mine (Australia), as well as exploration for copper, uranium and tin. The company has a four-percent stake in the Ambatovy nickel mine, which is located in Madagascar, Africa and is one of the world's three largest lateritic nickel mines. The production of nickel products began in July 2012 and the company will produce 60,000 tons of nickel and 5,600 tons of cobalt annually over the next 29 years. Daewoo owns a five-percent stake in the Narrabri coal mine. The mine began mass production in October 2012 after pilot production in 2010. It is expected to produce 6 million tons of coal annually. In addition, the company has invested in mine exploration for copper, uranium and tin in Africa, the Americas, Southeast Asia and Australia. In terms of new business areas, the company is currently building a hotel in Myanmar, as well as pursuing combined real estate development business, such as Songdo commercial real estate operation, and vessel chartering business.

POSCO Daewoo	
	<ul style="list-style-type: none"> <li>• <b>Solid profits from gas fields despite falling oil prices in 2015</b></li> <li>- Operating profit: year-on-year rise of 45% thanks to full production at gas fields</li> <li>- Sales: KRW 260.6 billion (2014) → KRW 377.0 billion (2015)</li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Business structure was reorganized into 2 core business sectors and 3 strategic business divisions</b></li> <li>- Improvement in revenue structure lopsided toward gas field business through expansion of steel and 3 strategic projects</li> </ul>
2 cores	<ul style="list-style-type: none"> <li>• <b>Steel*</b>: Expanding high-value-added product sales through overseas networks</li> <li>- Sales: 8.63 million tons (2015) → 9.79 million tons (2016)</li> <li>• <b>Resources development</b>: going ahead with production at existing exploration blocks (until 2018)</li> <li>- AD-7 exploration drilling (1Q), A-1 / A-3 exploration drilling (until 2017)</li> </ul>
3 strategic projects	<ul style="list-style-type: none"> <li>• Automotive parts: strengthening joint venture on local assembly and parts</li> <li>• IPP: Stable orders mainly from strategic target nations (Myanmar, Indonesia, Papua)</li> <li>• Food: Expansion of grain trade and share in import grain market</li> </ul>





## CONSTRUCTION SECTOR



The world leader in construction POSCO E&C is expanding its horizons in civil engineering, construction, energy and urban development, based on its prior experience in building POSCO's steel mills. At the same time, POSCO E&C has expanding into the low carbon green growth business through its renewable energy and urban regeneration projects.

In 2015, the total accumulated orders received amounted to KRW 12,505.6 billion consisting of domestic orders of KRW 8,459.9 billion and overseas orders of KRW 4,045.7 billion. Major new orders include Haeundae LCT (KRW 1,490.4 billion), the civil engineering part of the Samcheok Eco-friendly Thermal Power Plant (KRW 671.5 billion), Inland Western Highway (KRW 482.9 billion) and Songdo Central City (KRW 471.1 billion).

Abroad, POSCO E&C secured a foothold for the POSCO Group to enter the Iranian market by winning an order to build PKP 1.6 Mt FINEX-CEM Integrated Steel Mill (KRW 1,611.7 billion) in Iran. An order to build Central Pacifico Coal-Fired Power Plant cemented the company's status in the South American market. The builder successfully made a foray into the Philippine market for the first time by securing the Masinloc Coal-Fired Power Station in the Philippines from AES. The Uttam Metallics FINEX-CEM Facility Move project amounting to KRW 353.7 billion and has helped the company prepare a significant base for promoting order receiving activities in India. Going forward, POSCO E&C will step up its efforts to successfully receive more orders and complete more projects in the global market.

POSCO E&C posted KRW 6,536.9 billion in sales, down KRW 977.8 billion from a year before and KRW 245.2 billion in operating income on a non-consolidated basis in 2015.

The most significant of our major management activities and outcomes was the improvements we made to our financial soundness. POSCO attracted KRW 1.24 trillion in investment through a deal to sell its stake in POSCO E&C to Saudi Arabia's sovereign wealth fund, Public Investment Fund (PIF). The deal made PIF POSCO E&C's second largest shareholder with a 38 percent stake. PIF's capital increase with consideration brought the company KRW 396.5 billion in cash. Along with capital increase with consideration, the company improved its cash flow by reducing trade receivables and selling off assets. Thus, the company secured KRW 1.3 trillion at the end of 2015, up KRW 1.1 trillion from the previous year. The increased cash reduced borrowing to KRW 600 billion and the debt ratio to a market leading performance of 95%, which has enabled POSCO E&C to maintain its position as a blue chip company at the end of 2015. By securing cash under the motto of "cash-oriented management," we will prepare for internal and external crises and use them as economic opportunities.

Second, we successfully sold houses in the market and received landmark projects such as the Haeundae LCT project. Last year, POSCO E&C succeeded in selling all of its 18,000 houses. The builder won the Haeundae LCT project to build the tallest apartment building(411m) in Korea. POSCO E&C was awarded an order to build the longest privately-funded Inland Western Highway (138 KM) and a project to move UTTAM Steelworks in India, the first moving project for POSCO E&C. Separately, receiving an order to build Masinloc Thermal Power Plant has enabled us to make a foray into the lucrative Asian coal-fired power generation market. We also secured a foothold to enter the Middle East market through the ties with PIF.

Third, we made measures to sharpen our competitiveness in the future and revamping plans for the purpose of developing future growth engines. POSCO E&C devised a measure to sharpen its future competitiveness to develop future growth engines and brood over growth directions against a backdrop of fierce competition and the contraction of the captive market through the formation of TFT. Through this activity, we formulated a plan to establish future goals for growth, "Where to Play and How to Win" by business sectors and to conduct activities to achieve the goals. By making endeavors to secure core technologies with the aim of securing fundamental competitiveness through R&D, the company owns 21 new technologies along with 653 items submitted to be registered as patents and 442 registered patents.

In 2015, the prosecution's long investigation into POSCO E&C tarnished the POSCO Group's image so the company devised measures to revamp its management to show remorse for the case. We identified 12 key tasks from among four agenda items (the business structure, affiliates, processes and the corporate culture) and successfully implemented each one. Going forward, by developing current ethical management activities, we will continue to manage the activities more effectively. In regard to any unethical issues from the past, we will carry out activities to prevent reoccurrence through root cause analysis.

### POSCO E&C

- **KRW 12.5 trillion in orders thanks to brisk business in the construction sector**
  - Haeundae LCT (KRW 1.5 trillion), Masinloc Power Station in Philippines (KRW 0.5 trillion)
- **Financial structure improvement through a sell-off of equities to PIF and capital increase with consideration**
  - Influx of KRW396.5 billion and debt ratio: 221% (2014) → 95% (2015)
  - \*Average of other construction firms such as Hyundai E&C and Daewoo E&C: about 180%
- **Improvement in cash flow-centric management activities**
  - Collection of trade receivables led to increase of KRW 923.9 billion in operating cash in 2015
  - Sell-off of equities and influx of operating cash led to increase of KRW 1,112.4 in vault cash

**ENERGY**



In February 1972, POSCO Energy launched the commercial operation of an LNG power plant, the only civilian steam power plant in the country. To meet the government's policy to stabilize power supply in line with the rapid increase in demand for power in the early 1990s, the company expanded its combined cycle power generation business and continues to operate reliable power plants.

Incheon Power Plant has a capacity that corresponds to 11.3% of the power generated in the Seoul metropolitan area, which has significantly contributed to delivering a stable power supply in the area. With its excellent mobility and output adjustment quality, POSCO Energy's power plant is a peak load steam power plant that meets timelines with high power demand. This enables the power plant to respond instantly to power load fluctuations, which is necessary for stabilizing the power system of the metropolitan area. When electric power is supplied to the metropolitan area from a remote place, 5% to 7% of the power is lost during the process. However, the direct link between the power station and the demand location allows for a very low rate of electric power loss (1%), making it highly economical. In addition, it is an eco-friendly power plant based on LNG, a clean fuel. Off-gas-based power plants in Gwangyang and Pohang contribute to reducing pollution since they use off-gas from the steel-making process as a fuel.

The company launched the Fuel Cell Division in 2007. Major business areas include the fabrication, sale and installation of fuel cell facilities, long-term O&M service, the direct operation of fuel cell power plants and R&D.

In 2015, the electric power market maintained a reserve margin of more than 20% thanks to a steady supply of new power generators and a slowdown in electric power demand. The sale price of electricity dropped sharply due to the large drop in prices of all energy sources caused by the sharp fall in oil prices. Although a drop in the sale price of electricity and the reserve margin significantly lowered sales, the company posted KRW 139 billion in operating profit on a consolidated basis.

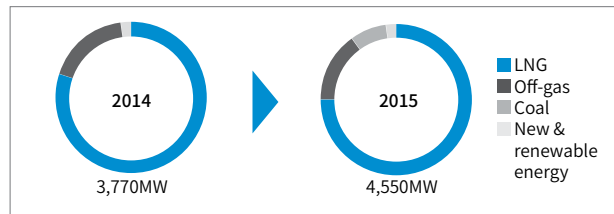
The major our achievements during the last year are as follows. First, we increased sales by enhancing our fundamental competitiveness and profitability. We expanded the profit-making base for our power generation business through the completion of Units 7, 8 and 9 of Incheon LNG Power Plant. A stable supply in our off-gas power generation facilities has enabled us to achieve a forced outage rate of 0 percent. The curtailment of maintenance time and the acquisition of additional fuel have helped swell operating income.

Second, although the company established the base system to produce fuel cells, the increasing of quality costs has led to operating loss. However, POSCO Energy has steadily engaged in R&D and quality improvement activities. As the results, the company established an independent production system for the production of fuel cells in the cell-stack-BOP-installation process through the completion of a cell plant.

Third, we laid the foundation for future growth through successful advancement into overseas new IPP projects. It can be said that in overseas business, we laid the groundwork for making up for possible low profitability such as launching the commercial operation of Mong Duong II Power Plant in Vietnam, signing a contract to build CHP-5 PPA in Mongolia and obtaining power generation business rights in Botswana and further, securing a foothold to grow into a global energy company in the year.

**POSCO Energy**

- **Completed 7th to 9th LNG facilities in Incheon and coal-fired power plant in Vietnam**
  - Maintained profitability of power generation sector through expansion of power generation capacity
  - Varied sources of power generation by utilizing LNG, off-gas and coal



**Expanding Overseas Business and Going Forward with Coal-Fired Power Generation at Home**

Project name	Volume (MW)	Progress
Samcheok Thermal Power Generation	2,100	<ul style="list-style-type: none"> <li>• Selected as main equipment supplier (2015.11)</li> <li>• Reducing risk by attracting FI (2016)</li> </ul>
Vietnam Mong Duong II	1,200	<ul style="list-style-type: none"> <li>• Launched commercial operation (2015.4)</li> <li>-Dividend income: KRW 25 billion a year</li> </ul>
Mongolia CHP-5	450	<ul style="list-style-type: none"> <li>• Signed PPA* (2015.7)</li> <li>• Preparations for construction in 2016</li> </ul>
Botswana MorupuleB II	300	<ul style="list-style-type: none"> <li>• Selected as preferred bidder (2015.11)</li> </ul>

\* Power Purchase Agreement refers to, power trade contracts that guarantee certain income

## ICT



In 2015, POSCO ICT tried to perform value-based substantial management amid the continued uncertainty in its business environment due to the prolonged low growth period and fierce global competition. As a result of the intensified restructuring of its low-profit and non-core businesses, it recorded KRW 840.5 billion in sales and KRW 14.0 billion in operating profit including restructuring cost on a consolidated basis.

In 2015 we focused on 'Biz Transformation' and 'Management Infra Improvement'.

First of all, we tried to reform our business portfolio for smart-based structure and growth. To surpass simple IT operation/development and align POSCO Group's new business value to ICT, we have strengthened our preemptive proposal business. An essential part of strengthening the fundamental competitiveness of POSCO is working to develop the Smart Factory business based on Industry 4.0 which can lead industry-wide manufacturing innovation through the Gwangyang Works' steel plate factory. We are also working to establish the Smart Building and City business in the Middle East, particularly Saudi Arabia, by cooperating with POSCO E&C.

In addition, we are expanding our micro-grid business based on Energy Storage System(ESS) to other regions such as Chujado Island as part of our activity in the energy industry, which is a key part of what our company focuses on. We are also actively pushing forward the energy efficiency business at worksites by performing a pilot project to build smart industrial complexes in Banwol, Sihwa and Changwon under the Ministry of Trade Industry and Energy and obtain five factory energy efficiency business orders from Doosan Heavy Industries & Construction Co., Ltd. Having implemented a differentiated business model, we are carrying out the "electric vehicles infrastructure business" in cooperation with BMW and Hyundai Motor Company for the first time as a private company.

Next, the company's existing business is building on its core competences to power market expansion.

POSCO ICT has won an order to run a project for operating BHS from Incheon International Airport (worth KRW 95 billion) for six times running. We also expanded our factory/distribution automation solutions internationally to China and Iran by leveraging their proven quality in POSCO and its affiliates.

Lastly, we have tried to do our best to heighten our company's value by restructuring low-profit/non-core businesses. We have divested low-profit and non-core businesses which do not align with our strategic direction, as well as selling subsidiaries which lack competence, such as PONUTech and Vectus. In addition, we have reinforced risk

management with a specific focus on big projects. Especially, we have actively pushed ahead the reductions of invisible costs by securing business soundness from the beginning of orders and enhancing the management of projects in progress.

Our business environment is expected to be affected by prolonged uncertainty in 2016 due to the ongoing economic recession and low level of global economic growth. POSCO ICT has sought to improve its structure under the "New Normal" paradigm and create smart technology-based new business opportunities and value according to its mid-term growth directions.

We will work to understand the opportunities and challenges in the smart solutions sector so that we can implement smart business operations across the business and expand internal and external success models based on the outcomes of a pilot smart factory project for POSCO's production, facilities and quality. We also seek to create a greater value by cost cutting and quality improvement efforts, primarily achieved through preemptive proposal activities matching the business sectors of the group's subsidiaries.

In addition, we will focus on profit-centered new growth business areas, visualize the results of successful strategic businesses in the market and move forward with business transformation by operating a new IT business and further differentiating our existing businesses.

We will achieve good results in the energy sector through considering internal and external risks in terms of profitability and growth potential, while targeting micro grids, energy efficiency and the environmental solution business, which are laying the foundation for growth. In particular, we will sharpen our competitiveness through the realization of "smart power plants" which can realize higher efficiency and optimization from power generation to distribution by participating in power plant building business overseas at home and abroad which POSCO Energy pursued with its full range of capabilities to build "smart factories" at ironworks.

We will steadily boost group synergies by engaging in the smart building and new city development business in overseas regions with POSCO E&C and by discovering IT business overseas with POSCO Daewoo.

This year, we will continue to step up our efforts for management activities focused on value creation by pushing forward with the elevation of management infrastructure efficiency. We will actively improve our capabilities by driving innovation throughout our high-cost and low-efficiency structure, in response to the new normal era and the enhancement of employees' competitiveness for new growth businesses. We will strengthen activities aimed at improving profit and mitigating potential risks by pushing forward with management to uncover and preemptively address financial and non-financial risks based on data analysis.

## POSCO CHEMTECH



POSCO CHEMTECH was established in 1994 through the merger of Samhwa Chemicals, which was founded in January 1963 for production and sales of basic refractories, and Pohang Industrial Furnace, itself founded in May 1975 for the maintenance of industrial roads and furnace construction. POSCO CHEMTECH became a comprehensive materials company with an integrated system covering refractory production and construction. It has since built its international reputation as a global refractory company. In 2008, the company began operation of a lime calcination plant at POSCO steel works. Between 2010 and 2011, the company grew externally through the commissioned operation of a chemical plant at the steel works and the sale of cosmetic products. The company is currently working to build its reputation as a global top-tier coal chemistry and carbon material maker. To that end, the company is actively diversifying its business scope in the chemicals sector by entering the rechargeable battery cathode material and needle cokes business.

In the lime business, the company has operated lime calcination plants at Pohang and Gwangyang Works since 2008 and has the largest quicklime production capacity in the country. Its entry into the Indonesian market in 2012 marked the company's move into global markets.

For the chemicals business, the company operates COG (Coke Oven Gas) refineries at Pohang and Gwangyang Works on consignment as well as purchasing coke oven gas byproducts to process them before selling. In addition, to produce rechargeable battery cathode material within Korea, rather than depending on imports, the company acquired the cathode materials business from LS Mtron in August 2010 to enter the cathode material business. It has since started manufacturing cathode materials in Korea.

In the overseas business sector, the company joined the Indonesian steel mill project and currently operates business in quicklime supply and the processing and selling of byproducts.

In 2015, Chemtech faced its toughest business environment yet due to low oil prices and a prolonged recession in the steel industry. However, we made concerted efforts to strengthen our competitiveness by actively applying PWS (Project-based Working System), dramatically reducing manufacturing cost and increasing sales of the material business. On a consolidated basis, we posted KRW 1,221.2 billion in sales, a drop of KRW 149.9 billion, and KRW 56 billion in operating income, a drop of KRW 38.9 billion, compared to last year. We also laid the foundation for the material business, which is a future growth engine, by completing a needle coke factory and stepping up our efforts to receive further cathode material orders last year.

POSCO M-TECH started as a company supplying iron and steel raw materials, and packing steel in 1973. It has specialized in the supply of steel supplementary materials (aluminum deoxidizers, molybdenum) and the packing of steel products for over 40 years. The company is now working to expand its business scope through the commissioned operation of POSCO's magnesium plant, high purity ferrosilicon plant and iron powder plant. It hopes to strengthen its position as a steel packing and supplementary materials supplier. 2015 saw severe competition among steel companies, brought on overproduction among Chinese steel companies and the slowdown in downstream industries such as shipbuilding and construction. As a result, companies sought to reduce their size to survive rather than pursuing growth. Demand for steel supplementary materials such as aluminum deoxidizers and molybdenum briquette, which are our major products, fell greatly as a consequence. The prices of the above-mentioned product group dropped significantly in 2015. The market scale thus shrank and we were put into a much more difficult business environment.

In spite of this difficult and uncertain business environment, we have successfully completed our restructuring to ensure our survival. We posted KRW 343.2 billion in sales and KRW 13 billion in operating income and swung back to profitability in three years. Our net profit hit KRW 27.2 billion.

POSCO M-Tech carried out the following business activities. First, the company divested deficit risk factors as part of its restructuring efforts. Part of the material business which POSCO Chemtech had pushed for years drove continual deficit factors due to the global economic downturn and changes in market conditions. We have thus rapidly restructured this business to create new future value, having sustained losses since 2014. We virtually completed the restructuring in 2015 by selling the urban mining business, which had been the major culprit behind the continual deficit and a molybdenum factory which had been hit by snowballing costs. We have thus been able to secure future stability and reinforce our focus on high-value-added business areas by reducing low-profit businesses.

We sharpened our competitiveness through continual work efficiency improvement and cost-cutting efforts. We also worked hard to obtain qualitative growth by enforcing workforce downsizing for mutual growth between management and labor. Such efforts have included manpower interchange among affiliates.

Second, we have improved our financial soundness.

We suffered from deterioration in our financial structure due to a decrease in assets derived from business investment losses and the imposition of large tax on copper products traded before merging Ninedigit in 2014. We preemptively addressed this issue for two purposes: financial structure improvement and financial risk improvement. To minimize the cost of business restructuring and dealing with uncollected long-term receivables from sales activities, we assembled a special TF team and worked hard on credit collection.

We were thus able to offset some losses incurred in 2014 as a result of our appeal proceedings against a KRW 43.5 billion fine imposed on our copper product trade from 2011 to 2012. Indeed, we managed to receive a full refund of that fine last year. A tax issue in the trade in 2013 was also terminated without charge. Furthermore, such efforts as establishment of a management process for receivables and investment and improvement of business principles and standards to fundamentally prevent financial losses have finally put in place a stable financial structure.

Third, we are creating a happy company which keeps to the fundamentals.

With the aim of building a happy company, we established “Haoman Culture”, which translates as “enjoyable work, a joyful company and wonderful co-workers”. Accordingly, we are trying to build a good company in which employees become happy through a “morning meeting” where all employees communicate with one another and learn something, “gratitude sharing” to foster a positive mindset, volunteer activities in which employees and their families participate and the “1% Sharing Campaign” in which all company members and their families participate and share some of their salaries with marginalized neighbors.

We operate “innovation management” in which all employees can improve their working system by taking ownership. We introduced the Smart Work Place initiative through which employees can think and communicate so that we can feedback various opinions to management. We also set up an optimal environment to realize innovation every day by constructing a flexible structure for discovering ideas on improving working activities, such as POSTIM.

Last year POSCO M-Tech maintained its AA grade in sustainable management evaluation and continued to develop further, with the introduction of an advanced company culture that takes account of social contribution and environmental value for sustainable growth. The company will do its best to become a next-generation company that puts social contribution and environmental value at its heart.

In 2016, the world economy is expected to be exposed to risk factors such as international exchange rate wars and a slowdown in China’s growth. The domestic economy is also expected to hit difficulties

stemming from the falling prices of raw materials such as oil and the reorganization of the existing trade order sparked by multilateral trade negotiations to overcome sluggish world trade. Under these circumstances, the steel market is likely to slow down further, leading many steel companies to run their business stably for the purpose of survival this year, rather than growth.

In 2015, we succeeded in returning to profitability in a difficult situation by revamping our management with a focus on internal stability. We will maintain this surplus trend this year and solidify our identity as a steel packing and steel supplementary material supply firm.

## PERFORMANCE HIGHLIGHTS

(POSCO ONLY)

Category	Index	Unit	2013	2014	2015	
Society	Social Responsibility Expenditures <sup>1)</sup>	Total	KRW 1 bn	56.9	59.9	57
		Donation	KRW 1 bn	9.3	19.1	15.9
		Investment in local community <sup>2)</sup>	KRW 1 bn	33.6	38	39.5
		Other(Commercial Initiative) <sup>3)</sup>	KRW 1 bn	4	2.8	1.6
	Donation to charity <sup>4)</sup>	KRW 1 bn	8	8	7	
	Microcredit expenses <sup>5)</sup>	Raised amount(aggregate)	KRW 1 bn	20	25	27
		Loan amount	KRW 1 bn	6.9	4.3	4.5
	Volunteering hours per person	Hours		31	29.5	28.3
	POSWITH – disadvantaged groups/number employed	Persons		191/369	195/367	197/354 <sup>6)</sup>
	POS Eco-housing – disadvantaged groups/number employed	Persons		28/60	32/65	
	POSPLATE – disadvantaged groups/number employed	Persons		97/184	86/173	71/142
	Songdo SE – disadvantaged groups/number employed	Persons		124/138	91/126	103/130
	Sisterhood ties	Number		245	192	201
	Corporate tax expenses	KRW 1 bn		403	582	350
	Partner	Subsidiaries' implementation of Compliance Program <sup>7)</sup>	No. of companies	34(30)	32	28
Compensation under Benefit Sharing Sharing in purchasing cooperation		KRW 100 M	536	544	367	
Private-public joint R&D fund		Cases	15	3	3	
Techno Partnership technology consultation		Times	595	607	317	
POSCO Certified Partners		Number	41	52	52	
Purchasing cost		Raw materials	KRW 1 bn	17,578	15,893	12,075
		Materials	KRW 1 bn	1,803	1,846	1,710
		Subcontracting fees	KRW 1 bn	2,079	2,204	2,139
		Total	KRW 1 bn	21,460	19,943	15,924
(Ratio to sales)		%	70.3	68.3	62.2%	
Investor	Crude steel production	1,000 tons	36,416	37,650	37,965	
	Sales	KRW 1 bn	30,544	29,219	25,607	
	Operating profit	KRW 1 bn	2,215	2,350	2,238	
	Operating margin	%	7.3	8.0	8.7	
	Net profit	KRW 1 bn	1,583	1,139	1,318	
	ROE	%	3.9	2.7	3.1	
	Assets	KRW 1 bn	54,242	52,597	51,309	
	Equity	KRW 1 bn	42,311	42,475	43,026	
	Liabilities-to-equity ratio	%	28.2	23.8	19.3	
	Total cash dividends paid	KRW 1 bn	633	640	640	
	Cash dividends per share	KRW	8,000	8,000	8,000	
	Interim dividends paid	KRW	2,000	2,000	2,000	
	Earnings per share	KRW	20,052	13,858	16,067	
	Payout ratio	%	40.0	56.2	48.5	
Customer	Customer satisfaction index(domestic companies)	%	88	84	85	
	Customer satisfaction index(overseas companies)	%	79	74	74	
	Number of eco-friendly products developed	Number	30	22	32	
	Sales volume by product	Hot-rolled steel	1,000 tons	17,516	17,969	18,792
		Cold-rolled steel	1,000 tons	14,643	14,685	14,703
Stainless steel		1,000 tons	1,770	1,683	1,842	
Employee	Employee satisfaction index	Points	82	70	75	
	Business Ethics Education Completion Rate	%		94.5	98.3	
	Number of employees	Persons	17,832	17,877	17,045	
	Number of new hires	Persons	873	879	522	
	Retired employees	Persons	520	1,101	757	
	Retired employees who reached retirement age	Persons	0	626	461	
	Turnover	%	2.9	6.2	4.3	
	Continuous service	years	19	18	18	
	Female employees	Persons	778	842	879	
	Female employees in manager position or higher	Persons	166	199	241	
	Employees 55 years old or older	Persons	2,125	2,091	1,915	
	Employees with disabilities	Persons	485	431	496	
	Employees with disabilities(POSCO)	Persons	255	241	256	
	Employees with disabilities(POSWITH)	Persons	230	190	240	
	Ratio of employees with disabilities	%	2.7	2.4	2.8	
	Employees who used maternity leave	Persons	55	67	72	
	Rate of return after maternity leave	%	100	100	100	



Category	Index	Unit	2013	2014	2015		
Employee	Employees who used parental leave	Persons	77	81	73		
	Employees who used parental leave(male)	Persons		12	6		
	Employees who used parental leave(female)	Persons		69	67		
	Rate of return after parental leave	%	100	100	100		
Training	Number of employees trained	Persons	523,184	356,133	343,199		
	Training hours per capita	Hours	205	128	116		
	Training costs per capita	KRW 10 thousand	80	68	110		
	Trainee satisfaction index <sup>8)</sup>	Points	4.62	4.65	4.69		
Safety	Number of accidents(direct management)	Cases	10	12	7		
	Number of fatalities(direct management)	Persons	1	1	0		
	Number of accidents(contractor)	Cases	4	3	1		
	Number of fatalities(contractor)	Persons	1	1	0		
	Lost-time injury frequency rate(direct management)	Accidents per million work hours	0.26	0.32	0.19		
	Lost-time injury frequency rate(contractor)	Accidents per million work hours	0.1	0.08	0.03		
	(Total lost-time injury frequency rate)	Accidents per million work hours	0.18	0.2	0.11		
Labor cost/ Pension	Cost of labor	Payroll	KRW 1 bn	1,401	1,435	1,439	
		Provisions for retirement benefits	KRW 1 bn	135	129	139	
		Legally required benefits cost	KRW 1 bn	900	108	112	
	Pension subsidies	National pension(paid by company)	KRW 1 bn	36.5	37.5	39.0	
		Personal pension subsidy	KRW 1 bn	9.7	9.7	7.8	
		Number of personal pension beneficiaries	Persons	14,736	10,473	6,720	
	Employee Welfare Fund		KRW 1 bn	57.6	58.9	59	
	Aggregate contribution amount		KRW 1 bn	816.3	932.8	992.1	
	Environment	Air pollutant emissions	SOx	1,000Tons/year	24	21	21.3
			NOx	1,000Tons/year	33	33	32.3
Dust			1,000Tons/year	4	4	3.4	
Energy Consumption		TJ	776,115	837,220	830,128		
GHG emissions		Total (Scope1+Scope2)	1,000Tons CO <sub>2</sub> e	72,386	75,240	72,339	
		Scope 1(direct emission)	1,000Tons CO <sub>2</sub> e	68,047	70,432	68,147	
		Scope 2(indirect emission)	1,000Tons CO <sub>2</sub> e	4,339	4,808	4,192	
		CO <sub>2</sub> emissions per ton of steel produced(direct)	t-CO <sub>2</sub> /t-S	1.87	1.88	1.80	
		CO <sub>2</sub> emissions per ton of steel produced(indirect)	t-CO <sub>2</sub> /t-S	0.12	0.12	0.11	
Water usage		Processing water usage	Million m <sup>3</sup> /year	135.1	138.2	138.9	
		Wastewater discharge	Million m <sup>3</sup> /year	58.7	60.9	57.2	
Wastes		Waste generated	10,000 tons/year	2,232	2,411	2,396	
		Waste volume(recycled)	10,000 tons/year	2,193	2,366	2,357	
		Waste volume(disposed of)	10,000 tons/year	38	45	39	
		Landfill	10,000 tons/year	33	39	33	
		Incineration	10,000 tons/year	5	6	6	
Chemicals release		Tons/year	69	92	78		
Environmental facility investment		Air	KRW 1 bn	139	138	92	
		Water	KRW 1 bn	65	135	34	
		Recycling and others	KRW 1 bn	90	27	42	
Environmental costs		Environmental facilities operation cost/ Recycling cost		KRW 1 bn	986	924	778
		Depreciation cost		KRW 1 bn	150	158	174
		Administrative cost		KRW 1 bn	35	36	51
		Environmental R&D cost		KRW 1 bn	17	12	10
		Energy recovery cost		KRW 1 bn	33	46	47
		Total		KRW 1 bn	1,221	1,176	1,060

<sup>1)</sup> POSCO classified social contribution costs as those relating to social welfare, sports and culture, HR development and volunteer service. We manage these costs in compliance with the Federation of Korean Industries' social contribution cost standards. Since 2013, we have additionally disclosed social contributions, investment in local communities and others (commercial initiatives).

<sup>2)</sup> Investment in local community is different from the local community concept of our five major social contribution areas.

• Investment in local community: Expenditure used at Pohang, Gwangyang and overseas business sites for social contribution activities.

• Local community in the five major areas: Expenses for the implementation of social contribution programs under "Local Community," which is one of the five areas of social contribution.

<sup>3)</sup> Commercial initiative: Social contribution expenses for advertisements.

<sup>4)</sup> The funds came from POSCO only. The total amount of funds from the POSCO Family stood at KRW 10 billion.

<sup>5)</sup> Based on POSCO's contribution accounting standards.

<sup>6)</sup> POSWITH and POS Eco-housing have been merged to POSCO HUMANS in 2012. The decreased number reflects the merger.

<sup>7)</sup> Figures within parentheses are the decreased number due to the merger.

<sup>8)</sup> Out of 5 points.

■ Some data errors were corrected.

## Case Report

### Key Questions from Socially Responsible Investors in 2015

#### What are the details of the activities you performed in 2015 to fulfil your objective of ethical management?

To regain our reputation for ethical management, we chose ethics as our top management priority. The Ethical Management Executive Office plays the key role in this. We worked with it to map out and execute our major plans for ethical management. We also revised our conventional Code of Ethics for a better realization of our intention. Our newly established ethical standards are particularly notable for helping to better realize ethical management. Ethical standards have been drawn up which define detailed guidelines to prevent major unethical behavior such as giving or taking bribes, embezzlement, violations of sexual ethics, information manipulation. For more effective deterrence of unethical behavior, we set up an award for reporting such unethical behavior, with the award valued at KRW 3 billion. The increased award will help encourage internal reporting whenever unethical behavior is noticed.

#### What part of the company is responsible for human rights issues?

In cooperation with PwC, a global consulting firm, we pushed ahead with the task of amending our ethical standards in 2014. The Ethical Management Executive Office is currently responsible for issues related to human rights that may arise in the course of conducting our global business.

#### What is the status of the Odisha project in India?

The prospect of the project is not clear because the Indian government has changed the law about mineral rights to an auction system. Under the current circumstances, we cannot say when we will be able to resume the project. So, our official position is that we will make an announcement when the project direction is decided.

#### Do you also apply POSCO ethical standards to affiliated companies?

POSCO-invested companies and overseas subsidiaries should observe POSCO's ethical standards and Foreign Corrupt Practice Act (FCPA). Executives of all overseas subsidiaries must vow to abide by the ethical standards. We operate a Special Clause on Ethical Practice so that POSCO, its partners and suppliers can better observe our ethical rules.

#### How do you manage your company's supply chain?

We have developed a behavior code for all POSCO suppliers. The behavior code contains all fundamental rules to be observed by the suppliers and would-be suppliers. No business dealings with POSCO will be available without their electronic signatures showing their agreement with the supplier behavior code. At POSCO, we publish quarterly and yearly reports on the assessment and analysis of all suppliers. Each one is marked as 'Excellent', 'Good', or 'Poor'. If any supplier breaks the Code of Ethics or causes civil complaints or environmental contamination, the supplier may be disqualified forever. No socially unhealthy business will be able to have business dealings with POSCO.

#### What about the situation of human rights-related issues (for example, the Uzbekistan cotton business run by POSCO Daewoo)?

POSCO and POSCO Daewoo issued official papers to the Uzbekistan Government to prohibit forced labor practices in the country. We have shown continuous concerns and efforts in relation to this, for example by visiting their work sites and conducting investigations into ethical practices. We have recently made sure that posters and banners have been posted in relevant areas to prevent forced labor practices. In addition, in reference to the case of Uzbekistan forced labor practices and our appeal to the violation of OECD guidelines in 2015, POSCO and POSCO Daewoo have already established the principle of ethical management. We have undertaken voluntary efforts to prevent or minimize negative effects by strictly observing this principle. The National Contact Point (NCP) has determined to close the case without further investigation because they could not find any proof that the company had violated the investigation obligation or that it had contributed to forced labor practices. (For the assessment of NCP, you can refer to [http://www.ncp.or.kr/servlet/kcab\\_encp/info/4000](http://www.ncp.or.kr/servlet/kcab_encp/info/4000)). As a member company of the UN Global Compact, we have respected the UN Global Compact's principles on human rights and labor. Thus, we have conducted our overseas corporations' self inspections of human rights management by checking principles for our human rights management and developing a checklist to grasp risk elements. If any such irregularities are detected, we will investigate the case through our team of experts.

#### What is the POSCO's position about the current process of the Ini Palm Oil project by POSCO Daewoo as the parent company of the latter?

POSCO Daewoo endeavors to perform reliable business activities in terms of environmental ethics. Based on the POSCO Family Global Environmental Management Policy, they have established and practiced environment-friendly management system in all their places of business. PT.BIA, a local subsidiary of POSCO, conducted an environmental impact assessment in 2009 as part of the course for applying for a business license. In the assessment, they have already excluded places worthy of preservation from their business areas. They are doing their best by conducting business only in areas where forest development is authorized by the local government. In cooperation with a consulting institute, POSCO Daewoo has surveyed the palm oil farm and is endeavoring to secure sustainable production of palm oil in consideration of its social and environmental impact. They are also rendering various community activities in the fields of medicine and education. As the parent company, POSCO offers its full support to its overseas business activities and actively exchanges opinions and monitors their activities lest they should violate POSCO principle relating to the environment and human rights. By sharing the guidelines of the Code of Ethics, we are mutually cooperative for responsibility management.

# CUSTOMERS

## WORLD PREMIUM PRODUCTS

In the face of a steel overcapacity due to the continuing global economic downturn, POSCO has established and implemented mid-term technology development plans to recover the world's leading level of profitability by sharpening its fundamental competitiveness in the steel sector. The company reinforced the development of WP (World Premium) products which represent the core of profit generation thanks to their world-leading quality. At the same time, we stepped up our support of advanced marketing that impresses customers. In addition, we moved ahead with the development of low-cost and high-efficiency operation technologies and the early commercialization of POSCO's unique innovative processing technologies. Further-

more, we continued the development of CO<sub>2</sub> emissions reductions and energy-saving technologies to better prepare for the carbon and environmental risks that have become a global social issue. We have also strengthened the management of indices to secure the world's top production technology. We developed an SPB (Solution-based Platform Business) strategy which makes profits through the sale of unique innovative technologies, such as FINEX and CEM (compact endless casting and rolling mill). With an eye towards accelerating technology development, we have actively implemented strategic exchanges and cooperation with major global steelmakers by establishing an open and collaborative technology development system.

### Iron making

#### Development of cost competitiveness enhancement technology by ramping up use of low-priced fuel and raw material

- Development of technology to maintain stable blast furnace operations despite the steady increase in the use of low-priced iron ore and coal
- Development of technology to produce low-priced cokes exclusively for FINEX by using low-grade coal as 90% of fuel

#### Development of technology to extend the lives of blast furnaces by recovering blast furnace cooling systems' performance

- Recovering cooling performance by changing blast surface cooling system (Stave) through company's own engineering
- Development of technology to extend the life of staves

#### Securing competitiveness of two million ton FINEX\* through Slim FINEX technology

- Development of power intensity reduction technology through use of low-grade fuel and materials
- About 90% of total cost compared to same-grade blast furnace of Green Field and at level similar to cash cost compared to that of Pohang Works

\* FINEX is an innovative iron making process that directly uses iron ore fines and non-coking coal, replacing conventional blast furnaces.



### Steel making

#### Sharpening competitiveness through the establishment of low cost, high efficiency operation technology for steelmaking processes internationally

- Securing technologies to flexibly use raw materials at Gwangyang and Pohang Works in accordance with scrap / chartering market changes
- PT. KRAKATAU POSCO (Indonesia): Securing technology to produce high-grade thick steel plate and steelmaking competitiveness
- POSCO SS VINA (Vietnam): Securing new markets by securing competitiveness to produce steel bars and H-shaped steel products

#### Laying foundation for producing high-manganese and -aluminum steel by utilizing ferromanganese

- Securing system to mass-produce high-manganese steel by utilizing high-purity ferromanganese alloy
- Securing price competitiveness through technology to raise high-aluminum continuous casting productivity

#### Establishing production standards on production of high-strength hot-rolled thin pickled-oiled steel sheets and securing foothold to enter overseas markets with CEM\*

- Enhancing competitiveness of CEM products by establishing standards on high-strength ( $\geq 500\text{MPa}$ ) hot-rolled thin pickled-oiled steel sheets

\* Completed production standards: 590DP, 1.5GPa Mart, SPFH590

- Advancing into overseas markets via technological license agreements with SMS firms (China and more)

\* CEM: Technology to produce products without cutting slabs from continuous casting process to produce slabs, through to rolling process to produce coils



### Hot Rolling

#### Accelerating commercialization of innovative technology for hot rolling production process and development of World Premium products

- Commercializing uniform cooling technology for third-generation run out table (ROT)
- Developing steel for safety belts with higher strength and durability and low-YR steel pipes for construction with strong formability

#### Advancing cooling control technology for TMCP (thermo mechanical control process) steel and expanding the development of World Premium products

- Improving productivity through cooling system and uniform cooling of stern end
- Development of BCA characteristics-guaranteed thick steel plate for shipbuilding

#### Expansion of development of WP products without customers' heat treatment of wire rods

- Development of microalloyed steel for 9T automotive steering system
- Development of wire rods for 1,700MPa bead wire without customers' LP (lead patenting) heat treatment

#### Development of high-performance cold-process technology innovation

- Development of compact pickling and oiling technology to enhance the pickling and oiling capacity of cold-rolling PCM (pickling line-tandem cold) Mill process

#### The development of products and customer solution technology for automobile body weight reduction and improved fuel economy

- Development of high-YS (yield ratio) 490DP with enhanced processability compared to conventional low-YS products, 180XR for lighter body weight, TSxEL 25,000MPa% GI which can replace HPF parts /EG 980XF and CR 1180XF
- Development of crash performance of giga-class TRIP and TWIP (TWinning Induced Plasticity) steel

#### Development of hyper NO product for next-generation drive motors for electrical steel

- Development of super premium-class high-frequency low-iron loss products to improve HEVs' and EVs' fuel efficiency and performance through enhancement of magnetic/mechanical properties of materials for iron core of drive motors

#### Development of stainless steel capability enhancement and differentiation products

- Development of 400-series VOD high-speed, high-efficiency refining technology development, expansion of endless cold-rolled steel production capacity
- Development and STS for fuel cell bipolar plates and mass-production of lean duplex stainless steels (Lean Duplex STS), flexible 300-series STS



## SOLUTION MARKETING

### Evolution of Solution Marketing: Connecting to Customers on a Human Level

POSCO started solution marketing in 2014 to enable customers to purchase POSCO products conveniently and economically. In 2015, POSCO added Human Solution to conventional Technical Solution and Commercial Solution for a more comprehensive and evolved solution marketing with a focus on impressing customers by offering them a more amicable, reliable relationship. As part of Human Solution, we offered a solution for the education of facility maintenance technology to customers “D” and “N” in terms of diagnosis and also undertook an improvement in their production facilities.

We did our best under the shared goal of win-win growth through which customers could realize lower cost and better competitiveness. As a total solution provider, we are intending to impress customers by offering them technical and commercial support. We will keep up our efforts for solution marketing to create a win-win relationship with our customers.

### Solution Marketing That Reach Out Abroad: Meet Global Customers

POSCO has been attentive to the voices of global customers by attending the OTC (Offshore Technology Conference), the Technical Exhibition at the Changchun R&D Center of FAW (First Automobile Works) Group of China and the 2016 NAIAS (North American International Auto Show). At the OTC, the world’s largest marine technology exhibition in Houston, America, we were able to sign several distrib-

utor deals, an MOU for technical cooperation, and more. In addition, we were able to consolidate customer networks through several key meetings.

What’s more, we introduced a POSCO solution for future-oriented automotive materials by opening a technology showroom – the first case in the steel industry history – at the North American International Auto Show in Detroit. We also exhibited some 30 kinds of futuristic, world-class auto components, such as TWIP for high strength automotive steel with good processability, and HPF (Hot Press Forming) steel for high strength. The most ideal auto body assembled from world’s best steel plates of POSCO was also exhibited at the show. Such solution marketing has helped optimize our supply chain.

These activities have given POSCO a strong foothold to expand its solution marketing and WD products. We will grow into a global solution provider by further sharpening our differentiated competitiveness and boosting our profitability through the development of solution marketing activities.



### Major Achievements of Solution Marketing by Industry

<p><b>Electrical Steel Sheets</b> Solution to Reduce Noises from Transformers</p>	<p>The transformer is used to transform voltage into a usable level through electromagnetic induction. Noise is generated from a metal pin made from an electrical steel. However, the POSCO-developed technology to detect and remove the cause of noise effectively solved the problem. The noise was remarkably reduced by removing the transformer’s vibration, the main cause of noise, and blocking already-generated noise. With this technology, POSCO has been able to create a partnership for technical cooperation with excellent global customers, including “S” Company. We have applied eight patents, including two international applications, and completed two domestic registrations.</p>
<p><b>Wire Rod Sector</b> Parts for Steering Devices Heat Treatment Solution</p>	<p>Wires and steel bars are not easy to check by looking, but they take up some 25 % of the total steel (about 1 ton) needed to manufacture a car. Wires used in automobile steering systems work hold the key to the functions of automobiles. They are directly related to the safety of drivers. Naturally, therefore, wire components require careful quality control. POSCO enables customs to enjoy high-level quality control by offering them customized heat treatment conditions as well as processing skills. POSCO has also contributed to the high price-competitiveness of customers by providing them with steel that doesn’t require complete or partial heat treatment.</p>
<p><b>STS Sector</b> Large-sized Reservoir Tank Design Solution</p>	<p>Due to water shortages caused by drought and water leakages associated with the cracked concrete walls of reservoirs, demand for large-size water tanks of STS material will gradually increase. POSCO, in cooperation with “K” Company (the largest domestic water tank maker), has developed the design technology for roofs and walls to stand snow, wind and earthquakes. POSCO signed an MOU with K Company to jointly develop large-sized STS water tanks capable of holding more than 5,000 tons of water. POSCO also made STS tanks more economical than concrete tanks by 10% or more by minimizing dead zones (where water doesn’t flow in a tank).</p>

### Customer Satisfaction Survey

POSCO conducts a customer satisfaction survey each year by an independent research institute. The survey is to figure out what the customers want in terms of products and overall services as well as activities to realize higher customer value.

In 2015, we conducted a survey of our customers in energy plant, shipbuilding, construction steel, automobiles, electricity and electronics, high carbon wire rods and stainless steel industries – 7 major strategic areas. The questionnaire was upgraded from the 2014 version. Customers' voices were used to improve the questionnaire. Face to face interviews were abolished and the survey was conducted online and by way of conventional mail.

In the customer satisfaction survey in 2015, we achieved 85 points domestically (2 points up from the previous year) and 74 points abroad (the same as the previous year). The survey showed customers' desire for solution marketing which would enhance their competitiveness. POSCO will keep up its efforts to establish a great win-win relationship with customers by carefully improving 160 customer requests derived from the survey in 2015. We will continue to make every effort to listen to customer voices in 2016.

Customer Satisfaction Index					(Out of 100 points)
Category	2011	2012	2013	2014	2015
Overall	86	85	84	79	80
Domestic	91	88	88	83	85
Overseas	81	81	79	74	74

\* We conducted customer satisfaction in all industries until 2013 and have done in seven industries since 2014

\*\* 2015 target: 80

### Marketing Training for Improving Sales Competitiveness

POSCO built the training department within the Steel Business Division to enhance customer satisfaction and value. The training department coordinated the courses on product knowledge, job training; executives' special lecture on value sharing; and outside training programs on image improvement and enhancement of brand value. The aim was cultivating marketing personnel's competency in creating customer value and enhancing their marketing insight despite economic recession and cutthroat competition. Also, we invited sales personnel from customer companies and exporting companies to the steel works each month and conducted marketing training and e-learning programs to enhance their sales competencies and strengthen trust with POSCO.

In 2015, the training focused on the development of marketing capability for young employees. The training consist of the basic and intensive course which deal with the steel product and manufacturing processes. Also, we tried to improve our learning environment through the feedbacks of training results. In 2016, we plan to expand the training course into leaders to enhance all employees' sales performance.

### CRM System to Meet Customer Needs

POSCO has operated a Customer Relationship Management (CRM) System since 2003 to manage the information of more than 20,000 customers worldwide. The record of trading with customers is now updated automatically through the ordering ERP system, while finance-related information is updated in concert with credit rating agencies. All customer-contacting departments record customer needs and responses and major issues in real time. The information of CRM systems is shared across not only local but also more than 50 global business sites of POSCO for improving the customer satisfaction and using on the solution marketing activities.

Also, we have been tried to improve our responsiveness to customer's demand through operating 'Customer requirements & issues management system' which provide solutions for customer's needs and 'Customer Mobile CRM system' using tablet PCs and mobile phones.

## QUALITY MANAGEMENT

### POSCO Family Quality Charter

In 2010, the POSCO Family Quality Charter was declared for us to rise as a global leading company through customer value creation. With the CEO's steadfast commitment to quality management founded upon the firm belief that quality is the solemn pledge to customers and a foundation that cannot be compromised, POSCO will pursue a vision for top quality that touches the customers' soul.

#### POSCO Family Quality Charter

**The POSCO Quality**

**Top quality that touches the customers' soul**

The Charter is composed of the vision of "The POSCO Quality" and three core values. In the vision of "The POSCO Quality," POSCO is synonymous with world-leading quality, which means we will pursue top class quality that will touch the customers' soul. The three core values are Customer Inside, Basic Inside, and Synergy Inside. The following is the code of conduct to practice each core value.

Customer Inside	Basic Inside	Synergy Inside
Create customer value reflecting even the potential needs of the customer	Value basics and principles, while eliminating deviation and waste elements	Pursue shared growth with the supply chain through trust and communication

### Customized Quality Education by Ranks

POSCO runs a customized quality education program for employees of POSCO, POSCO Family companies, overseas corporations, outsourcing partners and suppliers, to raise awareness of quality and help them enhance their competencies. In 2015, we nurtured 247 sectoral specialists through a program based on required characteristics by rank and job. As part of this, we expanded the program to our overseas corporations and supply chain who are leading improvements to the Quality Management System and activities to manage and improve quality management at worksites. In 2016, we will reinforce our global quality management capabilities by ramping up education support activities for our overseas corporations' processes in quality management.

#### Quality Training for Employees

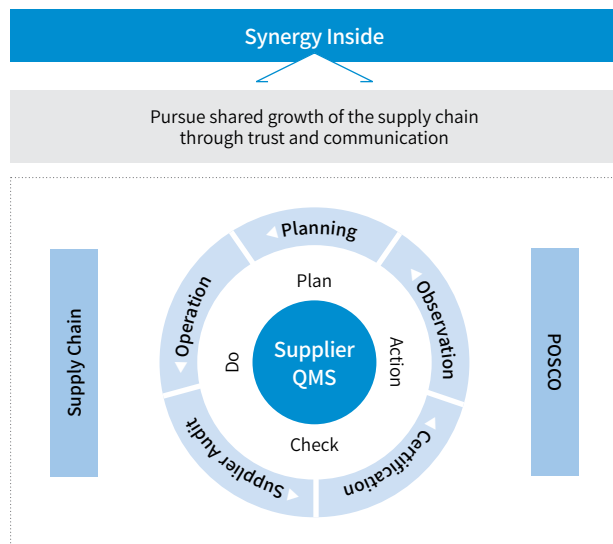
(Unit: persons)

Category	Collective Training				E-learning	
	General		Expert		No. of courses	Participants
	No. of courses	Participants	No. of courses	Participants		
2013	7	1,700	3	200	10	14,300
2014	6	760	3	339	12	17,400
2015	8	2,028	3	586	11	9,606

### POSCO Supplier Quality Certification (PosQC)

POSCO operates a PosQC System to secure quality from the beginning by preventing the inflow of faulty materials from outsourcing partners and suppliers. This is to secure a global level of quality competitiveness. The certification system evaluates the quality management system of core quality outsourcing partners and material suppliers, and awards certification across five grades (Q1~Q5). Partner companies who receive a Q3 rating or higher are awarded a separate certificate in recognition for their quality assurance competency.

In 2015, we evaluated 66 core quality-outsourcing partners and material suppliers. 56 companies received Q3 rating or higher. POSCO M-Tech and Chosun Refractories were selected as the best companies in the outsourcing partner and material supplier categories, respectively, winning the Synergy Prize at the POSCO Quality Awards. In 2016, the fifth year of the implementation of the PosQC, we will change evaluation items and standards with a focus on core items of quality assurance. This is in line with the accumulated operational know-how in terms of quality assurance. Through the PosQC, POSCO will help outsourcing partners and material suppliers establish their independent quality assurance systems and continue their quality innovation activities. Accordingly, POSCO and partner companies will create customer value by providing the best quality possible.



#### Supply Chain Quality Certification Status

(Unit: firms / %)

Category	2013	2014	2015
Evaluated companies	43	58	66
Q3 rating or higher	42	53	85



### Quality Management Assessment

POSCO conducts an annual POSCO Family quality management assessment for a quantitative evaluation of its process performance and effectiveness of quality management system. This is part of a continuous improvement approach. The diagnosis system is based on the Quality Charter's core values and code of conduct, and consists of more than 50 categories. It evaluates quality management maturity by dividing it into five stages: Beginning → Improving → Succeeding → Controlling → Leading.

The quality management assessment was conducted on five POSCO Family companies which recorded quality management levels of lower than B++. The results showed that their quality management levels improved to B++ (753 points) level from the B+ level (753 points) in 2015. After a diagnosis was done by segmenting work units of quality management diagnosis into 18 operation department units, they received an average of 771 points (out of 1,000 points), indicating that operation departments had basic quality management systems. In 2016, we will elevate the effectiveness of diagnosis by expanding the subjects of diagnosis from family companies and subsidiaries (companies we directly invested in) to sub-subsidiaries (companies we indirectly invested in). We will also lead improvements to the quality management diagnosis system by department unit.

### POSCO Quality Awards (PQA)

Since 2011, the CEO has directly awarded the POSCO Quality Award (PQA) to organizations which effectively ran the Quality Management System and recorded outstanding quality management performance. The CEO awards the POSCO Quality Awards to POSCO Family companies that operate a quality management system effectively and that have produced outstanding quality management innovations. A change in the kinds of prizes awarded in 2015 scratched off both works on the list of companies to be assessed and allowed family companies with quality management levels of B++ or higher to take home prizes for excellent records in quality management improvements. The Take-Off Prize was awarded to family companies with quality management levels of B++ or lower that had achieved the greatest results. What's more, the Excellent Department Prize went to departments with the highest levels of quality management from among operation departments on-site. We awarded the Synergy Prize to the best performers in the PosQC from among outsourcing partners and material suppliers as based on due evaluation.

Cate-gory	POSCO		POSCO Family	Supply chain	
	Prize	Excellent Prize	Take-off Prize	Excellent Department Prize	Synergy Prize for partner
Winner	POSCO E&C	POSCO A&C	Gwangyang Cold-rolled Steel Dept.	POSCO M-Tech	Chosun Refractories

### Quality Management Assessment for overseas corporations

Since 2014, POSCO has supported its overseas production corporations' quality management diagnosis and improvement activities to measure the levels of their quality management and enable them to improve to the level of the POSCO Group parent company. To this end, we developed a diagnosis model based on core quality management capabilities and customer value realization capabilities that takes account of production corporations' characteristics. We diagnosed three corporations (P-Vietnam, P-Mexico and Guangdong Coated Steel) in 2014 and two companies (P-Malaysia and VST) in 2015. P-Vietnam identified 14 improvement tasks and made improvements by building quality management at our overseas corporations. As a consequence, the company completed an excellent quality management system. Steady efforts will be made to raise the quality of products manufactured overseas to the respected POSCO Group level.

### POSCO's New Quality Assurance System

POSCO operates Q-CAPS (Quality- Check and Pass System) and an integrated system for corrective measures to strengthen its customer-oriented quality assurance system. Q-CAPS was developed based on the quality management message of "We will not make, supply or take defective products". It collects all work data from the production process on a real-time basis and performs the functions of inter-process quality inspection, quality assurance, quality forecast, quality/operation monitoring and quality interpretation. It's used to detect and prevent defects.

The integrated system takes corrective measures to correct fundamental reasons for nonconforming items found during quality evaluation or customer claims and prevent their recurrence. By promoting more efficient and systematic correcting activities, the system leads the prevention of nonconforming items from recurring and helps to strengthen the preventive quality system.

# INNOVATION

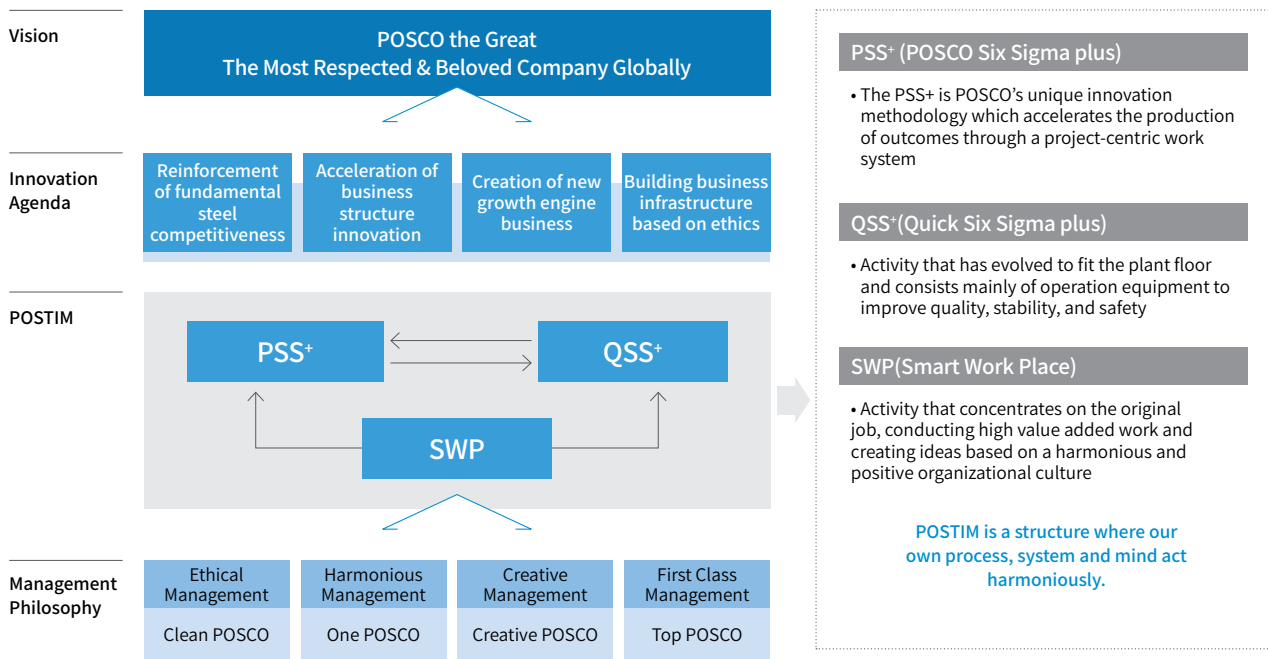
## Innovation

To achieve our vision of 'POSCO the Great,' POSCO has steadily conducted innovation activities since bringing in POSTIM, POSCO's unique innovation methodology, in 2014. POSTIM stands for the POSCO Total Innovation Methodology and aims to foster the participation of all POSCO employees and affiliates, while also integrating work and innovation. POSTIM is a powerful execution engine for realizing the four agendas of Innovation 2.0 – the strengthening of POSCO's fundamental competitiveness, the acceleration of its business structure, production of tangible results in the new growth engine business areas and the constructions of ethics-based management infrastructure. Its basic principles are the unification of work and innovation; voluntary participation and adequate compensation for performance; building a working environment that can enhance creativity and concentration; and cultivating and compensating talented

people with technical knowledge and problem solving capabilities. POSTIM produces remarkable achievements every year.

POSTIM is composed of the following: ①PSS+(POSCO Six Sigma plus), which is POSCO's unique innovation methodology that accelerates the production of outcomes through a project-centric work system. This generalizes methods for the development and implementation of projects and the evaluation of and compensation for project results, ②QSS+ (Quick Six Sigma plus), which is an activity to reduce quality defects, operational difficulties and safety hazards at the plant floor level. It consists mainly of operation equipment. ③ SWP (Smart Work Place), which defines activities to conduct high value added work and concentrate on their original job of generating creative ideas as part of a harmonious and positive organizational culture.

### Structure of POSTIM



### POSTIM Result in 2015 & Promotion Plan in 2016

#### 1 PSS+ (POSCO Six Sigma plus)

PSS+ is POSCO's unique innovation methodology which accelerates the production of outcomes through a project-centric work system. This generalizes methods for the development and implementation of projects and the evaluation of and compensation for project results.

To discover projects necessary to achieve its management goals, POSCO uses both top-down and bottom-up suggestion methods. In the top-down method, ideas are presented by board members

through executives and departments using D+ and processes to discover research projects.

In the bottom-up method, ideas are presented through workshops held by headquarters or departments. In the case of the bottom-up method, a general manager or a relevant board member suggests appropriate themes for projects. The board member then selects the best ideas as themes of IP projects. In 2015, competent board members with ideas took the roles of project leaders or project performers. To encourage good ideas, each department held an open idea contest. As a result, in 2015, POSCO was able to discover and perform

some 500 projects. We are anticipating posting KRW 1 trillion in financial effects through the projects we have undertaken.

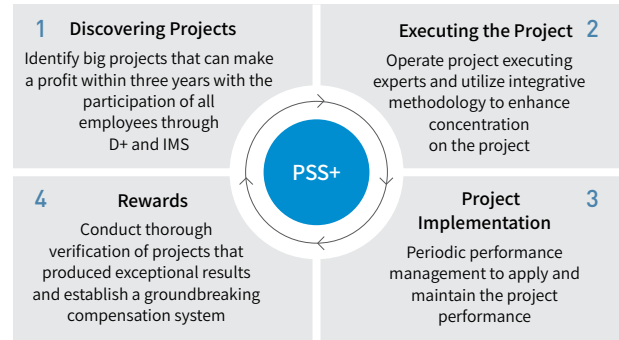
At the center of PSS+ achievements, there are Cross-functional (C/F) projects focusing on profitability and solutions. The projects are characterized as collaborative high-performance projects in which business departments such as sales, production, and R&D work hand in hand for shared goals. In 2015, POSCO conducted 20-plus C/F projects related to profitability and solutions, which resulted in more than KRW 70 billion in financial outcomes. The system of ‘Grand-Project (G-Project)’ has been recently established specifically to perform big projects. Under the G-Project, related projects, research projects and unique work are grouped together so that they are pursued in a cross functional manner. In 2015, six G-Projects were conducted, resulting in noticeable achievements.

In 2015, various types of project implementation methodology were combined into the PSS+ methodology to attain better efficiency and accelerate production of results. In addition, project leaders were actively assisted last year by means of steady mentoring by the management, including Visual Planning (VP), process checks at headquarters and innovation experts’ support for key projects.

One of the characteristics of the PSS+ methodology is that highly profitable projects receive sizable rewards, which motivates people. This system is called “IP Project Special Reward.” If an IP Project is applied to business and results in more than KRW 1 billion in net income for one year, the project automatically qualifies for the special reward program. The monetary value of such rewards is decided on the basis of net income through performance verification. Usually, the reward amount is about 10 percent of net income. The amount can be adjusted within 5 percent for justifiable cause. The reward is allotted to those who have thought up ideas (5%), the project performers (45%), and gained sharing (50%) for all employees. In 2015, two cases were especially rewarded. One was the Steel Product Solution Project and the other was the Highly Profitable PO Production Increase System.

In 2016, POSCO will keep improving the PSS+ as a methodology to overcome a crisis. In a “fun and carrot-type” idea contest at the end of 2015, 10,000-plus ideas were put forward. We selected some 400 ideas. POSCO expects to create KRW 1 trillion or more in financial effects in 2016. We are planning to make our PSS+ activities everyday things in the POSCO Family by steadily expanding the level of reward for outcomes and achievements.

**PSS+ Operating Process**



**2 QSS+(Quick Six Sigma plus)**

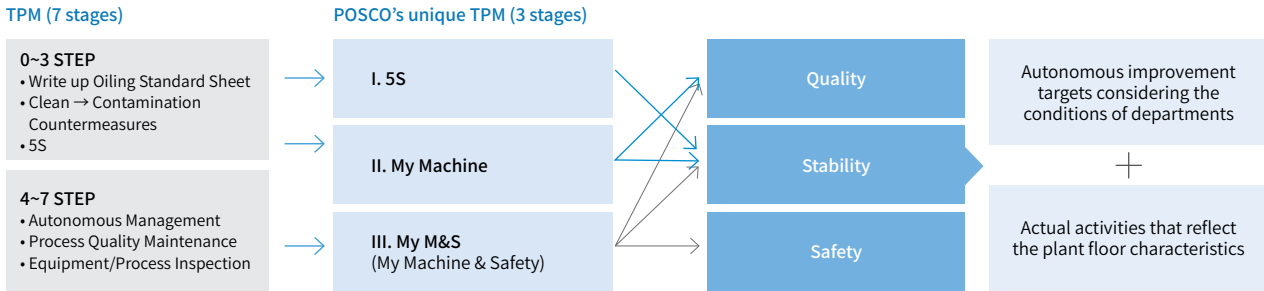
In August, 2014, we announced QSS+ (Quick Six Sigma Plus), an innovative, self-regulating method to realize healthy and safe workplaces. Since then we have made extensive efforts to put QSS+ in place at each workplace. We launched My M&S (Machine & Safe) Model activities starting in March 2015 at 171 workplaces (84 in Pohang and 87 in Gwangyang) and secured successful cases. These activities have enabled us to develop My M&S into an activity which matches our work characteristics. Management paid many visits to workplaces (38 workplaces including nine by the CEO) to offer employees in the field encouragement. Exemplary behavior of leaders and departmental mentoring have promoted better understanding of QSS+ and bolstered its impact. Employees have discovered and done away with workplace irrationalities (1,926 usual tasks, 291 tasks for improvement leaders) and have thus contributed to cost reductions. Finally, QSS+ leading capabilities were enhanced through three-day classroom education to 700-plus part leaders.

The POSCO Family has sought to spread the QSS+ movement since reporting to the CEO in March 2015. We have applied QSS+ to 13 manufacturing affiliates and cQSS+ (construction QSS+) to five construction and engineering divisions. We made a QSS+ plan and executed it for outsourcing partners in connection with the QSS activities of departments supporting works. POSCO prepared activity guidance appropriate for outsourcing partners by conducting relevant activities at four companies in Pohang and 26 companies in Gwangyang with a focus on those with facilities. With reference to overseas suppliers, we selected four Chinese suppliers to apply our My M&S Model activities. The stability type was applied to ZPSS, the quality type to Guangdong CGL, the safety type to CFPC (Foshan), and the stability type to CYPC (Yantai), all bringing about successful results.

As seen above, the POSCO Family has sought to apply QSS+ in place at our workplaces and will continue to make every effort to further spread QSS+ to realize healthy and safe workplaces.

Concept of QSS

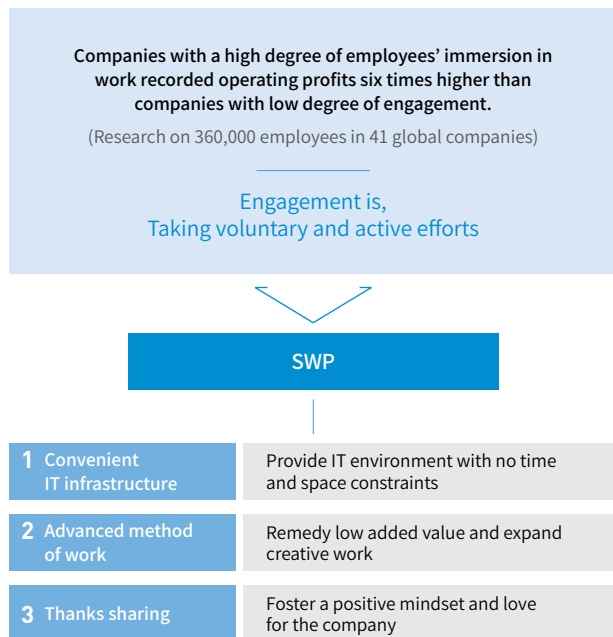
**QSS+** Follows the TPM (Total Productive Maintenance) idea, but has been evolved into POSCO's unique methodology in line with the characteristics of steel works.



**3 SWP(Smart Work Place)**

To create an environment that will bring high performance, POSCO is building the SWP (Smart Work Place) to foster positive employee work engagement through convenient IT infrastructure, advanced working methods and thanks sharing. With the aim of providing convenient IT infrastructure, we standardize UX (User Experience)/ UI (User Interface), a work system for PCs and mobile devices. Standardization has expanded convenience, such as by simplifying complicated screens and lowering the number of clicks. Moreover, we have made document searches and utilization easy by simplifying classifying systems such as folders in the ECM (Enterprise Contents Management) System, which manages internal documents in an integrated manner. At the same time, we have built an advanced Knowledge Management System (KMS) to share business information easily and quickly. To have all POSCO Group employees at home and abroad adopt the 'One POSCO' spirit, we developed EP (Enterprise Portal)-Lite and applied it to 51 overseas corporations. By building an LTE network exclusively for POSCO at both works, we have successfully enhanced the quality of our wireless network, cutting down on cost. PC specifications were varied to let employees choose their PCs to suit their business environments. Our PC replacement cycle was shortened from four to three years for better work efficiency. In addition, for an advanced working system, we have helped employees become immersed in work by improving the briefing and meeting culture. We are steadily simplifying HR, education and innovation systems to focus on our fundamental business. Thanks sharing coupled with leaders' initiative and the participation of employees are helping employees create a positive working environment. The campaign is being steadily diffused to reach families, corporate customers and suppliers.

SWP Summary



# SUPPLY CHAIN MANAGEMENT

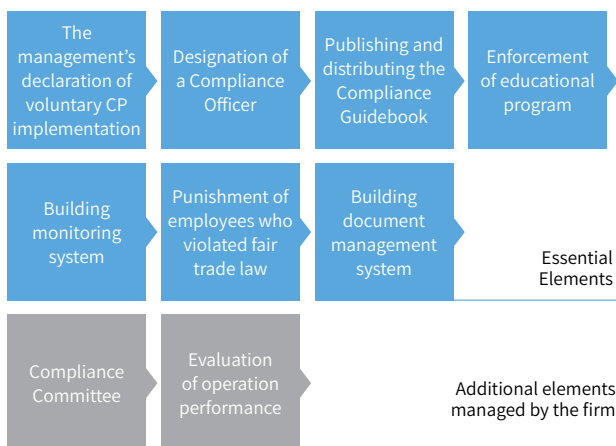
## FAIR TRADE

Since adopting the Compliance Program (CP)<sup>1)</sup> in 2002 to comply with fair trade laws and conform to the liberal market order, we have continued our efforts to foster a culture of voluntary compliance. Through the declaration of the POSCO Code of Ethics in June 2003, the CEO expressed POSCO's commitment and guiding principle of voluntary compliance. At the annual enterprise management meetings and POSCO Group CEOs' meeting, the CEO frequently emphasizes the importance of fair trade and asks participants to comply with relevant laws.

<sup>1)</sup>The Compliance Program is an internal compliance system, entailing education and audit, which a company operates internally in accordance with the "Fair Trade Voluntary Compliance Standards" in order to prevent violations of the Fair Trade Act.

### Fair Trade Voluntary Compliance Program (CP)

Based on the seven major elements of the CP as suggested by the Fair Trade Commission, POSCO added two more voluntary operational elements of its own.



Following the introduction of the Compliance Program (CP) in 2002, the CEO declared the company's commitment to voluntary compliance with fair trade by announcing the Code of Ethics in 2003. Then, in 2004, the Internal Transaction Committee was established under the Board of Directors, along with the newly founded Fair Trade Support Team charged with overseeing fair trade related tasks. This was subsequently promoted into a group in 2012 to further strengthen its functions. In addition, between 2006 and 2012, POSCO acquired the AA rating at the Korea Fair Trade Commission's CP operation evaluation, which was a first for a Korean company. In 2013 and 2014, we acquired the highest rating in a Shared Growth Index evaluation. In 2015, we set ethics as the most important value of management as part of our managerial renovation. At the same time, we exerted ourselves for fair trade through the three major 100% principles (competition, disclosure and recording) and the eradication of abnormal business practices.

### CP Operation Performance

As prevention is most important for complying with fair trade regulations, POSCO is making every effort to minimize the risks of fair trade violations through preventive education.

#### 2015 CP Operation Highlights

- Ran CP online training program (3,278 people)
  - 2 subjects including "Easy-to-Understand Fair Trade"
- Pushed forward with collective tailor-made fair trade education by sectors (3,002 people)
- Fair trade consulting and coaching for departments (133 cases)
- Took oath for fair trade compliance (30 companies, 19 122 people)
- Went ahead with CP Committee and CP leaders meetings (twice, each)
- Held Internal Transaction Committee meeting (6 times, deliberated and resolved nine items)
- Offered CP handbooks and practical CP guides by sectors such as sales and purchase.

Since 2002, POSCO has actively helped employees gain a better understanding of fair trade by running e-learning courses of "Fair Trade Easy to Understand" and "Cases of Fair Trade Violations". In 2015, a total of 3,278 employees have taken the e-learning courses.

In 2004, we built an online inspection and consultation system by opening our in-company fair trade website. Under the system, employees and executives conduct fair trade self-checks directly. In addition, seven field departments relevant to fair trade such as sales, purchasing and outsourcing were designated as departments subject to mandatory self-inspection, further strengthening our self-inspection system. The main menu of the fair trade website "Voluntary Inspection and Consultation System for Departments" is an internal supervising system to prevent breaches of law. After completing the self-inspection process, field departments can receive consultation from specialized departments within the company, if necessary. Total consultation cases numbered 133 in 2015.

In addition, we established the Internal Transactions Committee in April 2004 to enhance the transparency and fairness of transactions between affiliates. The Internal Transactions Committee is composed of three externally appointed directors to ensure the independence of reviewing agendas. There were 112 reviewed as of 2015. In 2014, field departments that deal with many internal transactions reported the internal transaction status and risk prevention plans, stepping up their efforts to comply with fair trade laws.

In 2012, we developed a checklist application for the smartphone to help employees do self-checks on violating the law. We have also distributed a fair trade handbook for each division, an integrated handbook for the POSCO Family and guidelines for purchasing and sales sectors. This was done so that employees can check for risks of fair trade law violation and thus more easily abide by the regulations. In 2015, we conducted collective off-the-job education for 3,002 employees, including new employees, newly promoted employees and employees at the purchasing and sales departments.

Executives of contract-making departments swore an oath for fair trade as they are prone to violate contract-related laws. As of 2015, 19,122 employees of 30 subsidiaries have taken the oath. We make every effort to spread a culture of voluntary observance of contract rules for fair trade through seminars and workshops at the Voluntary Rule-observance Conference, which is composed of group and department leaders. We also operate Fair-trade Practice Leaders composed of staff members in charge of actual contract-related work and POSCO Compliance Academy (PCA), which is a study club of staff members in charge of contract-related work pertaining to subsidiaries.

### POSCO Family's CP Introduction

In 2015, 28 companies of POSCO Group operate the compliance program (CP).

#### CP Adoption Status of the POSCO Family

Year of introduction	CP Adoption Status	total
~2003	POSCO, POSCO E&C, POSCO ICT	3
2006 ~ 2010	POSCO C&C, POSCO M-TECH, POSCO CHEMTECH, POSCO PLANTEC, POSCO P&S, POSMATE, POSCO A&C, SNNC, POSCO ENGINEERING, POSCO ENERGY	10
2011	POSCO Daewoo, eNtoB, POSCO TMC, POSCO AST	4
2012	POS-HiMETAL	1
2013	PNR, SRDC, SPFC, POSCO HUMANS, POSCO TERMINAL, PONUTech, Blue O&M, POSCO ESM	8
2014	POSRI, POSCO CAPITAL	2
Total 28 companies (as of December 2015)		

They actively participate in CPs to help foster a fair trade culture. In a CP rating in 2015, two affiliates achieved the highest marks. They also achieved high ratings in the fields of fair trade order and win-win cooperation with suppliers.

- 2015 CP Rating Result: POSCO Energy (A), POSCO AST (BBB)
- 2015 win-win rating by the Win-Win Committee: POSCO (Best), POSCO E&C (Good)
- 2015 fair trade and win-win agreement rating by the Fair Trade Committee: POSCO Chemtech, POSCO ICT, SNNC (Good)

We continue to make every effort to enhance the fair trade observance spirit among employees of the POSCO Family by supporting fair trade training, publishing articles in an ethical webzine, mailing weekly trends in fair trade, and publishing a handbook of fair trade rules with amendments.

### Our Plans to Settle the Fair Trade Culture

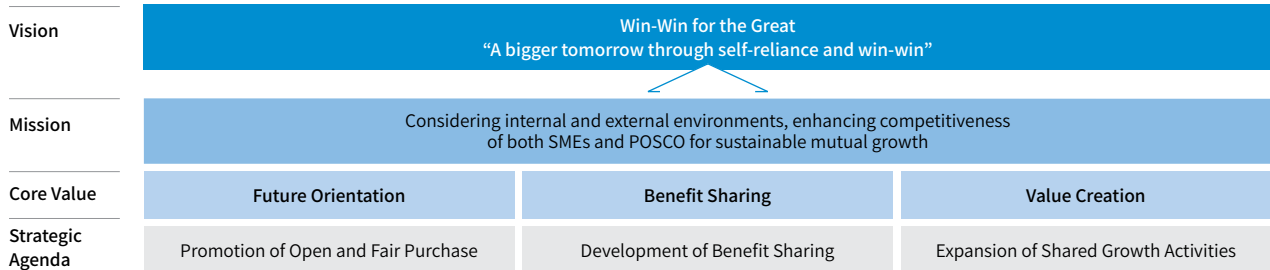
In 2016, POSCO will continue to make every effort to establish a fair trade culture among affiliates. We will actively conduct CP activities with a focus on preventing socially controversial and unfair trading among affiliates, as well as acting to prevent unfair trading practices with subcontractors.

We will also endeavor to further enhance CP operation by giving employees more intensive education regarding the law, steadily improving the work process, monitoring cases of law violation, as well as by coaching and enhancing affiliates' CP operation capabilities. We will also pull out all the stops to prevent violations of fair trade laws overseas by giving thorough instructions and up-to-date information on overseas law enforcement trends to our overseas corporation and offices.

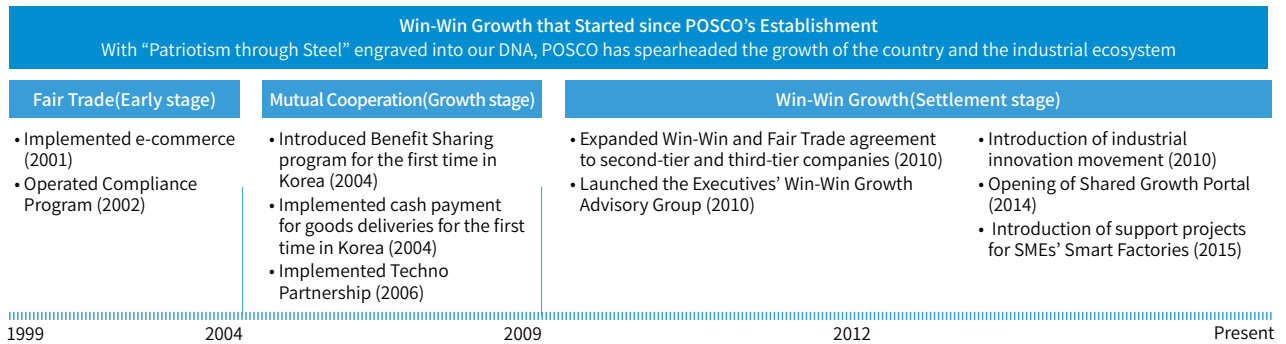


## POLICIES AND PROGRAMS FOR WIN-WIN GROWTH

### Vision and Value Structure for Win-win Growth



### Win-win Growth History



1999 - 2004	2005 - 2009	2010 - 2012	2013 - 2015
<p>1999.02</p> <ul style="list-style-type: none"> <li>Early payment of purchasing bills for the holidays</li> </ul> <p>2003.07</p> <ul style="list-style-type: none"> <li>First steel company to implement SRM</li> </ul> <p>2004.07</p> <ul style="list-style-type: none"> <li>First to implement Benefit Sharing program in the country</li> </ul> <p>2004.10</p> <ul style="list-style-type: none"> <li>Implemented the network loan</li> </ul> <p>2004.12</p> <ul style="list-style-type: none"> <li>Implemented whole cash payment for purchases from SMEs</li> </ul>	<p>2005.07</p> <ul style="list-style-type: none"> <li>Raised Supplier Support Fund</li> </ul> <p>2006.07</p> <ul style="list-style-type: none"> <li>Operated patent consultation center</li> </ul> <p>2006.08</p> <ul style="list-style-type: none"> <li>Transfer of patent technology owned by POSCO</li> </ul> <p>2006.09</p> <ul style="list-style-type: none"> <li>Executed Techno Partnership</li> </ul> <p>2008.07</p> <ul style="list-style-type: none"> <li>Introduced Management Doctor System</li> </ul> <p>2008.08</p> <ul style="list-style-type: none"> <li>Provided support for QSS innovation activities</li> </ul> <p>2008.11</p> <ul style="list-style-type: none"> <li>Signed Mutual Cooperation Special Fund Agreement</li> </ul> <p>2008.12</p> <ul style="list-style-type: none"> <li>Signed Public-Private R&amp;D Fun Agreement</li> </ul> <ul style="list-style-type: none"> <li>Signed Pan-POSCO Mutual Cooperation Agreement and Fair Trade Agreement</li> </ul> <p>2009.03</p> <ul style="list-style-type: none"> <li>Opened "POSCO Partner Recruitment Center"</li> </ul> <p>2009.09</p> <ul style="list-style-type: none"> <li>Implemented POSCO Family Network Loan</li> </ul>	<p>2010.06</p> <ul style="list-style-type: none"> <li>Implemented Techno Partnership (customized SME technical support activity)</li> </ul> <p>2010.09</p> <ul style="list-style-type: none"> <li>Began reflecting win-win growth performance in executives' performance evaluation</li> </ul> <ul style="list-style-type: none"> <li>Published the "Win-win Growth Program Guidebook"</li> </ul> <p>2010.10</p> <ul style="list-style-type: none"> <li>Launched the Executives' Win-win Growth Support Group</li> </ul> <ul style="list-style-type: none"> <li>Inaugurated POSCO Group Tier 2 ~ Tier 4 Conference</li> </ul> <ul style="list-style-type: none"> <li>Launched Cyber Sinnungo (whistle-blowing)system</li> </ul> <p>2011.04</p> <ul style="list-style-type: none"> <li>Enacted and executed the Small and Medium Suppliers' Code of Conduct</li> </ul> <p>2011.07</p> <ul style="list-style-type: none"> <li>Expanded the Executives' Win-win Growth Support Group to the POSCO Group companies</li> </ul> <p>2011.10</p> <ul style="list-style-type: none"> <li>Held the Idea Marketplace</li> </ul> <ul style="list-style-type: none"> <li>Held the Public-Private Joint Investment for Technology Development Project Cooperation Fund Agreement Ceremony</li> </ul> <p>2012.07</p> <ul style="list-style-type: none"> <li>Established FOCUS, POSCO's unique Benefit Sharing model</li> </ul> <p>2012.09</p> <ul style="list-style-type: none"> <li>President's Commendation for Win-win Growth Week Benefit Sharing</li> </ul>	<p>2013.05</p> <ul style="list-style-type: none"> <li>Signed agreement for POSCO Group's Voluntary Implementation of Benefit Sharing</li> </ul> <p>2013.06</p> <ul style="list-style-type: none"> <li>Signed agreement for the implementation of POSCO Industrial Innovation Movement 3.0</li> </ul> <p>2013.10</p> <ul style="list-style-type: none"> <li>Introduction of win-win payment system to improve payment conditions for delivered goods between tier 1 and tier 2 partner companies</li> </ul> <p>2014.04</p> <ul style="list-style-type: none"> <li>Restructured the Executives' win-win Growth Support Group to project-based operations</li> </ul> <p>2014.06</p> <ul style="list-style-type: none"> <li>Open discussion between suppliers and POSCO</li> </ul> <p>2014.10</p> <ul style="list-style-type: none"> <li>Opened the Win-win Growth portal</li> </ul> <p>2014.11</p> <ul style="list-style-type: none"> <li>Held POSCO Group Win-win Growth Partners' Day</li> </ul> <p>2015.06</p> <ul style="list-style-type: none"> <li>Held shared growth conference</li> </ul> <ul style="list-style-type: none"> <li>Won best grade in Shared Growth Index for three years running</li> </ul> <p>2015.12</p> <ul style="list-style-type: none"> <li>Held POSCO's Partners Day</li> </ul> <ul style="list-style-type: none"> <li>Signed agreement to support SME's smart factories</li> </ul> <ul style="list-style-type: none"> <li>Nabbed Grand Prize at Korea Shared Growth Awards</li> </ul>

Major Activities of POSCO's Shared Growth Activities		
SMEs	Communities	The underprivileged
<ul style="list-style-type: none"> <li>Benefit Sharing Program</li> <li>Technical cooperation</li> <li>Financial support</li> <li>Training and consulting</li> </ul>	<ul style="list-style-type: none"> <li>Volunteer service for sister village</li> <li>Sharing Saturday</li> <li>Operating soup kitchen</li> <li>Emergency aid for disaster victims</li> </ul>	<ul style="list-style-type: none"> <li>Support for the marginalized</li> <li>Establishment of micro financial firms</li> <li>Support for multicultural families and North Korean defectors</li> <li>POSCO's 1% sharing activities</li> </ul>

### Win-win Growth Activities Introduction

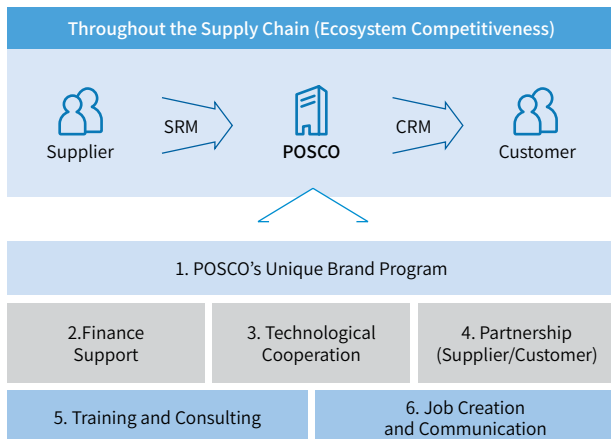
**Win-win Growth** Under the vision “Win-Win for the Great”, POSCO strives to build a better tomorrow through SMEs’ self-reliance and mutual growth. Since the end of the 1990s, POSCO has pursued mutual growth with the SMEs. In June 2005, we established a team solely in charge of providing support for SMEs. The Procurement Planning Group under the Procurement Office pursues mutual growth activities with SMEs to spread the benefits of shared growth not only to POSCO’s SME partners, but also to tier 2 companies and SMEs not trading with POSCO. Currently, POSCO operates 32 mutual growth programs in six categories – POSCO’s unique brand program, finance support, technological cooperation, building partnerships, consulting & education, and job creation & communication – to implement a systematic mutual growth activity that covers all aspects of management. In 2016, we will continue to improve and develop a program to implement mutual growth activities that can be of practical benefit to SMEs.

#### Major Activities in 2015

June	Held Shared Growth Conference
June	Won best grade in Shared Growth Index for 3 years running - Took home the Grand Prize at Korea Shared Growth Awards
December	Held POSCO Group Win-win Growth Partners’ Day - Signed an agreement to support SMEs’ construction of smart factories

### POSCO Win-win Growth Programs

**Composition of Win-win Growth Program (32 programs in 6 categories)** POSCO actively operates win-win growth programs that cover all aspects of management, targeting not only SMEs trading with POSCO, but also with tier 2 firms and firms without business relationships with POSCO as well.



### POSCO’s Unique Brand Program

**Benefit Sharing** POSCO’s Benefit Sharing program was launched in July 2004, the first of its kind in Korea. Under the program, POSCO and suppliers conduct improvement activities together and share the benefits. SMEs are thereby encouraged to voluntarily enhance their business soundness and create profits from technological development, while POSCO secures long-term competitiveness and quality improvements. In terms of business impact, 233 companies operate the program as of January 2016. The program was subsequently spread across the POSCO Group ecosystem in 2012. POSCO offers an array of incentives, including compensating 50% of the revenues earned from a project over a period of 3 years, signing long-term contracts (3 years), awarding extra points during supplier evaluation and joint patents. In 2015, POSCO awarded a total of KRW 36.7 billion to 489 new projects that have completed performance evaluation.

#### An improvement in recoiler facilities (Daehwa Industrial Machinery Co., Ltd.)

- **Actions taken:** It was impossible to produce certain products as defects occur during recoiler work to roll steel products into coils. POSCO contributed to improving the productivity of stainless process by making an improvement to the recoiler facilities to enable the production of all products.
- **Results:** Daehwa Machinery signed three-year contract and received cash (KRW 110 million) as a reward. Higher productivity additionally earned POSCO about KRW 200 million in profit.

### Techno Partnership (Customized Technological Support for SMEs)

POSCO began the Techno Partnership program in September 2006 to provide free technological support to SMEs. A technological advisory group composed of experts with PhDs from four institutions, including POSCO and POSTECH, currently provide support activities to resolve the technical difficulties that SMEs are facing and to help them secure core technologies. When an SME applies for a Techno Partnership, the subject is selected after evaluation and a technological advisory group is formed to fit the company and provide technological assistance.

The advisory group visits the company each month to provide consulting, including on-site diagnosis and technical training, while also helping to solve technical issues in production processes or the product. In addition, participating institutions provide their lab equipment and test analyses for free, and we mediate between SMEs and PhD level experts to set up effective partnerships. In 2015, POSCO provided 317 cases of technological consultation and 128 cases of free test analyses for a total of 63 companies.

**Cash Payment for All Purchases from SMEs** Since 2004, to foster a stable business environment for our partner SMEs, we have paid cash to all suppliers registered as SMEs within three working days of delivery. This happens twice a week, regardless of sum. During national holidays when capital flow tends to be particularly concentrated, we adjust the schedule to daily payments starting from one week in advance.

**Idea Marketplace** POSCO supports venture startups through the Idea Marketplace program, which represents a model for win-win growth. At the Idea Marketplace, people with an idea meet investors who are looking to make a business of the idea, while specialists play an advisor role. This is a marketplace where ideas are shared and sold. Since the introduction of the program, POSCO has invested KRW 6.32 billion in 46 companies.

**POSCO Family Executives' Win-win Growth Support Group** Executives of POSCO and POSCO Group launched the Win-win Growth Support Group in October 2010. The group has taken the initiative for win-win growth in the form of talent donation. The Group has contributed to enhancing SMEs' competitiveness by transferring their management expertise, including management innovation and labor relations, to tier 1 and tier 2 partner companies.

In 2014, its activity system was changed to a project-based one to let companies in need meet their perfect matches. Since then, the new system has paid handsomely for the group. Notably, companies which have a definite need and strong management resolve are predominantly selected. Executives who fit the needs of the selected companies are matched and their troubles are used to identify key tasks. The group then sets targets and provides systematic support to help the companies reach their goals.

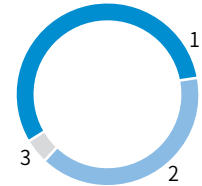
**The enhancement of productivity by way of a process improvement (Koas, the head of the Project Support Office)**

- Actions taken  
Pruning labor cost by cutting operation hours through semi-automation of table and drawer line processes
- Results  
Koas is expected to reduce labor cost and logistics cost by KRW 10 million and KRW 33 million a year.  
POSCO will be able to enhance its image by growing Koas into a model company of its QSS for SMEs.

**Finance Support for SMEs Having Financial Difficulties**

**SME Loan Fund** To provide low-interest loans to SMEs having trouble financing, POSCO operates a fund worth KRW 900 billion. In 2015, 381 partner companies of the POSCO Group received low-interest loans amounting to KRW 423.0 billion through this system.

1	POSCO Family Network Loan	KRW 500 billion
2	Mutual Cooperation Special Fund	KRW 360 billion
3	Partner Company Support Fund	KRW 40 billion



**Win-win Growth Investment Fund** To maintain partnership relations through equity investments in partner SMEs that have new growth engines or core technologies, key customers and new businesses, POSCO created the "Win-win Growth Investment Fund for Large and Small Companies" worth KRW 200 billion with the KB Financial Group and the Hanhwa Group. This fund enables us to make equity investments in competitive SMEs trading with POSCO as well as in new business, and maintain the POSCO Group ecosystem through equity relations to maintain close ties and competitiveness within the POSCO Group. As of 2015, POSCO has invested a total of KRW 13.48 billion in 7 companies.

**Financial Stability Support Fund** Together with the IBK (Industrial Bank of Korea), POSCO created the Financial Stability Support Fund amounting to KRW 101 billion for SMEs that own outstanding intellectual property but are experiencing temporary financial problems. This fund enables us to assist SMEs with high growth potential but with financial instability to get back on their feet. It thus contributes to enhancing the competitiveness of SMEs, which are the foundation of a sound national economy. Until 2015, POSCO invested KRW 8.22 billion through the Financial Stability Support Fund.

**Installment Payment for Equipment Purchasing** Along with the upfront payment system that pays up to 20 percent of the contract amount, POSCO introduced an installment payment system for equipment purchasing in 2010 to assist SMEs with production and operation costs. The installment payment system is an instrument that pays installments to SMEs building equipment with a long lead-time to lower their burden due to a long production time and high capital requirements. It is thus designed to help alleviate liquidity issues. SMEs that have signed a contract with POSCO which amounts to more than KRW 100 million and longer than a 180 day-term are eligible, and the installment payment is made when half of the contract period has passed, with an amount of up to 30 percent of the contract amount, excluding advance payment.

**Mutual Growth in Payment System (POSCO WinC)** To ensure that benefits generated from mutual growth programs with tier 1 companies trickle down to tier 2 companies, POSCO introduced the WinC system in 2013. POSCO WinC is a system to help spread win-win growth activities from tier 1 to tier 2 companies. It is designed to stabilize fair trade practices by improving the payment terms between tier 1 and tier 2 companies. In 2015, 1,656 tier 1 and tier 2 companies signed mutual growth agreements and tier 1 companies have paid tier 2 companies about KRW 400 billion under the program.

### Technology Cooperation for Enhancing SMEs' R&D Capabilities

#### Private-Public Joint Investment for Technology Development

Private-Public Joint Investment for Technology Development // The Private-Public Joint Investment for Technology Development is a project where the SMBA (Small and Medium Business Administration) and POSCO raise funds to provide SMEs with cash grants for R&D under the POSCO's purchase guarantee so that they may proceed under stable financial conditions. SMEs can receive up to 75 percent of total R&D expenditure or a maximum of KRW 1 billion. A successful R&D project will guarantee an SME a three-year long-term contract right. The agreement was signed in 2008 and POSCO subsequently signed an agreement in December 2011 with the SMBA to create an R&D fund worth KRW 100 billion. From 2008 to 2015, POSCO funded a total of 54 SME R&D projects.

#### The development of a gas and laser hybrid cutter (HK Co., Ltd.)

##### • Actions taken

Loss was incurred due to different cutters as cutting methods were different depending on the thickness of steel plate. The development of a hybrid cutter which can do both laser cutting and gas cutting helped reduce production lead time.

##### • Results:

- Thanks to the reduction of cutting time, POSCO enhanced productivity (four-fold increase) compared to existing products
- HK enjoyed a sales increase through product supply



**Patent Support Program for SMEs** To boost SMEs' technological competitiveness, POSCO offers a patent support program. POSCO shares its patents through a website ([www.steel-N.com](http://www.steel-N.com)) so that SMEs can conveniently use them in production. POSCO provides full financial support for patenting costs for POSCO-SME joint patent applications. When delivering goods produced using POSCO patents to POSCO, SMEs are exempt from license fees to enhance patent availability. POSCO also operates the "SME Patent Consulting Center" to offer consultation on patents and intellectual property.

**Technology Escrow System** The technology escrow system was designed to guard technological assets such as technological know-how from large corporations by depositing SMEs' intellectual property in the Technology Escrow Center of the Large & Small Business Cooperation Foundation. POSCO adopted the technology escrow system in 2011. As of 2015, we have signed 202 technology escrow agreements and given KRW 57 million in escrow commissions.

### Strengthening Partnerships and Competitiveness of SMEs

**POSCO Honored Partner (PHP) System** The PHP system aims to nurture certified partner suppliers into professional suppliers (sourcing group) with world-class quality and technical competitiveness. POSCO offers certified suppliers a diverse range of benefit programs such as PHP certificates for marketing support and the exception of security money for contracts.

**Helping SMEs Find Their Markets** POSCO participates in procurement business meetings for small, medium-sized, and large companies every year to help small and medium-sized enterprises sell their products and find markets. As part of these events, POSCO holds one-on-one meetings with small and medium-sized enterprises (SMEs), which hope to enter a cooperative relationship or business transaction with POSCO but do not have sufficient opportunity. At the same time, POSCO provides necessary information, such as its procurement system and procedures. For small and medium-sized partner companies that wish to have business transactions with other large companies and public institutions, POSCO provides necessary business information to help them find more customers. In 2015, POSCO participated in procurement business events held in Yesan and Seoul and met with a total of 21 enterprises.

**Joint Ventures with Parts Companies** We harness our global network to establish overseas joint ventures with small and medium-sized parts producing companies to assist their overseas market expansion. In 2015, we established joint ventures with four SMEs.

### Training and Consulting to Enhance Human Capacity and Management Capability

#### SME Vocational Training Consortium and Saturday Classes for Executives from SMEs

POSCO put its efforts into SME vocational training consortium, a program to nurture new employees and train existing employees of SMEs. In 2015, 45,592 people had completed an SME training consortium's training program in POSCO Group. Since January 2009, we have held Saturday classes once a month for CEOs and executives from outsourcing partners, and outstanding SMEs to share with them domestic and foreign issues regarding management environment and POSCO Group's management strategy. This helps them to cultivate entrepreneurial spirit.

**Customized Consulting for SMEs** To help SMEs overcome their weakness and chronic problems, POSCO provides consulting services using its own professionals. We provide customized consulting to SME trading with POSCO and tier 2 to tier 4 SMEs on subjects they

desire, such as safety, energy and IT. In 2015, we provided consulting support to 45 companies.

**Industry Innovation Campaign and Smart Factory** The industry innovation campaign is a consulting project that aims to increase the productivity of the entire industrial ecosystem by providing support, such as management innovation and process improvement, to small and medium-sized enterprises. Since 2013, POSCO has taken an active part in this campaign by applying POSCO's innovation methodology QSS. In 2015, POSCO began a smart factory project to increase the productivity of small and medium-sized enterprises by establishing smart and optimum production processes through the application of IT to manufacturing plants. POSCO has identified a total of 156 enterprises and has provided relevant programs, including an industry innovation campaign and smart factory.

**The establishment of a successful management system through the industry innovation campaign (Samwon E&B Co., Ltd.)**

- Actions taken: 5S activities, jet fan and cover assembly time reduction, production improvement
- Results: Quantitative results - Assembly time reduced by 946 hours annually through improved productivity  
Qualitative results - The loyalty of employees increased and the soft landing of a successor CEO was enabled through the management's lead by example and activities to encourage employees

\* In 2015, Samwon E&B was selected as one of excellent companies, which conducted industry innovation campaigns, and received the Award of the Minister of Trade, Industry and Energy.



↑ CEO's leading by example



↑ Ownership with participation of all employees



↑ Innovation activities with focus on people and worksites

**“Management Doctor” Program** POSCO works with partner SMEs and the Management Consultation Group under the Federation of Korean Industry, to form a three-sided support system to substantially improve SMEs' management environment. The Management Doctor Program effectively utilizes the knowledge and expertise of former CEOs and executives of major corporations to guide SME around management issues and enhance their overall competitiveness. As of 2015, 14 partner companies of the POSCO Group have participated in this program.

**Shared Green Growth Project for SMEs** In cooperation with Korea Energy Agency, POSCO has participated in the shared green growth project to reduce the energy consumption of SMEs. The Shared Green Growth project is a shared growth initiative in which large companies send their energy experts to SMEs that are interested in energy conservation, but which have difficulties in improving their

conditions, in order to diagnose the site and provide techniques as required. In 2015, POSCO provided energy consulting services to a total of 12 small and medium-sized enterprises in the Seoul-Incheon area and Jeollanam-do Province and provided them with energy management know-how.

**Programs for Job Creation and Communication**

**POSCO Partner Recruitment Center** In March 2009, POSCO became the first major Korean conglomerate to open a Partner Recruitment Center to assist SMEs in finding the best talent by providing pertinent information. This initiative is designed to address the problems of youth unemployment and labor shortage among SMEs by connecting job seekers with SMEs. In 2015, a total of 129 job seekers found employment at 15 of POSCO Group's partner companies as part of this program. When a participating SME hires an employee through the Job World website, they receive a discounted charge from Korea Industrial Bank and loan interest rate (KRW 1 million per person hired), and can use the recruitment website for free.

**Open Medical Facilities for Outsourcing Partners** POSCO pursues human-oriented win-win growth by opening our medical services to employees from outsourcing companies that work within POSCO's steel plant. We provide basic treatment for colds, stomach pain and light injuries, as well as physical therapy. All employees working at Pohang and Gwangyang Works are eligible to use this service. In 2015, 5,222 individuals used POSCO's medical facilities.

**Win-win Growth Portal** POSCO opened the Win-win Growth portal site in October 2014. The portal compiles the various win-win growth programs and provides a one-stop service where anyone interested in win-win growth – customer, supplier, government and related institution – can easily search for information and request a program directly. The Win-win Growth portal is composed of four categories – win-win growth vision & philosophy; introduction to win-win growth programs; task request & model cases; and communication plaza. We expect the portal to contribute to enhancing active communication between SMEs and POSCO.



**Operation of Sinmungo (SME Consultation Center)** POSCO operates Sinmungo for the purpose of collecting and remedying SMEs' complaints and grievances. People can easily access Sinmungo through the Customer Support category at the top of POSCO's homepage (www.posco.co.kr), the main page of the e-commerce website (www.steel-n.com) and the job creation and communication program page of Shared Growth Portal (winwin.posco.co.kr). Sinmungo has four divisions – "fair play-based" management (reporting unethical practices), mutual growth (consultation for SMEs), procurement (Open Purchasing Consultation Room) and sale (consultation for corporate customers).



↑ Shared Growth Portal



↑ Sinmungo on POSCO's homepage

### 2016 Plans for Win-win Growth

POSCO will promote a sustainable shared growth culture in 2016 to create a win-win environment by conducting activities to help SMEs increase technical competence, productivity and go-to-market approach.

**Promotion of Sustainable Shared Growth Culture** In 2016, POSCO will continue to deliver the warmth of shared growth activities with tier 1 companies to tier 2 companies and businesses which have not traded with POSCO. By continuously operating an open sourcing system, POSCO will provide greater opportunities to new SME part-

ners to supply their goods and services. POSCO will improve payment conditions between tier 1 and tier 2 companies by reflecting the payment results of tier 1 partner companies in SRM evaluation when tier 1 companies use the shared growth payment system POSCO-WinC to pay for goods and services provided by tier 1 companies.

POSCO will make constant efforts to provide sustainable shared growth activities that can be beneficial to SMEs by listening to their difficulties and complaints through communication channels, including a shared growth portal site and small and medium-sized enterprise service centers.

**Customized Shared Growth Activities to Increase Competitiveness of Small and Medium-Sized Enterprises** POSCO will continue to provide tailored support for SMEs with good performance to help them grow. POSCO is planning to increase the productivity of SMEs by providing activities to improve their work environment and processes. In addition, POSCO will encourage SMEs to participate in smart factory projects, such as factory automation for increased energy efficiency through the application of ICT.

POSCO will actively support the technology development activities of SMEs to strengthen their growth engines. POSCO will address complex and persistent problems on-site by promoting Benefit Sharing. We will also conduct public-private investment technology development projects to finance R&D activities that help SMEs concentrate on developing technology.

POSCO will help excellent SMEs establish a solid management basis by providing support for their activities to find a market. POSCO will pass on go-to-market know-how by utilizing relevant organizations and will actively support SMEs to enter new markets by using POSCO's infrastructure and network.



## ENHANCING SUPPLIERS’ CSR COMPETITIVENESS

We believe mutual cooperation between large companies and SMEs should actively take place in the CSR sector. The corporate ecosystem will become much healthier if large companies spread their CSR capabilities to suppliers and outsourcing partners and actively support their activities, particularly given the difficulties SMEs face in pursuing CSR in a systematic and consistent manner.

POSCO strives to build a corporate environment where we can contribute to society and grow healthily together with our partner companies. To foster the healthy growth of the whole supply chain, we have established a Supplier Code of Conduct that outlines the basic principles governing the actions of suppliers trading with POSCO. We have a supplier evaluation system to enhance POSCO supply chain’s competitiveness. This system helps to strengthen POSCO’s CSR competitiveness across the supply chain to enhance suppliers’ competitiveness, while preventing potential CSR risks that may occur within the supply chain.

### POSCO Group Supplier Code of Conduct

POSCO established the POSCO Group Supplier Code of Conduct in June 2010 so that all companies trading with POSCO may fulfill their duties as global corporate citizens. The POSCO Group Supplier Code of Conduct comprises 21 clauses across 7 areas. Fair trade, quality management and shared growth were added to the basic principles stated in the UN Global Compact, which are human rights, labor, environment and anti-corruption. The Code defines the basic rules governing the actions of companies wishing to enter into transactions with the POSCO Group. Suppliers must sign their e-signature in e-procurement ([www.steel-n.com](http://www.steel-n.com)), which is POSCO’s e-commerce system, before they can trade with POSCO.

### Introduction of SRM Evaluation Index

POSCO tied its purchased goods into “sourcing groups” according to the supplying market, goods’ characteristics and the convenience of contracts. We also evaluate the basic elements required by a supplier to manufacture products. Evaluation covers their basic financial state and facility size. This evaluation must be completed before suppliers can be registered in the sourcing group and given the qualification to participate in bids or negotiations. The suppliers’ trading history is analyzed and evaluated quarterly and published as a report.

The POSCO Group’s SRM (Supplier Relationship Management) evaluation is comprised of credit, price, quality, delivery time, cooperation, and safety/environment and elements for plus and minus points. Among them, CSR elements cover all of the economic, social and environmental sectors. Moreover, in tandem with POSCO’s win-win growth policy, we encourage tier 1 companies to contribute so that tier 2 and tier 3 companies may develop their market competitiveness. We regard financial support provided to tier 2 and tier 3 companies as part of the “plus” point criteria for evaluating the performance of tier 1 companies to maximize synergy within POSCO Family’s value chain and build a healthy corporate ecosystem. Safety and health are also included within the supplier evaluation process. The numbers of accidents and violations of rules at works will lead to marks being deducted. Moreover, in terms of the environment, we contribute to building an eco-friendly supply chain by including the possession of environmental certificates such as the ISO 14001, the volume of green purchases and the provision of eco-friendly products and the management of carbon emissions in supplier assessment criteria.

### Summary of POSCO Group Supplier Code of Conduct

Respect for employees’ fundamental human rights	Voluntary employment, Abolition of child labor, Elimination of discrimination, Observing working Hours, Payment, Humanitarian treatment, Management and protection of confidential information, Protection of intellectual property
Safety and health	Working environment, Industrial safety
Environment	Management of hazardous materials, Waste water, solid waste and air pollutant management, Pollution prevention and use resources
Ethics and fair trade	Business integrity, Compliance with special clause for ethics in business contracts, Compliance with fair trade regulations, Building a culture of trust

Protection of trade secret and intellectual property	Management and protection of confidential information, Protection of intellectual property
Quality management	Quality control, change management, quality control with suppliers
Win-win growth and social contribution	Win-win growth and social contribution

We publish quarterly and annual reports of our supplier evaluation and analysis, and distribute them to our suppliers to foster greater improvement efforts. The evaluation ratings provided to the suppliers are classified as either excellent, good, or poor. Suppliers who receive a “poor” rating for a long period are eventually penalized, such as by being prohibited from participating in a bid. If a supplier receives a poor rating in the annual report, they will no longer trade with POSCO for a year and their registration in the sourcing group will be cancelled. To be re-registered in the sourcing group, the supplier has to register and submit to evaluation again. Meanwhile, suppliers who receive “excellent” in their rating are eligible to be selected as a POSCO Honored Partner, with which many consequent benefits, such as primary negotiating rights when contracting for major materials and the waiver of various security deposits.

By evaluating suppliers and providing feedback on their strong and weak points, POSCO is able to form an environment where suppliers are motivated to improve themselves. The evaluation results are also used as criteria for supporting or weeding out suppliers, which leads to a healthier corporate ecosystem. Not only that, the supplier evaluation system established the standard of social and moral responsibility and the duties that suppliers should meet. This is so that companies who commit socially irresponsible acts or provoke complaints are deterred from doing business with POSCO. When they break POSCO’s Code of Ethics, provoke complaints, or give rise to environmental damage, POSCO imposes strict penalties (for severe cases, we impose a permanent sanction), so that socially unhealthy companies will not be able to do business with POSCO.

**Items of POSCO Family’s SRM Evaluation**

Evaluation Items	Description
Credit	Credit rating
Price	Bidding participation rate, bidding price competition rate, optimal bidding rate
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 of Benefit Sharing projects, date of payment to secondary, tertiary and quaternary suppliers, shared growth agreements concluded, satisfaction of material-using department
Environment / Safety	Eco-friendly item delivery performance, eco mark certification, ISO 14001 certification
Point addition	Payment monitoring participation rate: Payment within 60 days through POSCO-WinC (50% or more/perfect score: 3 points)
Point deduction	Number of cases pointed out by Corporate Audit Department: 1 point per case Safety accidents (major accident: 3 points per case, general accident: 1 point per case, safety violation: 0.25 points per case) CSR violations: 3 points per case Unethical suppliers for POSCO Family firms: 15 points every quarter/for 2 years

**Case Report**

**Conflict Mineral Management**

As the rebels in the Democratic Republic of Congo own and control mines in conflict zones, the revenues from the sales of those minerals go to them, perpetuating inhumane conflict in the region.

In particular, in the mines controlled by armed forces there are reports of human rights violations, such as child labor and sexual assault, which have become an international issue. The industrial minerals produced in these conflict zones are called conflict minerals. The SEC in the United States 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 purposes. All the tin and ferro-tungsten used in 2015 were imported through competitive bidding and the countries of origin for tin are Indonesia and Malaysia. The tungsten alloy used in stainless steel is from Vietnam.

In line with our principle of restricting trade with suppliers that commit socially condemnable acts (page 151, POSCO Group Supplier Code of Conduct), we ensure that our products do not contain conflict minerals sourced from controversial regions mentioned above. Our terms are stipulated in the purchasing agreements that “conflict minerals shall not be used, and when it is determined that such minerals were used, this contract will be immediately terminated and future bidding shall be prohibited.” (clause application). We will continue monitoring and providing education to prevent problems due to conflict minerals within the POSCO Family.

## VENTURE SUPPORT PROGRAM

### POSCO Idea Marketplace

POSCO began operating the POSCO Venture Partners program in November 2011, the main program of which is the Idea Marketplace. The Idea Marketplace is a support program for youth startups and venture companies in their beginning phase. It operates both as a business incubator and an angel investor. The business incubator nurtures blue-chip venture companies, while the angel investor side focuses on supporting new startups' initial ideas. To fulfill these two roles, we established a venture support organization called "POSCO Idea Marketplace" to provide comprehensive support from initial ideas and business model planning through to investment and growth management. We hope to help venture companies who are full of ideas but have been inhibited by lack of resources to live out their full potential in the market.

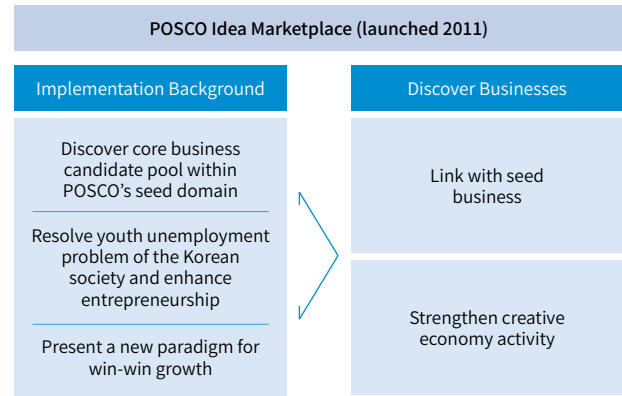
We offer a step-by-step total support program, starting from evaluation and selection of ideas, as well as by nurturing those ideas through our unique venture support programs, including idea generation camp and expert mentoring. Finally, we introduce the ideas to investors within the market place and help source investment. The Idea Marketplace also operates a program that helps SMEs that have failed once to start again. SMEs that have completed the Healing Camp run by Foundation Jaegi: Revitalization Center for Strained Entrepreneurs, or the Small and Medium Business Administration's restart support program, are eligible to participate in the POSCO Venture Partners Membership Program. By supporting venture start-ups with promising new technologies, the POSCO Family can discover promising technologies for new businesses at low cost and venture start-ups can secure great growth potential through business ties with large companies.

In 2015, an IR event was held in partnership with the POSCO Private-Public Joint Creative Economy Promotion Group and Incheon City with a view to strengthening Idea Marketplace's support capabilities. POSCO was selected as an operator of the TIPS program of the Small and Medium Business Administration. This paved the way for venture start-ups in Idea Marketplace to receive financial support (cost for R&D and marketing) from the government.

Beginning from 2016, we are discovering venture companies that are related to POSCO and POSCO Family's new businesses to maximize the win-win strategy between venture firms and POSCO. Executives from POSCO Family companies attend Idea Marketplace to enhance strategic investment in new venture companies with high potential or excellent technology, with the aim of achieving both business value and social value through these efforts.

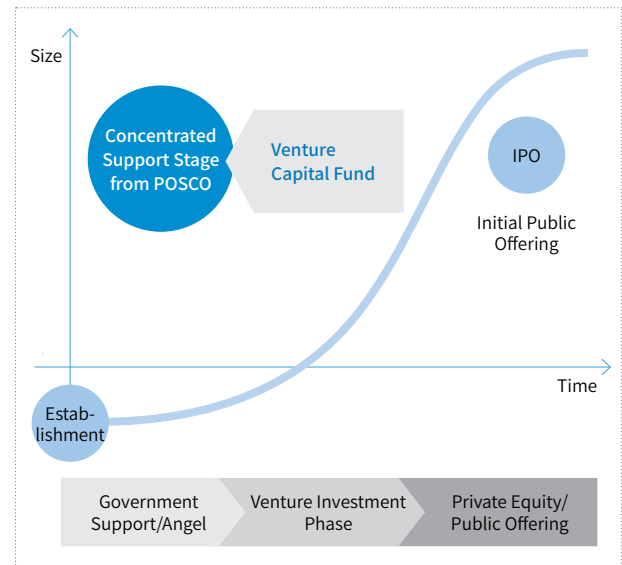
POSCO has held a Business Idea Contest ten times since June 2011. As of 2015, a total of 112 companies had received mentoring support through the Idea Marketplace. POSCO invested a total amount of KRW 7.8 billion in 49 of those companies. External secondary investment and R&D support amount to approximately KRW 31.2 billion in 23 companies.

### Implementation Background



### POSCO's Role

Play the role of the angel investor that provides concentrated support in the early startup and idea seed stage, and the business incubator that helps stable growth of venture companies  
 -Induce early venture investment from venture capital fund



Operation Procedure of POSCO Idea Marketplace



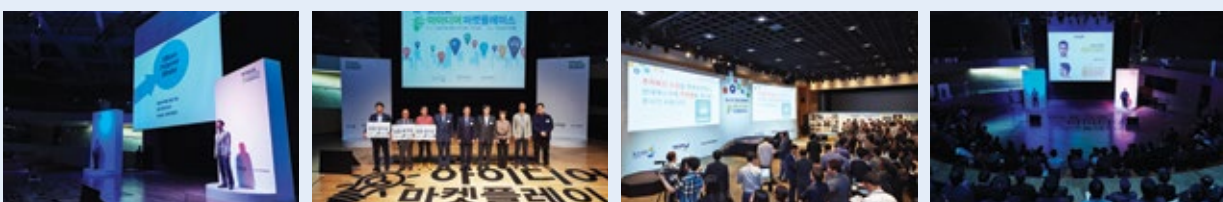
Idea Marketplace Operation Status

Category	Date	Venue	Participating Companies	Remarks
Inauguration Ceremony	2011.10.27	POSCO Center	-	Venture Support Program Inauguration Ceremony
Term 1	2012.02.23	POSCO Center	7	
Term 2	2012.07.18	POSCO Center	6	
Term 3	2012.11.30	POSCO Center	12	Including two restarting SMEs
Term 4	2013.04.30	POSCO Center	13	Including three restarting SMEs, linked support with Youths' Startup Support Center
Term 5	2013.09.24	Songdo Tri-bowl	14	Joint coordination with Incheon City, joint coordination with Real Startup League
Term 6	2014.01.15	POSCO Center	15	
Term 7	2014.06.26	POSCO Center	9	
Term 8	2014.11.25	POSCO Center	9	MOU with Ministry of Science, ICT and Future Planning and Venture Business Association, linkage with startup planning firm
Term 9	2015.06.11	POSCO Center	12	Linkage with Joint Public-Private Creative Economy Promotion Group and TIPS Program
Term 10	2015.11.14	Songdo Tri-bowl	13	Linkage with Incheon City and TIPS Program

Results of firms invested by Idea Marketplace

- POSCO's has supported 49 firms by investing KRW 7.8 billion through equity investment for 5 years
- 10 firms in 2015 – investment of KRW 1.3 billion
- By industries: 12 manufacturing firms, 19 ICT firms, 7 medical/bio firms
- By foundation types: 23 by youths, 8 by women, 4 by those who failed before, 14 by others

- By support types
  - CSR: Support for youths' startup, women's startup, re-startup
  - POSCO: 12 venture startups which share value with POSCO
  - 8 venture startups with growth potential



↑ Results of firms invested by Idea Marketplace

# ENVIRONMENT

## ENVIRONMENTAL MANAGEMENT

POSCO strives to become a truly environmentally friendly corporation by conducting business activities from an environmental and ethical perspective.

### Global POSCO Family’s Environmental Management

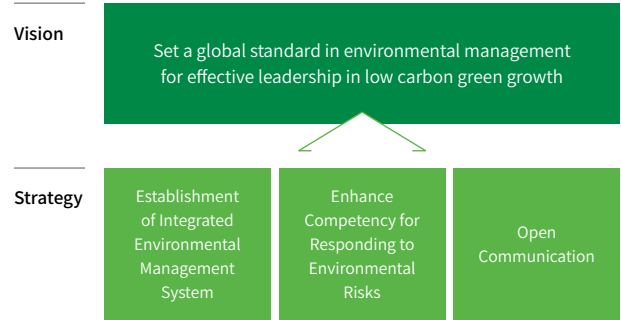
Since our declaration of the “POSCO Family Global Environmental Management Directive” in December, 2010, we have aligned the visions, strategies and execution plans of subsidiaries, including overseas corporations, suppliers and subcontracting partners, to build and implement our environmental management system. We strive to become a truly environmentally friendly company by considering environmental ethical aspects not only in production, but also in our overall business activities. This has enabled us to receive a good evaluation of our environmental management, for example being listed on the RobecoSAM Dow Jones Sustainability Index for 11 consecutive years.

**POSCO Family Environmental Management Directive**

Recognizing that the environment is a core element of our management strategy, we set the environmental management directive to spearhead low carbon green growth. In this way, we are able to assure environmental integrity based on technology development and open communication.

- We take the lead in the international community by building a system for POSCO-wide environmental management based on ISO14001.
- We continue to improve the environment by complying with environmental regulations and taking account of all procedures.
- We minimize pollutant emissions by introducing a clean production process and applying optimized prevention technology.
- We create a recycling society and enhance eco-efficiency by making efficient use of natural resources and byproducts.
- We lead the Low Carbon Green Growth initiative by using clean energy and reducing greenhouse gas emissions as much as possible through the application of green technology.
- We aim to secure business transparency and sustainability by disclosing our environmental management performance.

### POSCO Family Environmental Management Vision and Strategy



### Environmental Organization

POSCO operates an Environmental Management Committee, chaired by the CEO. The committee consists of presidents and executives from domestic and overseas subsidiaries, subcontracting partners and suppliers. The Environmental Management Committee reviews the overall global environmental management of the POSCO Family (i.e. sharing detailed implementation plans and performance) and holds regular annual meetings to analyze domestic and international environmental trends. In addition, it discusses issues and helps guide medium-to-long term environmental and energy strategies at the POSCO Family level. Specifically, any issues identified as critical to the development of the POSCO Group’s mid-term management strategies are decided upon as part of the overarching business strategy at the Management Committee level, under the Board of Directors. The key issues are then reported at the monthly Management Meeting and Executives’ Meeting, both chaired by the CEO. In addition, we cooperate with domestic and foreign institutions including POSRI and RIST to analyze the policies and management trends at home and abroad and to develop technologies related to environment and energy.

### Environmental Management Committee



Category	Environmental Management Committee	Environmental Management Steering Committee
Frequency	Once/ year	Twice/ year
Structure	Chair: CEO Members: CEOs of POSCO Group affiliates	Chair: Dept. of Environment, Energy and Social Responsibility Members: Environmental Executives of POSCO Group affiliates

### Key Environmental Management Programs

**Environmental Education** POSCO provides various programs to enhance POSCO and POSCO Family company employees' understanding and awareness of the environment. Environmental management training is provided online and is open to the outsourcing partners and suppliers as well. All related employee are actively encouraged to participate in environmental improvement activities. Training on ISO14001 internal auditing is annually provided to environment-related managers at POSCO, as well as outsourcing partners. POSCO includes eight environmental subjects in its job qualification certification system specifically to foster specialists at the enterprise level and has also reinforced environmental education to appoint environmental sector managers after study and certification.

**Environmental Information Exchange** Under POSCO's environmental management vision, an environmental technical meeting is held each year targeting environment-related executives and experts at POSCO and POSCO Family companies. This is a forum to share POSCO Family's environmental issues. The meeting is a place for communication and exchange to enhance the capabilities of environmental managers through discussions and invitation lectures. In addition, POSCO operates an online environmental management community to enable managers in charge of the environment at POSCO Family companies to exchange information.

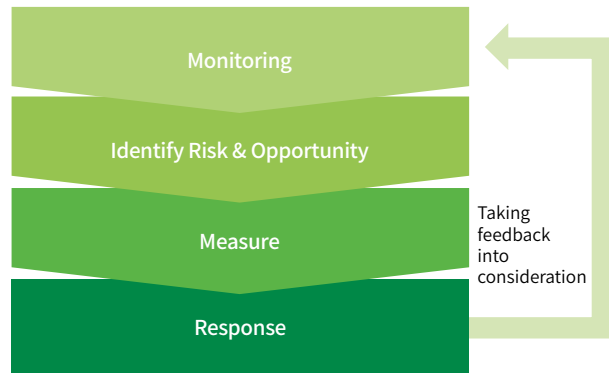
**Environmental Management Awards** To enhance our competitiveness in environmental management, "Environmental Management Awards" is held to award POSCO Family companies that achieve an outstanding environmental performance. After the first review by internal experts in environment and energy field, a final evaluation is conducted by a judging team consisting of four executives with the head of the Technology & Investment Division along with two external experts in environment and energy field. The final awardees from among POSCO affiliates and outsourcing partners receive the CEO Prize, as selected by the Environmental Management Committee. We hope that these awards encourage corporate-wide awareness on environmental management and can lead to better environmental business achievements.

### Environmental Risk

**Environmental Risk Management** POSCO systematically analyzes and manages risk elements to minimize their impact on the environment, as well as the environment's impact on management. We consider the rapidly changing markets, domestic and international regulations, and environment-related issues to be an opportunity. Close cooperation between the investment coordinating department and environmental management supervising department enables us to identify environmental risks. We then evaluate and diagnose them in three stages: investment review, design and construction, and operation. In 2014, we introduced an investment rule that mandates the environmental department's verification in business planning, investment and construction stages to minimize environmental risks entailing new business. In addition, to respond to policy and

economic risks, such as regulations on greenhouse gases and energy usage or pollution prevention, POSCO continuously monitors regulations and policies to identify potential business risks and actively participates in related discussions to contribute toward developing reasonable environmental policies.

#### Environmental Risk Management Process



**Diagnosing Worksites of Group Affiliates** POSCO has conducted systematic diagnoses of its worksites to reduce environmental risk at the group level. In 2015, the Group's business sites with high environmental risk, such as manufacturing sites, were selected as audit targets. We thus checked site-specific environmental licensing documents first and then classified the Group's business sites in accordance with future environmental impacts and risk levels. This will allow us to strengthen the issue-centric screening of themes to adjust for the characteristics of each business site. With the records of business site diagnosed, Business site audits were carried out by excerpt from potential environmental risk factors. Comprehensive audit results are reported to the Environmental Management Committee. This allows us to maintain an effective environmental management system by modifying our environmental strategies and objectives, as needed.



## ENVIRONMENTAL PERFORMANCE

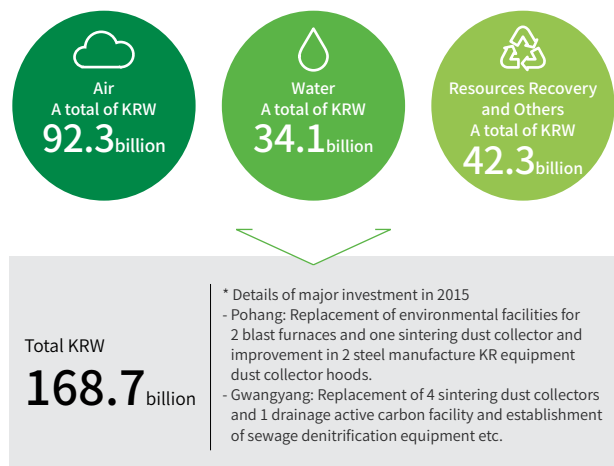
POSCO systematically manages its environmental performance to effectively operate its environmental management system. This is to minimize the impact of business activities on the environment.

### Environmental Management System

Since qualifying for ISO 14001, the international standard for environmental business, in 1996, POSCO has conducted evaluation with external experts on an annual basis. Twice a year, our environment department implements an internal inspection. The results are reported to the top management and utilized in making newly changed environmental strategies and setting objectives for an efficient environmental management system. In particular, chemical materials, which have become a recent issue, are scrutinized in cooperation with external experts. Improvements in chemical materials management have been made in line with the inspection results. Going forward, with the participation of external experts, recent environmental issues will be managed as specific themes.

POSCO has established the New POEMS (POSCO Environment Management System), a web- and mobile-based integrated environmental performance management system. The system is a new version of POEMS, which is an environmental system based on ERP. The New POEMS consists of eight processes – environment monitoring, air management, water management, by-product management, soil and underground water management, chemical material management, general management information and environmental expenses. At the same time, all environmental data such as air and water quality measured at Pohang and Gwangyang Works are transmitted in real time to the provincial governments and the Ministry of Environment through the TMS (Tele Monitoring System), and key environmental indices are disclosed to the local residents through an electric sign located outdoors. In particular, the mobile environment monitoring system developed using the New POEMS is used in on-site patrols to effectively manage the steelworks' environment.

### Major Investment in Environment Facilities in 2015



### Environmental Costs in 2015

(Unit: KRW 1 billion)

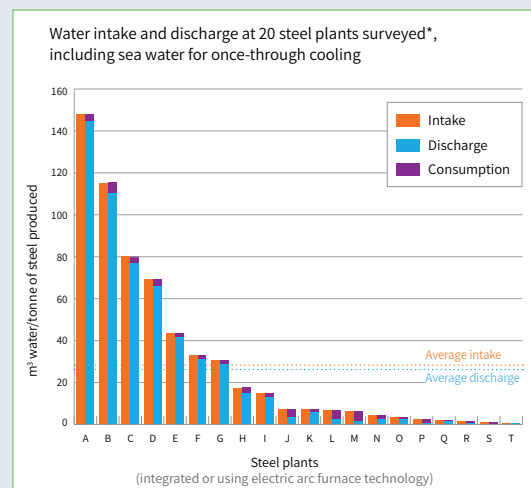
Category	2013	2014	2015
Environmental Equipment Operation Expenses /Resource Recover Expenses	986	924	778
Depreciation Expenses	150	158	174
General Management Expenses	35	36	51
Environmental R&D	17	12	10
Energy Recovery Expenses	33	46	47
Sum	1,221	1,176	1,060

### Water Management

Recognizing that water shortages are a risk factor on a global scale, POSCO aims to reduce the risk of water shortages and pursue mutual prosperity by recycling water and securing replacement water. Considering that the steel industry uses a large amount of water, POSCO has invested considerable effort into the reuse of water resources, such as by maximizing the number of water reuse during the steel manufacturing process. As a result, the water intake and usage (intake-discharge) at POSCO steelworks are 3.66m<sup>3</sup>/t-S and 2.15m<sup>3</sup>/t-S respectively, which are only 65% of average water intake (28.6m<sup>3</sup>/t-S) and usage (3.3m<sup>3</sup>/t-S) at average steelworks in the world. That is, we maintain a high-level standard of water resource management.

#### Water intake and discharge

A Worldsteel member survey published in 2011 showed that the average water intake for an integrated plant was 28.6 m<sup>3</sup> per tonne of steel produced, with an average water discharge of 25.3 m<sup>3</sup>. For the electric arc furnace route, the average intake was 28.1 m<sup>3</sup> per tonne of steel, with an average discharge of 26.5 m<sup>3</sup>. This demonstrates that overall water consumption per tonne of steel produced is low, ranging from 3.3 m<sup>3</sup> to 1.6 m<sup>3</sup>. Most of the water is lost due to evaporation.



\* Sample of results from 'Water management in the steel industry' report, Worldsteel, 2011

\* Source: Water management in the steel industry (Worldsteel Association, 2015. 4)

Pohang Works has been improving a water management system and a variety of processes with the goal of expanding recycling and optimizing water management. First, collected water, mainly Dam water, goes through a purification process at a raw water purification facility, and is classified into fresh water and purified water and then sent to each factory. Water used at each factory is classified into waste water, sewage and cooling water and collected through an independent drainage system. After waste water goes through the first and second processing at each factory, it enters final waste water treatment facilities for discharge and reuse finally. Some waste water with containing low concentration of chlorine ion(Cl<sup>-</sup>) generated in a rolling area is transferred through a separate pipe, processed, and reused as water. Sewage generated at factories is collected into sewage treatment facilities, biologically processed and reused as water for cleaning. After cooling water has been collected into rain water processing facilities together with rain water and yard/road sprinkling water, it is processed and then reused as water for industrial use and sprinkling in yards or on roads. At the same time, POSCO concluded an MOU with Pohang City in 2008 to solve water shortages in local communities and participated in a project which reuses 100,000 tons of processed water from local sewage treatment facilities in the city. As a result, 80,000 tons of treated sewage water a day has been stably provided and reused as water for industrial use since 2015. Not only participating above projects, but also collecting underground water, about 30,000 tons a day, is also significantly important activity for contributing to resolution of the water shortages in local communities thereby replacing dam water.

Gwangyang Works also tries to secure alternative sources of water. It reduces water in response to the mid- to long-term installation of new and added facilities and increased production. First of all, since 2015, in spite of increasing demand for water we have minimized the increasing use of fresh water by stably receiving water from seawater desalination plants and using about 16,000 tons a day. To minimize the environmental impact on water system in Gwangyang Bay, we increase the amount of water reused as yard/road sprinkling water by reprocessing waste water and dirty water. We continually improve our employees' mindsets about saving water by developing and putting into practice ideas for saving water at every factory. In particular, in 2015 we performed the joint research with Postech and RIST with the purpose of increasing reused water by improving a cooling water operation process and decreasing corroded substance. Indeed, we are able to minimize water pollutant emissions by reprocessing waste water at final waste water treatment facilities after treating waste water at each factory. By processing it two or three times, the concentration of major pollutants such as COD and T-N is discharged 20% to 80% lower than the effluent quality standards at final drainage outlets.

POSCO has participated in the Water Management Project (2007 - 2011) by the World Steel Association and is continually improving its water management program by using "WBCSD Water Tool" and water management guidelines for supply chains of World Business Council for Sustainable Development (WBCSD).

**Water Intake for Operations and Effluents Intensity** (Unit: m<sup>3</sup>/t-S)

Category	2013	2014	2015
Water usage	3.71	3.67	3.66
Effluents	1.61	1.62	1.51

**Final COD Concentration in Effluents** (Unit: mg/ℓ)

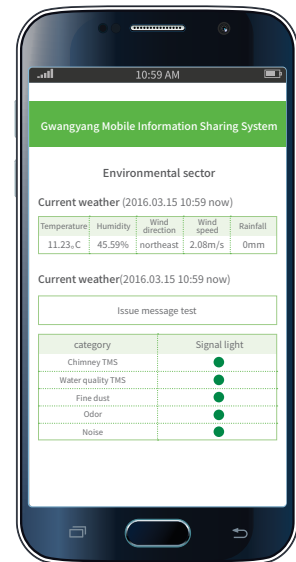
Category	2013	2014	2015
Discharge concentration	9	9	9
Legal limit (Gwangyang)	70	70	70
Legal limit (Pohang)	90	90	90

**Final T-N Concentration in Effluents** (Unit: mg/ℓ)

Category	2013	2014	2015
Discharge concentration	15	12	11
Legal limit	60	60	60

**Air Management**

POSCO pursues various environmental activities to improve air quality near the steel works and surrounding areas. First of all, company's standard has been set tougher than the standard of the environment laws to be in control. Secondly, Mobile monitoring system to site patrol has applied to find and promptly improve environmental risk points at factories. Indeed, the continuous management activities mentioned above make and maintain clean air around the place ever. In particular, we continually improve air quality by adding dust measuring instruments to the inside and outside of our factory and air quality measuring spots on our steel mills' boundaries and in areas surrounding the steel mills.



Gwangyang Works actively carries out reduction activities of air pollutants such as dust, nitrogen oxides, sulfur oxides, and VOCs (volatile organic compounds) around Gwangyang Bay by concluding the second-stage voluntary agreement (2012 - 2016). The covenant aims to reduce 22,800 tons of air pollutants that accounted for 13% of the total emission volume in 2008 (154,043 tons) in cooperation with the Ministry of Environment, local governments around Gwangyang Bay, 17 workplaces in and near Gwangyang Bay, after the end of the first-stage voluntary environmental agreement<sup>1)</sup>(2006 - 2010). We impose a target concentration to lessen the total volume of air pollutants and manage pollutant emissions in real time. We stably manage total air pollutant volume through a sintering exhaust gas cleaning device, which is a major reduction facility. We strive to keep pace with the “Clean Air Green City” policy of Gwangyang City by promoting scattering dust reduction activities, including changing old watering pipes, expanding windbreaks, and enclosing new transferring facilities. In particular, we will reduce dust during loading, unloading, stacking, transfer, and transportation by making “the Scattering Dust Reduction Master Plan.”

<sup>1)</sup>First-stage agreement: reducing air pollutant emissions by 20,829 tons (22.8%) by discharging 70,610 tons (average of the 2006-2010 period) compared to the total emission volume (91,439 tons) of air pollutants around Gwangyang Bay in 2003.

Pohang works has been operating air quality and odorous substance monitoring system for optimal facility maintenance. The measured results are shared between environment departments and production departments through wireless transmission to smart-phones. Specially, the real-time measuring system is related to mobile monitoring system to site patrol and thus finding and promptly improving environmental risk points at factories is well in progress while any data is found out of standard. Meanwhile, To block fugitive dusts from a supplementary material yard from spreading, we built the indoor material linear yard (95 kilotons) and Silos (180 kilotons) for coal storage, and green tracts of land surrounding steelmaking areas to prevent fugitive dusts from their sources. Pohang works is trying to build an "eco-friendly steelworks in a forest" by preventing odorous substances from spreading and developing technologies.

**Air Pollutant Emissions**

(Unit: kg/t-S)

Category	2013	2014	2015
Dust	0.11	0.10	0.09
SOx	0.66	0.56	0.56
NOx	0.91	0.89	0.85

### Byproducts to Resources

**Byproduct Management** Substances generated in the course of steelmaking are called by-products. POSCO pursues various activities to increase the value of by-products and to minimize waste output. The total volume of by-products produced at Pohang and Gwangyang Works in 2015 was 23.96 million tons. Among the by-products, 23.56million tons (98.3%) were recycled at inside and outside fields. Blast furnace slag and steelmaking slag, which accounted for 77%, were used as cement material, aggregate substitutes and raw materials for silicate fertilizer. To enhance the value of blast furnace slag, POSCO built granulated slag production facilities at all blast furnaces and turned 83% of blast furnace slag into granulated blast furnace slag(GBFS). The GBFS is used as a cement material. Steelmaking slag is used as an aggregate substitute in civil-engineering works and we are discovering new uses for these materials, such as using it in creating sea forests. Sludge, dust and other by-products are mainly reused in the steelmaking process, while by-products, for which we have not yet found a way to reuse, are disposed of safely through incineration or landfill.

**Eco-friendly Slag Cement** Molten slag, which is produced together with molten iron at blast furnaces, is quickly cooled by spraying water and ground into a sand-like form. It’s used in producing cement because of its similarity of chemical composition. Cement producers use GBFS as a substitute for cement clinker at home and abroad as the material helps conserve natural resources, such as limestone. It contributes to reducing CO<sub>2</sub> emissions along with energy consumption. Cement producers mix GBFS within five percent of the weight of well-known Ordinary Portland Cement (OPC). In addition, adding fine-ground slag to this cement has particular merits, such as superior seawater resistance and reducing hydration heat, making them suitable as marine concrete and mass concrete. In 2015, POSCO used approximately 9.8 million tons of GBFS as cement substitute or as slag cement material, resulting in a reduction of approximately 7.69 million tons of GHG emissions in society<sup>2)</sup>.

POSCO has made great efforts to develop slag-rich cement but having improved physical properties compared to existing slag cement along with POSCO subsidiaries such as RIST, POSCO E&C. Consequently, PosMent, eco-friendly high-function cement, has been able to be supplied in cement market since 2011. Compared to existing slag cement, PosMent has higher slag content but more improved physical properties.

<sup>2)</sup> The reduction in CO<sub>2</sub> volume was calculated by applying the standard presented in the IPCC Guideline, which estimates a reduction of 0.785 t-CO<sub>2</sub>/t-clinker when replacing each ton of cement with a ton of clinker.

In cooperation with cement companies, it can be applied to mass concrete and marine structures in which crack easily appears. POSCO supplied approximately 990,000 tons of GBFS for PosMent in 2015 and will continuously increase its supply for PosMent usage in construction. Nevertheless, POSCO also has made efforts to export of GBFS due to the stabilization of domestic construction market. POSCO exported upto 370,000 tons of GBFS to Taiwan and the UAE in 2015 since the first shipment to Taiwan, about 25,000 tons, in 2011. POSCO will keep exporting GBFS for not only increasing its quantity but also expanding to diverse contries, thereby contributing to environment conservation in terms of global perspectives, such as energy conservation, CO<sub>2</sub> reduction and the consevation of natural resources.

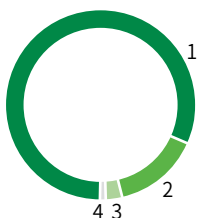
**Developing Technologies for Byproduct Utilization** POSCO and group's subsidiaries have concentrated their abilities on enhancing byproducts value as one of important eco-friendly resources because it is necessary to develop recycling purposes considering their various characteristics. Byproducts are analyzed at the Research Institute of Industrial Science & Technology(RIST) to identify whether they are able to be recycled internally and in other industrial usage as well. Excellent R&D performance has been included in group strategies to enhance the profitability of byproducts and thus POSCO's unique model, cooperation with relevant businesses and reinforcement of synergy effect with subsidiaries, has well managed continuously.

**Recycling Byproducts**

Category	2013	2014	2015
Amount of Byproducts (10,000 tons)	2,232	2,411	2,396
Amount of the recycled (10,000 tons)	2,193	2,373	2,357
Ratio of recycling (%)	98.2	98.4	98.3

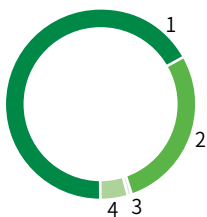
**Blast Furnace Slag**

1	Cement	982	81.9%
2	Roads and civil works	173	14.5%
3	Fertilizer	34	2.9%
4	Others	9	0.7%



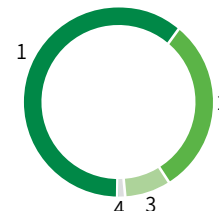
**Steelmaking Slag**

1	Roads and civil works	432	66.8%
2	Raw material for steelmaking	181	28.0%
3	Bricks, Aggregates	4	0.7%
4	Cement, Others	29	4.5%



**Dust / Sludge**

1	Internal use	214	61.3%
2	External use	104	29.9%
3	Landfill	27	7.8%
4	Incineration	4	1.0%



**Hazardous Chemicals Control**

**Enhancement of Chemical Management** POSCO has recognized the importance of chemical impact on the environment and safety for a local community and thus strenghtend the hazardous chemical management process to minimize potential risk such as chemical release by an accident in plants. To minimize risk factors accompanying by chemical use fundamentally, POSCO has been developing technologies which can substitute with lower hazardous chemicals or reduce the amount of useage itself. With the basic effort, POSCO has increased the number of educated managers in operation and made an emergency response organization to prepare for chemical accidents. Furthermore, POSCO also established chemical leak detectors recently to protect employees health by unintended chemical releases.

**Chemical Emissions**

(Unit: ton)

Category	2013	2014	2015
Pohang	32	41	39
Gwangyang	37	51	39

**Chemical Disclosure in products**

Restrictions on chemicals contained in products are becoming more rigorous in the world. POSCO refers to the latest guideline on the use of hazardous substances and candidates of SVHC<sup>1)</sup>, and posts the results of the certified tests such as MSDS<sup>2)</sup>, REACH<sup>3)</sup>, RoHS<sup>4)</sup>, and PFOS<sup>5)</sup> for each materials being sold, in POSCO's electronic commerce system (www.steel-n.com), where the information is open to everyone.

<sup>1)</sup> SVHC (Substances of Very High Concern): If more than 1 ton of a product is manufactured/imported and the product contains more than 0.1% by weight the sub-stances listed as SVHC, the manufacturer/importer must report to ECHA (European Chemicals Agency).

<sup>2)</sup> MSDS (Material Safety Data Sheets): A safety and health information cataloging system for substances

<sup>3)</sup> REACH (Registration, Evaluation and Authorization and Restriction of Chemicals): The EU's new chemicals regulation.

<sup>4)</sup> RoHS (Restriction of Hazardous Substances): A set of directives initiated by the EU, restricting the use of certain harmful substances

<sup>5)</sup> PFOS (Perfluorooctane Sulfonate): A fluorosurfactant containing persistent organic pollutants

## BIODIVERSITY POLICY AND ACTIVITIES

### Biodiversity Policy

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

#### POSCO's Biodiversity Policies\_Code of Ethics Guidelines

##### 5. 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 the 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 a 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 Change

- 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.

<http://www.posco.co.kr/homepage/docs/eng5/jsp/company/ethics/s91a3000050c.jsp>

### Biodiversity Preservation activities

**Preservation of Marine Ecology** POSCO takes the initiative in activities to restore marine ecology by using steel slag. Triton, which is used to restore coastal areas damaged by whitening caused by rising sea temperatures, helps restore marine organism such as seaweed, fish and shellfish. Steel slag, the main material for Triton, has a high mineral content, particularly calcium and iron which are beneficial to the marine ecology for better growth and photosynthesis of seaweed, thereby, purify polluted sediment and water quality. A sea forest made with Triton is also able to fixate CO<sub>2</sub> due to carbonization of the slag and photosynthesis of seaweeds. After signing an MOU with the Ministry of Oceans and Fisheries in 2007 for countermeasure against marine climate change, POSCO signed another MOU in 2010 for building sea forests and marine organism. Under the agreement, POSCO has been continuing a project for building sea forests

in cooperation with the FIRA (Fisheries Resources Agency) and RIST. POSCO will enhance cooperative activities with the government, civilians (fishing villages), and academia to create sustainable marine organism, such as building new sea forest models, managing existing marine forests and exploring their effectiveness.

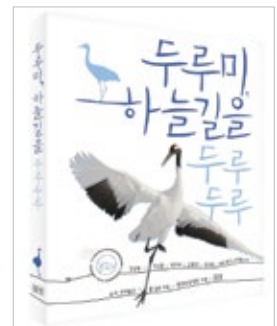
#### Sea Forests Built with Triton\*

2010	Yeosu Expo Sea Forest
2011	Tongyeong, Gyeongsang-nam-do, and Euljin Gyeongsang-buk-do
2012	Samcheok, Gangwon-do, and Guryongpo Gyeongsang-buk-do
2013	Guman-ri in Pohang City, Gyeongsang-buk-do Province
2014	Yeongdeok-gun Sea Forest

\*Triton: The mythological Greek god of the sea that calls fish and dolphins by blowing on a twisted conch shell, like a trumpet. He has the ability to restore sea forests. It is also the brand name for the low-carbon artificial fish reef using steel slag as aggregate.

**Global POSCO's Activities** Recognizing the importance of biodiversity, POSCO undertakes various activities both domestically and abroad in cooperation with governments, NGOs and local residents. In Japan, "Forest We Want to Walk In" was built through active forest maintenance and weed clearance. Under agreement with the Chinese government, "POSCO Hill" was established on Phoenix Island(Xuejia Dao), a tourist location in Qingdao, offering a green space to citizens and tourists. In California, flowerbed restoration was conducted to preserve the unique tree species of the region. At the same time, CSP of Brazil saved 90 species of wild animals and plants and undertook an afforestation project to preserve the area's biodiversity. In Mexico, endangered species found in the vicinity of the POSCO plant were relocated to a more suitable environment. POSCO strives to protect the fauna and flora in various locations around the world.

**Publication** In collaboration with the Korean Federation for Environmental Movement(KFEM), POSCO publishes books on endangered species to promote and preserve biodiversity. The aim is to raise awareness of species that are in danger of extinction and to protect them. We chose the eagle-owl and the crane as the subjects in 2014 and 2015, respectively. The books introduce experiences and episodes from experts in various fields, and provide readers with the opportunity to think about living species and the environment. POSCO will continue biodiversity preservation activities together with KFEM.



↑ Published book on biodiversity, "Eagle-owl Comes Flying to Humans"

## COMMUNICATION ON ENVIRONMENT

With aware that transparent communications hold the key to the implementation of environmental management, POSCO intends to maximize the positive environmental and social effects through the participation of stakeholders.

### Stakeholder Communication

**Purification of Soil at Magnesium Smelting Plant** POSCO quickly deals with environmental remediation after soil contamination accidents occurred at a magnesium smelting plant in Gangreung in June 2013. On its occurrence, we took emergency measures, such as building blocking barriers, extracting contaminated water, and conducted a close response actions. After the result of inspection and the plan of purification were submitted to government in accordance with environmental law, full-scale cleanup activities were conducted in 2015. During establishing the plan and conducting restoration activities, the status of environmental cleanup and issues were transparently shared with the community organized by representative of residents, public officials, and professors. In addition, by taking into account the effects on the health of local residents, Steady and frank communication has been maintained with the local community, such as by conducting regular health check-ups, environmental measurement and by disclosing the results to local residents.

POSCO actively participates in domestic and overseas activities that support sustainable development. Not only do we participate in on-going exchange within the steel industry, but we also participate in cooperative activities in various areas such to preserve biodiversity. In this way, POSCO plays a vital role as a leading global green growth company.

### Environmental Information Disclosure and Awards

Starting with the first environmental report in 1995, POSCO discloses environmental information through the Sustainability Report, POSCO website, and POSCO News. To respond to increasing stakeholder interest in climate change, POSCO began publishing the Carbon Report in 2010. In recognition of our continued efforts for environmental management, POSCO has been included as one of the leading companies in the RobecoSAM-DJSI (a global sustainability index) for 11 consecutive years and one of the Global 100.

### Domestic and International Cooperation Activities

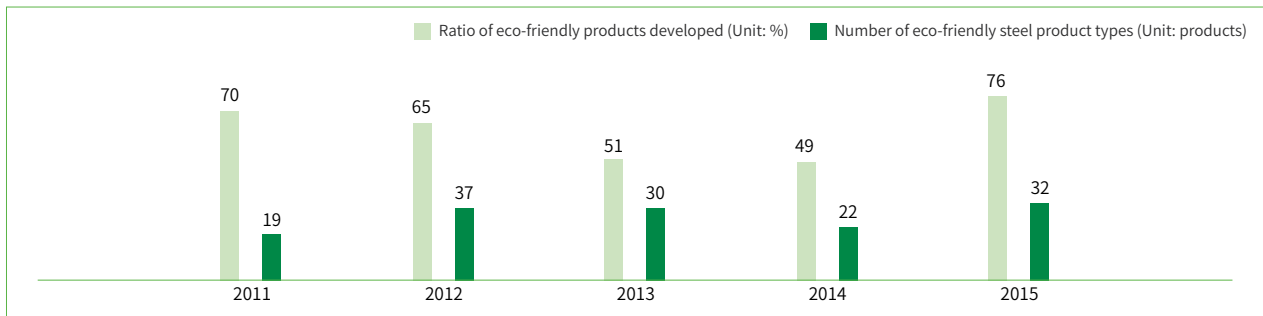
 <p>Domestic</p>	<p><b>KOSA Environmental Policy Conference</b> Responding to changes in environmental policies and promoting voluntary environment improvement activities</p>
	<p><b>Korea Business Council for Sustainable Development</b> Discussing issues on corporate sustainability management</p>
	<p><b>Business Institute for Sustainable Development (Korea Chamber of Commerce &amp; Industry)</b> Policy response and exchange for sustainable growth</p>
	<p><b>Ministry of Oceans and Fisheries</b> Signed an MOU for Greening the Sea and Building Marine Resources</p>
	<p><b>Institute for Climate Change Action</b> Cooperation for Energy Saving Program on "Green Home"</p>
	<p><b>Korean Federation for Environmental Movement(KFEM)</b> Cooperation for the publication of book on biodiversity</p>
 <p>Overseas</p>	<p><b>Environmental Policy Committee, World Steel Association</b> Information exchange and cooperation with global steelmakers on environmental and climate change policies</p>
	<p><b>Environmental &amp; Safety Committee, SEAISI</b> Policy and technology exchange on the environment and climate change with Southeast Asian steelmakers.</p>



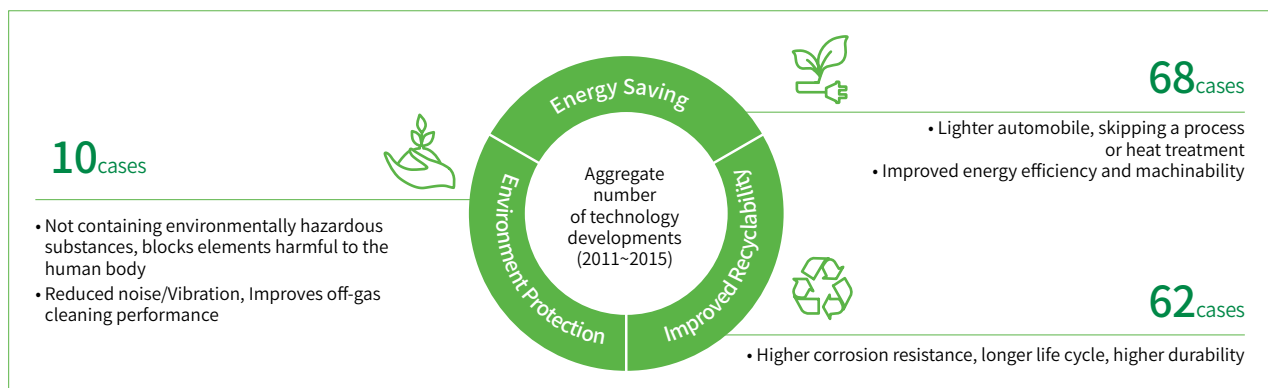
## ECO-FRIENDLY PRODUCT

In 2015, the number of eco-friendly products took up 76 percent of all new products developed and the number of eco-friendly steel product types was 32.

### Development of Eco-friendly Products



### Types of Eco-friendly Product Development



### Eco-friendly Product Categories

- High-Performance Hot-Rolled Steel**
  - High-elongation PO product for LPG pressure containers
  - High-carbon steel for drawing car shock absorbers
- Thick Steel Plate for Energy and Shipbuilding Industries**
  - BCA-guaranteed EH40 max 100t for container ships
  - BCA-guaranteed EH47 100t
  - Low CEQ-type YG 500MPa grade for icebreakers
  - 3.5% Ni steel for tanks for LEG ships
  - High manganese magnetic steel
  - High heat input construction steel HSA500
  - Fire-resistant steel (40kg class, low YR-guaranteed)
  - Fire-resistant steel (50kg class, low YR-guaranteed)
  - 3-percent manganese type abrasion-resistant thick steel plate
  - API-X90 riser jack-up rig brace pipes
  - Max 150t for HRSG drums for pressure containers
  - High heat input max 40t for storage tanks for pressure containers
  - A860-70AR steel products for fitting (12~70t)
  - EN-S355G10M -10°C CTOD-guaranteed 150t
  - A517-Q for jack rigs (-60°C, 210t)
- Wire Rods**
  - 4500Mpa wire rods for tire cords
  - Heat treatment-shortening alloyed steel wire rods for automobile bolts
- High-efficiency Eco-friendly Electrical Steel Plates**
  - HNO 50PNH470 for industrial motors
  - Hyper NO 35PNH230 for high-efficiency electric motors
  - Hyper NO 27PNX1350F for motors of eco-friendly cars
  - High-magnetic HNO 65PNH470 for wind power generation
- High-strength Light Steel Plates for Automobiles**
  - PosMAC 590 grade
  - CR 980MPa grade MPs steel
  - X-AHSS CR 980XF Reinforcement Part for Automotive Inner Panel
  - PO 700Y (responding to EN-S700MC standard)
  - Gold-plated steel sheets for EG fuel tanks
  - Low YP-type GI 490DP
  - High-elongation GA 1180CP
  - CR 180XR(eXtra R)
  - GI 180XR(eXtra R)

### Major Environmentally Friendly Products

**High Elongation PO Products for LPG Pressure Vessel POS295-HF** Standards of the design and manufacture of gas and rechargeable welding steel LPG vessels have been strengthened in recent years with the purpose of an adjustment to international safety standards. The gist is that after producing an LPG pressure vessel, the expansion rate must reach over 20% to pass an inside bursting test. In this regard, existing steel materials have their limitations so we need to develop new materials and set a standard on proper heat treatment conditions. To follow the strengthened standards, we tried to develop new materials which improve the uniform elongation and expansion properties of gas vessels.

Finally, we developed a highly ductile PO product for LPG gas pressure vessels, including POS295-HF with a micro-structure improvement by optimizing a component system and conditions for hot-rolling control cooling. Current products have to raise heat treatment temperature to 800 to 900°C during the vessel manufacturing process to compensate for the physical quality of steel material. As part of this process, energy usage and CO<sub>2</sub> emission increase significantly, but new products have improved the mechanical quality of steel material so that it can follow the strengthened standard. A heat treatment of as little as 600 °C can lead to significant CO<sub>2</sub> reduction effects. It is expected that demand for LPG vessels will steadily grow at home and abroad, making their future bright.

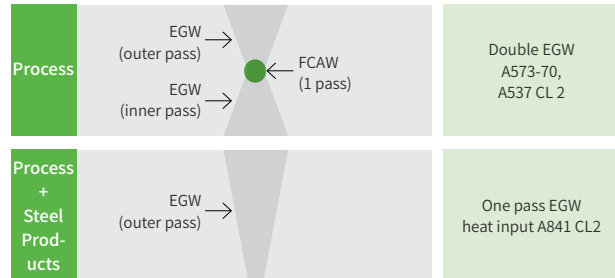


↑ LPG vessels which belongs to the 10kg, 20kg and 50kg classes

**High Heat Max 40t for Pressure Vessel Storage Tank** This steel material developed to reduce construction periods and save energy through high heat input welding will be used for an oil hub project in Ulsan, Korea. In this project, total 49,000 tons of steel materials will be used. Of this, 24,000 tons of steel materials will be used for storage tanks. Heat Treatment QT Type A537-2 was used in storage tanks but high heat input SA841-B-C2U steel material was developed so TMCP-type materials not treated by heat can be used. Thus, we can now reduce heat treatment production cost and reduce the number of welders thanks to high heat input welding. In addition to this, we



can save the total energy and reduce CO<sub>2</sub>. This leads to cost reduction and shorter construction periods. Therefore, environment-friendlier products are expected to be used for various projects going forward.



### Hyper NO 27PNX1350F for Eco-Friendly Car Driving Motors

Automobile manufacturers are actively developing and rolling out eco-friendly cars, such as electric vehicles and hybrid electric vehicles, to reduce CO<sub>2</sub> emissions and improve fuel efficiency. High efficiency and high performance are required to make highly efficient eco-friendly cars, particularly in terms of the driving motor, which is one of the major components of an eco-friendly car. To respond to the environment and needs of the automobile industry, POSCO has been developing advanced non-oriented electrical steel sheets that are used in motor cores, one of the key components of a driving motor.

27PNX1350F is a product that was developed by applying strict operating standards, which meet all high strength characteristics through close technical cooperation with automobile manufacturers by participating in development projects from the beginning, to secure high frequency low iron loss, high magnetic induction density, and durability that are required for high efficiency and high performance driving motors used in eco-friendly cars. 27PNX1350F has significantly contributed to mass-production of eco-friendly cars with high gas mileage, which was enabled by highly efficient driving motors with efficiency of 95% or higher. POSCO will continue to concentrate its capabilities on working with customers to develop and evolve Hyper NO, which is used in the driving motors of highly efficient eco-friendly cars.



← Highly efficient permanent magnet-type driving motor



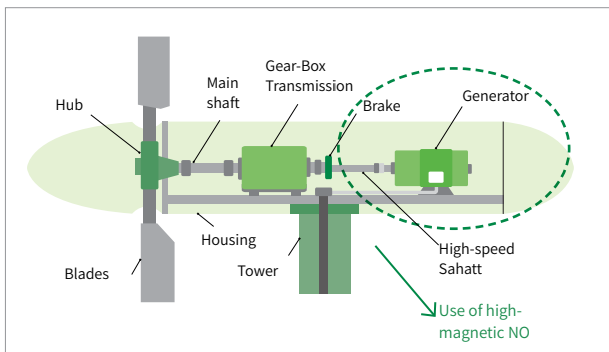
↑ HEV car developed as dedicated platform for the first time in Korea

**High Magnetic Induction for Wind Power Generation** Wind power generation, which transforms the kinetic energy of the wind into electrical energy, is a leading green energy project. Demand for wind power generation is expected to increase consistently going forward. Materials for wind power generation need to be highly energy efficient and have properties which minimize the limitations of weight and space, since the materials are installed on the top floors. Therefore, products with high magnetic induction density, which have a large amount of magnetic force generated per unit area, are more suitable in terms of NO products.

POSCO has developed PNH products with high magnetic induction density. These PNH products have the same properties as NO products, but their magnetic induction density is higher. They have the same efficiency as existing products, but their weight is 3% lighter. POSCO will continue to develop materials for eco-friendly wind power generation by developing PNE products with better properties.



↑ Wind power generation

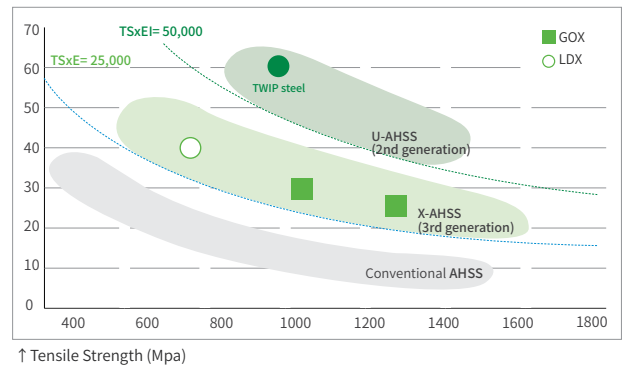


↑ An area where high magnetic induction NO is reused

**X-AHSS CR 980XF Reinforcement Part for Automotive Inner Panel** The material properties of TSxEl 25,000MPa% or over are needed to reduce weight by 20% to 35% compared to general AHSS. This is due to the push for lightweight and ultra-high strength cars in response to the Corporate Average Fuel Economy 2025 (23km/l) regulation<sup>1)</sup>. POSCO has therefore developed technology to secure dual-phase properties within products by establishing a manufacturing process to make products with TSxEl 25,000Mpa% or higher. When these products are applied to current inner panel reinforce-

ment parts for cars, gas mileage increases thanks to reduced weight. These products are widely expected to be used for next-generation automobile steel plates.

<sup>1)</sup> By regulating the average fuel economy of cars manufactured by companies for a year, the US government has decided to increase fuel economy to 23 km/l by 2025.



↑ Tensile Strength (Mpa)

# CLIMATE CHANGE

## CARBON MANAGEMENT

### Carbon Risk and Opportunity Management

**Perspective and Approach Method** Climate change is a megatrend affecting all corners of society. Many global companies are looking to enhance their competitive edge by actively responding to climate change. We recognize that responding to the climate change issue and conducting carbon management activities pose both risks and opportunities to enhance corporate competitiveness. We endeavor to minimize business risk from climate change and turn climate change into a positive opportunity.

**Management System and Process** POSCO built and is running an internal system for identifying, analyzing and managing both the risks and opportunity factors associated with climate change. The company analyzes these risks and opportunities from various angles by organically linking them to the companywide risk management system. The results of this analysis have been used to shape POSCO's mid- to long-term strategies. POSCO's investment management rules state that a project expected to face environmental risks such as GHG emissions must undergo the deliberations of a relevant department specializing in the area. POSCO's sustainability report is verified by a third party, business reports and public disclosures. It details information on the company's carbon management risk and opportunity management.

**Major Risks Related to Climate Change** Risk factors associated with climate change and carbon management activities fall into three major categories — physical factors posed by climate change, policy factors due to domestic and international carbon regulations and other factors such as corporate reputation.

#### Carbon Management Risk and Opportunity Management Process

Identifying Risk and Opportunity Factors	Determine Risk Factors <ul style="list-style-type: none"> <li>• Pinpoint physical and regulatory risk factors</li> <li>• Assess level of risk and financial implications</li> </ul>	Discover Opportunity Factors <ul style="list-style-type: none"> <li>• Identify opportunities in carbon market and new green businesses</li> <li>• Determine trends and strengthen risk management</li> </ul>
Establishing Carbon Management System	<ul style="list-style-type: none"> <li>• Build the POSCO Carbon Management System (2006)</li> <li>• Build and manage a CO<sub>2</sub> inventory with a third-party verification</li> <li>• Build an integrated carbon and energy management system (2013)</li> <li>• Launch a carbon accounting system and a carbon emissions verification system (2015)</li> </ul>	
Implementing Climate Change Response Activities	<ul style="list-style-type: none"> <li>• Link the activities to the enterprise-wide risk management</li> <li>• Discuss climate change risks when making investment decisions</li> <li>• Check POSCO Family companies' green business progress</li> </ul>	
Check and Review Measures Against Climate Change	<ul style="list-style-type: none"> <li>• Regularly monitor the progress of GHG emission reduction activities</li> <li>• Check the status of response to climate change regulations and policy</li> <li>• Examine POSCO Family's status of new green businesses</li> </ul>	
Reporting to Top Management	<ul style="list-style-type: none"> <li>• POSCO Family Environmental Management Committee (Annual)</li> <li>• Enterprise-wide Management Meeting on CO<sub>2</sub> and energy indices (When necessary)</li> </ul>	

In recent years, there have been a slew of reports of damages caused by frequent abnormal weather phenomena, such as deluges of rain, heat waves, heavy snowfalls and cold snaps. POSCO has suffered from these phenomena, with its business activities hurt by direct damage caused to facilities and equipment, problems in procuring raw materials, difficulties in securing power and water and the increase in logistics costs. In response, POSCO's Pohang and Gwangyang Works' storm and flood damage control room monitors and preemptively responds to physical risks posed by climate change, while also cooperating closely with related institutions and organizations through a close-knit network. Additionally, to systematically combat risks, POSCO has established an enterprise-wide risk management process and system with a disaster management manual and natural disaster management guideline. It continues to supplement this process and system. International organizations including the IPCC (Intergovernmental Panel on Climate Change) report that climate change is closely linked to greenhouse gases (GHGs) emitted in the course of industrial activities. In particular, the 2015 United Nations Climate Change Conference (COP 21) hammered out an agreement to set a goal of limiting global warming to less than 2 degrees Celsius (°C) compared to pre-industrial levels, with the global community agreeing to its provisions.

In 2010, Korea established the Framework Act on Low Carbon and Green Growth. The Greenhouse Gas and Energy Target Management Scheme has been implemented in full force in Korea since 2011. The GHG Emissions Trading Scheme began in 2015 based on the establishment of the Act on the Allocation and Trading of GHG Emission Permits and the Enforcement Decree of the same Act in 2012. The

#### Risk and Opportunity Factors in POSCO's Carbon Management

RISK	
S	Damages to equipment and facilities, difficulties in securing raw materials and water, increased logistics costs caused by heavy snowfall, deluge or drought
S	Increased carbon costs with the implementation of a domestic emissions trading scheme, and consequential decrease in price competitiveness
S B P	The new climate framework gives rise to stronger carbon regulations, which diminishes the competitiveness of carbon intensive industries and toughens regulations in countries overseas
S	The call for social responsibility on large greenhouse gas emitting companies
OPPORTUNITY	
S B	The new climate framework has spurred demand for steel products with high energy efficiency, POSCO can develop new markets such as green buildings and slag sea forests
B	Participating in new businesses such as renewable energy, energy storage and carbon market
S	Corporate competitiveness can be enhanced with innovative low-carbon technologies
L P	Stakeholder awareness can be heightened through external reviews and transparent data disclosure
S Green Steel B Green Business P Green Partnership L Green Life	

act designates Korean companies as subject to the GHG Emissions and Energy Target Management Scheme or the Emissions Trading System. POSCO observed the Greenhouse Gas and Energy Target Management Scheme's regulations through 2014. Since January 2015, POSCO has implemented GHG reduction activities and taken an active part in emissions trading under the scheme. Since 2015, a direct financial burden has been charged for emissions exceeding permitted caps, which has sparked concerns that the carbon-intensive steel industry might face higher production costs or decreased production volume, diminishing corporate competitiveness. As seen above, the domestic emissions trading scheme is a major policy risk that significantly affects corporate competitiveness. Moreover, an international trend towards stricter carbon regulations is leading us to aggressively review policy risks pertaining to POSCO Family companies' advancement into overseas countries.

To respond to policy risks related to carbon regulation, POSCO makes every effort to monitor regulations and policies by identifying potential business risks and actively participating in related discussions with a view to developing appropriate policies. A risk management process was created to support an effective response to policies and management's decision-making, enhancing energy efficiency to reduce GHG emissions in the short term. At the same time, the development of innovative low-carbon technology and high-performance steel products has contributed to reducing GHG emissions as well as indirect emissions in the long-term.

Indeed, the expansion of physical and policy risks related to climate change calls for more social responsibility on the part of carbon-intensive companies, particularly given that if such calls are dealt with improperly, there is heightened risk of reputational damage. POSCO meets stakeholders' demand for social responsibility by participating in climate change response and carbon management performance evaluation, as conducted by external evaluation institutes such as the CDP and the SAM-DJSI and by transparently disclosing information through its Sustainability Report.

**Major Opportunities Related to Climate Change** Opportunities associated with climate change and carbon management activities largely fall mainly into physical factors and policy factors relating to the international carbon regulatory environment. Increased energy use due to environmental changes fueled by climate change and severe weather phenomena such as heat waves and cold snaps can also lead to the creation of new business opportunities.

POSCO has undertaken a sea forest restoration project using Triton<sup>1)</sup>, a product made from steel slag, to restore coastal areas affected by whitening caused by rising sea temperatures. In 2014, Triton was authorized by the Ministry of Oceans and Fisheries to be used in the artificial fish reef projects. We expect to be able to officially use Triton in future projects conducted by the central and municipal governments. Furthermore, we are planning to promote the POSCO Green Building, which employs more than a hundred eco-friendly technologies, as a model for energy conservation buildings.

At the same time, low carbon technologies and efforts to reduce indirect GHG emissions also present opportunities for creating profit. High-strength steel sheets that save vehicle weight, and blast furnace slag that replaces eco-friendly cement material have already become new sources of income for POSCO. In addition, the world steel industry is paying greater attention to FINEX, POSCO's unique eco-friendly technology. Stricter environmental regulations in China are compelling Chinese steelmakers to steadily benchmark POSCO's environmental management activities. It is expected that these facts will help ramp up demand for environmental and energy-saving technology going forward. In other areas, under the Korean government's projects for enhancing energy efficiency and expanding renewable energy, we expect to be able to continue to expand the Smart Industry<sup>2)</sup> demonstration project, smart grid<sup>3)</sup>, fuel cells and solar power business.

<sup>1)</sup> Triton: The brand name for a low-carbon artificial fish reef using steel slag as aggregate. It was named after a mythological Greek god of the sea that would summon fish and dolphins by blowing on a twisted conch shell like a trumpet. He was feted to have the ability to restore sea forests.

<sup>2)</sup> Smart Industry: The goal of Smart Industry is to increase energy efficiency, lower production costs and stabilize facilities by combining various energy sources at the steel mill with advanced information technology.

<sup>3)</sup> A smart grid is a next-generation intelligent electric power network which optimizes energy efficiency by applying IT to existing electric power networks and letting power suppliers and consumers exchange information in real time.

### Climate Change Response System

POSCO has built a sustainability management system to enable timely decision-making regarding climate change issues by shareholders, board of directors and CEO. Based on opinions collected by working-level teams concerning sustainability management, a decision-making body resolves enterprise-wide visions and agendas. POSCO then systematically implements sustainability management activities in line with suggested goals and directions. Meetings chaired by the CEO to discuss major issues including climate change are the monthly Management Meeting and the Executives' Meeting held each month or as required.

The Climate and Energy Group of the Environment and Social Contribution Office under the directorship of the Technology and Investment Division is responsible for overseeing the response to climate change and energy issues, while the Environment and Resources Group addresses issues related to the environment and turning by-products into resources. The Environment and Social Contribution Office establishes management strategies related to the environment and energy, builds and implements an enterprise-wide climate change response and the carbon/energy management system and builds strategies to make efficient use of resources and byproducts, while creating profits in the process. In addition, the Environment and Social Contribution Office is responsible for establishing a global environmental management system to fit our overseas integrated steel mill operations, as well as POSCO's responses to environment and energy regulations according to the toughening of carbon regulations and a rise in energy prices.

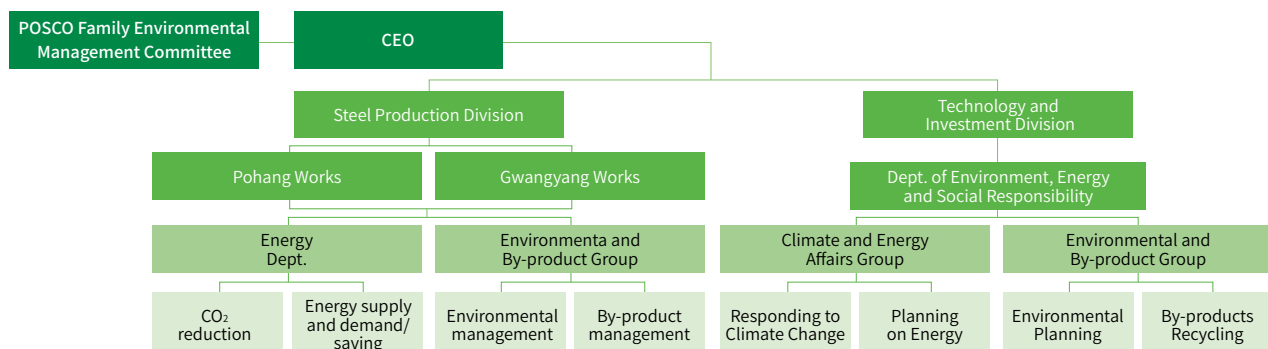
Pohang and Gwangyang Works have the Energy Department and Environment and By-product Group working on CO<sub>2</sub> reduction, an improvement in energy efficiency and issues pertaining to the environment and health. These departments cooperate closely with the head office's Climate and Energy Group and Environment and By-product Group to effectively apply and implement enterprise-wide carbon/energy management system to fit the situation of the Pohang and Gwangyang Works. POSCO holds the annual POSCO Family Environmental Management Committee meeting chaired by the CEO, with the participation of the presidents of POSCO Family companies to discuss topics such as mitigating climate change,

low-carbon green growth, and environmental management. In 2011, the Environment and Energy Committee chaired by the director of the Environment and Energy Office was changed into the Environmental Management Committee that has been chaired by the CEO since then. POSCO's overseas corporations and family companies actively participate in these meetings. In 2013, the Green Growth Committee, which was formerly in charge of reviewing green growth strategies, was integrated into the Environment Management Committee. In January 2016, the CEO and presidents of major POSCO Family companies came together to reflect on POSCO's environmental management activities for the year and to share the strategic direction for next year's activities at a meeting of the POSCO Family Environmental Management Committee. In 2015, we quantitatively analyzed each business site's environmental risks related to their use of chemicals and revised related work standards and guidelines. In 2016, we will undertake technology development aimed at reducing the use of chemical materials. At the same time, we will concentrate the group's energies on reducing GHG emissions through investment in waste heat recovery technology. This is an integral part of our determination to meet the terms of the Paris Agreement, a new global climate change framework that is widely expected to toughen carbon regulations at home and abroad.

### Vision and Strategies to Mitigate Climate Change

POSCO has established its vision "POSCO the Great" based on three management principles: One POSCO, Creative POSCO, and Top POSCO. The execution plan to achieve this vision consists of four innovation agendas of "Innovative POSCO 1.0," which is based on the three principles outline above. With a view to doing everything possible to reinforce our basic competitiveness as a steel company, POSCO announced the Innovative POSCO 2.0 Execution Plan in July 2015. The plan has four agendas — strengthening the fundamental competitiveness of its steel business, the promotion of business structure innovation, creating tangible results in new growth engine projects and building management infrastructure based around ethics. Through its management principles and core agendas, POSCO will lay the foundation for achieving the vision of "POSCO the Great" and becoming a company loved by people and respected by global citizens. To do this, we seek to add corporate value, recover our credit rating, and secure new mega engines for growth.

### Governance to Respond to Climate Change



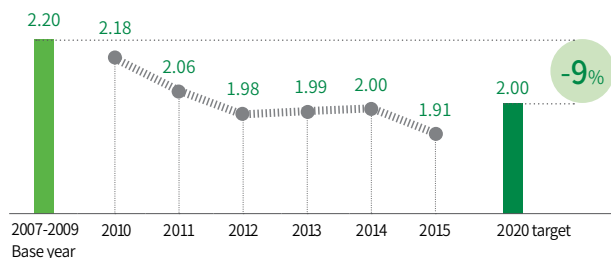
(Based on restructuring in February 2016)



Moreover, the POSCO Family's low-carbon green growth is geared toward achieving the vision of "POSCO the Great." We contribute to reinforcing the foundation for Green Steel and enhancing the fundamental competitiveness of the steel industry through the conservation and enhancement of energy efficiency, the development of innovative technologies such as low-carbon steelmaking processes and the distribution of high-efficiency steel products. In addition, along with the renewable energy businesses (solar power, fuel cells and energy storage), we proactively seek to identify promising new growth engines in the Green Business arena, such as smart grids and lithium materials for batteries. Indeed, we are expanding the scope of green life through Green Home activities to improve the living conditions of marginalized members of society in terms of energy use through working with employees of POSCO Group affiliates. At the same time, we are actively realizing a Green Partnership by cooperating with domestic and overseas carbon policies to align our corporate activities to a low-carbon society.

**POSCO's Voluntary Reduction Target by 2020** POSCO announced its greenhouse gas reduction target to be reached by 2020 at the Seventh Green Growth Committee meeting chaired by the President in February 2010. The target is to reduce the CO<sub>2</sub> emission intensity per ton of steel 9 percent to 2.00 t-CO<sub>2</sub>/t-S by 2020 from the average emission intensity of 2.20 t-CO<sub>2</sub>/t-S between 2007 and 2009. To reach this voluntary reduction target, POSCO is working hard to reduce coal use and enhance energy efficiency, while putting efforts into developing innovative CO<sub>2</sub> reduction technologies. Aside from reduction efforts at business sites, we are putting considerable effort into reducing nationwide GHG emissions by supplying high-strength automotive steel, high-efficiency electrical steel and blast furnace slag that can be used as an eco-friendly substitute for cement.

**POSCO's Target to Reduce CO<sub>2</sub> Emission Intensity and Outcomes** (Unit: t-CO<sub>2</sub>/t-S)



- With the effectuation of the domestic emissions trading scheme in 2015, POSCO calculated emissions according to the "Administrative Guideline for the Greenhouse Gas Target Management System" announced by the government in March 2011.
  - Scope: Pohang Works and Gwangyang Works
  - GHGs: Including CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub>
  - Direct emissions (Scope 1): Direct CO<sub>2</sub> emissions due to steel production, gaseous fuel combustion, mobile combustion and waste incineration
  - Indirect emissions (Scope 2): Indirect CO<sub>2</sub> emissions due to the use of purchased electric power
- The figures disclosed in this Report are from Pohang 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 and Gwangyang Works.

**Case Report**

**Roadmap to Deal with New Climate Change Regime**

The Paris Agreement is a new climate system agreement adopted at the Conference of Parties (COP21) with the strong support of UN Secretary-General Ban Ki-moon, US President Barack Obama and Chinese President Xi Jinping.

The Paris Agreement is designed to replace the existing Kyoto Protocol, which stipulates an obligation for nations, particularly developed countries, to reduce GHG emissions by 2020. The treaty binds both developed and developing countries to participate in the reduction of GHG emissions and achieve specific nationally determined contributions (NDC)<sup>1</sup> which they set of their own free will after 2020. Participating countries are obliged to hand in higher reduction goals every five years and make sure they stay on target.

Thus, it is expected that carbon regulations will toughen going forward. This reinforces POSCO's will to step up its efforts to cut GHG emissions and boost the level of cooperation with the government for a sustainable steel industry.

First of all, we are planning to give a boost to energy efficiency by recovering waste heat and making good use of off-gases. In the short term, we are committed to investing in commercial technology which can save us energy or CO<sub>2</sub> ahead of others. At the same time, we will develop technology for commercialization. We will thus steadily secure our capability to reduce emissions on our own.

Second, we will develop GHG emissions reduction technology for the steel industry for the purpose of securing long-term potential to reduce emissions. We will concentrate our our development capabilities on technologies with great reduction potential such as low- to medium-temperature waste heat recovery, energy and steel processing plant efficiency and carbon recycling.

Third, we will bolster the steel reduction tool development and analysis system by taking into account domestic and international regulations, GHG emissions reductions and costs. As part of the implementation of the emission trading scheme in 2015, we updated our policies and systems related to carbon target management, accounting and verification. It is widely expected that we will be able to strengthen financial decision support and risk management to cope with climate change by establishing a streamlined analysis system based on internal and external reduction technology and businesses going forward.

Fourth, we will further contribute to reducing the national level of GHG emissions by promoting the utilization of high-efficiency steel and granulated blast furnace slag. Strong fuel efficiency makes it possible for one ton of POSCO's high-strength automotive steel sheets to reduce 0.8 ton of GHG emissions more than general steel sheets. When replacing existing semi-finished cement (clinker) with granulated slag, one ton of granulated slag can cut 0.8 ton of GHG emissions. POSCO developed PosMent which can replace up to 60 percent of clinkers with granulated slag on its own. Its sales have nearly quadrupled in 2015 from the level of 2013.

Finally, we will strengthen cooperation with the government for the sustainable future of steel. In terms of Life Cycle<sup>2</sup>, steel products can make a significant contribution to reducing GHG emissions. For example, it is possible for steel, aluminum and fiber reinforced plastic to emit two tons, 16 tons and 20 tons of GHG emissions per ton of product, respectively. This indicates that steel emits fewer GHGs than other materials. One advantage of steel products is that they can be 100 percent recycled without losing their core properties. As such, steel products can contribute significantly to reducing GHG emissions in society, as shown in cases of high-strength steel or granulated slag. However, it is feared that the impacts of disproportionate carbon regulations between home and abroad will weaken the competitiveness of the domestic steel industry. We therefore need to cooperate closely with the government about devising measures such as the introduction of border adjustments.

<sup>1</sup> NDC: Nationally determined contributions

<sup>2</sup> After being abandoned, a product is recovered as steel scrap and reused as a material in a blast furnace and electric furnace

**Implementation of Emissions Trading Scheme** In January 2015, the Act on the Allocation and Trading of Greenhouse The “Act on the Allocation and Trading of Greenhouse Gas Emission Permits” was enacted in January 2015, signaling the commencement of emissions trading.<sup>1)</sup> POSCO was designated as a company subject to emission allowances allocation in October and allocated emissions allowances for the first phase period (2015~2017) in November 2014. The company submitted the emission-monitoring (measurement) plan for GHGs according to the law.

In 2015, POSCO allocated annual GHG emission goals to each plant at our worksites and regarded a surplus or shortage of emission allowances as financial revenue or costs of plants on a rolling monthly basis. Having set a goal of systematically carrying out such activities, we have put in place a Carbon Accounting System that supports the supply/ demand forecast for emission allowances and the application of emission credits in product cost calculation. This has been achieved by improving the Greenhouse Gas Emission Management System launched in 2006. The new system has been in service since September 2015. The company also revamped its policies and systems to manage the MRV (Monitoring, Reporting and Verification)-related risks.

<sup>1)</sup> The emissions trading scheme is a system where the government allocates the total amount of allowable greenhouse gas emissions for each company. Companies emitting GHGs within that limit can trade their excess or surplus. Any company which emits average annual GHG volume of 125 thousand tons, or a business site that emits over 25 thousand tons, are subject to this regulation. A total of 525 companies have been subject to the emissions trading scheme as of 2014.

## Carbon Management System

The GHG Emissions-Energy Integration Information System was introduced to calculate GHG emissions and energy consumption at our worksites in 2006. In addition, we have been able to reinforce our resolve to implement carbon management across the board by establishing an in-house emissions trading system that offers incentives for energy efficiency improvements and greenhouse gas reduction activities for two years from 2011. We introduced a carbon accounting system and a new emissions verification system in 2015, the first year of the implementation of the emissions trading system. We expect internal GHG emissions reduction activities to expand further as the cost incurred due to lack of emission allowances is applied to the calculation of production cost at worksites.

**Integrated GHG and Energy Information System** To manage GHG emissions at the steelworks, POSCO developed its own methodology for calculating greenhouse gas volumes based on the internationally-used IPCC<sup>2)</sup>, WBCSD<sup>3)/WRI<sup>4)</sup>, and World Steel Association ISO 14404<sup>5)</sup> in 2006 and had used it in calculating monthly GHG emissions since then. In 2011, the company revised its emissions calculation method in accordance with the domestic GHG and Energy Target Management System's calculation guideline implemented in 2011. The calculation includes 13 business sites, including Pohang and Gwangyang Works, the POSCO Center and the Global RandD Center in Songdo, Incheon. Carbon emissions are calculated based on carbon emission factor of major materials containing carbon including</sup>

raw materials (coal, limestone and natural gas ), purchased electricity, production volume and byproduct sales volume. The CO<sub>2</sub> intensity per ton of crude steel (t-CO<sub>2</sub>/t-s) is managed as a key performance index (KPI). Indeed, we are seeking the integrated management of GHG and energy information in line with global standards, such as improving our energy-saving process in the field and systematizing the management of GHG emissions reductions.

<sup>2)</sup> IPCC: Intergovernmental Panel on Climate Change

<sup>3)</sup> WBCSD: World Business Council for Sustainable Development

<sup>4)</sup> WRI: World Resources Institute

<sup>5)</sup> ISO 14404: Calculation method of carbon dioxide emission intensity from iron and steel production

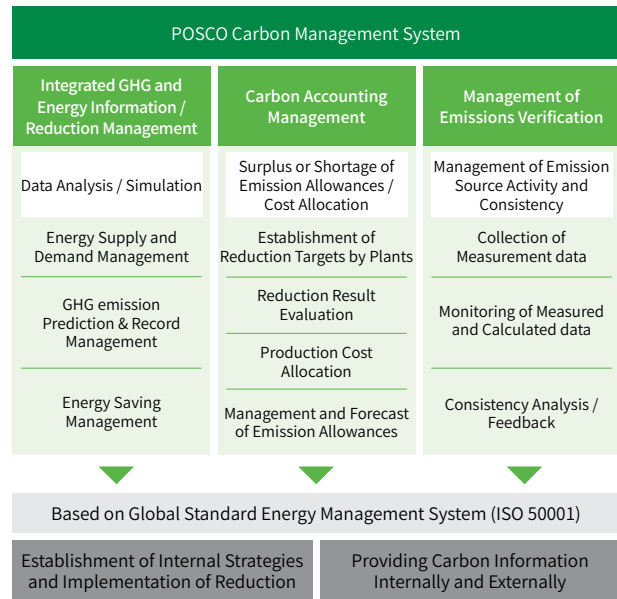
**Carbon Accounting System** According to GHG Emission allowances and Emission Debts in Chapter 33 of the General Corporate Accounting Standards, a company subject to this rule has to apply cost for emissions that exceeded its quota set by the government to its accounting. POSCO built the Carbon Accounting System by improving the existing GHG Emissions Management System to enhance execution power to cut emissions from its works as well as to apply emission cost to accounting. The system launch in September 2015 has enabled us to reduce carbon emissions by distributing cost or profits from emission allowances based on departments' implementation results to production cost.

**Carbon Footprint Verification System** Considering that emission rights are a financial asset, the government has set a strict legal verification procedure. Government-designated verification bodies annually verify fuel consumption directly connected to emissions in detailed 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. Accordingly, POSCO reestablished departments' roles in monitoring the planning and collection of activity data by plant and emission statement reporting through consultations between relevant departments. The company also began to operate the Carbon Footprint Verification System to verify annual raw material consumption related to emissions in July 2015. This system is able to periodically check for, deal with and improve omitted data or errors and manage their records. This system thus contributes to enhancing the transparency and reliability of emission verification. In addition, we plan to steadily strengthen internal validation to prevent huge losses incurred by outside verification inadequacy.

**ISO 50001 Certification** Our business environment is changing as various stakeholders' demand for carbon and energy reduction increases, domestic and international regulations come into full effect and energy efficiency requirements are used as trade barriers. To respond to these changes, POSCO has established the Energy Management System which is saving the company energy. The ISO 50001 (energy management system), on which discussions started in 2008, was finalized in June 2011. POSCO set up a task force in January, 2012 and acquired the ISO 50001 certification in September the same

year. Since then, each April, we manage and maintain certification through the re-evaluation of the certificate.

**POSCO's Carbon Management Mechanism Based on Energy Management System (ISO 50001)**



**Carbon Performance**

**GHG Emissions from Production Processes** Carbon dioxide constitutes the majority of the greenhouse gas emissions generated at POSCO Pohang Works and Gwangyang Works. CO<sub>2</sub> emission volume in 2015 sat at 72.34 million tons, a drop of about 3.9 percent compared to the 75.24 million tons recorded in 2014. Steel production in 2014 reached 37.97 million tons, increasing by about 0.9 percent compared to 37.65 million tons in 2014. Thus, the CO<sub>2</sub> emission intensity per ton of steel produced fell about 4.5 percent to 1.91 t-CO<sub>2</sub>/t-S in 2015 from 2.00 t-CO<sub>2</sub>/t-S in 2014. The emissions intensity was reduced thanks to our redoubled internal efforts for the implementation of the emissions trade scheme in 2015. POSCO's continued efforts to reduce energy consumption have maintained emission intensity at a low level at 2.00 t-CO<sub>2</sub>/t-S in 2014 and 1.91 t-CO<sub>2</sub>/t-S in 2015 (compared to the average 2.20 t-CO<sub>2</sub>/t-S of the base years 2007~2009). We expect that we will be able to exceed the voluntary reduction target through additional GHG reduction activities going forward.

**CO<sub>2</sub> Emission Intensity** (Unit: t-CO<sub>2</sub>/t-S)

Category	2013	2014	2015
Direct emission (scope 1)	1.87	1.88	1.80
Indirect emission (scope 2)	0.12	0.12	0.11
Total emission intensity	1.99	2.00	1.91

■ The numbers only include Pohang and Gwangyang Works, thus may not exactly coincide with the numbers detailed in the statement submitted to the government.

**GHG Gas Reduction Effect in Society** The expanded use of energy-efficient steel products such as high-strength steel to make vehicles lighter and thus improve fuel efficiency, as well as low-core-loss electrical steel that can increase the energy efficiency of electric motors and transformers, has contributed to cutting national CO<sub>2</sub> emissions by 5.76 million tons in 2015. Blast furnace slag, one of the by-products of steelmaking, was used as an eco-friendly substitute for cement, lowering overall CO<sub>2</sub> emissions by 7.69 million tons in 2015.

**GHG Reduction Effect in Society** (Unit: Thousand t-CO<sub>2</sub>)

Category	2013	2014	2015
High-strength steel sheet for automobiles*	2,669	2,940	3,149
Low-core-loss electrical steel **	2,415	2,752	2,606
Granulated blast furnace slag***	6,704	7,075	7,693
<b>Total</b>	<b>11,788</b>	<b>12,767</b>	<b>13,448</b>

\* A high-strength steel sheet refers to HSS (High-Strength Steel) and AHSS (Advanced High-Strength Steel) with a tensile strength of at least 340 MPa. The CO<sub>2</sub> reduction volume was calculated by estimating the amount of weight reduced when applying the HSS and AHSS to an automaker's (company A) passenger vehicle (with a 2,000cc displacement engine). CO<sub>2</sub> reduction effect per ton of high-strength steel: 0.81 t-CO<sub>2</sub>/yr (fuel efficiency improvement through vehicular weight reduction (86L/yr, unit) X number of vehicles produced per ton of high-strength steel (4.4 units) X road transportation CO<sub>2</sub> emission factor (0.0693 kgCO<sub>2</sub>/MJ, based on IPCC Guideline, gasoline cars) X caloric value (31.0 MJ/L, Energy Act's Enforcement Regulation) ÷ 1,000).

\*\* Low-core-loss electrical steel refers to grain-oriented electrical steel with a core loss of less than 0.98 W/kg, as well as non-oriented electrical steel with a core loss of less than 4.7 W/kg. The CO<sub>2</sub> reduction volume was calculated by estimating the effect of improved energy efficiency when the steel plate is applied to motors and transformers. The CO<sub>2</sub> reduction effect per ton of low-core-loss steel: grain-oriented 1.02 t-CO<sub>2</sub>/yr, non-oriented 10.75 t-CO<sub>2</sub>/yr (reduced power consumption per ton of grain-oriented steel plate (2.29 kWh/yr) X GHG emission factor of received power (0.4448 kgCO<sub>2</sub>/kWh, Korea Energy Management Corporation), Reduced power consumption per ton of non-oriented steel plate (24.18 kWh/yr) X GHG emission factor of received power (0.4448 kgCO<sub>2</sub>/kWh, Korea Energy Management Corporation).

\*\*\* The CO<sub>2</sub> reduction volume was calculated by applying the theoretical ratio to convert a main ingredient of cement clinker (calcium oxide) to CO<sub>2</sub>, which estimates a reduction of 0.785 t-CO<sub>2</sub>/t-clinker when replacing each ton of cement with a ton of clinker.

**Other Greenhouse Gas Emissions** The following are CO<sub>2</sub> emissions from the transportation of raw materials, employees' commuting to and from work and taking business trips inside and outside Korea in 2015.

Other CO<sub>2</sub> Emissions<sup>1)</sup> (Scope 3) (Unit: thousand t-CO<sub>2</sub>)

Category	2013	2014	2015
Transport of Purchased Raw Materials <sup>2)</sup>	948	1,036	1,008
Employee Commuting <sup>3)</sup>	6	6	6
Employee Business travel <sup>3)</sup>	2	2	1
Purchased Goods and Services <sup>4)</sup>	3,214	2,928	2,850
Downstream Leased Assets <sup>5)</sup>	1,994	1,986	2,047
Investments <sup>6)</sup>	12,353	13,113	13,589

<sup>1)</sup> Calculated in reference to the WBCSD/WRI Greenhouse Gas Protocol.  
<sup>2)</sup> The total weight of purchased raw materials is 92.57 million tons (Coal, iron ore and limestone take up the majority of the purchased raw materials).  
<sup>3)</sup> Although the number of employees is 17,045 as of end of 2015, calculations were made based on those falling into Scope 1 and 2 (Pohang and Gwangyang Works), which is 13,391.

<sup>4)</sup> GHG emissions calculated based mainly on suppliers of major raw materials among all products and services purchased.  
<sup>5)</sup> We counted CO<sub>2</sub> emissions from a lime calcinations plant leased to POSCO Chemtech among all downstream leased assets.  
<sup>6)</sup> We calculated CO<sub>2</sub> emissions from POSCO's subsidiaries subject to the GHG Emissions Trading Scheme in consideration of scope 1 and scope 2 emissions volumes against POSCO's stakes in those companies.

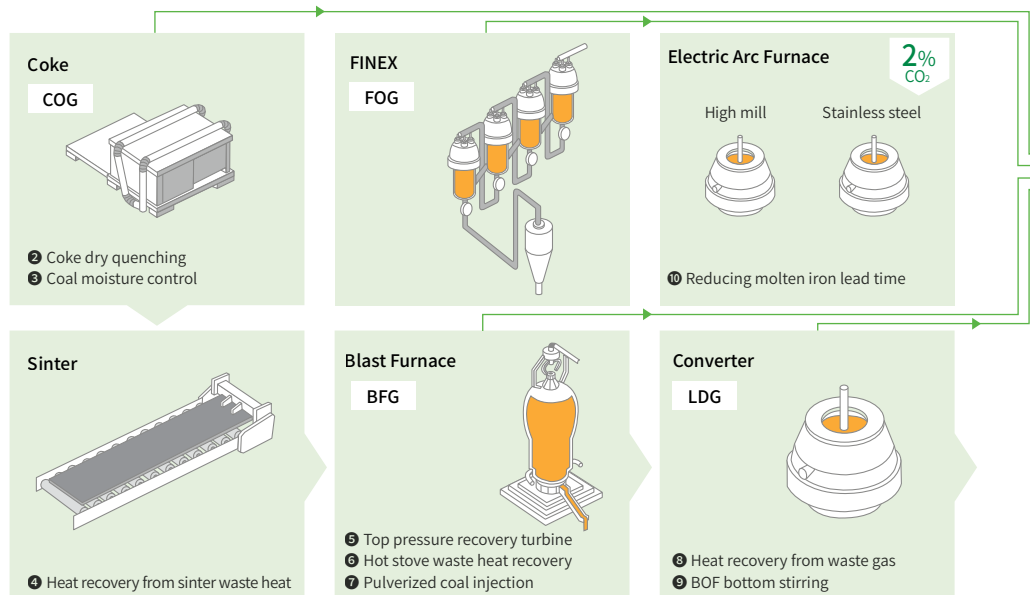
**Investments in GHG Reduction Facilities and R&D** Total investments in new energy recovery facilities and process improvements for saving energy amounted to KRW 19.4 billion in 2015. For example, KRW 11.7 billion was spent on new energy saving facilities and installations such as an increase in the production capacity of TRTs of Blast Furnace 1 at Gwangyang Works and inverter installations at the FINEX plant and six other locations. KRW 7.7 billion was spent on improving and replacing heat efficiency enhancement facilities or process improvements. In the meantime, KRW 89.9 billion was invested in research and development projects to reduce CO<sub>2</sub> emissions such as recovering sensible heat at production processes and capturing CO<sub>2</sub> from off-gas in 2015.

■ Beginning in 2015, investments were calculated based on execution standards in fiscal years

**Input**

Raw Materials	Iron ore	54 million tons
	Coal	26 million tons
	Limestone	6 million tons
Energy	Electricity	1,053 MW
	LNG	837 MNm <sup>3</sup>

Energy Calorie Intensity\* 5,222Mcal/t-S  
 \* Amount of energy (based on calories) used to produce a ton of steel in accordance to POSCO's internal calculation method (calories based)

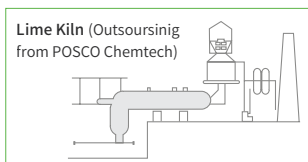


**Iron making** 82% CO<sub>2</sub>

**The basic process of producing molten iron**  
 Iron ore and coke are placed at the top of the blast furnace. Hot air is blasted into the bottom of the furnace, reducing the amount of iron required to produce molten iron / Steel making

**Steel making** 7% CO<sub>2</sub>

**Eliminating impurities from molten iron to make steel**  
 Molten iron produced at the blast furnace contains impurities such as carbon, phosphorous and sulfur. These are removed by blowing oxygen through the molten metal.



## POSCO Carbon Flow

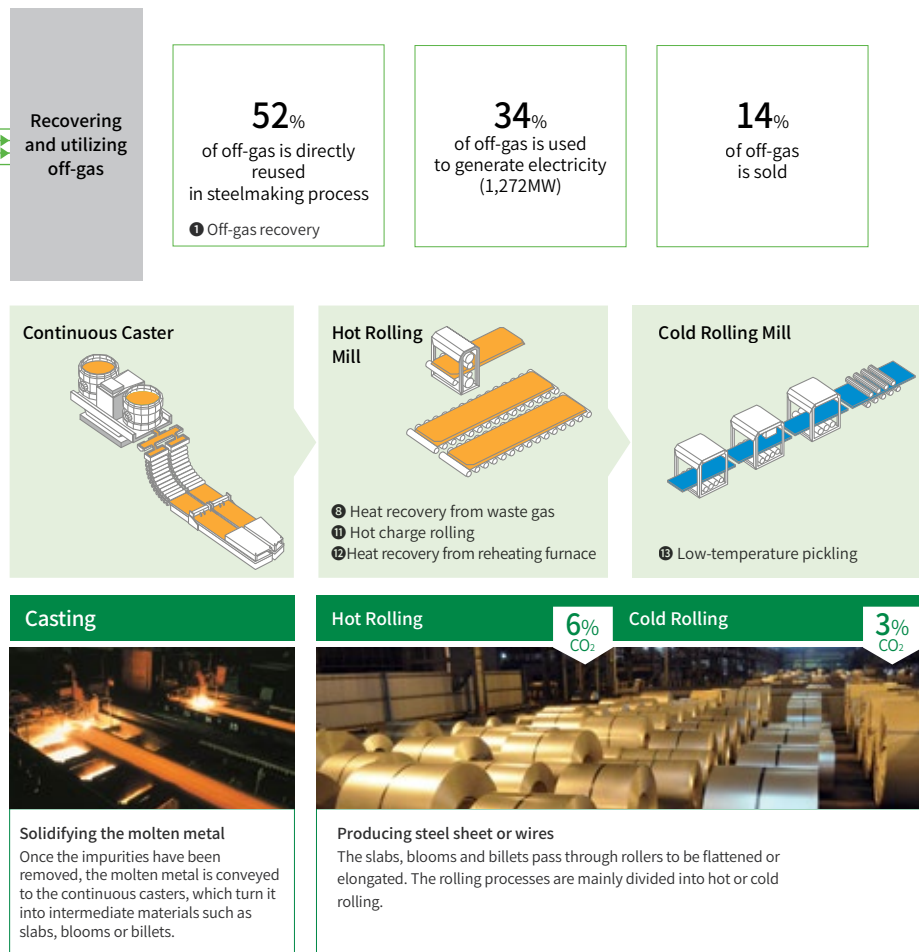
### Status of CO<sub>2</sub> Reduction Application Technology

Technology description	Energy recovery			
	Electricity	Steam	Hot Water	Others
❶ Blast furnace, FINEX, cokes oven, electric furnace off-gases are captured, purified and reused as fuel				●
❷ Sensible heat is retrieved through heat exchange between red hot cokes and cooling gas	●	●		
❸ Moisture from the coal inserted into the cokes oven is controlled, which improves the cokes strength and the efficiency of the blast furnace				●
❹ Retrieval of sensible heat from the cooling process of sintered ore		●	●	
❺ Power generation using the off-gas pressure being released from the blast furnace	●			
❻ Heat retrieval from the off-gas from the hot blast stove				●
❼ Coal is injected directly into the blast furnace instead of cokes				●
❽ Retrieval of sensible heat in the gases emitted from the processes		●		
❾ Improvement of energy efficiency by blowing argon gas at the bottom of the electric furnace				●
❿ Minimizing energy loss by shortening the transportation time at the steel tapping and back end processes				●
⓫ Energy conservation through direct insertion of hot slabs				●
⓬ Retrieval of sensible heat of off-gas from the heating furnace		●	●	
⓭ Saving energy for heating at pickling process through low-temperature operation Electricity				●

Scope1: Direct emission generated from incineration and processes

Scope 2: Indirect emission generated during production of electricity, steam and etc.

Scope 3: Indirect emissions from the value chain



## Output

Product	Production of Crude Steel	38 million tons
CO <sub>2</sub> emission	Emission from production (Scope1, cope2)	72 million tCO <sub>2</sub>
	Other emission (Transport of purchased materials, Scope3)	20 million tCO <sub>2</sub>
CO <sub>2</sub> reduction effects in society	High-strength steel sheet for automobiles Fuel efficiency increased through automobile weight saving	3 million tCO <sub>2</sub>
	Low core-loss electrical steel sheet Increased efficiency of motors and transformers	3 million tCO <sub>2</sub>
	Blast furnace and FINEX slag Supplied as cement substitute	8 million tCO <sub>2</sub>
	Supply of Recovered Steam Used for local heating and related industries	0.2 million tons



## CLIMATE CHANGE RESPONSE ACTIVITIES

### Energy Efficiency Improvement Roadmap and Performance

#### 1st Stage (1999 to 2008)

From 1999 to 2008, POSCO implemented the first and second voluntary agreements with the government to improve energy efficiency. During this ten-year period, the company carried out 2,100 projects such as the construction of a combined-cycle power plant fueled by the off-gas gas from the FINEX plant, waste heat recovery systems and coke dry quenching (CDQ) facilities, and invested a total of KRW 1.43 trillion in energy-related facilities. As a result, these activities made the installation rate of waste heat recovery facilities arrive at 97% complete, saving POSCO a total of 2.91 million tons oil equivalent (TOE). In addition, the construction of an integrated energy data system that accumulates our energy-saving operation technologies has enabled us to disseminate energy saving ideas and energy diagnosis methods, as well as sharing the outcomes of such energy-saving ideas.

#### 2nd Stage (2009 to 2015)

Most investment projects in large-scale heat recovery facilities were completed by 2008. The following year, we began to invest in small and medium-sized projects for improving energy efficiency applying convergence technologies. We installed a new heat recovery steam generator (HRSG) at the No. 3 Steel Making Plant and Sinter Plant No. 5 at the Gwangyang Works in 2010 and 2011, respectively. The completion in 2014 of the Evaporation Cooling System (ECS)<sup>1)</sup>, a high-efficiency waste heat recovery facility at the No. 4 Hot-Rolling Plant, has allowed us to produce low-pressure steam required for a steel-making process. CDQ facilities were built to ramp up POSCO's own power generation at Coke Plant No. 5 in 2011. Moreover, we operate four high-efficiency power generation facilities to recover surplus off-gas energy. Since 2009, investments have been made in stages to install inverters in all high/low-voltage motors and fluid couplings in pumps and dust collectors as small and medium-sized projects to boost energy efficiency, which have saved POSCO electric power.

<sup>1)</sup> Evaporation Cooling System (ECS): A system that produces steam by circulating high-temperature and high-pressure cooling water.

Gwangyang Works has pressed ahead with a smart industry test bed project that mixed IT and steel making technology at the oxygen plant in 2010 and a hot-rolling plant from 2013 to 2015. As the government's energy policy shifted from supply management to demand control under the Second Master Plan for National Energy, POSCO built 1.5 MW grade Energy Storage Systems (ESS) in its plants and buildings, and completed their test run in 2015. Indeed, since June 2015, Pohang and Gwangyang Works have played an active role in the National Power Demand Management System that recognizes power saved in hours with strong demand for power. With the execution of the GHG and Energy Target Management Scheme in 2011, we acquired ISO 50001 Energy Management System (EMS) certification. We are now focusing our efforts on the effective implementation and management of carbon energy reduction at each plant in accordance with the introduction of cap-and-trade in 2015.

#### 3rd Stage (2016 to 2020)

In accordance with domestic and international trends to toughen carbon regulations, POSCO is planning to actively carry out its own reduction activities through the enhancement of its existing waste heat recovery facilities' efficiency and the application of new technologies to small and medium-sized work sites currently lacking such facilities. We intend to enhance the energy efficiency of installed high-volume waste heat recovery facilities through an improvement in the management of high-volume waste heat recovery facilities, such as CDQs and TRTs, investment in infrastructure improvements for the supply of off-gas for power generation and a performance recovery project for the efficiency of power generators. Moreover, we are planning to introduce the latest energy recovery technology for electric furnaces, hot-rolling reheating furnaces and a new FINEX process for the recovery of additional waste heat. With commercial technologies having reached their limit in terms of making additional improvements to energy efficiency, we need to expedite the mid- to long-term development of our energy innovation technology. POSCO aims to commercialize its unique energy technology by 2020 by continuing to develop its own technologies, such as Kalina-power generation, to recover unused mid- to low-temperature waste heat.

#### POSCO's Energy Efficiency Improvement Roadmap

1st Stage (1999~2008)	2nd Stage (2009~2015)	3rd Stage (2016~2020)
Investment in large-scale heat recovery facilities and accumulation of energy-saving operation technologies	Investment in small and medium-sized Projects for energy efficiency and creation of Smart Industry technologies	Commercialization of unique energy innovation technology
Energy Facilities Investment KRW <b>1.43</b> trillion	Additional Investment to be made KRW <b>750</b> billion (2010~2020)	



### Energy Efficient Boosting Activities

**Using Off-gases** Most off-gases (BFG, COG, LDG and FOG) generated during iron-making and steelmaking processes are recovered and used as energy sources or for self-generation of electricity. Energy recovery facilities such as CDQ, TRTs and LNG combined cycle power plants cover 63 percent of electricity use at Pohang and Gwangyang Works.

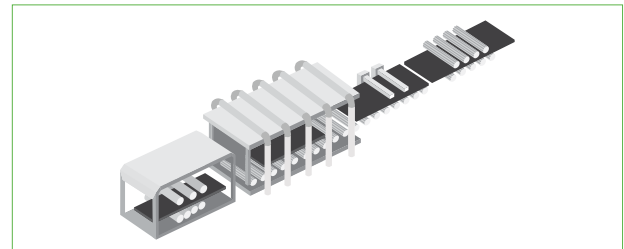
#### POSCO's Electric Power Consumption and Ratio of In-house Power Generation in 2015

Category	Amount	Ratio
Off-gas	1,272MW	63% (in-house power generation)
Others (CDG, TRT)	279MW	
LNG	249MW	
Purchase	1,053MW	37%

**Off-gas in Combined Cycle Power Generation** With an eye towards recovering surplus off-gas, two combined cycle power plants were built at Gwangyang Works in August and December 2012, respectively, with investment from POSCO Energy, which operates combined cycle power generation facilities. Combined cycle power plants powered by off-gas at Pohang Works were completed in September 2013 and March 2014, respectively, and are currently in operation. While combined cycle generation boasts greater energy efficiency, its fuel supply conditions are unfavorable. To use blast furnace gas (BFG) with low calorific value as fuel, we developed a technology that uses coke oven gas (COG) or FINEX off-gas (FOG), which have a high calorific value, as auxiliary fuel and maintain their calorific value.

**Scaling Up Combustion Efficiency of Reheating Furnaces** In 2011, Pohang and Gwangyang Works each formed a taskforce team dedicated to enhancing the combustion efficiency of all reheating furnaces, as it is these which consume the greatest volume of energy. In 2012, the teams were upgraded to official units and have since been steadily conducting their activities, which include the standardization of management after unclogging and cleaning pipes and improving piping structures, heat dissipation minimization, the development of a charging platform curtain to improve processing control, the installation of a combined refining facility to effectively block impurities in off-gases, and the development of pure oxygen lancing burner technology. The teams implement efficiency improvement projects for reheating furnace combustion on an annual basis, with a specific focus on activities such as furnace diagnosis, optimizing combustion, and enhancing heat exchanger efficiency. In 2015, we diagnosed all 19 furnaces at hot-rolled steel, steel plate and wire rod plants.

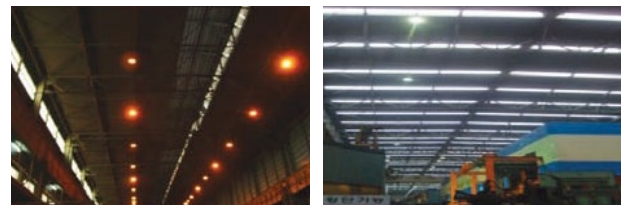
#### Mimetic diagram of reheating furnace



**Smart Industry** Smart grid is a next-generation, intelligent electricity grid that combines the existing electricity grid with next-generation information technology, making two-way communication between utilities and consumers possible. This allows energy efficiency to be optimized using real-time information exchange. In 2010, POSCO launched the "Smart Industry Demonstration Project" in the oxygen plant in Gwangyang Works. The customized project combines various sources of energy of the steelworks with cutting-edge information technology to improve energy efficiency, reduce costs and stabilize facilities. We built analyzer infrastructure through the demonstration project to measure energy efficiency. We have also developed a system for analyzing the efficiency of each facility unit and optimal guidance. This enabled us to reduce the plant's electricity consumption by 2 percent in 2011 compared to 2010. Following the oxygen plant at Gwangyang Works, POSCO has carried out a test bed project for the hot-rolling plant at Pohang Works since 2014. In 2015, we developed a model capable of analyzing operational failures and quality defects when given the conditions and histories of the facilities. Going forward, we will build a smart factory based on the internet of things (IoT) by 2017.

#### Energy-saving Lighting System (Using natural light and LED)

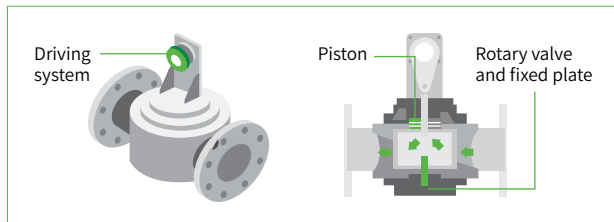
We installed a control system using remote timers for worksites with natural lighting windows and related lighting circuit systems. This equipment replaced artificial lighting at Pohang and Gwangyang Works' wire plants. A remote timer that automatically turns on the lighting only when necessary has saved POSCO over KRW 900 million a year. In addition, since 2011, we have been replacing incandescent and fluorescent lamps with high-efficiency, longer-lasting LED light bulbs. As of 2015, 160,000 lights in plants and office buildings at Pohang and Gwangyang Works have been replaced with LED lights. We are planning to install 60,000 more LED lights in 2016.



↑ Interior illumination, which was 80 Lx prior to installing natural lighting windows, has increased to 500 Lx after installation (during daytime).

**Development of Pulsating Combustion Technology for Burner with Direct Heating Mode** Since 2012, POSCO has successfully developed pulsating combustion technology to reduce the amount of NOx generated at combustion facilities and boost combustion efficiency. This technology ramps up heat transfer and efficiency by feeding fuel to an intake duct at a steady pulse and oscillation. This technology aims to reduce fuel consumption by three percent and reduce NOx generation by 30 percent or more. In addition, an application test in steel and iron-making plants was completed in 2014 and another test for reheating furnace of the wire rod plant will be run from 2015 to 2016.

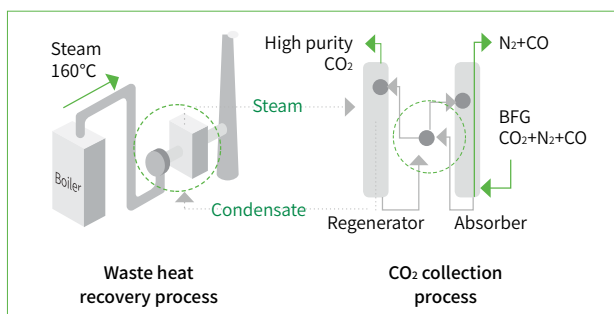
Mimetic diagram of oscillating control valve



**Development of Original Innovative Technology**

**Capture of CO<sub>2</sub> from Off-gas Using Ammonia Solution** POSCO is currently engaged in the development of technology using ammonia solution to absorb and separate CO<sub>2</sub> from blast furnace gas (BFG). Medium and low-temperature waste heat generated at the steel-works serves as an energy source needed to recycle CO<sub>2</sub>, making it possible to separate CO<sub>2</sub> at low cost. An RandD project on this new technology was launched in 2006. The first pilot plant with a processing capacity of 50 Nm<sup>3</sup>/h started up in December 2008. It attained CO<sub>2</sub> capture efficiency of over 90 percent and CO<sub>2</sub> purity of at least 95 percent. The second stage pilot plant (capacity of 1,000 Nm<sup>3</sup>/h) began construction in 2010 and was completed in July, 2011 at Pohang Works. In 2012, we constructed a liquefaction facility to store recovered CO<sub>2</sub>. As of the end of 2015, we have completed the pilot plant's process optimization and the design of a commercial facility that can capture 300,000 tons of CO<sub>2</sub> annually. This technology will be temporarily transferred in terms of mutual growth between large and small companies. It will be applied to capture CO<sub>2</sub> from power stations. All captured CO<sub>2</sub> will be used for welding, farming and dry ice production.

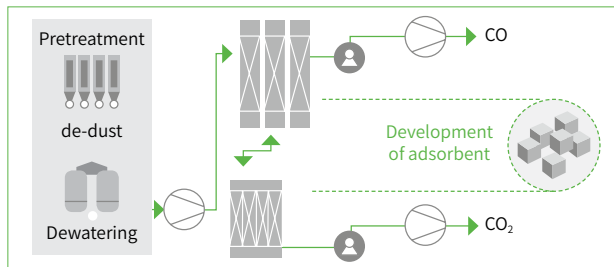
Capture of CO<sub>2</sub> from Off-gas by Using Ammonia Solution



**Technology for Separating CO and CO<sub>2</sub> from Off-gas through PSA<sup>1)</sup> Method** The development of technology for low-CO<sub>2</sub> iron making processes and utilizing off-gases holds the key to empowering the steel industry to cope with global warming. Since 2011, POSCO has been working to develop an optimal separation process and an adsorbent to separate CO and CO<sub>2</sub> from off-gases by using the PSA<sup>1)</sup> method. A first-stage lab device with a 1 Nm<sup>3</sup>/hr capacity was installed and accomplished CO purity of 99% or higher. In 2015, we studied a method for an optimal separation process by checking the performance of a developed adsorbent and the development of its digitalized model.

<sup>1)</sup>PSA: Pressure Swing Adsorption

PSA Process to Separate Gas to Produce Off-Gas for Steel Production



**Medium/low-temperature Waste Heat Power Generation Based on Kalina Cycle** Medium/low-temperature power generation is a technology designed to produce electric power by making good use of a medium/low-temperature (100~300°C) waste heat source. POSCO has developed the Kalina System which has high efficiency despite a low application temperature as compared with the common Organic Rankine Cycle System since 2011. In 2013, the company test-ran the Kalina System by installing it at Sinter Plant No.5 of Gwangyang Works. Since then, we completed the development of a 600kW standard module through performance optimization and long-term operation assessment. In 2016, we will invest in the development of engineering technology for the minimization of consumed electric power and a scale-up to the MW class and apply this system to a geothermal power generation project for the first time in Korea.

**Waste Heat Recovery Technology Utilizing Molten Salts as Heat Transfer Medium** Although heat generated from reheating furnaces contains abundant energy, technical and economic reasons hamper the recovery of the medium/low-temperature heat stream. POSCO is currently working to develop a power generation technology that collects waste heat by using molten salts as a heat transfer medium. Molten salts are a heating medium that, crucially, is stable at high temperatures. There are various molten salts that can be used by temperature levels which can top up to 1,000°C. Their high boiling point renders a high-pressure system no longer necessary. In particular, in the event of producing steam by applying molten salts to a discontinuous heat source, their heat storage property enables continuous production without requiring a separate steam storage facility. This is one of the strengths of this technology. In 2015, we carried out the design of a heat exchanger and have undertaken several simulation studies. We will continue our research on discontinuous heat sources such as electric furnaces in 2016.

### GHG Reduction Activities in Society

**Automotive High-strength Steel Sheet** Reducing car weight is one of the most effective ways to improve fuel economy and reduce GHG emissions. While figures vary by vehicular type, a 10 percent reduction in the overall weight of a car will typically lower CO<sub>2</sub> emissions by 5 to 8 percent. When applied to automobiles, a high-strength steel sheet<sup>2)</sup> can be made thinner than general steel sheets, but with the same strength profile. This feature makes production of a light vehicle possible, enhancing its energy efficiency. Assuming a vehicle made of high-strength steel sheet travels 19,000 km<sup>3)</sup> a year, each vehicle is estimated to reduce 1.8 tons of indirect CO<sub>2</sub> emissions over a period of ten years.

**Reduction of CO<sub>2</sub> Emissions in Society from Automotive High-strength Steel\***

(Unit: thousand t-CO<sub>2</sub>)

Category	2010	2012	2014	2015
CO <sub>2</sub> reduction throughout a product's lifecycle**	20,230	25,382	29,402	31,490
CO <sub>2</sub> reduction per annum	2,023	2,538	2,940	3,149
Sales volume (thousand tons)	2,511	3,150	3,649	3,908

\* The CO<sub>2</sub> reduction was calculated by estimating the amount of weight decreased when applying HSS to an automaker's passenger vehicle (with 2000cc displacement)

\*\* Assuming the end product (vehicle) is used for 10 years.

Tighter regulations on fuel economy in many countries around the world are driving up automakers' use of high-strength steel sheets to make their products lighter. POSCO is actively developing solutions with Korean automakers, such as by applying high-strength steel sheets to 70% of the body of Ssangyong Motor's Tivoli, or partnering with the automaker from an early stage in his development. In 2015, sales of high-strength steel sheets rose 7 percent year on year to 3.91 million tons, representing a 1.6-fold increase in sales volume from 2010. POSCO continues to make investment in producing high value-added products such as the high-strength steel and is exerting itself to develop vehicles that are environmentally, economically and socially more efficient by banding together with automakers.

<sup>2)</sup> Automotive high-strength steel refers to High-Strength Steel (HSS) and Advanced High-Strength Steel (AHSS) with a tensile strength of at least 340MPa.

<sup>3)</sup> Distance traveled in one year by a passenger car (Korea Transportation Safety Research Institute, 2006).

**High-grade Electrical Steel** A growing need for clean energy is fueling demand for electrical steel used in generators, power transformers and electric motors. There are two main types of electrical steel: grain-oriented and non-oriented. Grain-oriented electrical steel is a soft magnetic material in which the material's magnetic domains are aligned in the rolling direction after undergoing special processing to significantly enhance its magnetic properties<sup>4)</sup>. Grain-oriented electrical steel is widely used as a core material for such static equipment as transformers, converters and rectifiers. Non-oriented electrical steel has similar magnetic properties in all directions. This product is used in the iron core of a wide range of ro-

tating machines, such as large-scale generators and small precision motors. In particular, a good quality match for small transformers. High-grade electrical steel has a higher orientation to rolling than would a general electrical steel, driving its low-core-loss and high magnetic induction properties and thereby dialing up the energy efficiency of end products. POSCO supplied 440,000 tons of high-grade electrical steel in 2015, a year-on-year drop of 4 percent but a 1.3-fold increase from sales in 2010.

<sup>4)</sup> Similar to the concept of "resistance" in electricity, core loss occurs during magnetization and lower core loss means higher energy efficiency.

**CO<sub>2</sub> Reduction Effect from Using High-grade Grain-oriented Electrical Steel\***

(Unit: thousand t-CO<sub>2</sub>)

Category	2010	2012	2014	2015
CO <sub>2</sub> reduction throughout a product's lifecycle**	5,560	6,571	7,050	6,825
CO <sub>2</sub> reduction per annum	185	219	235	227
Sales volume (thousand tons)	183	215	231	224

\* High-grade grain-oriented electrical steel refers to products that have core loss of 1.05 W/kg or less.

\*\* Assuming the end product (transformer) is used for 30 years.

**CO<sub>2</sub> Reduction Effect from Using High-grade Non-oriented Electrical Steel\***

(Unit: thousand t-CO<sub>2</sub>)

Category	2010	2012	2014	2015
CO <sub>2</sub> reduction throughout a product's lifecycle**	33,507	41,343	45,311	42,809
CO <sub>2</sub> reduction per annum	1,861	2,291	2,517	2,378
Sales volume (thousand tons)	173	213	234	221

\* High-grade non-oriented electrical steel refers to products having core loss of 4.70 W/kg or less.

\*\* Assuming the end product (motor) is used for 18 years.

Case Report

**POSCO's Lighter Steel Body Solution for Electronic Vehicles**

The automotive industry is focused on developing advanced drive systems (such as electric vehicles) and ultra-light automotive bodies to lessen GHG emissions. 17 steelmakers including POSCO participated in the Future Steel Vehicle (FSV)<sup>1)</sup> project of the World Steel Association's automotive group (World Auto Steel), which aims to develop a lighter body for electric vehicles and announced the outcome in 2011.

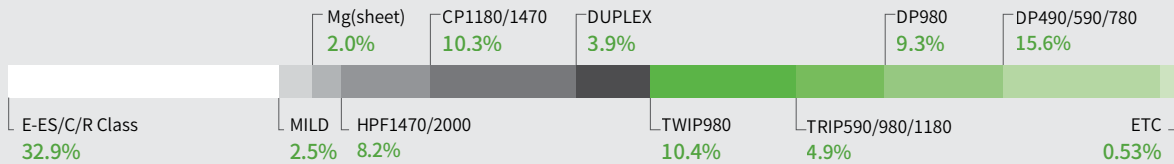
At the same time, POSCO independently developed a lighter steel body for the EV, dubbed POSCO Body Concept-Electric Vehicle (PBC-EV)<sup>2)</sup>, with the prototype completed in December 2011. PBC-EV is a representative solution marketing example to which the company applied our own WP (World Premium) products such as TWIP (Twinning-Induced Plasticity) steel, TRIP (Transformation Induced Plasticity) steel, HPF (Hot Press Forming) steel, CP (Complex-Phase) steel and DP (Dual Phase) steel. Over 45 percent of PBC-EV is ultra high strength steel with tensile strength of 80kg/mm<sup>2</sup>. Cutting-edge engineering methods such as hot press forming and PosRollForm (flexible roll forming) have made automotive bodies 26 percent lighter than existing ones. A life cycle assessment (LCA) from the material's production, use, disposal and recycling

indicates PBC-EV will reduce CO<sub>2</sub> emissions by almost 50 percent compared to existing car bodies. POSCO showcased about 30 kinds of WP products along with the PBC-EV, a new chassis for the electric car, at the North American International Auto Show held in Detroit in January 2016. Looking ahead, we will actively develop and publicize lighter steel body frame solutions

Project	World Auto Steel FSV <sup>1)</sup>	POSCO Body Concept - Electric Vehicle <sup>2)</sup>
Vehicle Weight	Down 35% for small vehicles	Down 26% for semi-sedans
GHG Emissions	70% down	50% down
Development Stage	Concept	Prototype



**Steel Type Distribution in PBC-EV**



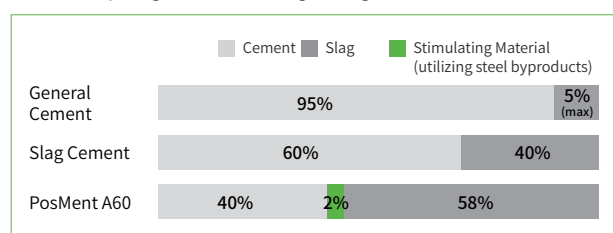
**Eco-friendly Slag Cement** Slag is a byproduct generated during the iron-making process. Blast furnace slag is made while producing pig iron, while steelmaking slag is made during a steelmaking process. The slag thus produced can be used as cement material, aggregates and fertilizer material. Blast furnace slag produced during the iron-making process is granulated when rapidly cooled by spraying water. As the chemical composition of granulated blast furnace slag is similar to that of cement, it is ground into powder and used for producing cement. When used as substitute for cement clinker<sup>3)</sup>, it helps conserve natural resources such as limestone and save energy needed to sinter cement, as well as CO<sub>2</sub> that is emitted in the process. Cement producers thus mix granulated blast furnace slag within 5 percent of the weight when producing cement.

POSCO's eco-friendly slag cement, added fine-ground slag (up to 40 percent) to this cement, has merits such as superior seawater resistance and reducing hydration heat which make the cement used mainly in marine concrete and mass concrete. Moreover, POSCO is developing and spreading PosMent, eco-friendly and economical high-performance cement, in concert with the RIST and POSCO E&C with an eye towards expanding the recycling of granulated slag. PosMent has a higher percentage of slag than existing slag cement

and better physical properties including compressive strength. The cement can reduce CO<sub>2</sub> emissions by about 60 percent compared to existing cement. Various tests were conducted at PosMent by applying it to crack-prone large structures and offshore structures. In 2015, POSCO used 1.93 million tons of PosMent, a 3.8-fold increase from 2013 at construction sites. It's estimated that POSCO cut 7.69 million tons of GHG emissions in society by using 9.80 million tons of granulated slag as materials for cement alternatives, slag cement and PosMent in 2015.

<sup>3)</sup> Clinker is made by sintering cement material such as limestone at high temperature. When finely ground, it becomes cement.

**Rate of Recycling Granulated Slag during Cement Production**



### Carbon Market

#### Carbon Fund and CDM (Clean Development Mechanism)

POSCO has been a member of the Carbon Emission Fund led by the Korean Ministry of Trade, Industry and Energy since 2007. The fund aims to secure emission credits from CDM projects<sup>4)</sup> at home and abroad. Some of the emission credits secured through the fund will be used in the emissions trading system in Korea. In December 2015, we donated carbon credits of 26,000 tons to the PyeongChang Winter Olympic Games and Winter Paralympic Games Organizing Committee through voluntary cancellation. The volume of the carbon credits POSCO donated equaled the effects of the yearly operation of about 201MW wind power generators. These credits will contribute to the first realization of zero GHG emissions in Olympic history as they will help offset GHG emissions over the period of the PyeongChang Winter Olympic Games, including preparations for the global sports jubilee.

In addition, the company has invested in the Future Carbon Fund under the management of Asian Development Bank since 2009 for the purpose of buying carbon credits from CDM projects such as by developing new and renewable energy sources in Asian countries. At the same time, a small hydroelectric power plant at Gwangyang Works was registered as a Clean Development Mechanism (CDM) project by the United Nations Framework Convention on Climate Change (UNFCCC) in July 2008, and will earn 26,000 tons of carbon credits over the next decade. We are currently monitoring the project. Starting in 2016, we are planning to use credits obtained through CDM projects and carbon funds in conjunction with the domestic emissions trading scheme.

<sup>4)</sup> CDM Project: A project that obtains emission credits that can be traded in international carbon markets including the EU in the form of carbon emission rights by investing in developing countries' GHG emissions reduction projects. The UNFCCC is in charge of the process from business registration and emission rights certification to issuance.

**GHG Registry** POSCO participated in a GHG reduction project organized by the Korea Energy Management Corporation under the Ministry of Trade, Industry and Energy between 2005 and 2011. In five years' time, we acquired GHG registry credits amounting to 3.58 million tons by implementing 14 projects, such as by scaling up electric power production through enhancing energy efficiency and reducing greenhouse gas emissions through the new and renewable energy business.

#### Government-certified GHG Reduction Performance

(Unit: thousands tons t-CO<sub>2</sub>)

Reduction Performance Project	CO <sub>2</sub> Reduction
Power generation using off-gas (combined cycle, cogeneration)	1,988
Waste heat recovery (CDQ, TRT, waste heat boiler, fuel pre-heating equipment)	1,533
Improving energy efficiency (power-saving device, fluid coupling)	42
Fuel switching (B-C oil → LNG)	15
New and renewable energy (photovoltaic power generation)	5
Total	3,583

### Green Business

#### Solar Power Plant

POSCO Energy completed a solar power plant in three steps at a deactivated saltern site in Sinan-gun, Jeollanam-do from 2011 through 2014. The power plant is now in operation. The 14.5MW Sinan Solar Power Generation Complex, located on a site of 230,000 square meters, is able to produce 20,000 MWh for about 5,000 households each year over the next 20 years. The solar park can reduce more than 9,000 tons of carbon dioxide every year, which is equivalent to planting 2.6 million pine trees. The use of an abandoned saltern site meant no environmental damage was done. Abundant sunshine, one of the strengths of a saltern site, helped the use rate (solar electric conversion rate) reach 16.2 percent, higher than Korea's average of 15 percent.



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

#### Smart Grid

POSCO ICT entered the smart grid business with the development of a 2MW Energy Storage System (ESS) through a smart grid test project (5) on Jeju Island in 2009. The ESS is one of the major technologies used to realize a smart grid. We can save energy cost by storing surplus power from power plants, such as new and renewable energy sources or cheap reserve night power, and putting them to use. POSCO ICT supplied the ESS not only to the Ochang Plant of LG Chem and the POSCO Center, but to the Sinan Solar Power Generation Complex, and took part in the Microgrid Construction project which connected it to solar power generation in the complex in 2014. In December of the same year, POSCO ICT completed the nation's largest ESS test center capable of producing and test-driving an ESS with an annual production capacity of 144MW. In 2015, POSCO ICT supplied electric power to approximately 50 households and schools by creating an energy independent village with solar power generation facilities and an ESS in Mozambique in Africa in concert with the Korea Electric Power Corp. Utilizing its experience from Mozambique, the company is planning to actively press ahead with an independent power grid building project for developing countries with poor power supply infrastructure starting in 2016. In addition, POSCO ICT will also participate in smart grid promotion projects for 13 municipalities across the nation from 2016 to 2018, in line with the government's policy to foster new energy industries.

<sup>5)</sup>A smart grid is a next-generation intelligent electric power network which optimizes energy efficiency by applying IT to existing electric power networks and letting power suppliers and consumers exchange information in real time.



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



**Fuel Cells** Fuel cells are environmentally friendly high-efficiency distributed power generation facilities. They are an item which the government designed in 2009 as one of three important new and renewable energy sources to support, along with solar power and wind power. In 2015, the Public-Private Joint Task Force Team for the Creative Economy identified this area for a flagship project aimed at developing a future growth engine.

POSCO Energy advanced into the fuel cell business in 2007 and accounted for more than 90 percent of the domestic fuel cell market in 2015. Building a 100MW fuel cell plant in Pohang gave the company unparalleled competitiveness. Fuel cells (total combined volume: 154.2MW) produced in the Pohang plant were installed in about 20 fuel cell power plants, including Gyeonggi Green Energy (58.8MW), which is the largest fuel cell power plant in the world. Notably, POSCO Energy completed Godeok Green Energy (19.6MW) as part of a policy to decrease energy dependence on nuclear power plants by joining forces with Seoul City in 2014. In 2015, the company broke ground for the Noeul Green Energy Power Generation project (20MW) in Sangam World Cup Park together with Korea Hydro and Nuclear Power, Korea District Heating Corporation and Seoul City Gas. Since then, it has pressed ahead with the project on a full scale.

POSCO Energy is operating BOP and stack plants by receiving construction and maintenance service, BOP (Balance Of Plant, a device for supplying fuel to fuel cells and converting produced electric power) and stack (a core component of a fuel cell which produces electric power and heat) production technologies from FCE with original fuel cell technology in the United States in 2007. In 2012, the company secured cell technology (a core material of a stack) through a technology transfer agreement with FCE. When a cell plant in the fuel cell plant is completed in 2016, POSCO Energy will have a complete factory with a full process which can vertically integrate all sectors from design and manufacturing to installation and maintenance.



↑ POSCO Energy's fuel cell plant in Pohang

**High-speed Lithium Extraction Technology** As the lightest metal on Earth, lithium is a key raw material for the lithium secondary batteries used in mobile phones, laptops and electric cars. The natural resources currently used to produce lithium salt are brine (minerals in the liquid form with lithium dissolved in) and ore. Of the two, brine has stronger cost competitiveness. POSCO has developed a technology for the production of lithium from brine more efficiently. In 2010, we successfully developed a direct lithium extraction technology using a chemical reaction for the first time in the world. In 2011, we completed and began to run a tentative production facility with an annual production capacity of two tons. The steelmaker conducted a local scale-up research project for commercialization through tentative annual production of 20 tons of lithium in Chile and Argentina during 2013-2014 with annual production of 200 tons of lithium. POSCO has strengthened its technological competitiveness, submitting 47 patent applications regarding major lithium extraction tech-

nologies at home and abroad. Lithium direct extraction technology developed by POSCO does not need a wide evaporation pond, unlike existing evaporation methods, and is less affected by climate change. In addition, this technology records almost no loss during lithium extraction. It is economical and environmentally friendly technology that can extract the same amount of lithium with a smaller amount of brine than the existing method.

In February 2016, POSCO held a ground-breaking ceremony for a large-scale plant based on lithium direct extraction technology in Salta, Argentina. The plant is capable of producing 2,500 tons per year. Given that an electric vehicle needs 40kg of lithium per unit as raw material for rechargeable batteries, the amount can be used for manufacturing about 60,000 electric vehicles. POSCO aims to complete the plant by the end of 2016 and is planning to boost its production capacity step by step.



↑ Ground-breaking ceremony for POSCO's commercial lithium extraction plant in Argentina

**Triton Sea Forest** POSCO inked an MOU with the Korean Ministry of Oceans and Fisheries to respond to changes in ocean climate in 2007 and another to develop sea forests and cultivate marine resources in 2010. Under these MOUs, POSCO continues sea forest building projects in collaboration with the Korea Fisheries Resources Agency (FIRA) and the Research Institute of Industrial Science and Technology (RIST). Triton is used in these projects to restore the marine ecosystems damaged due to whitening events caused by rising sea temperatures. Triton is a quick way to restore marine ecosystems and resources including seaweeds and shellfish. The main material in Triton is steel slag, a steelmaking byproduct containing more calcium and ionized iron than ordinary aggregate. The presence of these minerals stimulates the growth and photosynthesis of algae, and purifies contaminated seawater and sediment. In addition, Triton sea forest is capable of CO<sub>2</sub> fixation from carbonization and seaweed photosynthesis.

After completing the 1-ha slag sea forest on Geomun Island off the shores of Yeosu Expo Park in 2011, POSCO entered into a joint project to build a sea forest on Saryang Island and in Uljin-gun, Gyeong-sang-buk-do in 2012. In 2013, POSCO designed and built a sea forest near Guman-ri village in Pohang. At the same time, it has surveyed their effectiveness and conducted maintenance work, such as rescuing marine species, sponge removal and transplanting seaweeds. In particular, in May 2014, three types of Triton fishing reefs (A type, T type and steel-combined type) were designated by the Ministry of Oceans and Fisheries as general fishing reefs. We expect to officially make use of Triton in future projects for the sea forest and sea farm conducted by the central and municipal governments. We are currently building a port-side marine ecosystem purifying space using Triton with POSCO E&C. It is part of the Phase 2 Floating Breakwater project at Ulleung (Sadong) Port. We will boost cooperation with related institutions for the restoration of the coastal ecosystem and reforestation of the sea.



## CLIMATE CHANGE PARTNERSHIP

**Carbon Disclosure** POSCO discloses its activities to deal with climate change and its CO<sub>2</sub> emissions through its Sustainability Report, Carbon Report and home page. We have participated in the SAM-Dow Jones Sustainability Indexes (SAM-DJSI) and the Carbon Disclosure Project (CDP) since 2003, whereby our climate change activities are evaluated by independent parties. The SAM-DJSI, developed by Swiss sustainability rating agency RobecoSAM and Dow Jones, a U.S. based publisher of financial information, analyzes and evaluates about 2,500 global companies in terms of financial profitability, environmental soundness, and social responsibility every year. Based on the results, the SAM-DJSI announces the list of the top 10 percent of each industry. POSCO has been listed on the index for 11 years running since 2005. In 2014, we had the honor of winning the “Industry Leader,” the “Gold Class” composed of only the top one percent in the industry and “Industry Mover” for achieving the biggest improvement from the previous year. In 2015, POSCO was selected as the best company in its industrial group (industry leader) by receiving the highest scores in crisis management, supplier management, social and environmental contribution and stakeholder engagement. In the 2010 CDP report, we were the only steelmaker in the world to be named among the top performers on the Carbon Disclosure Leadership Index (CDLI) and Carbon Performance Leadership Index (CPLI). The report covers 500 companies listed on the FTSE (Financial Times Stock Exchange) and evaluates their carbon disclosure and performance every year. POSCO was again included in the Carbon Disclosure Leadership Index both in 2012 and 2013. POSCO has also been named as a leader in the raw materials sector by the Carbon Disclosure Project (CDP) Korea Committee for seven years in a row since 2009.

**Climate Action by the World Steel Association** POSCO participates in the climate change mitigation actions supervised by the World Steel Association (Worldsteel). POSCO has also participated in the “Worldsteel CO<sub>2</sub> Breakthrough Programme” since its launch in 2003 to develop breakthrough technologies designed to reduce CO<sub>2</sub> emissions in the steel industry, and successfully developed the greenhouse gas emissions calculation methodology. The steel giant has also participated in “Worldsteel Climate Change Policy Group” and “Worldsteel CO<sub>2</sub> Data Collection Project” since their inception in 2007 and 2009, respectively. Through these activities, POSCO also participated in the process where the International Organization for Standardization (ISO) established the relevant standard<sup>31</sup>. In recognition of its contribution to Worldsteel’s climate change action, POSCO has been a certified as a Worldsteel Climate Action Member for six years running since the first year (2008~2009). In addition, to provide LCI (Life Cycle Inventory)<sup>32</sup> data about major steel products and analyses of their environmental impact to stakeholders around the world, we play an active part in the Worldsteel LCA Project, which collects annual raw material/process data of member firms and publishes the 2015 Worldsteel LCI Methodology Report.

<sup>31</sup> ISO TC17/WG21, 「Calculation method of CO<sub>2</sub> emissions intensity from Iron and Steel production – Part 1: Steel plant with blast furnace(ISO/CD 14404-1) Calculation method of CO<sub>2</sub> emission intensity from iron and steel production – Part 2: Steel plant with EAF(ISO/ CD 14404-2)」

<sup>32</sup> LCI: A list of polluting materials such as CO<sub>2</sub>, NO<sub>x</sub> and SO<sub>x</sub> through the whole process from production, distribution and disposal including fuel/energy consumption and the occurrence of pollutants/waste.

**Global Partnership on Energy Efficiency** The Clean Energy Ministerial (CEM) Meeting in July 2010 launched the Global Superior Energy Performance Partnership (GSEP) which aims to enhance energy security by lessening energy consumption at industrial facilities and commercial buildings, thereby reducing GHG emissions. The GSEP has six working groups<sup>33</sup> including the Power Generation and Cement Working Groups and POSCO is participating in the Steel Working Group. Participants agreed to draw up documents about national GHG emissions reduction technologies and establish a roadmap at the GSEP Steel WG held in Paris in September 2014. A booklet for Iron and Steel Industry containing the 2014 agreement was published at the WG held in Tokyo in February 2016. Energy and carbon polices by countries such as Japan, China and Korea were shared at the event.

<sup>33</sup> The six working groups focus on power, steel, cement, combined heat and power and efficient district heating and cooling, cool roofs and pavements and energy management, respectively.

**Technology Exchange on Environmental Energy with Domestic and Overseas Organizations** POSCO hosts technology exchange meetings to share current issues surrounding environmental energy and climate change and build networks with steelmakers. In February 2015, POSCO exchanged trends in the environment, CO<sub>2</sub>, energy, byproducts policies and technological information in the environment and energy sector with the Association of German Steel Manufacturers (VDEh) in Dusseldorf (Germany) and Voestalpine (Austria), respectively. Moreover, in October, we shared success stories about technologies for air and water quality management and the enhancement of energy efficiency with CSC, a Taiwanese steelmaker, at its Dragon Steel Plant.



# SAFETY AND HEALTH

## SAFETY

### POSCO's Safety

In light of safety incidents that occurred last year, such as the Middle East respiratory syndrome (MERS) which occurred from May to December and took the lives of 38 people, explosions which occurred in a Hanwha Chemical plant in July, and the massive explosions that shook China's Tianjin Port in August, the importance of safety, health, and disaster management in corporate ecosystems is increasingly being emphasized these days. POSCO is thus endeavoring to implement self-directed safety activities and establish a voluntary safety culture by conducting Safety SSS (Self-directed Safety Spread).



↑ MERS Incident



↑ Disaster at Tianjin Port

### Safety SSS (Self-directed Safety Spread) Activity

POSCO has designated 2015 as the first year for establishing a self-directed safety culture. To make employees realize the importance of the safety activities, previously led by the company, and spontaneously perform the activities, POSCO has made every effort to change employees' safety awareness and increase their safety know-how. In particular, POSCO has conducted various safety activities with the Labor-Management Council, which is an organization that represents employees, to establish Safety SSS activities in POSCO. To provide support, POSCO built the foundation by promoting Safety SSS activities and improving our systematic capability.

#### Development of personal accident-free management system

- Description: Awards are presented to employees who achieved 2,000 points by spontaneously managing accident-free management points.
- Accident-free point items: Eight objective and quantitative management indicators are selected.

Category	Item	Results of my safety activities	
Point addition	No-accident hours, education, qualification certificates, Making good suggestions, discovering potential risk	Date of no-accident record's beginning	2015-08-01
		No. of no-accident days	55
		Cumulative points	1,318
		Next target date	2017-11-14
Point deduction	Traffic rule violation, issuance of Co-worker Love Card and occurrence of accidents	Latest date of reaching goal	

#### Suggestion and essay contest for safety enhancement

Category	Safety suggestions	Essays on safety
Contents	Improvement in safety system and removal of potential risk factors, enhancement of safety mindsets.	Accident stories and accident prevention cases.

#### Production of accident case videos and bus announcements for commuting buses

- Accident videos (11): Being caught in machinery, falls, electric shocks, burns, crashes, gas poisoning, explosions and others
- Safety announcements for commuter buses (7 types): By days

Category	Contents	Remarks
Video	Raising safety awareness by producing videos by recent accident types	Watching videos before education, shifts and repairs
Safety announcements	Producing bus announcements to raise employees' awareness of safety during commuting time	Broadcasting inside commuting buses

#### Simplification of safety administration work

- Simplifying administration work by taking into consideration employees' opinion that safety activities lead to much redundant work

#### Conducting "safety SSS activities" under Labor-Management Council and preparing venue to share outcomes

- POSCO Family Safety SSS Festival 2015 (January)
- Venue to share best safety SSS activity cases (August)

#### Safety Score (2011 - 2015)

##### Safety Score: Number of Accidents

(Unit: cases (fatalities))

Category	2011	2012	2013	2014	2015
Employee	12(0)	3(1)	10(1)	12(1)	7(0)
Contractor	6(0)	4(1)	4(1)	3(1)	1(0)
total	18(0)	7(2)	14(2)	15(2)	8(0)

##### Safety Score: Lost Time Injury Frequency Rate

Category	2011	2012	2013	2014	2015
Employee	0.33	0.08	0.26	0.32	0.19
Contractor	0.15	0.10	0.10	0.08	0.03
total	0.23	0.09	0.18	0.20	0.11

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

\* Major accidents

- ① Accidents which led to 1 or more fatalities
- ② 2 or more simultaneous injuries requiring more than 3 months of recuperation
- ③ 10 or more persons have been injured or fallen ill due to occupation illness simultaneously

\* Total working hours in 2015 = total (72,011,630 hours), direct operations (36,791,524 hours), outsourcing partners (37,220,106 hours)

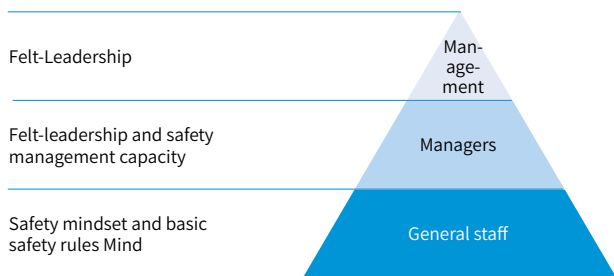
\* LTIFR of 2015, according to OSHA (Occupational Safety and Health Administration) standard of 200,000 working hours is: Total (0.02), direct operations (0.04), subcontractors (0.01). The figures were round off to the second decimal places.

**Safety Activities: Safety Education and Training**  
**Safety and Health Education tailored to Each Level of Employees**

As well as mandatory safety training required by law, POSCO is conducting customized training to develop the level of safety capacity required by employees across different grades and roles. Leaders must develop “felt leadership,” which is leadership by example to inspire the spontaneous engagement, participation and buy-in of employees. Management supervisors have to create a safe and healthy work environment by enhancing their site safety management skills. General employees have to increase their safety awareness through training focusing on basic safety rules. Through these efforts, POSCO is protecting all employees from the risk of accidents. In October 2011, POSCO established a global safety center<sup>1)</sup>, equipped with a safety exhibition, a 4D theater, and an experience room, to lay the foundation for conducting systematic and continuous training combining theory and practice. POSCO is also running safety education and tour programs for students and citizens.

<sup>1)</sup> Global Safety Center: <http://safety.posco.co.kr/>

**Customized Training by Classes**



↑ Global Safety Center

**Results of customized education by classes**

Class	Course name	2015 results
Executive/ manager	Safety workshop for executives and managers	March, October
Department/ factory heads	Safety leadership training	May, October
Safety part leader	Safety expert fostering education	April
Part leader	Safety leadership training for part leaders	October ~ November
Foreman	Safety training for foremen	February ~ April
General Staff (blue-collar)	Collective safety and health education (regular) Safety education at worksites	When necessary
General staff (white-collar)	General staff (white-collar)	May ~ September
Short continued service employees	Special safety training for short continued service employees	February ~ April

**Emergency Response Exercise** POSCO conducts a systematic emergency response exercise based on its manual. We strengthened the unannounced exercises and hazardous substance leakage prevention exercises to respond promptly to emergencies, and we conduct an integrated exercise annually to prepare for large-scale disasters. In addition, we established a fire control process and a chain of command for spreading the word for each plant, while minimizing the risk of losses in the event of an emergency.



↑ Emergency Training

**Emergency Training**

Training name	Managed	Target	Cycle	
			Pohang	Gwangyang
Public-private joint training	Fire station	Works	Once a year	Twice a year
Preparations for fire Simulation drill	Pohang / Gwangyang Works Safety and Accident Prevention Dept.	Factory	Once a quarter	Once a half
Factory's self-controlled training	Factory	Part leader / foreman	When necessary	

**Safety Activities: Raising Awareness of Safety**

**Safety Greetings** POSCO is putting into practice a standardized safety greeting system all over its works with a view to raising employees' safety awareness. The greeting contains encouragement and consideration to promote safety and praise employees. Regardless of rank, if two employees meet, one shouts “Safety” first and stretches his right arm with the thumb up, the other shouts “First” with the same gesture.



**Cross Audit** POSCO has set 10 Safety Ironclad Rules that must be observed at workplaces to prevent accidents. In case the 10 rules or standards are violated, the relevant manager issues a Co-worker Love Card and, when they act safely, the manager issues them with a compliment card. If a worker receives two Co-worker Love Cards within a year for violating the 10 rules, the department head will warn the worker, and if he receives three cards, we apply strict measures, such as sending him to the HR Committee, so that employees of POSCO and its outsourcing partners will always observe the 10 rules.



↑ 10 Safety Ironclad

**Safety Activities: Safety Audit**

**Safety and Disaster Prevention Cross Audit** POSCO shares best practice by cross-checking the safety activities of the same production process and comparing and analyzing strengths and weaknesses to increase and equalize the safety level of Pohang and Gwangyang Works. POSCO assembled task force teams by utilizing internal safety and disaster prevention specialists who are from safety departments and safety leaders at both works, and diagnoses 20 plants at both works for two weeks every six months. To conduct audits precisely and systematically, interim inspection items and specific diagnostic methods have been determined in advance, and audits are conducted in the order of an interview, a document review, and on-site diagnosis.

Category	Inspection Items
Safety	Safety protective equipment, safety techniques, safety action observation, process safety management (PSM), risk assessment, safety work permit and TBM, ILS (Isolation and Locking System)*, safety devices, facility management
Disaster prevention	Emergency response organization and training, safety vulnerable places and facilities

\* ILS: It is a locking system to protect workers even when they make mistakes by physically blocking the careless supply of power to equipment or machines and the activation of energy facilities.



Number of excellent cases **458**

Number of improvement cases **1,025**

**Safety Audit and Patrol** To uproot unsafe behaviors at the plant floor, we conduct safety audits supervised by managers and the self-patrol of field safety personnel every day. During the safety audit, we not only check unsafe behaviors and status, but also encourage employees so that they may work in a safe environment.



↑ Safety Audit

**Safety Activities: Identifying and Removing Hazards**

**ILS (Isolation Locking System)** POSCO started full operation of the ILS since 2008 that shuts down the energy source before repair work and does away with the causes of accidents in the first place by controlling entry into operating facilities. The ILS is divided into During Stop ILS and During Operation ILS. The During Stop ILS shuts down the energy source, isolates and locks the facility to prevent it suddenly going into operation while conducting maintenance or repair. The During Operation ILS classifies the facility according to level of danger to control workers entering the facility. For example, a level 1 facility has been made to stop operation automatically when the entry way is opened to secure the operator's safety.

In addition, the company is managing risk from facility examiners, such as getting rid of double fences by designating model factories at Pohang and Gwangyang Works to ensure workers' safety and an efficient facility management environment through the ILS. We are building the ILS for the Group companies and outsourcing companies as well to secure safety at the work place. We conduct ILS education tailored to each company and the ILS operation status diagnosis to present the direction for improvement that fits each plant and company.

**Fatal Hazard Top 10** Based on risk assessment and past cases, POSCO expanded Fatal Top 5 into Fatal Top 10 and has been running it to prevent explosions, large-scale accidents and serious disasters that can be fatal to the operation of works. With the aim of uncovering and eradicated hidden hazards with the participation of all employees, we classify hazards into the A to D grades according to the degrees of their risks and systematically manage them.



Fire and explosion	<ul style="list-style-type: none"> <li>Accident that can cause large fire and explosion with gas, electricity.</li> <li>-Oxygen supply system, cable culvert, belt conveyor, gas holder, hot stove.</li> </ul>
Major accident*	<ul style="list-style-type: none"> <li>Accident that can cause fatal damage to workers, such as suffocation and getting caught in machines.</li> <li>-Tundish gas poisoning, electric shock from high-voltage panels, getting caught in rolls.</li> </ul>
Large disability	<ul style="list-style-type: none"> <li>Equipment-related accident that requires eight hours or more to recover from equipment failure</li> <li>-Blast furnace shell crack, collapse of large structures, molten iron spill from convertor or steel teeming ladle.</li> </ul>

\* Major accident: This is an accident involving one or more deaths; two or more injured workers requiring treatment for at least three months; or ten or more injured workers.

**Fatal Top 10 Cases (326 cases)**

Class A: manager	74 cases	
Class B: factory manager	108 cases	
Class C: part leader	75 cases	
Class D: assistant manager	69 cases	

**TBM (Tool Box Meeting)** POSCO conducts TBM for every job to eliminate potential risk and secure safety by practicing TBM in everyday life. POSCO has also guided and educated workers to conduct TBM for planned jobs, sudden repair jobs, single person jobs, and daily jobs. For three minutes before starting a single person job, a worker has to conduct the “Take 3” process, which means stop → think → plan. After thinking about which risks could occur and which plan is needed to respond to the risks through the Take 3 process, the worker can begin to work on his job. In addition to Take 3, POSCO held campaigns and meetings and distributed TBM notebooks to promote TBM.

**Near-miss management** POSCO has specified processes covering from discovery, improvement, and dissemination to promote the Near-Miss System. Through the “Global Safety and Health System” that can be easily accessed by POSCO employees, POSCO is systematically managing all safety activities, including near-misses, by transforming the activities into data. When a near-miss occurs, a person who experienced it has to promptly report relevant information, such as how it happened and any risk points, to the management supervisor. After that, the person who experienced it has to register information about the near-miss in the Global Safety and Health System. The management supervisor, once informed about the near-miss, has to check the scene and immediately take temporary measures to prevent the near-miss from recurring at the same place. After that, the management supervisor has to relay the Near Miss case to employees in charge of those locations. To sign off<sup>1)</sup> the registered near-miss, the safety part leader<sup>2)</sup> holds a meeting, led by the plant manager, within 15 days from the day of the near-miss registration in order to analyze the cause and devise countermeasures. The safety part leader discusses the meeting results with related departments and register improvement plans within a month. A person, designated as an improvement officer, takes the improvement actions within the designated period and registers the actions taken

in the system. For a month after the actions are taken, the department manager has to check the effectiveness of the improvement measures taken, which aim to address near-miss and potential risk at the worksite (including the results of inspections and actions according to similar measures). The safety part leader closes off<sup>3)</sup> the system if he thinks the risk factors have been completely addressed. Based on this, the Safety and Health Department applies the results to a comprehensive analysis and safety activity plan of each steel mill, and gives education and encourages employees to boost the Near-Miss Report System. When “signing off,” a near-miss has to be classified into four grades (A-D) based on risk level (gravity) and operation frequency (occurrence possibility) matrixes. A Grade A near-miss is relayed throughout the steel works, a Grade B near-miss to the relevant department, a Grade C near-miss to the relevant team/plant, and a Grade D near-miss is relayed to the relevant part unit. In 2015, a total of 6,389 near-miss cases were registered.

<sup>1)</sup> Sign off / <sup>3)</sup> Close off: entry of a Near Miss or potential risk in the “Global Safety and Health System” is completed after going through the signing off and closing off process. This process involves establishing improvement measures for the risks entered in the system, and verifying the improvement results. “Sign off” is the process of analyzing the cause of the registered case, establishing an improvement measure, and classifying the level of risk. “Close off” is the process of verifying whether the risk has been fundamentally removed as a result of the improvement measure taken.

<sup>2)</sup> Safety part leader: A safety part leader is not a safety and health supervisor designated by law, but is a manager in charge of safety and health to build a pleasant and safe working environment for each department / plant.

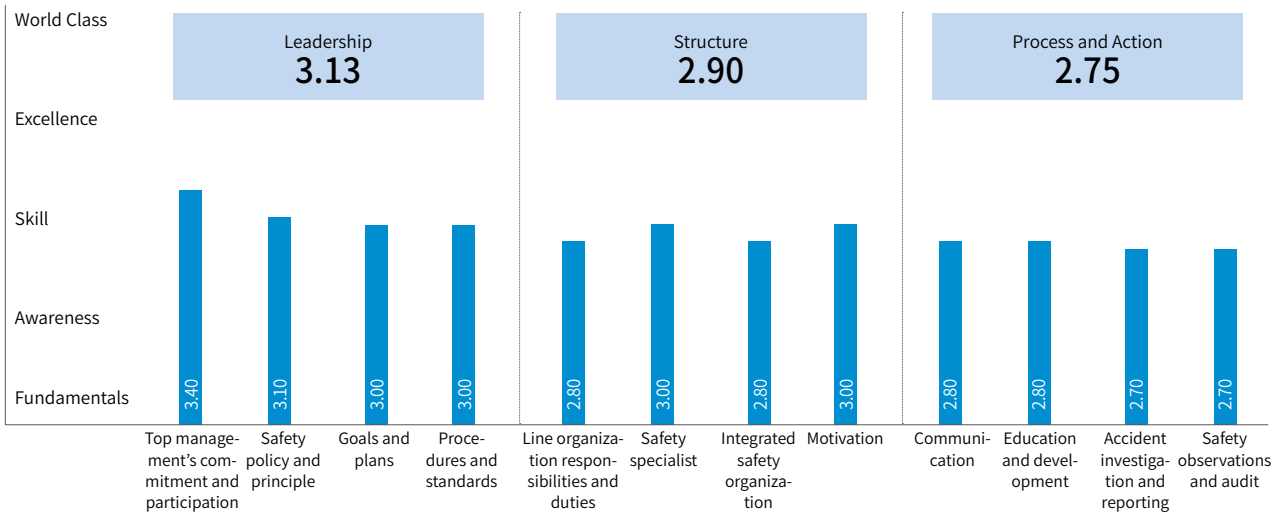
**Safety Activities: System – Diagnosis and Consulting**

**PSRS Safety Diagnosis and Consulting** Based on our safety know-how, we operate the POSCO Safety Rating System, a global-level safety-rating tool. The PSRS conducts quantitative evaluation by inspecting the implementation of safety leadership, organization, equipment and activities for each company. Strengths identified through the evaluation are made into standard models. For areas that need improvement, customized improvement methods and consultation for a systematic change management are provided. The PSRS procedure starts with establishing a diagnosis plan and forming a team. The team analyses safety activities data received from company, conducts surveys, interviews and field diagnosis by each of the 12 elements. The evaluation results are applied to the Bradley Curve to assess the current safety level. Those results are used as the basis for change management and reassessments are conducted regularly to enhance the safety level.

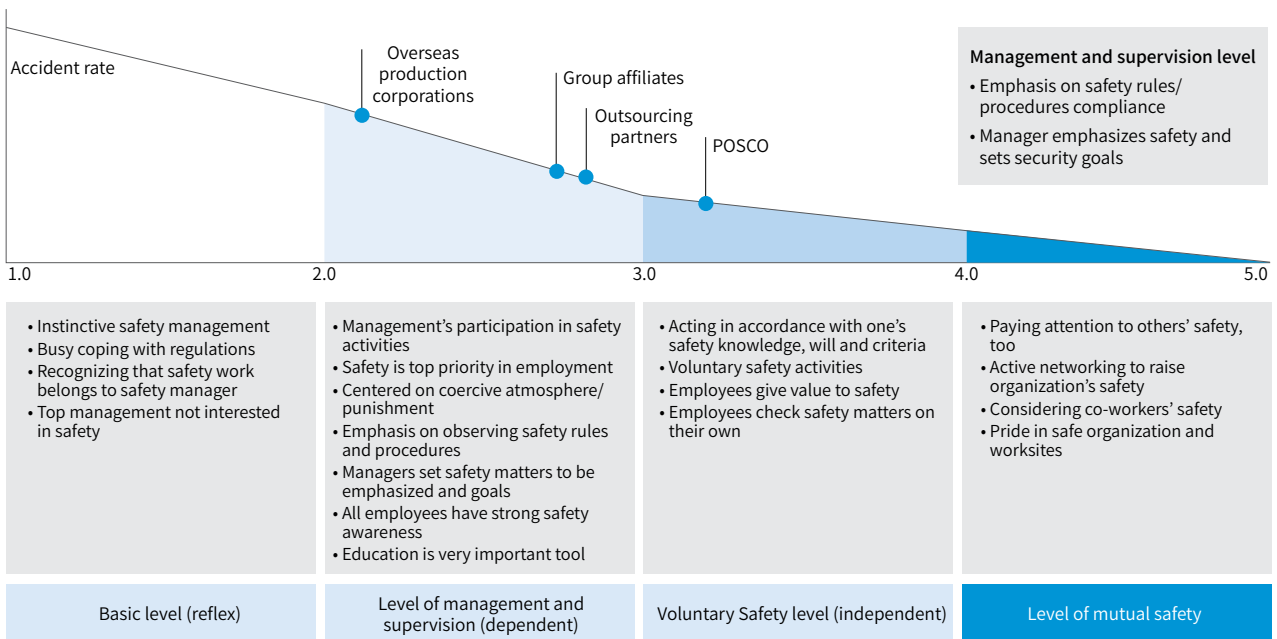
**PSRS Diagnose Procedure**

PSRS Audit	Main activities for each stage
1 Diagnosis plan	Making customized diagnosis plan for POSCO Family
2 Preparations for diagnosis	Safety activity material review of company (department) before diagnosis
3 Survey	Item pool-type survey, grasping awareness and phenomena
4 Diagnosis	Leadership, organization operation, rating of execution sectors by 12 elements
5 Change management	Whether or not major matters pointed out were corrected, VOC reviews and advice
<b>Re-diagnosis of change management</b>	

Analysis and Rating by Evaluation Elements

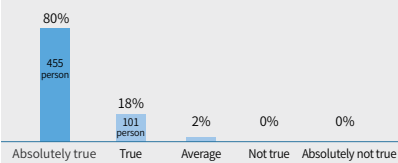


Level of safety culture(Bradley Curve)



↑ Onsite diagnosis

Co-worker Love Cards are thoroughly distributed when 10 safety rules are violated and anti-safety acts are committed at worksites.



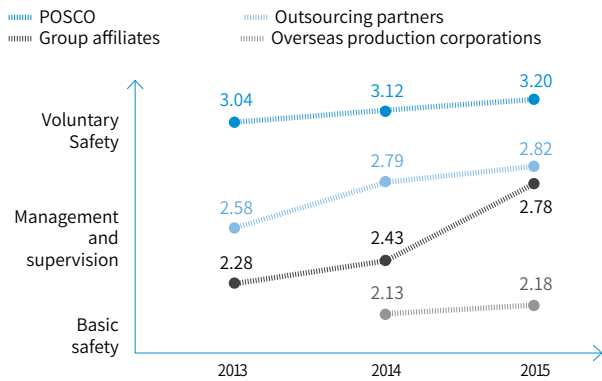
↑ Survey



↑ Consulting



**POSCO Family PSRS Indexes**



- POSCO (6 depts.): (Pohang) 4 depts. including Wire Rod Dept., (Gwangyang) 2 depts. including Production Tech. Dept
- Outsourcing partners (16 firms): 2 firms including EGPOTEC in Pohang and 14 companies including POSFINE in Gwangyang
- Group affiliates (3 firms): POSCO C and C POSCO A&C, POSCO Engineering
- Overseas Production Corporations (11 corporations): P-ASSAN TST, P-Mexico, P-Malaysia, P-SS VINA, P-Thainox, P-VST, P-ESI, P-Myanmar, PT-KP, Guangdong Coated Steel, POSCO(Guangdong) Automotive Steel
- Others: 3 consulting firms on safety of small companies for win-win growth

**Safety Activities: Traffic Safety**

**Good Driver Campaign** We have been holding the Good Driver Campaign to prevent car accidents within works and foster an advanced traffic safety culture since August 2014. The campaign aims to make traffic flows smooth and eradicate traffic accidents within works by raising drivers' awareness of traffic accidents.

**Major "Good Driver" Activities**

- Turning on headlights in daytime
- Not riding bikes on crosswalks
- Keep internal speed limit rules '40 Km/h'
- Keep parking rules

**Number of Traffic Accidents**

2013	26 cases	<div style="width: 100%;"></div>
2014	16 cases	<div style="width: 61.5%;"></div>
2015	5 cases	<div style="width: 19.2%;"></div>

**Safety Activities: Support for Group Affiliates**

**Management's Safety Consulting at Worksites and Follow-up Support** The safety level of POSCO Group subsidiaries is improved through customized consulting services and the direct visits by the management to check the status of safety activities. A different group subsidiaries equipped with production sites and facilities is selected on a monthly basis. Through preliminary inspection, the problems of the selected subsidiary are diagnosed, and areas to be improved are identified. Based on the results of the preliminary inspection, measures to raise safety level are discussed. By considering the dis-

cussion results and the Group's requirements, customized support direction is determined. Safety consulting services, which began in September 2014, have been underway to support a total of 18 subsidiaries up until February 2016. POSCO has put into practice various follow-up support measures, including customized education and safety diagnosis before the completion of plants.

No.	Company name	Month & year	No.	Company name	Month & year
1	POSCO C&C	2014. 9	10	POSCO Green Gastec	2015. 6
2	POSCO P&S	2014.10	11	POSCO TMC	2015. 7
3	SNNC	2014.11	12	POSCO Energy	2015. 8
4	POSCO's Humans	2014.12	13	POSCO M-TECH	2015. 9
5	POS-HiMetal	2015. 1	14	POSCO ICT	2015.10
6	POSCO A&C	2015. 2	15	POSMATE	2015.11
7	POSCO E&C	2015. 3	16	PNR	2015.12
8	POSCO Engineering	2015. 3	17	POSCO Chemtech	2016. 1
9	POSCO AST	2015. 5	18	POSCO PLANTEC	2016. 2



↑ Management's Safety Consulting at Worksites

**Safety Consultative Body in E&C Sector** The Safety Consultative Body in EC Sector was launched by five construction arms<sup>1)</sup> of the POSCO Group to combat accidents in 2015. The organization visits construction sites, conducts safety diagnosis and discusses and share safety issues a quarter. The five construction arms strive to elevate safety levels and realize accident-free construction sites through cross benchmarking.

<sup>1)</sup> POSCO E&C, POSCO ICT, POSCO PLANTEC, POSCO A&C, POSCO Engineering



↑ Safety Consultative Body in E&C Sector

**Safety Activity: Supporting overseas production corporations**

**Safety Diagnosis of overseas production corporations through PSRS (POSCO Safety Rating System)** POSCO supports overseas production corporations in many ways to increase their level of safety. POSCO has increased the safety awareness level and capacity of overseas production corporations by conducting safety education while providing improvement directions through customized consulting to intensively diagnose safety. POSCO selects safety activities that need to be carried out first and foremost by each overseas production corporation, and maintains a close support system by pairing up workers with safety partners.



**Holding 1st Safety Conference** POSCO held the Safety Learning and Conference for five days targeting safety-related employees at 15 overseas production corporations, including employees dispatched from the headquarters and locally hired safety managers at overseas production corporations. This was to develop safety professionals capable of leading the safety of overseas production corporations, while strengthening collaboration with headquarters. POSCO increased the safety level and capacity of participants through a series of programs, including the introduction of POSCO’s safety and health management system, theoretical and practical education about safety activity techniques, and benchmarking steel mills.

**Safety, Health, and Disaster Prevention Strategy for 2016**

With an idea that continuous changes and a strong commitment are necessary to develop a self-directed safety culture, POSCO will establish a safety culture by strengthening Safety SSS (Self-directed Safety Spread) activity and increasing safety capacity and safety awareness. POSCO will enhance preemptive prevention activities and emergency response capabilities with regard to places with fire and explosion risks to respond to large disasters and health risks. POSCO will conduct monitoring and close support activities to raise the safety level of POSCO Group’s subsidiaries and overseas production corporations, which are relatively vulnerable to safety risks. POSCO aims to realize Zero Harm and achieve “POSCO the Great” through the establishment of urgently needed self-directed safety activities.

### 2016 Safety Goals and Strategies

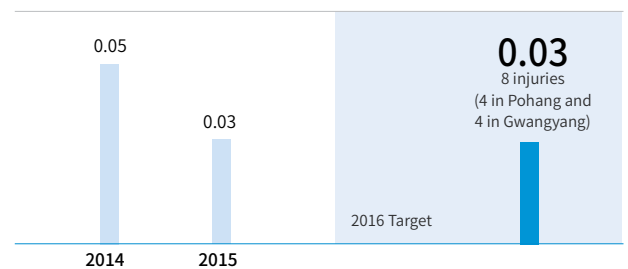


#### Action plans for strategies

- Reinforcing SSS activities**
  1. Establishment of SSS activities
  2. Safety activities for employees with Labor-Management Council
  3. Preemptively removing hazard by routine checkups
  4. Reestablishing safety work processes
- Establishment of culture to put basics into practice**
  5. Conducting POSCO Family 2 + 2 essential safety activities\*
  6. Reinforcing mindsets about execution of basics
  7. Establishing behavior-based safety culture by strengthening check function
  8. Building transparent reporting culture
- Raising disaster prevention and health management level**
  9. Introduction of advanced accident prevention technology and strengthening emergency response capabilities
  10. Conducting preemptive prevention activities against fires and explosions
  11. Raising PSM management level
  12. Reduction of harmful environment and occupational disease risks
- Raising level of safety at group affiliates and overseas corporations**
  13. Reinforcing operation of safety and health management system
  14. Continuing PSRS diagnosis and customized support for construction of ILS
  15. Running program to monitor and support safety activities

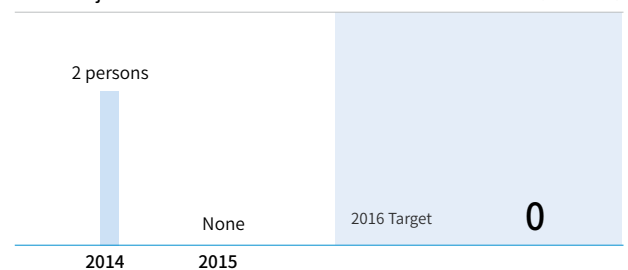
\* POSCO Family 2 + 2 essential safety activities: Safety Techniques 2 (TBM, checking matters pointed out) + safety campaign 2 (Safety Greeting and Good Driver Campaigns)

#### Accident rate



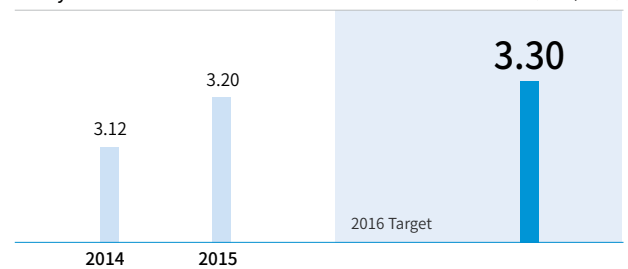
• KPI definition: the index that indicates the accident frequency, calculated as number of victims of total workers.  
 • It is the representative index of industrial hazard statistics (victims/total workers x 100)

#### Serious Injuries



• KPI definition: cases of serious injuries

#### Safety Culture Index

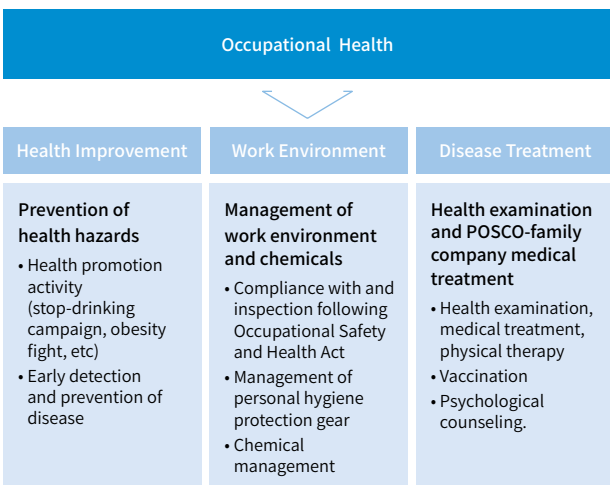


• KPI definition: the organization's PSRS results are converted into points  
 • We determine safety culture level through points obtained at the PSRS results (scale of 5 points)

# HEALTH

## Health Management Activities

Based on the belief that “Healthy employees make their company healthy,” POSCO concentrates on industrial health work in three areas — disease treatment, health enhancement and working environments. Industrial health management creates a clean working environment for employee health, prevents employees’ diseases and boosts their physical strength. At the same time, this activity checks employees’ health conditions, treats their diseases in their early stages and enhances their quality of life.



## Health Management History

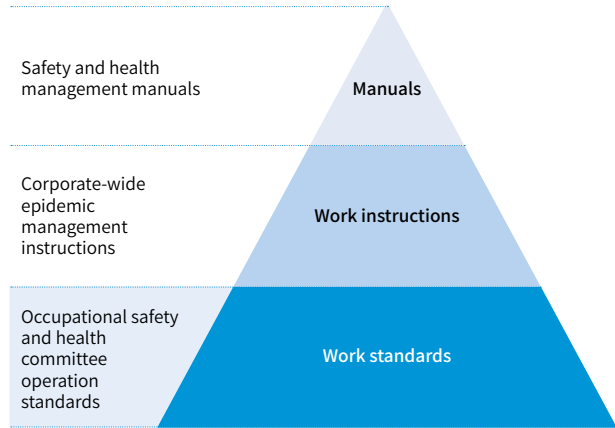
POSCO’s health management began from health check-ups of newly hired workers at the Health Care Center at Pohang Works with a health diagnosis organization certificate from the Ministry of Employment and Labor in 1973. Its areas have gradually expanded.

Health work	Pohang	Gwangyang
Designation of general health examination institute (Health examination / examination before and after placement.)	1973	1987
Approval of affiliated medical clinic (Primary care and medication / vaccination / physical therapy)	1975	1986
Work environment measurement institute (Work environment measurement / analysis / musculoskeletal hazards investigation.)	1979	1992
Special medical examination institute (Special examination by hazards / health management notebook distribution.)	1983	1987
Hazards-specialized research institute (Coke/chrome/hexavalent chrome research institute)	1994	-

■ In the case of Seoul and Songdo, medical treatment and health examinations were conducted in nearby hospitals.

## Standard Health Care System

POSCO is working by setting standards in the Global Standard Document Management System for the purpose of conducting overall tasks in industrial health care. The following is the standard work system in key health care sectors.



- Health examination management standard
- Enclosed space health work program operation standard
- Material safety data management standard
- High temperature work management standard
- Standard for wearing and managing safety and health protective gear
- Musculoskeletal disease prevention program operation standard
- Brain cardiovascular disease management standard
- Local ventilation system installation and operation and safety inspection standard
- Noise management and hearing conservation program operation standard
- Gas work equipment management standard
- Office air management standard
- Radiation work management standard
- Dust work management standard
- Standard for managing people with health problems
- Respiratory protection program operation
- Work environment management standard
- Standard for managing hazardous substances and asbestos subject to approval
- Standard for managing hazardous substances subject to management
- Standard for managing first aid and first aid supplies
- Occupational safety and health committee operation standard
- Safety and health sign management standard
- Safety and health-related meeting standard

### Operation of Health Organization

We operate a health organization for the promotion of employees' health as follows.

Category	Organizational structure	No. of persons	Personnel organization	Main Activities
Head Office	<ul style="list-style-type: none"> <li>• Production Safety Strategy Dept.</li> <li>• Global Safety and Health Group</li> <li>• Anti-Accident and Health Section</li> </ul>	2	1 team leader, 1 engineer	<ul style="list-style-type: none"> <li>• Company-wide health planning and diagnosis</li> <li>• health operating system</li> </ul>
Pohang	<ul style="list-style-type: none"> <li>• Safety and Anti-Accident Dept.</li> <li>• Health Promotion Dept.</li> </ul>	25	1 assistant manager, 1 health plan, 5 industrial hygiene specialists, 3 doctors (2 treatment doctors, 1 industrial doctors), 7 nurses, 2 pharmacists, 2 pathologists, 1 radiologist, 2 physiotherapists, 1 psychological counselor	<ul style="list-style-type: none"> <li>• health checkups and treatment</li> <li>• working environment measurement and improvement, psychological counseling, etc.</li> </ul>
Gwang-yang	<ul style="list-style-type: none"> <li>• Safety and Anti-Accident Dept.</li> <li>• Health Promotion Dept.</li> </ul>	23	1 assistant manager, 1 health plan, 4 industrial hygiene specialists, 3 doctors (2 treatment doctors, 1 industrial doctors), 5 nurses, 1 pharmacist, 2 pathologists, 1 radiologist, 3 physical therapists (2 assistants), 1 psychological counselor	<ul style="list-style-type: none"> <li>• checkups of executives' health</li> <li>• treatment, psychological counseling</li> </ul>
Seoul	<ul style="list-style-type: none"> <li>• HR Innovation Office</li> <li>• Administrative Support Group</li> <li>• Administration Section</li> </ul>	5	4 nurses (3 in Seoul, 1 in Songdo), 1 psychological counselor	<ul style="list-style-type: none"> <li>• checkups of executives' health</li> <li>• treatment, psychological counseling</li> </ul>



① Pohang Health Center  
② Seoul Health Center  
③ Gwangyang Health Center

### Highlights of Activities for Occupational Health

**Industrial Hygiene Management** To maintain perfect health, internal and external environments surrounding workers need to be pleasant. POSCO makes every effort to protect employees' health and create a nice working environment. The company is working with personal protective equipment manufacturers to enhance the convenience and performance of personal protective equipment. At the same time, POSCO has developed health standards such as "Hearing Protection Program" for areas that are vulnerable to sound pollution, and "Healthy Work Program for Enclosed Areas" for enclosed areas with low oxygen concentration. In addition, we strictly comply with the Material Safety Data Sheet (MSDS) based on GHS (Globally Harmonized System of Classification and Labeling of Chemicals) to use chemicals in an appropriate way. In addition, when demolishing buildings and replacing pipes, we conduct thorough tests for asbestos, as part of our long-standing commitment to the POSCO Family industrial hygiene management sector. Such efforts have earned

POSCO the "S grade" in the "Evaluation of Working Environment Measurement Organizations" and the "Evaluation of Special Health Diagnosis Organizations" conducted by the Ministry of Employment and Labor.



① Guiding worker in his wearing hygiene protector (Gwangyang)  
② Measuring concentration in working environment (Pohang) ③ Analyzing concentration in working environment (Pohang) ④ MSDS warning notice (Pohang)

**Health Enhancement Campaign** POSCO believes that the health of employees is an integral source of the company's competitiveness. This is why POSCO carries out no-smoking, healthy drinking, obesity fight, low salt diet, and "don't get angry" campaigns. Since 2009, POSCO has kept its steelworks "smoke-free" to encourage employees to quit smoking. The love for colleagues and love for family no-smoking campaign have been a success. Although some employees have begun smoking again, POSCO will continue the stop smoking campaign.

We are also campaigning for moderate drinking for healthy employees and happy families. At Pohang Works the "No passing glasses, no forced drinking, Practice 123<sup>1)</sup>" movement is under way and Gwangyang Works is promoting the 2-2-2 movement<sup>2)</sup>. The get-together culture is also changing from just drinking to going to gourmet restaurants or taking in sports and cultural events. To prevent obesity, POSCO promotes a range of obesity control programs for its employees such as an eight-week weight loss program, a healthy walking campaign, developing a healthy diet and a bicycle-riding movement.

Moreover, the Korean diet comparatively high in sodium content makes Koreans susceptible to lifestyle diseases such as hypertension and obesity. The company cafeteria lowered the sodium content of its food and promotes a low-sodium diet. Gwangyang Works is undertaking the "Peaceful Mind" campaign, given that anger is the foremost element threatening health. The Seoul Office operates the "Proud and Confident Health Up Program," a customized health enhancement program that provides integrated support including health consultation from a specialist, exercise prescription, and diet management.

<sup>1)</sup> Practice 123: Drinking twice in one week and fewer than three glasses at one sitting  
<sup>2)</sup> 2-2-2 movement: Pour a glass half full of drink, propose toast twice at most, and end the get-together within 2 hours.





① Healthy drinking campaign (Pohang)  
 ② Stop smoking campaign  
 ③ Workout advice at Fitness Center  
 ④ Low salt diet  
 ⑤ "Proud and Confident Health Up Program"

**Health Education** POSCO's Global Safety and Health Group provides online e-learning courses under the topic of "Industrial Health," as well as offline education on industrial health custom-tailored to the field to enhance employees' health. In 2015, we provided customized industrial health education to executives and managers at the POSCO Family and assistant managers, factory managers and part leaders at POSCO. At the same time, we provided customized visitation education for POSCO affiliates. The program consisted of health enhancements, lifestyle improvements, health examinations, the management of and an improvement in working conditions and preventing health issues. POSCO's online e-learning course on industrial health is open to all of POSCO Group employees. The Safety and Hazard Prevention Departments at Pohang and Gwangyang Works offer regular industrial health class that employees can take any time.

Category	2014	2015
Online course	524	155
Regular industrial health class	1,472	1,150

**Stress Management and Mental Health Counseling** POSCO has been running a counseling office, which opened in the mid-1990s for the first time in Korea among domestic companies, for the happiness and mental health of employees. Since 2005, Pohang and Gwangyang Works have been operating mental health counseling offices with mental health counselors. Employees and their families can receive counseling services through various measures, such as pre-arranged visits, phone calls, and emails. Group counseling programs which use various counseling techniques, professional counseling by doctors, and free-of-charge drug treatment in external psychiatric offices are provided, and all of these services are conducted confi-

dentially under the management of mental health counselors. Since September 2014, the Seoul Office has been focused on improving the mental health of all POSCO employees through customized counseling programs based on employees' psychological stability levels and age-specific features such as individual counseling, psychological tests, and psychological training service.




↑ Mental Health Counseling Center (Pohang)


Category	2013	2014	2015
Pohang	809	1063	998
Gwangyang	960	870	890
Seoul	-	212	934

**Response to the Middle East respiratory syndrome (MERS)** MERS spread widely in Korea as an epidemic disease in 2015. However, POSCO took preventive measures to help all employees have a healthy work life, and not a single employee was confirmed as a MERS patient. For this, POSCO operated an emergency control center and created epidemic management guidelines and strengthened its self-management standard.


- 5.21~
  - MERS prevention and health warnings were issued across the company: 28 times
  - Collaboration with Global Safety and Health Group, steel mills in Pohang and Gwangyang, Seoul Health Department.
- 6.4~
  - MERS emergency situation rooms were operated




↑ Company-wide (6.8~)



↑ Seoul (6.4~)



↑ Pohang (6.5~)



↑ Gwangyang (6.8~)
- 6.11~
  - Corporate epidemic management guidelines were established and enforced
- 6.13~
  - Feverish employees were checked through the use of thermal imaging cameras (A total of 13 cameras: 2 in Seoul, 6 in Pohang, 5 in Gwangyang)
- 6.16~
  - Self-isolation standards were enhanced/attendance management standards were implemented (a self-isolation period of 20 days)
  - Self-isolation of 46 employees (44 by self-isolation standards and 2 by the Centers for Disease Control and Prevention)
  - All safely returned to work (8 in Seoul, 23 in Pohang, 14 in Gwangyang)
- 7.3~
  - Isolated spaces from the reach of employees and their families (dormitory) were provided
- 7.20~
  - Group activities, which stopped due to MERS, resumed (training, voluntary work, events.)
- ~11.25
  - The operation of POSCO MERS situation rooms stopped (the date when MERS ended in Korea: December 23)



# BUSINESS ETHICS

Along with excellent facilities and efficient processes, having the employees who control them operate according to the right values is becoming a yardstick for measuring a world-class company's competitiveness. On June 2, 2003, POSCO took another step toward becoming a trusted and respected global company by announcing the Code of Ethics that pledges the practice of global ethics. After declaring the Code of Ethics, backed by the CEO's strong philosophy and firm determination for ethical management, POSCO has conducted effective and fruitful implementation activities for various stakeholders in tandem with continued training and promotion, and the establishment of rules and infrastructure befitting a global company.

The essence of POSCO's ethical management comes down to "the establishment and practice of a voluntary compliance system based on employees' participation and stakeholders' understanding." The company is not making employees have a superficial view of ethics but making employees behave ethically by building various systems to enable all employees to put corporate ethics into practice and experience it. These continuing and repeating experience are becoming an integral part of POSCO's organizational culture. In particular, ethical awareness that has been raised for more than ten years since 2003 will become a core engine that will make POSCO's future bright.

## Steady Employee Training and Campaigns

Aware that to incorporate the practice of ethics into our corporate culture, it's critical for employees to establish the right ethical values, we have continuously developed and operated online and offline education programs. Starting with a pledge to honor the Code of Ethics at the beginning of the year, all employees have to complete the online education programs for business ethics and the prevention of sexual harassment. In addition, offline programs are provided to new employees and career changers, while there are also customized courses on offer to fit each circumstance, such as promotion or overseas dispatch.

In particular, the offline programs are designed for various ranks and situations. First, executives receive 1-to-1 education once a year through the Executives' Ethics Session into recent trends in business ethics and audit cases and they compile separate material for ethics education to implement ethics education to the employees under them. In addition, in August 2015, POSCO gave executives and managers ethics education on leaders' ethical responsibilities and roles, including the CEO's special lectures, through POSCO's Saturday Class for Leaders.

Employees to be dispatched overseas receive in-depth education on the FCPA (International Corrupt Practices Act), and overseas corporation presidents receive 1-to-1 education from the heads of the Corporate Audit Department and the Finance Office. We introduce POSCO's ethical management and systems to employees dispatched overseas and locally hired employees, and conduct offline education twice a year for Ethics Helpers who spread ethics education to their departments.

In addition, business ethics is regularly publicized to enhance employees' ethical awareness. Every year, internal notices teach employees about ethical systems such as outside lecture fee donations, amounts of money given for congratulations or condolences, and gift return centers and help them put into practice what they have learned. In particular, the company informs employees at overseas worksites of FCPA guidelines or counseling cases by sending "global ethics observation newsletters". Moreover, we are steadily holding a human rights advocacy campaign to promote trust and consideration among employees through internal notices and surveys.

## Building and Spreading Infrastructure for Practice of Ethics

POSCO has built and operated various systems and infrastructure for effective business ethics implementation. In particular, "the CEO's Message," "the Preamble," "Ethical Principles" and "Ethical Charter" were added to the Code of Ethics in 2015. The message contains the CEO's philosophy and commitment to ethical management, while the preamble specifies the purposes, fundamental directions and principles of the Code of Ethics. Moreover, we have set guidelines on amounts of money with regard to receiving money/valuables or treats in relation to ones' job from an external stakeholder, while designating our four major unethical behaviors as taking bribes, embezzlement, violations of sexual ethics and information manipulation. We have also introduced the "One Strike Out" Rule to punish those who commit such acts regardless of their ranks. In this manner, POSCO established ethics as a top priority in management. Unethical behaviors can be reported by phone, fax, mail, or the internet. The identity of a person who reported is thoroughly protected in any cases.

**Business Ethics Education Completion Rate**

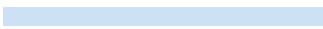


(Unit: %)

Category	2014	2015
Business ethics*	94.5	98.3
Sexual harassment	96.4	99.0

\* 2015 Target: 100%

**Unethical Behavior Report Center's Reception of Repots**

(Unit: cases)

2013	253	
2014	259	
2015	224	

**Measures Taken by POSCO in 2015**

Category	Disciplinary action	Warning	Caution	Total
Details	36.8% (141cases)	49.9% (191cases)	13.3% (51cases)	100.0% (383cases)

We have improved our “ethics practice program” since September, 2015, so that each department can identify and mitigate ethical risks. The program used to be operated under the management of department heads as a “self-directed program”. But the program has changed to be conducted under the responsibility of a relevant board member for its better practice. Practice themes have been expanded to risk discovery and improvement in overall management from risk discovery and improvement in units. The activity results are used in executive performance evaluation and excellent instances are shared by all employees to enhance the company’s overall ethical level. Since 2003, we have run the Holiday Gift Return Center around Lunar New Year’s Day and Chuseok. We have actively campaigned to express gratitude, rather than simply exchanging gifts. If there is any gift not being returned to senders for a reason, the gift is auctioned off to employees. Earnings from the sale will be given to “the POSCO 1% Sharing Foundation” so as to be used for our less-fortunate neighbors.

Indeed, flowers congratulating an employee on his promotion, congratulatory or condolence money from stakeholders difficult to return or employees’ earning for lectures concerning his work-related knowledge will also be donated to “the POSCO 1% Sharing Foundation” in accordance with a relevant system and process. We will make our utmost effort to lay the foundation for leading all employees to understand and practice corporate ethics with positive and pleasant mindset.

**Ethical Management that Grows with the POSCO Family**

At POSCO, diverse activities are being conducted to diffuse ethical management and elevate its level across the group. Specifically, we are spreading an ethical behavior program revised last year to affiliates in by POSCO. To this end, we held events for ethics-related employees at such companies.

Moreover, we are paying visits to our overseas corporations to diffuse the philosophies of POSCO’s ethical management to them. In advance of such visits, we grasp the ethical level of the corporation and inform of the results through a session with the head of the corporation. Ethics education is given to the head, Korean employees and local employees of the corporation.

**Preventing Ethical Risks in Global Business Management**

POSCO has put considerable effort into global-level ethical risk prevention at its overseas corporations and offices. As part of our efforts

to spread ethical management, POSCO provides collective training to employees and overseas corporation presidents who are about to be dispatched, as well as ethics education and coaching to Korean employees and locally hired employees. In 2015, we visited POSCO’s overseas corporation in Indonesia to conduct ethics education, FCPA (International Corrupt Practices Act) training and coaching about the practice of ethics to Korean employees and locally hired employees.

In addition, by visiting our overseas corporations in China and Myanmar, we coached employees there about elements of legal violations such as wining and dining and gifts that can occur in global business. Furthermore, POSCO was the first to establish and introduce the ‘International Corrupt Practices Act Compliance Guideline’ in 2011 to voluntarily comply with the FCPA at the global level. We incorporated compliance with the FCPA within POSCO’s Code of Ethics, and included them in the Employees’ Pledge to Honor the Code of Ethics. We operate an exclusive help/hot line for FCPA center as well.

**Case Report**

**Establishment and Enforcement of Anti-corruption Compliance Guidelines**

On April, 2016, POSCO strengthened global compliance with anti-corruption guidelines by establishing and enforcing anti-corruption compliance guidelines. The guidelines were strengthened as the company included them in its company regulations which provide behavioral standards in dilemma situations related to employees’ work with stakeholders, such as public workers and counterparties.

The establishment of the guidelines is expected to strengthen employees’ awareness of key global anti-corruption laws and standards such as the US FCPA (International Corrupt Practices Act), the UK Bribery Act (bribery technique), OECD Anti-Bribery Convention and relevant legislation and increase their utilization. The guidelines state matters to follow when providing hospitality or accommodations, the prohibition of facilitating payments and rules during work with agents. Also prescribed in the report are anti-corruption reports and whistle-blower protection, punishment and compensation-related items for the substantial implementation of the directive. This legislation and enforcement will be an opportunity to strengthen POSCO’s global compliance with ethics.

### Ethical Management Renovation Activity

POSCO formed the Emergency Management Renovation Committee to overcome internal and external managerial risks and launched five subcommittees (for business organization, responsible management, personnel management, common transaction practice, ethical awareness). They have drawn up a company-level plan for large-scale and concrete management renovation.

The Ethical Awareness Subcommittee has designated ethics as a top management priority, and chose Clean POSCO as the supreme management philosophy. Further, they have mapped out a detailed ethical management renovation plan to restore POSCO's reputation as an ethically strong company.

### Tightened Code of Ethics for Global Ethical Management

The Code of Ethics, which may be called an internal ethical management policy, includes "the CEO's Message" and "Ethical Charter." "Ethical Principles" have been newly introduced in addition to the "Preamble" where the purposes, fundamental directions and principles of the Code of Ethics are specified.

Indeed, by referring to cases of global companies to practice ethics more strictly and by taking into account employees' observation and responsibilities, we set out the following guidelines on bribery and entertainment.

- Gift: If a gift is worth KRW 50,000 or less for a promotion or publicity purpose, it is allowed.
- Entertainment: Reasonable level (before) → KRW 100,000 (after)

### One-Strike-Out Rule for 4 Major Unethical Behaviors

The punishment was toughened for four major unethical behaviors – taking bribes, embezzlement, violations of sexual ethics, and information manipulation. The details are stated in the Code of Ethics.

To prevent unethical acts related to giving special favors, we set new sentencing guidelines on directing employees to give special favors and the omission of special favor-related records in the Clean POSCO System. The guidelines are as tough as those on the four unethical behaviors.

### Promoting Checks and Reports of Unethical Behaviors

A TF team composed of internal experts intensively checked domestic and overseas worksites to diagnose ethical risk. The check was conducted on work inefficiency, excessive payment, offering special favors at major regional corporations where corruption indices are high. Actions were taken against problems found through diagnosis. We formulated an improvement plan and applied it to related problematic processes.

### Ethical Practice and Enhanced Education

To help the CEO make a decision, we newly established the 'Ethical Committee' composed of top executives. They discuss an improvement in important ethical management policies and systems.

To establish the observation of ethical rules as a corporate culture, Ethical practice program to practice ethics initiated by departmental heads was converted to a program operated by executives. Program activities have been expanded to the whole area of management risk of units managed by executives. The program results were used for executives' performance evaluation, strengthening the program to have the program contribute to result in higher management outcomes.

Our ethics education has been provided to employees across different levels. At the same time, we have conducted the CEO's ethical lectures and ethical leadership education to lead company leaders to set an example. For executives, online education on ethical leadership was added.

As a national company whose foundation philosophy is ethical management, by Ethical Management Renovation Activity POSCO could consolidate its ethical management philosophy and employees' strong determination to ethical practice instead of being satisfied with our efforts and outcomes accumulated so far. Sticking to our fundamentals and principles, we will spare no effort to grow into a company with world-class ethical management.

## HUMAN RIGHTS MANAGEMENT

Human rights management grows ever more important as corporations' influence on society become stronger. Moreover, human rights, forced labor, wealth gaps, and discrimination are continually noted as issues in international society with increasing emphasis placed on the role of the private sector to resolve them. POSCO builds a working environment where no employees are discriminated against and actively communicates with the local society so that the community will grow together with the POSCO Family.

### Human Rights Management Based on Code of Ethics

As a member of the UN Global Compact, POSCO honors the UN Global Compact's principles on human rights and labor. In addition, under POSCO's Code of Ethics, POSCO abides by global human rights standards including the Universal Declaration of Human Rights and the UN Guiding Principles on Business and Human Rights. POSCO is committed to creating a corporate culture that does not discriminate on the basis of race, nationality, gender, age, education, religion, birthplace, disability, marital status, or sexual identity, and respects diversity.

On June 2, 2014, in honor of the 11th anniversary of the announcement of the Code of Ethics, POSCO revised the Code of Ethics on articles on human rights, environment protection and social responsibility, and implemented the revised code by taking into consideration of changes in the global business environment. A global trend in ethical management is changing from an anti-corruption movement of not conducting unethical behavior, to an active practice of coexistence and coexistence with an ecosystem surrounding a corporation. In global business, a demand for corporations to respect the law and human rights of a country and protect the environment is becoming stronger.

In addition, we have supplemented and newly defined contents about protecting customers and investors, respecting human rights, environmental protection, win-win growth and social contribution. We have also included main contents in our in-house regulations such as the Charter of Firm of Endearment, the Environmental Management Directive, the Code for Shared Growth and the Quality Charter. Furthermore, we referred to cases of global companies such as GE and Siemens and global standards such as the UN Guiding Principles on Business and Human Rights.

In particular, we changed the ethics standard to prohibit receiving any kind of congratulatory or condolence money from suppliers, outsourcing partners and customers. We will strive to set an example in building a sounder and more transparent trade order.

A main feature of the revision is that POSCO's Code of Ethics is the first in the country that incorporates rules on respecting human rights in a separate article. Global regulations, guidelines and laws that global corporations must adhere to, already deal with human rights. mentioning human rights in a separate provision within the Code of Ethics signifies our commitment to respect human rights as a global corporation, and thus has significance.

### Protecting Human Rights through Practice of Ethics

The vision "POSCO the Great" is composed of four new management philosophies — Clean POSCO, One POSCO, Creative POSCO and Top POSCO. Among the three management philosophies, Clean POSCO means aiming for the common goal through harmonious relationships. All members share a common goal, direction for change, and a sense of ownership in their work to reach their goals by working in unison. Clean POSCO pursues development based on social value and aims for shared growth with customer companies, suppliers and society.

POSCO links these philosophies with effective systems in its daily operations. POSCO operates the Ethics Counseling Center where cases or acts of violation of respect for human rights are registered, takes appropriate measures, and is also actively promoting a campaign against sexual harassment. The Practice Guidelines in Code of Ethics stipulates, "We will not engage in any verbal, physical or demonstrative acts that may offend others or infringes on others' human rights such as sexual harassment." POSCO also provides an e-learning course and operates Sexual Harassment Helpline as well. Upholding the Ten Principles of the United Nations Global Compact, POSCO abides by the Prohibition Standards of Child and Forced Labor and Discrimination Convention of the ILO in all its business activities. In addition, to promote the employment of the disabled and vulnerable groups, POSCO operates a social enterprise: POSCO HUMANS, which is Korea's first standard workplace for the disabled.

### System for Addressing Human Rights Grievances: Sinmungo

POSCO listens to stakeholders' voices through various channels. We gather complaints from internal and external stakeholders and take them into consideration in our management activities to make improvements. One of our major efforts in this respect is Sinmungo (grievance mechanism), through which we identify and solve human rights issues. Sinmungo is an online system built to gather and solve stakeholders' grievances. We receive suggestions and grievances in areas such as auditing, shared growth, purchasing and sales and present solutions. In order for this system to function properly, the anonymity of an informant must be absolutely guaranteed. Therefore, it is stipulated in our regulations that if the identity of a person who tipped off is exposed, the one responsible for that will be punished to prevent any attempts to find whoever made the report. Furthermore, we do not record any personal information about the informant to prevent any leakage from the start. The Corporate Audit Department personnel hold the "Informant Identity Protection Pledge Ceremony" at the beginning of each year to ensure that informants identities are protected.

Case Report

**POSCO Daewoo's Cotton Business in Uzbekistan**

POSCO's subsidiary POSCO Daewoo operates two cotton textile branches (Daewoo Textile Fergana and Daewoo Textile Bukhara) in Uzbekistan, one of the world's major cotton producing countries, and has invested 35 percent equity in the cotton pulp production branch (Global KOMSCO Daewoo, LLC). The cotton business is a key national industry, accounting for 20 percent of Uzbekistan's total GDP, and the government controls the whole process from seed planting to picking, sales and distribution. POSCO Daewoo purchases raw cotton from O'zbekyengilsanoat (the Uzbek Light Industry Association) and processes it into cotton yarn and cotton fabrics to be sold in Uzbekistan and exported overseas.

The Uzbek government and the ILO proclaimed an initiative to root out forced labor risk from September to November, the cotton harvest season, and agreed to the Decent Work Country Programme (DWCP, 2014~2016) with the ILO in April 2014. According to the DWCP, the Uzbek government is putting every effort into upgrading the working conditions of the agricultural sector, including the cotton industry, up to international standards. We are strongly committed to improvements in the area and monitor cotton farms by region, sharing relevant information through ILO reports and round table meetings during the cotton harvest period. Specifically, we have installed 52,664 posters and 772 banners, both of which oppose forced labor, across the nation since September 2015. At the same time, we have been receiving information about and offering counseling for forced labor cases and reports through a hotline.

In December 2014, POSCO Daewoo received a petition from international human rights NGOs (Korean Trans National Corporations Watch, Cotton Campaign and Anti-Slavery International). The petition received through the Korean Office of the OECD (Korea NCP) said that the company's steady purchase of cotton produced in Uzbekistan was a violation of the OECD's guidelines for multinational companies. Therefore, the company submitted its answer through the Korea NCP twice and spelled out its many efforts to address the situation with forced labor in Uzbekistan from January to June 2015. In July of the same year, the Korea NCP ended their protest without an additional probe. Since then, POSCO Daewoo has been exerting itself to actively deal with issues related to the protest in concert with the Uzbek government, state-owned enterprises, international organizations, NGOs and local communities at the recommendation of the Korean office. In November 2015, we took part in a meeting on guidelines for multinational companies of OECD member countries that made a foray into overseas markets held by the Ministry of Industry, Trade and Resources and the NCP of Korea. In the meeting, we discussed ways for cooperation with various stakeholders, including by making a presentation on cases in the implementation of corporate social responsibility as a corporate representative and discussing corporate citizens' rights measures against forced labor in Uzbekistan.

Moreover, with a view toward actively addressing environmental and human rights issues related to overseas businesses, including forced labor in Uzbekistan, POSCO Daewoo has sought to address problems by running the CSR Council with the participation of the heads of relevant departments such as the Management Support Division and the Corporate Audit Department since June 2013. The CSR Council is continually requesting O'zbekyengilsanoat and the Chamber of Commerce and Industry of Uzbekistan to quickly solve the forced labor problem and share information about the progress by way of regular meetings with Uzbek officials and regular official letters to the Uzbek government. Since July 2013, POSCO Daewoo has conducted surveys on overall CSR management including human rights by making an independent human rights diagnosis on two textile firms (Fergana and Bukhara) in Uzbekistan.

In addition, POSCO Daewoo plans to promote win-win growth with local communities through an after-school education program at the local children's center and an eye disease medical camp, which will be held twice a year in remote areas in Uzbekistan.



← Uzbek government's poster against forced labor



↑ POSCO Daewoo's ophthalmological disease treatment camp



# EMPLOYEE

## ORGANIZATIONAL CULTURE

### Forming Positive Atmosphere: Appreciating and Sharing

POSCO distributes guidelines on “Appreciating and Sharing” practices, an interactive cooperative communication method based on mutual respect and daily encouragement in the work environment. It also runs a special education program for employees and executives by ranks and positions. It will continue to encourage employees and executives to put “Appreciating and Sharing” into action and formulate a positive communication culture through appreciation, compliments and encouragement so that all employees can concentrate on their work.

### Reduce Unnecessary Work: Work Diet

POSCO promotes Work Diet which helps employees concentrate on essential and valuable work by removing uncritical work. To put this into practice, Three 30% Rules have been introduced and put in place. The three rules are reducing responsibility and authority by 30%, reducing reports by 30% and reducing meetings by 30%. The rules are expected to increase work efficiency and helping employees concentrate on their work by getting rid of redundant work.

### Promoting Communication: Meeting with Employees

POSCO is holding a meeting between employees and the top management to form solidarity and to find matters for improvements in every area of its business. The meeting was held four times in 2015 and had employees feel proud and united as members of POSCO.

### Improving the Work Environment for Women

We build a working environment to alleviate 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.

#### Day Care Center

We operate day care centers in Pohang, Gwangyang and Seoul that can accommodate 480 children. They help alleviate a burden of childcare, expand female employment, and contribute to increasing the birthrate.

#### Child Care



#### Resting Room for Female Workers

The resting room is designed for mothers where they can breastfeed their children, to help them do their jobs more easily.

#### Parental Leave System

In addition to the 90 days' leave prior to and after childbirth, female employees can use up to two years of a parental leave without disadvantage in promotion or evaluation. Also, the prior approval system was changed to notice system to promote the parental leave system.

#### Supporting Female Employees' Career Advancement



#### W-Leadership Program

To present a vision for advancement for the female employees, the W-Leadership Program provides opportunities for female employees who are experiencing a gap in their career due to childbirth and parenting to share information on various support programs and receive special leadership education. (twice/year)

#### Communication Channel for Female Employees

We operate an online blog for all female employees. The company promotes the blog as a venue where they can build networks, share information and resolve various grievances.

### Enhancing Employee Satisfaction

POSCO conducts the P-GWP (POSCO-Great Work Place) survey of all employees every year. The survey measures employees' satisfaction about their organizations and work and concentration on the job.

The results of the survey showed that POSCO employees' sense of ownership was at the highest global level and felt a great sense of achievement through their work. In 2015, the organizational culture index in the P-GWP survey showed employee satisfaction index was 75 points (out of 100), five points higher than 2014.

#### Results of Employee Satisfaction Survey

(Unit: points, out of 100)

Category	2013	2014	2015
Employee satisfaction	82	70	75

■ The figure in 2013 was the results of the survey in 2013. Since 2014, the results of P-GWP have been applied.

### Non-Discrimination and Diversity

As POSCO started its business in a country with little natural resources, POSCO considers human resources its greatest asset and has adopted the protection of human rights as a basic principle of management. POSCO established this principle in the Code of Ethics and adheres to the rules.

#### Code of Ethics Guidelines:

##### 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.

#### Job Regulation

- Art. 36 (Job security) The company shall not take disciplinary action, terminate employment, suspend or dismissed without a just cause.



### Employment Stability and Job Security

Ever since its establishment, based on the trust between labor and management, there has not been any company-led large-scale lay-offs or forced termination of employment for business recovery or increasing profitability. POSCO states in the Job Regulation (Article 36) that “Employees will not be terminated or dismissed without a just cause,” to guarantee employees’ job security. Even in cases where there is clear justification for termination such as breaking the law, the decision on whether to fire him or her has to go through rigorous examination by the Human Resources Council.

In addition, it is provided that a 30-day notice shall be given prior to termination. If this rule is broken, the employee will be compensated with an amount corresponding to 30 days’ ordinary wages. This process to protect employees in the case of job termination is strictly observed. POSCO will continue to adjust and improve its rules and procedures to enhance employment stability and job security.

### Flexible Work Program

POSCO has been operating a flexible work program since July 2011, so that employees can change their work hours flexibly according to their needs instead of the uniform working hours, to create an atmosphere to enhance their concentration on work. Employees eligible for application are those working at the head office, desk workers and staff at the steel works, and female employees with children under the age of six or before primary school. Employees 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, 40 hours a week. Currently, male and female employees are utilizing the flextime system for self-development such as language studies and childcare in the personal category, and for late-night concentrated research work in the work category.

### Fair Appraisal and Reward

POSCO has designed and operated a fair and objective appraisal system to offer employees reward on their performance. To do this, each employee writes up MBO goals and annual work achievements in view of goals of each team and division before the final assessment, which consists of 3 steps (self-assessment, the 1st assessment and 2nd assessment).

In particular, the second assessment is attended by all of the first and second judges at one place. They review through group discussions on the achievements of all members of the team and division for heightening the fairness of the assessment. The outcome of assessment is fed back to appraises by appraiser through 1:1 interview. If the outcome of assessment is not accepted by the appraisee, it will be subject to an appeal system.

POSCO’s salary system considers two aspects: the stability of employees’ livelihood and reward adequate for performance. Salary will be increased based on service periods and inflation rates, so

that employees run their families in a stable manner. Employees’ performance and achievements differentiate pay raises. In addition, POSCO operates a variable performance-based bonus system under an agreement between labor and management. We apply the same salary standards to both male and female employees.

### Welfare Benefits

POSCO contributes part of the company profits to the employee welfare fund to boost employees’ quality of life. The fund is used for house purchasing loans and the stabilization of livelihoods, tuition support for employees’ children, individually chosen welfare benefit packages, expenditure for congratulations and condolences and support for employees with handicapped family members. Aside from the above-mentioned elements, POSCO also operates a welfare support center to provide employees with vacation facilities and medical check-ups and conduct assessments of workplace environments. We continue to build and expand these vacation facilities and health enhancement centers to improve the quality of employees’ recreational activities. In 2011 large-scale culture and sports facilities were built in Pohang and Gwangyang. In 2012, the Goheung Training Center opened to employees. In the same year we introduced medical check-up service for spouses of employees as well, recognizing the importance of maintaining a healthy family life. In 2013, we improved the medical expense support program and implemented collective insurance.

In 2014, we conducted the GWP (Great Work Place) campaign, improving human resources management and education systems, and minimizing redundant management work by simplifying administrative work so that employees may engage themselves in their work. In addition, campaigns such as sticking to the basics to enhance the company’s fundamental competitiveness were implemented as part of our larger efforts to create a happy work place for employees.

**Employee Welfare Fund** (Unit: KRW 1 billion)

Category	2013	2014	2015
Contributed amount	57.6	58.9	59.3
Cumulated contribution	816.3	932.8	992.1

**Labor Costs Paid Out** (Unit: KRW 1 billion)

Category	2013	2014	2015
Payroll*	1,401	1,435	1,439
Provisions for retirement benefits**	135	129	139
Legal welfare expenses***	90	108	112

\*Payroll: Total of monthly salary, cashable welfare expenses (lunch money, personal pension subsidy, business performance-based benefit, incentive)

\*\*Provisions for retirement benefits: Retirement fund for general employees for the year (executives excluded)

\*\*\*Legal welfare expenses: Total amount of national pension, health insurance, employment insurance, industrial accident compensation insurance, and wage claim guarantee insurance charges

**Amount of Pension Subsidies** (Unit: KRW 1 billion)

Category	2013	2014	2015
National pension (company's contribution)	36.5	37.5	39.0
Personal pension subsidy	9.7	9.7	7.8
No. of beneficiaries of personal pensions	14,736	10,473	6,720

**Labor-Management Council**

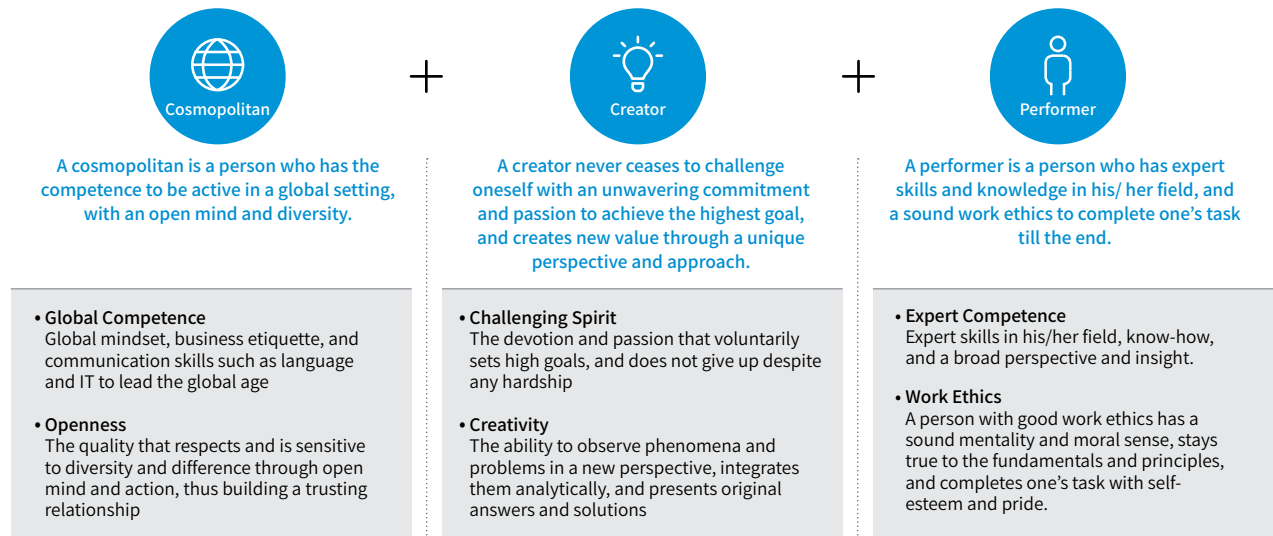
Based on the Act on the Promotion of Worker Participation and Co-operation, the Labor-Management Council was launched as an employee representative body on November 17 1997, with 20 members from management and labor unions. Labor members of the council are selected by direct and secret voting, with three-year terms. Members of the sixth council finished their terms in November 2015. Ten workers were appointed as laborer members of the seventh council and began their three-year terms.

The labor members negotiate on company-wide interests including wage, working policy, welfare, increasing productivity and distribution of results, safety, health, while also improving the working environment, enhancing workers' health and other areas of corporate-wide interest. They attend the company operation meeting, regular and ad hoc meetings with executives to share the status of the business management and participate in the overall management.

The company holds quarterly presentations, meetings and workshops on management and policy to share their views with employees. The Labor-Management Council has affiliate organizations such as Steelworks Council, Division Council, Department-Office Council and the Department-Factory Council, which is the smallest unit with 377 basic members. Based on agendas brought up at the affiliate councils, the Labor-Management Council holds a regular meeting at the end of each quarter to achieve shared growth between employees and the company, as well as employee welfare and swiftly solves grievances or complaints, earning trust as an organization which represents employees.

In particular, since 2012, the council has taken a leading role in the 1% sharing movement. Since 2014, they have contributed to achieving the company's vision by taking the initiative in the GWP (Great Work Place) movement, which involves strengthening the company's fundamental competitiveness, preventing safety hazards and improving the organizational culture. In 2016, the council is striving to create a happy work place by moving forward with safety SSS (Self-Directed Safety Spread) activities.

## HR DEVELOPMENT



### Recruitment Process

POSCO introduced the Structured Selection method in 2003 to recruit talent that fits POSCO's corporate culture and idea of human talent. Structured Selection is a tool to hire talents appropriate for the task by using systematic questions and evaluation criteria according to a set procedure to minimize disparity depending on the evaluator. However, generally, the recruitment process consists of four steps – document screening, PAT (POSCO Aptitude Test), basic qualification evaluation, job competency evaluation, and value fit test.

■ The following process was written based on POSCO's public recruitment of new employees

#### 1 STEP / Document Screening

In document evaluation, we evaluate applicants' basic qualifications, motivation for the application, personalities and creeds and growth visions written in application forms. POSCO assesses the job understanding level and job suitability of applicants through job essays. In job essays, applicants are required to describe information, such as what they learned in school, certificates, and activities.

#### 2 STEP / PAT: POSCO Aptitude Test

PAT is an objective and fair recruitment process and examines applicants' basic work competency, creativity, and personality.

Category	Test details	No. of questions / Time
Aptitude tests	Language: language comprehension / reasoning	120 questions / 130 minutes
	Math: data interpretation, data speculation	
	Space: space perception	
	Schematic: schematic reasoning	
	Common sense: Management, economics, social studies, culture, current affairs and more	
Personality tests	POSCO's customized personality test to verify whether applicants have personality and behavioral characteristics for jobs at POSCO.	400 questions / 50 minutes

#### 3 STEP / Job Competency Assessment

Job competency assessment consists of an AP/GD interview, a job suitability interview, and a history essay, and comprehensively verifies applicants' values and job competency levels.

##### AP/GD interview

In this interview, applicants are required to analyze/make a presentation on a given task (AP: analysis presentation) and discuss the content presented in a group of five to six (GD: group discussion). The AP/GD interview evaluates applicants' strategic thinking, creative problem-solving, teamwork, and communication.

##### Job Suitability Interview

The job suitability interview is to evaluate applicants' job competency level in various aspects, such as adjustability into the company, adaptability, growth potential, and knowledge, skills and attitudes appropriate to the job to which he/she applied. Job competencies are evaluated by interviewers from actual working departments based on the National Competency Standards (NCS). In particular, for technical jobs, job knowledge and basic engineering knowledge, including physics, mathematics, and chemistry, are evaluated as well.

##### History Essay

Applicants are required to freely describe their opinions about given historical topics. Through the written essays, applicants' knowledge in history and humanistic knowledge are assessed.

#### 4 STEP / Value Conformity Assessment

It is a step to check how appropriate applicants are with regard to talented workers that POSCO is seeking. This interview is conducted by the management. During the interview, applicants are asked about their values and ideal careers and are evaluated based on their enterprising spirit, creativity, organizational adaptability, and ethicality.

## GLOBAL TALENTS

### Inauguration of POSCO Group University

To realize the vision “POSCO the Great”, POSCO has been committed to developing human resources (HR) for the entire POSCO Group in every aspect. In 2015, POSCO Group University was inaugurated as an independent entity and started its role as the center of POSCO’s HR development and the control tower of the POSCO Group’s HR development. POSCO Group University was found to realize “POSCO the Great” by fostering talent equipped with professional competence and POSCO’s core values and management philosophy. The school aims to become “Global No.1 HRD Solution Center” where future management leaders and experts armed with POSCO’s visions and missions will be developed. POSCO Group University is divided into the Global Leadership Center and the Education Innovation Consulting Center. The Global Leadership Center is responsible for providing leadership capability, job competence and global competence to new employees and executives. Education Innovation Consulting Center is involved in 6 Sigma +, TRIZ and other innovative education methods, QSS+, POSCO’s unique innovative method and actual gain creation-oriented project consulting.

### Key Achievements in 2015

In 2015, the first year of its foundation, POSCO Group University played three roles as a training center of POSCO affiliates, an organization with education functions of POSCO and an organization which supports POSCO Group affiliates’ talent training. To realize “POSCO the Great” and to overcome the current challenging business environment, POSCO Group University set its vision to become “Global No.1 HRD Solution Center” where future management leaders and experts will be fostered, armed with POSCO’s visions and missions. The school equips POSCO people with core values and management philosophies through educational support to enhance engineering competence and job capability to grow POSCO into a world-class company.

First, POSCO Group University contributed to establishing value-oriented One POSCO by forming a sense of unity among POSCO employees, while also establishing a cooperative corporate culture with solidarity through the sharing of POSCO’s management philosophies and strategies. Management philosophies are widely spread among executives and managers through Monthly Saturday Learning. In addition, IP Concert, a talk show-type education program, is held for employees to create the unity of all POSCO employees and spread the “Innovation POSCO 1.0” vision to POSCO’s overseas worksites. In particular, the school has produced standard contents about POSCO’s global management philosophies and distributed them to POSCO’s overseas corporations. POSCO’s management philosophies and issues affecting the POSCO Group are rapidly and systematically communicated to overseas employees. This has contributed to reinforcing overseas employees’ sense of belonging and commitment to overcoming a crisis. The school has contributed to equipping new employees with the knowledge of history and good characters and strong capability as employees for enhancing their ownership and career philosophies and creating a sound corporate culture among new employees.

Second, POSCO Group University proactively fostered future management leaders with expertise and top global talent with global competitiveness. The executive class was provided with competence diagnosis, verification and coaching through scientific tools based on a CEO fostering system. Differential education contents were provided to the leader class under a dual ladder system for management leaders and specialists. Furthermore, to respond to the continuous expansion of overseas business, the school has operated the Case Study Program and the Shadow Mentoring Program by heads of POSCO’s overseas corporations to improve their actual operating competence in finance, HR and production, as well as global business capabilities. Language and professional knowledge learning programs were run to foster the heads of overseas corporations with business operation completion-type competence. POSCO Group University introduced the Job Competence Certification System for white-collar workers to heighten their concentration at work by providing systematic job training education to the general employee class.

At the same time, a six-job school opened to have each employee secure job capabilities. The six-job school expanded into POSCO affiliates to offer employees an opportunity to enhance their job capabilities. The school developed POSCO-type management simulation contents to enable employees to understand management activities and enhance their decision-making capabilities through training to solve issues and problems at worksites in light of core values and from top executives’ viewpoints. They made preparations to have contents utilized in educational courses for general staff members and position holders as modules.

Third, POSCO Group University spread a creativity and innovation-based work system, provided management solutions through consulting and contributed to the spread of a creativity and innovation-powered corporate culture. POSTIM, a unique innovative method of POSCO, is utilized to spread and educate employees of POSCO Group affiliates about the PWS (PJT-based Working System), QSS+ (Quality, Safety, and Stability), and SWP (Smart Work Place). POSCO Group University is steadily expanding consulting support.

The school encouraged employees’ creative thinking through a bottom-up method and expanded a creativity enhancement program for short continued service employees. It ran a program to disseminate a creative organizational culture to expand it into the group’s creativity. Furthermore, to utilize excellent retirees’ know-how, the university provided solutions which met the needs of POSCO affiliates by selecting high quality talent among retirees through a thorough screening process and supporting them with the talent.

Fourth, the organization strived to build a POSCO-type smart learning environment that would integrate class study, on-the-job study and individual learning by laying the foundation for smart HRD which supports the generation of outcomes at worksites. The school supplemented the functions of learning infrastructure to help departments easily arrange their courses, transfer job know-how, enhance capability and promote self-directed learning by utilizing a variety

of learning sources through a unified on-line platform named HRD Portal. It is expected that HRD Portal will make group learning more performance-oriented such as promoting discussions.

POSCO fostered high quality instructors among employees in concert with POSCO Group University with a view to further enhancing the group's customized education programs and heightening the quality of education. POSCO Group University appropriately reduces the level of dependence on external instructors and produces internal A Class instructors who can lecture based on their real experience at POSCO worksites with the goal of establishing quality-oriented education and training. POSCO Group University will continue to produce A Class instructors by establishing a process where high quality instructors find and foster instructors among employees through an instructor fostering program.

### Education for Employees' Harmony, Common Bond and Unity

In 2014 and 2015, POSCO held IP Concert, a large-scale performance type education course for employees to share the state of management and business conditions and cement, will embed harmony and a common bond. Marking a step up from the 2014 IP Concert managed solely by POSCO, the concert was expanded into five key affiliates and overseas corporations in 2015. POSCO Energy has shared its business objectives and business environments with employees. Its business objective is to lay the foundation for growing into a top global energy company. The 2015 IP Concert became a platform to share common philosophies within the POSCO Group and promote communications between the top management and employees. This attracted a slew of positive response from employees.

POSCO revised education curriculum for 2014 and added invitational lectures by external lecturers. Their lectures were sharing experience of overcoming and solving obstacles and difficulties and significantly stimulated and encouraged employees. A total of 19 IP concerts were held for 900 to 1,000 employees each at three sites in Pohang, Gwangyang and Seoul. In particular, a survey was conducted among all employees to collect opinions regarding the group's policies and value system prior to starting education curriculums on a full scale. Employees shared the results of the survey as learners and had a discussion about different ideas and thoughts among generations. They also learned their company's business conditions in lectures by executives, and strengthened their commitments and will to create a bright future for POSCO.

In addition, employees' families were invited to the POSCO Happiness Concert to repay employees for their pains despite adverse working environments at worksites. Families of employees were informed of the company's business state and were asked to take part in overcoming the economic crisis. Unlike the IP Concert aimed at sharing business objectives and accepting philosophies, the POSCO Happiness Concert provided differentiated contents such as a heart-warming play for employees' families. They showed their apprecia-

tion to the management for their sharing of POSCO's difficult business environments and vowed to unite with POSCO through a sense of appreciation to their spouses and POSCO and the opportunity to remind themselves of the importance of families.

### Fostering Short Continued Service Employees with Fundamentals and Good Characters

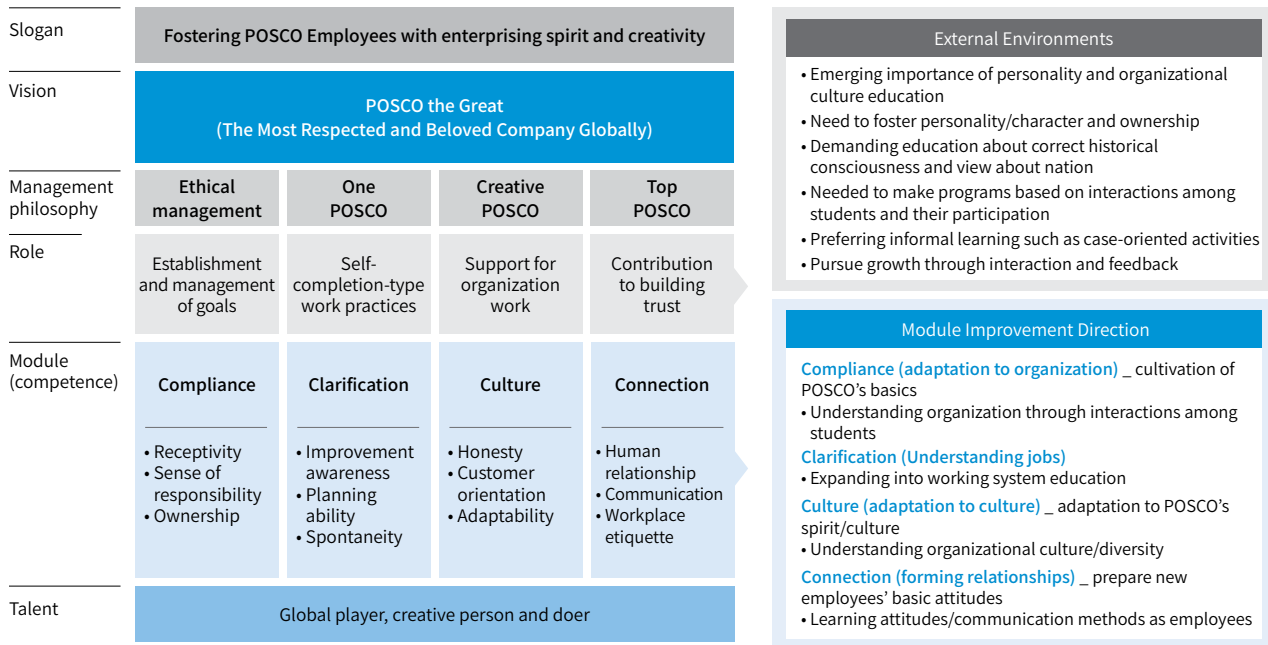
POSCO Group University supports new employees of POSCO so that they can become employees with POSCO Group's values and philosophies by developing job-related competence and good character. The school focused on employee education to foster employees with sound characters and fundamentals through complete ground rules set in its education curriculum with the aim of reinforcing business-based mindsets that new employees should have. They will grow into smart new employees by understanding POSCO's unique innovation system and learning planning, creative thinking capabilities and basic organizational communication techniques.

New employees are given opportunities to learn and personalize POSCO's four visions — ethical management, One POSCO, Creative POSCO and Top POSCO. They became aware of their roles to play through education. POSCO Group University sets the 4C<sup>1)</sup> model in modules of new employee education course and design and operate its education program accordingly.

<sup>1)</sup> 4C: Compliance, Clarification, Culture, Connection

2016 New Employee Education System

Establishment of education system based on roles/competence-centric 4C\* model



\*Source: C Model In-boarding New Employees, SHRM, Bauer. T.N. (2011)

Upon completion of the new employee education course, employees will be assigned to works for one to three years as short continued service employees. In this period, POSCO will run a Harmony Workshop to raise their occupational awareness and to lead them to have more positive mindsets for the purpose of helping them adapt themselves to their new organizations and growing into manager-level employees. POSCO Harmony Workshop is provided to help new employees understand diversity within their organizations and build and maintain harmonious relationships based on understanding differences. This workshop is designed to build up a harmonious and positive corporate culture by helping short continued service employees smoothly acclimate themselves to their organizations. Learning employees learn to better understand differences in their organization members' behavior patterns and work styles and the characteristics of their communications during Harmony Workshop, as well as how to identify the right solutions to various conflict cases at workplaces on their own. In particular, the workshop collected participants' troubles in their company lives in advance and applied them to its curriculum to make the program come in handy and mix well with worksites. Harmony Workshop is designed to let POSCO employees feel real communications and cooperation by allocating time to define roles in organizations and formulating an action plan to build a harmonious relationship. This is to let short continued service employees think and fulfill their responsibilities in consideration of their organizations and communities and concentrate on their jobs based on communications and cooperation. In 2015, four courses were operated for about 100 employees lower than the P2 manager level.

Certificate of Job Competence to Foster Job Competence of Employees

POSCO introduced a job competence level appraisal system in 2015 and operated tailored on-the-job training. Employees are expected to improve their job capability through Job Specialized School and make their levels certified by a certification system to be promoted to a higher position. Job Specialized School is divided into the administration and engineering areas, which again is classified into 'Engineer Specialized School' for metal, machines, electrical control and steel processing, and 'Administration Specialized School' for IR, finance, procurement, management strategy, HR and marketing. Job Specialized School is designed to empower short continued service employees to enhance their job competence and produce tangible results by securing job related expertise. This school is boosting its educational effects by hiring internal and external instructors with rich experience and related knowledge, as well as by letting instructors take part in standard education material development. The school runs in a voluntary application system for those who want to take class at the school. Its curriculum is ramping up correlation between job competence development and the obtaining of promotion competence certificates in connection with test subjects of the Specialized Competence Certification System, which is effective from 2016 promotions. Since the opening of the school, five to ten group classes were executed every month and a number of employees from Pohang, Gwangyang and different areas of Seoul attended and showed enthusiasm about this course. Upon completion of the course, trainees received e-learning contents for their specific jobs as the school helps them study what they did not understand fully after the completion of the course.



The Job Competence Certification System segments job competence into five levels (Level 1 - 5) and certifies one's job competence through tests. The system aims to secure specialized competence that matches job ranks by linking the results of certification to the promotion of employees (P1-P3, PCP) subject to the Annual Salary System. Employees should receive certificates of subjects required for their next promotion through tests during their current job periods.

### Cultivating Global Leaders of Next Generation

POSCO established and is running its unique leadership education system to foster next-generation management leaders and support management leaders' performance at their worksites. In the case of the newly appointed employee course that begins at P5, those promoted are allowed to share management philosophies and the group's values and learn roles and responsibilities required for new positions. After being appointed, a course is run to select candidates for the next higher positions and foster them, too. When excellent leaders are selected within the POSCO Group, trainees will carry out tasks to address real business issues based on the group's business conditions for long periods. The fostering course proceeds in the form of action learning. Trainees with various jobs form groups give opinions from various viewpoints and brood to solve issues. The results will be applied to real business in a virtuous cycle.

The most important outcome of the management leader course in 2015 was an upgrade of the course for new heads of corporations. Through the upgrade course, top management such as the CEO and division heads have directly explained ethical issues and management revamping at POSCO's overseas corporations, as these have become hot issues recently. This helped the overseas corporations make management policies in the same direction as the head office's direction. This course which started with the opening of POSCO Group University in 2015 was attended by nine corporation heads in the first session, 14 in the second session, with 23 corporation heads participating. The third session was held with corporation heads who served for over two or three years. While the first and second sessions for corporation heads focused on required job competence, the third session was designed to provide actual assistance for the operation of corporations through interactive learning, for example sharing know-how and best practices of other overseas corporations and avoiding lecture-oriented sessions in consideration of the fact that overseas corporation heads already had rich overseas experience. In addition, overseas corporation heads' valuable experience, cases of best practices were published in the form of storytelling books and distributed to overseas business-related divisions and groups and family companies. In this way, their experience and know-how were formalized as critical assets.

Along with courses for high ranked position holders such as new corporation heads, another education program was given to a total of 44 employees who worked at POSCO's overseas corporations in a total of 13 countries such as those in South East Asia, North and South America and Australia for the third year and employees to be dispatched to those countries. With the increased importance of

overseas corporations in the growth of the POSCO Group, the school revised its curriculum to foster the leadership of working-level managers who connect the head office and overseas corporations and reinforce the strategic business mindsets of overseas employees. In particular, a panel was organized with leader-level internal lecturers who worked in the HR, finance, quality and marketing sectors overseas. The panel held interactive discussions with dispatched and to-be-dispatched employees and shared know-how about jobs and life. A process of pre-session, group and post-session learning discovered best practice cases by turning overseas employees' tacit knowledge at work and in life into explicit knowledge.

Furthermore, we narrowed the cultural gap with local employees by objectively finding out employees' propensities for work and how to apply them to worksites by introducing GlobeSmart, a tool to diagnose diversity levels. This has also laid the foundation for having greater tolerance when it comes to respecting local cultures.

POSCO Group University significantly invests in developing high-quality contents in its curriculum. The POSCO Business Strategy Simulation Program was developed in 2015 and applied to the curriculum to reinforce leaders' and leader candidates' management competencies. POSCO Business Strategy Simulation is designed to simulate management in a competitive environment by following pre-defined rules. This helps improve understanding of megatrends affecting corporate management and enhance decision making and analytic thinking capability. Rooted according to a principle of "Practice by Doing", the program aims to enhance participants' management philosophies, strategic decision making and entrepreneurship. This program consists of three stages for each rank. The three are Simulation 1 for general employees who are P3 managers or lower, Simulation 2 for the P4 and leader class and Simulation 3 for employees who are P6 managers or higher. Simulation is a competition format where up to six teams run. Each team consists of five persons playing the roles of the CEO, CFO, CHO, CMO and COO. Each team sells six items of steel products including cold- and hot-rolled steel, automobile steel plates in the three markets of America, China and Korea. After the completion of simulated completion, each participant received a strategic simulation handbook published by POSCO Group University.

## Enhanced Capacity of Local Employees at Overseas Operations

We made efforts to systematize the training of local overseas staffs to implement Global One POSCO by keeping pace with the POSCO Group's global capacity building policy in 2015. To strengthen the HRD capacity of our overseas corporations, we developed POSCO GTaLK (Global Teaching and Learning Kit) and distributed it to 60 of our overseas firms by the first half of 2015. POSCO GTaLK is a package that includes necessary materials for lectures and study, such as training materials, lesson plans, and videos. It consists of a total of 18 subjects (management philosophy (3), leadership (3), general management (4), steel production processes (1), and product knowledge (6)). The POSCO GTaLK is available in three different languages, i.e., English, Chinese, and Japanese. In particular, the contents were produced through collaboration between working-level departments and POSCO Group University, which plays a pivotal role in educating employees, as well as by case development by overseas subsidiaries. The contents were nicely translated to become higher quality and unique materials of POSCO with the participation of excellent POSCO employees at home and abroad. POSCO Group University will continuously supplement and strengthen POSCO GTaLK to help local employees of its overseas firms share the core values of POSCO and to realize "POSCO the Great."

In addition, we operated new leader courses for the first time, targeting local employees appointed as new leaders thanks to their excellence and high growth potential. In the new leader courses that 82 people have passed, we educated trainees about the roles and responsibilities of POSCO leaders and essential management knowledge (finance, solution marketing, negotiation skills.) and helped them to establish their visions as leaders and play their roles. Besides the training of newly appointed leaders led by the headquarters, we trained in-house instructors among local employees to provide a means to help overseas corporations improve their capabilities on their own by considering the fact that the HRD conditions and systems of global subsidiaries vary a great deal by regions. The internal instructor training course aims to educate instructors who will spread the management philosophy of POSCO and lead local training. A total of 59 local employees in six countries (China, Japan, India, Vietnam, Malaysia, and Thailand) have successfully finished the course. In Thailand and the Americas, 25 instructors were additionally trained through the replacement of educational visits with telecommunication methods in collaboration with local corporations. We will constantly provide refresher training to local employees selected as in-house instructors to help them acquire the POSCO spirit and play the roles of communicators to spread the management philosophy of POSCO. In accordance with the Global One POSCO policy of the headquarters, POSCO Group University will continuously support the development of local human resources that will lead the growth of overseas corporations not only by offering systematic education opportunities to local employees, but by designing training courses and providing POSCO GTaLK to conduct the training of newly appointed local leaders.

## Cases of Solution Marketing through Education

GPB (Global Platform Business) is POSCO's solution marketing best practice program, which is designed to establish an overseas auto parts joint venture with auto parts firms based on processing centers that are part of POSCO's global sales network. Currently, 11 joint venture companies operate in China and Japan, and an additional 23 joint venture companies are being discovered and reviewed in Mexico and India. To ensure the stability of GPB, POSCO has been running customized education courses for GPB customers since 2014 and has been operating systematic and various annual education programs such as collective training, e-learning, and diagnosis and coaching, rather than one-time workshops since 2015.

We focused on promoting corporate management skills during the first training in May 2015, targeting the management. We expanded the second training to cover working-level employees and designed the course to help improve leadership and actual work skills. In the second training, employees from rank-and-file staff members to general managers participated and shared the benefits of the training.

In particular, a survey was conducted among 25 GPB consultative groups before the training to figure out a need for job training. Based on the survey results, subjects, such as understanding of global automotive industry, management of risks in conducting overseas business, overseas subsidiary operation and management, and global business manners and had opportunities to build global capacity through experts in relevant fields. In addition to the development of practical capabilities, we also included contents to promote understandings and improve partnership by becoming cognizant of the fact that training targets are overseas customers would be educated. We devised substantial measures to improve the partnership between POSCO and GPB by applying design thinking techniques, a tool for creative problem-solving. We also organized a time to increase acceptance to respect local cultures and narrow the distance with local employees regarding cultural differences by objectively examining an individual's work inclinations and learning about application methods through GlobeSmart, which is a diversity-level diagnosis tool. We expect that these education opportunities will lead to more tangible outcomes of GPB by forming the unity of POSCO and its customers.

POSCO Group University is offering a total of 41 e-learning courses, such as MBA introduction and global market strategy, free of charge to GPB parts companies which want to take the courses. In 2016, we will support shared growth between POSCO and customers and strengthen solution marketing through various programs such as organization diagnosis and leadership workshops, coaching, and working at excellent companies.

### Practical HR Development through Combination of Work and Study

In 2015, POSCO began supporting job seekers to help them become working-level personnel by systematically providing education based on the National Competency Standards (NCS). POSCO has extensive efforts, including selecting vocational high school students for employment, to develop production workers into excellent technicians. An improved curriculum is quite meaningful in that the needs of worksites were applied to the curriculum for production interns which has been run by POSCO and the curriculum is connected to a system of the government which harmonizes work and study. To improve the job competence of trainees, we have specifically organized courses according to job levels that each department of POSCO wants, as well as job skills based on the NCS of each sector selected by the government. Production job internship trainees have to complete intensive collective training for 3 months in the form of Off-JT at POSCO Group University. After that, they are deployed to worksite departments and have to work and learn for 9 months in the form of ON-JT. They will receive their final evaluations after 12 months of training. Based on the results of the final evaluations, they will be hired as regular new employees of POSCO. POSCO has adopted the production job internship training courses for the first time among large corporations to satisfy the government policy of realizing a society that centers on ability, rather than on resumes and certificates. The internship program offers good opportunities for trainees to develop positive ideas and personalities because the program provides enhanced job training that lays the foundation for developing good personality and excellent job skills, which are the most important elements of company life.

### Steady Nurture of Steel-Specialized Professionals

In February 2016, POSCO Technology University produced the first graduates who completed a two-year course. A total of 52 POSCO employees acquired two-year college degrees certified by the government, and the best-performing student received a commendation from the minister of education. POSCO Technology University which opened in February 2014 is the eighth in-house university authorized by the Ministry of Education. The school was founded to develop high-quality technical professionals and meet the academic needs of workers. POSCO Technology University is the only domestic university that develops and operates curriculums optimized for the steel industry. The school produces high performance through unique systems that are differentiated from those of other universities, such as increasing the faculty's teaching skills by building a lecture evaluation and feedback system. To encourage students to work and study, POSCO Technology University runs a program to provide mentoring by management, department leaders and the school.

In particular, graduates' two years of study have resulted in great achievements at worksites. By actively applying knowledge learned at school to worksites, employees have applied for 53 patents and made 31 excellent suggestions. While annual patent applications by general employees stand at 0.1 per person, graduates who studied at school while working applied for the registration of nearly one patent per person and their patents are typically recognized as excellent.

By obtaining 10 different national technical certificates such as master craftsmen (2), technicians (6), and industry technicians (2), graduates have promoted POSCO Technology University to a mecca of technical skills. POSCO Technology University will endeavor to promote technical specialties by establishing education support infrastructure for graduates and developing steel-related teaching materials through the systematic collection of lecturing know-how.

### Restructuring and Strengthening of Innovative Education System

POSCO has a long history of fostering innovative workers and a rich experience of performing tasks. POSCO has designed and developed a variety of innovative management-based curriculums to continuously and systematically manage and pass down practical know-how. In 2014, POSCO introduced a project-based work method to secure competitiveness by conducting profitable projects, and unified various innovative methodology-based task activities into project performance. Based on its decision that too many methodologies could reduce competitiveness, POSCO has established innovative types and restructured methodologies to be suitable for each type and accordingly reformed the curriculum system.

In 2016, POSCO made the PSS+ (POSCO Six Sigma Plus) curriculum composed of step-by-step contents from e-learning to specialized courses to enable students to carry out projects and solve problems better. Through PSS+ basic and advanced courses, employees are able to gain an overview of the PSS+ operation process and problem-solving roadmap. In-depth courses in each area allow employees to study more specialized contents and learn how to apply them step by step.

For QSS activities, which are equipment maintenance activities at worksites, POSCO operates curriculums by classes to help employees be clearly aware of the QSS+ philosophy and conduct improvement activities at worksites. POSCO operated basic-level QSS training to help new site employees understand the concept and importance of QSS+ activities and ran QSS+ improvement leader development courses to systematically conduct innovative activities by developing improvement leaders by unit. POSCO has provided QSS education for assistant managers and team leaders, who manage worksites to help them understand the importance of innovative activities and play the roles of mentors. POSCO has also been nurturing QSS facilitators according to the conditions of the department.

### Employee Life Design Support

We operate the Green Life Program to help employees adapt themselves to their second life after retirement through thorough preparations. This program is part of systematic preparations for their retirement in an aging society and aims to support retirees so that they will be able to live stable lives by preparing them for sudden changes in their lives, helping them reset relationships with their families and making financial plans for their retirement lives. The Green Life Design course provides life design services for expectant retirees of the year, employees over 50 years of age and those who have already

retired. We designed the GLD (Green Life Design) program to provide 13 e-learning courses and 8-days' collective education, as well as life design / financial management consulting services to expectant retirees.

No employees will retire in 2016 due to a decision to increase the retirement age of employees. Therefore, POSCO will reinforce training courses for employees in their 50s to help employees who will retire in the near future to prepare for their second careers in advance. Through the training course, POSCO will help them realize the importance of work and families and prepare for their lives after retirement by teaching them asset management techniques. Through Green Life Portal which can be used by employees who will retire as well as retired employees, POSCO will suggest a variety of education information the government offers free of charge and provide upgraded learning contents such as e-learning and u-learning. POSCO will deliver useful experience and know-how by exploring successful cases of retired POSCO employees, such as becoming a farmer, living in a rural village, working for a new company, and starting a business, and inviting successful retirees in as lecturers.

### Win-Win Cooperation through Spread of POSCO's Unique Innovative Activities

POSCO continues to conduct its unique industry innovation movement that boosts the productivity of small and medium-sized partner firms by using the QSS (Quick Six Sigma), a unique innovation methodology. The industry innovation movement, sponsored by the Ministry of Trade, Industry and Energy and the Korea Chamber of Commerce and Industry, is a consulting project that began in 2013 to raise the productivity of tier 2 to tier 3 partner firms with the support of the government, economic organizations, and large corporations. For this movement, POSCO, Samsung, Hyundai Motors and KIA Motors provide support with regard to processes, management consulting, improvements in working environments and the purchase of relevant facilities, by contributing about KRW 210 billion by 2018. Since 2013, the POSCO Group has contributed KRW 5 billion annually and helped 215 small and medium-sized partner firms to sharpen competitiveness and improve productivity.

The reason the POSCO-type industry innovation movement has been evaluated as a successful model for shared growth is that by veering away from support projects focused on facility improvement and equipment investment, POSCO has helped partner firms transform their organizations and has created tangible results such as productivity improvements and cost reductions through the spread of the QSS, which is POSCO's unique innovation methodology. When a small or medium-sized firm applies for participation in the QSS Program, a professional consultant from POSCO Group University directly visits and diagnoses the firm, providing customized innovation activities.

POSCO has actively provided support regarding SMEs' continuing innovation activities by holding an event for companies participating in Seoul-Incheon Innovation Hub to benchmark firms that suc-

cessfully follow POSCO's QSS+ activities. Representatives of SMEs of Seoul-Incheon Innovation Hub understood the QSS+ (Quality Stability Safety Plus) which corresponds to POSCO's innovation activity, and directly witnessed the effects of QSS+ by visiting a steel mill to which QSS+ was applied. This process leads participants to understand needs for QSS+ activities where goals are autonomously set at factories and customized plans are made and employees voluntarily took part in innovation activities, reinforcing manufacturing sites. Since 2011, POSCO has launched "innovative hubs" in Pohang, Gwangyang, and the Seoul-Incheon area and has been spreading innovative activities to SMEs. QSS+ consultants visit and diagnose SMEs' manufacturing sites. After reviewing VOC, QSS+ consultants provide customized consulting services. POSCO will continue to strengthen its shared growth and coexistence culture with SMEs through innovative hub activities.

### POSCO's Education Index

POSCO operates an education index to measure the efficacy of the education and training programs. Major indices include the number of trainees, training hours per capita, and training costs per capita. To measure efficacy, we conduct satisfaction surveys for all the courses offered, and we evaluate the trainees' level of understanding (achievement level) for main programs such as job basis, leadership, and technical training. In addition, for leadership programs we measure the rate of field application through 360-degree feedback. If we look at the education index, the training hours per capita has decreased, which reflects our change in policy from "the more training the better" to "let's give training to those who really need it." Thus, we are reducing the ratio of off the job training and increasing e-learning to foster the self-directed learning culture. This has resulted in fewer training hours but higher satisfaction.

Category	2011	2012	2013	2014	2015
Number of persons to receive training	530,086	432,859	523,184	356,133	343,199
Training hours per capita	252	234	205	128	116
Total training costs (KRW 100 million)	253	178	142	122	200
Training costs per capita (KRW 10,000)	145	101	80	68	110
Trainee satisfaction (points)	4.47	4.48	4.62	4.65	4.69

- Collective training (POSCO Group University, plant floor supervised training, on-site lifelong learning, commissioned training) and e-learning
- The number of trainees, training hours per trainee and trainee satisfaction are based on HRD Portal's statistical data
- Education expenses grew due to the opening of POSCO Group University and the dispatch of POSCO'S training personnel in 2015

## EMPLOYEE DATA

Category		2011	2012	2013	2014	2015
Employment	Total number of employees (persons)	17,553	17,623	17,832	17,877	17,045
	Pohang	6,638	6,521	6,556	7,506	7,241
	Gwangyang	6,254	6,217	6,232	6,337	6,150
	Head office / Technical Research Laboratories / Offices / Other	4,661	4,885	5,044	4,034	3,654
	Employee types					
	Full-time worker (persons)	16,824	16,675	17,005	17,017	16,321
	Contract-based worker* (persons)	729	748	827	860	724
	Ratio of contract-based workers (%)	4%	4%	5%	5%	4%
	Employment of senior citizens**					
	Employees 55 years old or older (persons)			2,125	2,091	1,915
Ratio of employees 55 years old or older (%)			11.9%	11.7%	11.2%	
Gender						
Female worker (persons)	625	702	778	842	879	
Ratio of female workers (%)	3.6%	4.0%	4.4%	4.7%	5.2%	
Female workers who are managers or higher (persons)	105	146	166	199	241	
Employees with disabilities						
Ratio of employees with disabilities (%)	2.5%	2.7%	2.7%	2.4%	2.8%	
POSCO (persons)	253	254	255	241	256	
Withplus division of POSCO Humans (persons)	192	220	230	190	240	
Average years of service (years)	18.5	18.0	18.5	18.1	18.0	
Recruitment	No. of new employees (persons)	992	818	873	879	522
Retirement	No. of retirees (persons)	496	1,029	520	1,101	757
	No. of retirees who reached retirement age (persons)	1	654	0	626	461
	Ratio of retirees(%)	2.8%	5.8%	2.9%	6.2%	4.3%
Maternity/ Childcare	Employees who used maternity leave (persons)	15	56	55	67	72
	Average length of maternity leave that was used (days/person)	75.4	71.3	61.7	61.6	75.3
	Return ratio after maternity leave (%)	100	100	100	100	100
	Employees who used paternity leave (persons)	22	61	77	81	73
	Male employee (persons)				12	6
	Female employee (persons)				69	67
	Return ratio after parental leave (%)	100	100	100	100	100
	Employees who used spouse paternity leave (persons)	244	532	518	499	579

\* Contract workers include those hired after retirement and specialized contract workers such as lawyers and nurses

\*\* Elderly people refer to those 55 years old in accordance with Enforcement Ordinance 2 of the Act on Age Discrimination in Employment and the Promotion of Elderly People Employment

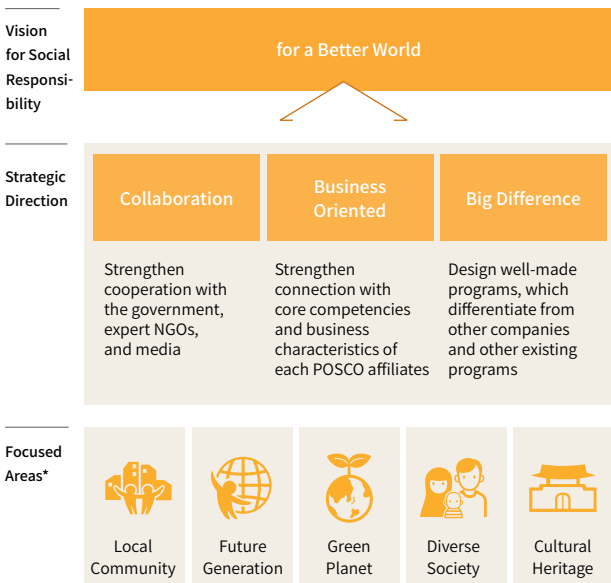
■ Mistakes in data of 2014 were corrected

# SOCIETY

Since its foundation, POSCO has made its mission the development of South Korea. We have made various special contributions. POSCO is going to move “for a better world” newly together with the POSCO and its affiliates based on efforts and results.

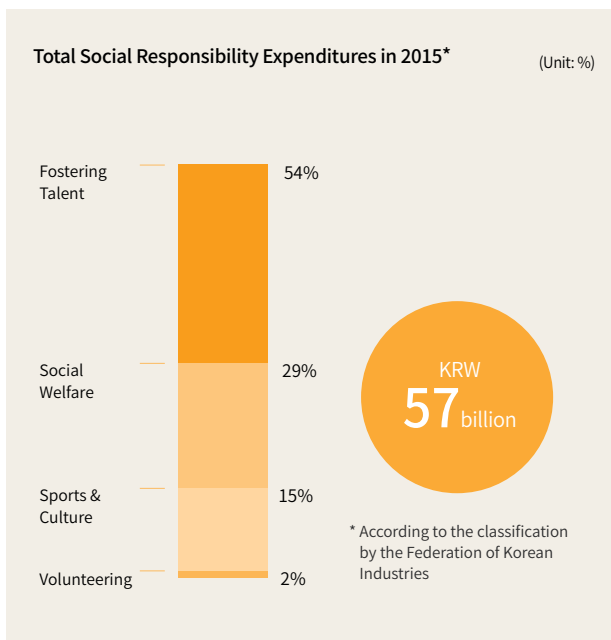
## Strategic Directions and Focused Areas

We make strategic and structural social contributions by executing three strategies and setting five key areas to create a better world.



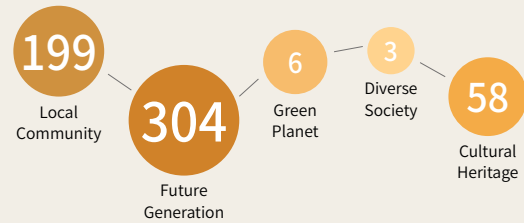
\*POSCO strives to achieve the UN sustainable development goals (UN SDG) along with its Focused areas.

## Social Responsibility Performance in 2015



## Social Responsibility Expenditure in Focused Areas

(Unit: KRW 100 million)



## Donations to Community Chest of Korea

(Aggregate amount of POSCO and its affiliate: KRW 113.95 billion)



KRW **7** billion

## Employee Volunteer Activities

(A total of 471,519 hours in 2015)

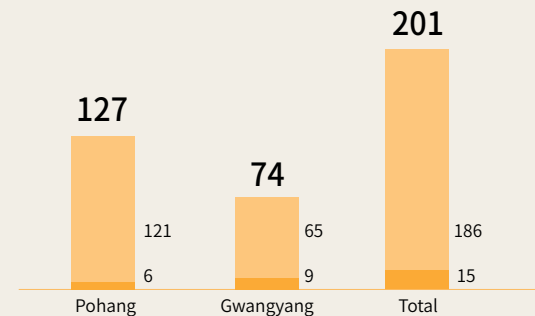


Per-capita average volunteer service hours

**28.3** hours

## “One Department on One Village” Activities

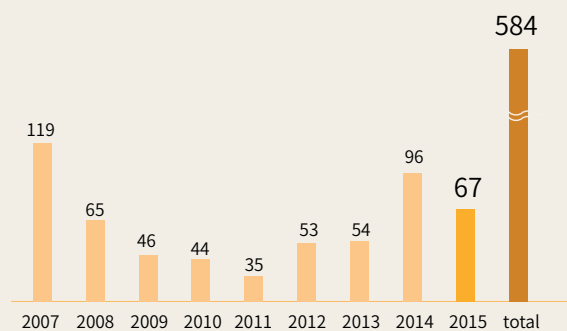
■ Village ■ Organization



\* Pohang Population: 524, 634 / Gwangyang Population: 153,857 (as of end of 2015)

## Donation of Employees' Lecture Fees

(Unit: KRW 1 million)





## FOCUSED AREA\_ LOCAL COMMUNITY

Local communities are the most important stakeholders to POSCO that has grown based on steel manufacturing. They include local residents and employees. POSCO has laid the foundation for local communities' growth by vitalizing local economies and supporting sports, culture and education. They are reaching overseas markets and developing countries. We are exerting ourselves to go ahead with activities through which employees carry out sharing activities and meet the needs of communities.

### Domestic Activities

#### Activities for Sister Village

Starting with Hagwang Village, Gwangyang in 1988, we have continued our "One Department on One Village" activities. We carry out various programs for 201 villages, and organizations in Pohang and Gwangyang.



↑ Activities for sister village

#### Providing Houses for Fire-Stricken Families

We have provided Steel Houses for fire-stricken families using our expertise in steel since 2009. We have provided new houses which are made of environmentally friendly materials and have earthquake-proof design for more durability, ruggedness, and stability for families whose houses have burned down. So we have helped these families come back to normal lives quickly. So far, a total of 16 steel houses for fire-damaged families have been built.



↑ Steel House built with POSCO corrugated steel plates for fire-stricken family

#### Local Volunteering Activity "Sharing Saturday"

On a Saturday of each month, POSCO holds the "Sharing Saturday" in connection with local communities. Employees and their families participate in volunteer activities that are needed in communities.

#### Donating Lecture Fees

POSCO has conducted the "Donating Lecture Fees" campaign, where employees donate fees received for external lectures back to society. Such donations have gone to the POSCO 1% Sharing Foundation since its birth in 2013. They were utilized as scholarships for local teenagers through the Chin Chin Rainbow Program of the foundation in 2015.

#### Job creating by Supporting Social Enterprises

To support the underprivileged and provide stable jobs for them, POSCO established POSWITH which is a standard workplace for the disabled and then set up POSECOHOUSING, Gwangyang POSPLATE, and Incheon Songdo SE in December 2008. In January 2013, POSCO HUMANS was established out of a marriage between POSWITH and POSECOHOUSING. After these social enterprises became stable, POSCO's equities in POSPLATE and Songdo SE were handed over to relevant organizations such as NGOs free of charge. At the same time, POSCO spare no support for them by transferring its competitiveness and technical skills, among other things.

### POSCO Social Enterprises

POSCO HUMANS	POSPLATE	Songdo SE
<b>Date of Establishment</b> 2013. 01. 04 (Merger between POSWITH and POS-Eco Housing)	<b>Date of Establishment</b> 2010. 01. 22	<b>Date of Establishment</b> 2010. 04. 29
<b>Business Areas</b> Office support, laundry service, IT services and construction of eco-friendly steel house, material manufacturing	<b>Business Areas</b> Specimen processing for Gwangyang Works' steel plate factory, product warehouse management, subcontracting work for POS-HiMetal	<b>Business Areas</b> Cleaning and parking management at POSCO E&C's new company building and POSCO Global R&D Center
WITHPLUS Division (formerly POSWITH) <b>The Unprivileged Employment</b> 54% (197/354) <b>Certified as Standard Workplace for the Disabled Persons</b> 2008. 04. 24	<b>The Unprivileged Employment</b> 50% (71/142)	<b>The Unprivileged Employment</b> 79% (103/130)
<b>Steel House Division (formerly POSECOHOUSING)</b> <b>The Unprivileged Employment</b> 47.7% (31/65) <b>Date Certified as Social Enterprise</b> 2010. 10.19	<b>Date Certified as Social Enterprise</b> 2011. 05. 27	<b>Date Certified as Social Enterprise</b> 2010. 12. 21

### Home Care for The Seniors

We offer home care for the old, chronic patients and the unprivileged by employing the elderly who earn low income and reside in the Pohang area. In 2015 we provided nursing service for 180 elders, who had senile disorders and employed 30 elders.

### Overseas Activities

#### POSCO STEEL BRIDGE (SDG\* 11)

Ba Rja-Vung Tau Province where POSCO Vietnam is located had narrow bridges without handrails, giving rise to risk of causing accidents involving children and impeding material movement. In particular, during the rainy season, there were many problems such as isolation due to flooding. To solve these problems POSCO Group set up 'POSCO STEEL BRIDGE' as its first joint overseas social responsibility project. POSCO STEEL BRIDGE is a result of joint efforts now that POSCO A&C designed the bridge and the bridge was built with tons of steel produced by POSCO SS-VINA in Vietnam and steel materials processed at a POSCO E&C factory in Vietnam. The steel bridge facilitated access to the village, bringing more safety to children and villagers.

\* UN sustainable development goals



↑ Steel bridge built with POSCO steel

#### Project to Support Overseas Welfare Facilities (SDG 4, 5, 6)

We support 100 welfare facilities in ten countries such as Malaysia, Mexico, India, Indonesia, China, Turkey, Thailand, the Philippines, and Poland in which POSCO's overseas corporations and offices are located. We are also providing better educational environments and living conditions from building toilets and giving hygiene education at schools in local communities to building libraries, giving meal money and operating sports days and cultural programs.

### Medical Support for Mongolians (SDG 3)

Since 2007 we have offered free medical check-ups to village residents living on the outskirts of Ulaanbaatar and taught Mongolian health care providers to improve the medical conditions of Mongolia. In 2015 we invited two Mongolian doctors to South Korea, held local seminars for 1,390 local health care providers, and carried out free medical activities for 322 residents quarterly. Indeed, we supported the opening of a Mongolian national medical library so that we contributed to spreading and developing medical knowledge.

## FOCUSED AREA\_ FUTURE GENERATION

POSCO have focused on scholarship programs based on the foundation spirit of contributing to the nation's growth through the steel industry. Thus, we came to a conclusion that training talented individuals is a key investment for the future of our country. We have undertaken a wide range of activities, from establishing and running schools for training talented individuals to operating college student volunteer corps and supporting scholarship programs.

### POSCO Youth Volunteer Corps "Beyond" (SDG 11)

To let college students who will become future leaders experience and feel coexistence with others, the POSCO Youth Volunteer Corps "Beyond" was established in 2007. Every year we select 100 college students and support them to enable them to experience the real value of sharing with others through various voluntary services such as building "houses of love" and holding fund-raisers and cultural exchange events. We implemented sharing activities beyond borders through exchanges between Korea and Vietnam and joint voluntary service by giving Korea-Vietnam cultural performance together with Vietnam Beyond's second class consisting of 20 Vietnamese college student and youth groups in Vietnam.



↑ Korea-Vietnam cultural performance



↑ Steel Bridge architectural volunteer activities

### Overseas Activities of the POSCO Youth Volunteer, Beyond

2008	Delhi, India	Built 10 houses in the impoverished village of Bawana
2009	Chonburi, Thailand	Employees in Thailand participated in volunteering activities, and visited POSCO-TBPC
2010	Bandung, Indonesia	Built 10 houses to help restore earthquake damage
2011	Bogor, Indonesia	Employees of Krakatau Indonesia participated in the house-building volunteer work
2012	Tien Giang Province, Vung Tau Province of Vietnam	House-building volunteering in connection with POSCO Vietnam, started the POSCO Village project based on this volunteering activity
2013	Delhi, India	Second project of building 10 houses in Bawana. Visited TMU, a prestigious private university.
2014	Vung Tau Province, Vietnam	Built 10 houses in Tan Thanh district, inaugurated the first Beyond composed of Vietnamese students, conducted joint volunteering activities
2015	Vung Tau Province, Vietnam	Built 10 houses in POSCO Village, Tan Thanh district, held a cultural exchange night with Vung Tau Youth Association

### Dream Bridge

Before the Free Semester System<sup>1)</sup> of the Ministry of Education, POSCO is running Dream Bridge which is a career counseling program to help middle school students find out their dreams and talent together with the Seoul YWCA. In particular, we visit the northernmost middle schools near the DMZ and middle schools in island villages and provide students with POSCO's field trips and career counseling programs. Indeed, we delivers practical career information to students through lectures by members of the POSCO Dream Volunteer Corps which consists of 20 employees with various careers and work experience such as the CEO, curators, market experts, lawyers and engineers.

<sup>1)</sup>Free semester system: A system through which students can experience various activities such as career searches and participate in discussions and do-it-yourself programs to find out their aptitudes and careers without a burden of taking a test during one semester at middle schools.



- ① CEO Dream Bridge lecture at Bakhak Middle School
- ② POSCO tour for all students of Bakhak Middle School
- ③ POSCO tour for all students of Chuja Middle School

### POSCO Educational Foundation and POSCO TJ Park Foundation

POSCO awards scholarship through the TJ Park Foundation and Educational Foundation, contributing to improving the educational environment and cultivating promising students across the country and abroad.

**POSCO Educational Foundation** POSCO Educational Foundation was established in 1971. The foundation is running 13 schools (two kindergartens, five elementary schools, two middle schools and four high schools in Pohang, Gwangyang and Incheon). The foundation is pulling out all the stops to help students develop their skills and capabilities and cultivate creative and moral people who fulfill their responsibilities as top-class global citizens through 13-year education from kindergarten to high school.



↑ POSCO Educational Foundation

**POSCO Educational Foundation's Activities**

School Operation	POSCO Educational Foundation's Activities School Operation_ 13 Schools (2 Kindergartens, 5 elementary schools, 2 middle schools, 4 high schools)
Donation for Education (1976~2015)	KRW 961.7 billion in total (Education expenses and facilities maintenance (KRW 888.5 billion), Fund raised from revenue-making business (KRW 68.8 billion) and Labor welfare fund (KRW 4.4 billion)

**POSCO TJ Park Foundation** Starting off as the Steel Scholarship Foundation in 1971, POSCO TJ Park Foundation awards various scholarship funds, namely the POSCO TJ Park Prize, POSCO Asia Fellowship, TJ Park Science Fellowship, and POSCO Regional Scholarships, to nurture excellent talent in Korea and other countries in Asia.

**POSCO TJ Park Foundation's Main Programs**

**POSCO TJ Park Prize**



The prize was established to commemorate the achievements of the founder, TJ Park, and to call the public's attention to POSCO's founding spirit of "respecting creativity, nurturing talent, and promoting philanthropy."

Since its inception in 2006 the prize has been awarded to 29 winners in 9 times for 9 years.

Awardees of 2015 (The 9th POSCO TJ Park Prize Presentation Ceremony was held on 25 March, 2015)

- Science Prize: Park Bae-Ho (professor of physics at Konkuk Univ.)
- Education Prize: Handong Univ.
- Community Development and Philanthropy Prize: Binaswadaya Foundation of Indonesia

**TJ Park Science Fellowship**



The TJ Park Science Fellowship is a program that selects 30 scientists in Korea in the fields of mathematics, physics, chemistry, and biology and provides support for two to three years. The scholarship aims to help scientists, including graduates in doctoral studies, post-doctoral researchers and young assistant professors, develop as world-renowned scientists.

- 212 individuals since November 2009

**POSCO Asia Fellowship**



The POSCO Asia Fellowship is an academic, cultural exchange program with the aim of enhancing mutual understanding among Asian countries and heightening a friendly image of Korea and POSCO.

**Main Projects**

- Scholarship for Asian students studying in Korea  
- 296 individuals from 28 countries since 2005 (including 4 students from Africa)
- Fostering specialists on Asian regional studies  
- 124 individuals from 19 countries since 2006
- Research grant program for humanities and social science in Asian region  
- Awarded to 234 projects from 14 countries since 2005 (176 domestic projects, 58 overseas projects)
- Scholarship for students in leading Asian universities  
- Fellowship support for 3,609 students at 29 universities in 16 countries since 2005
- Quarterly literary journal, "ASIA"  
- First published in June 2005, the quarterly journal has reached its 39th edition.

**POSCO Regional Scholarships**



**Main Projects**

- POSCO Rising Star Scholarship  
Promising high school students in Pohang and Gwangyang are selected and provided with high school fees and special congratulatory scholarship when they enter the university. (653 students since 2006).
- POSCO Vision Scholarship  
The POSCO Vision Scholarship is awarded to students who work hard despite difficult circumstances, with the aim of contributing to building a warm-hearted, sharing society (300 students have enrolled on it since 2006).

## FOCUSED AREA\_ GREEN PLANET

As POSCO operates steelworks by the seashore, we have continued to improve marine environment together with local fishermen and we strive to take a leading role in protecting the sea. The Clean Ocean Volunteer Group, composed of POSCO employees, is playing a vital role in cleaning the sea thorough their environmental protection activities.

### Ocean Cleaning Activities (SDG 14)

The Clean Ocean Volunteer Group started in 2009 as a scuba diving club to help improve the marine environment. About 600 members from our business sites in Pohang, Gwangyang, Seoul and Incheon actively carry out various activities such as collecting marine debris and starfish.

#### Clean Ocean Volunteer Group's Activities in 2015

Category	Volunteers (persons)	Activity times (times)	Number of participants (persons)	Retrieved volume (ton)	
POSCO	Pohang	277	18	443	56
	Gwangyang	35	10	151	45
	Seoul	29	4	89	9
	Sub- total	341	32	683	110
Group affiliates	278	6	340	3	
Total	619	38	1,023	113	

#### Clean Ocean Volunteer Group's Cumulative Activity Results (2009 – 2015)

Region	Volunteers (persons)	Activity times (times)	Number of participants (persons)	Retrieved volume (ton)	
POSCO	Pohang	277	232	9,299	564
	Gwangyang	35	72	1,630	514
	Seoul	29	31	584	54
	Sub-total	341	335	11,513	1,132
Group affiliates	278	41	5,543	53	
Total	619	376	17,056	1,185	

### Energy-Efficient Housing Condition for the Marginalized (SDG 7)

POSCO has been regularly carrying out housing condition improving activities for poor people by organizing the Green Home Voluntary Service Corps together with POSMATE, POSCO Energy, and the group's employees. To reduce the cost of energy to marginalized groups of society, we have undertaken various services, such as papering walls, laying new linoleum, replacing conventional bulbs with energy-efficient LED bulbs, and donating furniture by using employees' talent and ability. In addition, after improving the housing conditions of poor families, we measure the extent of energy efficiency improvement so we can see the amount of saved energy.



## FOCUSED AREA\_ DIVERSE SOCIETY

In a rapidly changing global era, multiculturalism has become an important issue for Korean society which pursues the unity of the country. POSCO supports multicultural families by creating jobs and changing perception to help the families settle and grow into constructive members of society.

### Multicultural Cafe "Oasia"

POSCO and the Social Enterprise Support Network (SESNET) established Cafe Oasia jointly. It is the first social cooperative endorsed by the Ministry of Employment and Labor. The cafe is a social franchise brand created by a cooperative of small-scale cafes. Cafe Oasia hires migrant wives to support their self-reliance and adjust to their new life in Korea. Cost reduction through group purchasing and marketing, and profit generated from the franchise business are used for multicultural campaigns and business startup support. In addition, the cafes hold cultural events and training sessions to provide social venues for migrant women.

#### Multicultural Cafe and Social Cooperative "Oasia"

- Date certified as the first social cooperative by the Ministry of Employment and Labor on Jan. 15, 2015
- 87 marginalized people (including migrant wives) were working at 27 branches as of December 2015

### Helping Migrant Wives Become CEOs (SDG 8)

Beyond creating jobs and education for migrant wives, we have provided start-up assistance program for their smooth settlement in Korean society and economic independence with the SESNET since 2015. The employment of migrant wives is usually limited to unstable daily jobs or they have difficulty in controlling working hours due to children. These facts impede their economic stability. Accordingly, we operate the program with two start-up model teams through start-up education and a start-up support fund system. We selected two growth model teams doing their business but suffering from financial problems. As of the time of writing, they are receiving education and searching for business sites. The start-up teams aim to launch their business in the first half of 2016. The growth model teams finished receiving consulting and are receiving sales promotion and marketing education for their business from the experts.



## FOCUSED AREA\_ CULTURAL HERITAGE

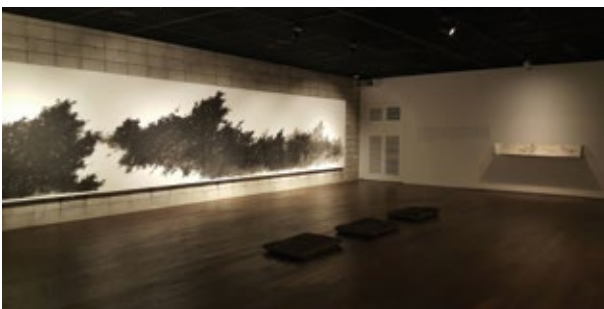
POSCO takes the initiative in preserving cultural assets and heritage for the purpose of succeeding Korea's traditional culture, acting as the spearhead of globalization and sincerely playing its roles as Korea's representative company. POSCO has held the Small Concert for Our Heroes also known as "Woo Young Eum" to provide support and appreciation to manufacturing workers and the Yi-Eum-Exhibition aimed at preserving and succeeding traditional crafts. We have done so as part of a project to support major intangible cultural assets in cooperation with the POSCO 1% Sharing Foundation since 2014. (Page 127 will walk you through the Cultural Heritage Preservation project of the POSCO 1% Sharing Foundation). Moreover, we will share the joy of art and culture with more people through a wide array of Mecenat activities such as music concerts.

### POSCO Center Music Concert

The POSCO Center Music Concert started in December 1999 and is the only concert regularly held in a company complex in Korea. Over the past 16 years, a total of 167 concerts have been held and functioned as a venue for people to communicate with other audiences at the heart of a city. The concert broadens the horizon of culture and art by presenting various genres from Korean traditional music, to K-pop, classical music and opera. POSCO attempts to provide opportunities for more people to enjoy the concert. In 2015, the program was reborn into the POSCO Kids Concert and held the concert for children and their parents six times. Approximately 4,400 audiences enjoyed the concert.

### POSCO Art Museum

POSCO opened the POSCO Art Museum inside the head office building of POSCO in 1998 to become "an easy-to-reach museum and an open space in your life." Its cross-genre programs are putting the museum in the limelight. In 2015, the place held seven shows including "Cheoli Cheol-Cheol" and "Cheongpung Gojeol" which drew about 36,000 people.



↑ "Mun Bong-Seon, Cheongpung Gojeol" selected as one of the 11 Best Art Shows in 2015 by KBS

### POSCO Hyoja Art Hall/ Baekun Art Hall

Compared to big cities, there are fewer opportunities to enjoy art and culture in Pohang and Gwangyang. So we built Hyoja Art Hall (Pohang, in February 1980) and Baekun Art Hall (Gwangyang, in July 1992) to give residents the pleasure of enjoying art and culture and expand the base for culture and art in the areas.

The art halls present classical music, operas, ballet, plays, and concerts and become a representative cultural space by providing people with wonderful art performance and good movies which are very carefully chosen free of charge.

In 2015, about 28,000 audiences watched movies in Hyoja Art Hall. Baekun Art Hall gave five performance such as New Year's concert, ballet, plays, children's musicals and 33 events (such as a Korean classical music festival) by local culture and art organizations, and 17 film screenings and exhibitions. So, about 150,000 people had a wonderful time last year.

In particular, POSCO has held a college Korean traditional music festival for the popularization of Korean traditional music to foster talented young Korean classical musicians in Baekun Art Hall in October every year since 2008.



↑ Hyoja Art Hall



↑ Baekun Art Hall



## POSCO EMPLOYEES' VOLUNTARY SERVICE

All executives and staff members' voluntary service time reached 28 hours a year on average. Since 1988 we have implemented various regional sharing activities, starting from sister villages. Continual voluntary services by members has helped expand the scope of talent donation based on jobs, skills, and hobbies. By running the Talent Donation Corps, POSCO employees support services for society and try to solve social problems beyond simple donation and voluntary service.

### Techno Pro Bono Corps

POSCO's technological researchers develop and provide tools and instruments for sister villagers and residents by mixing technology and voluntary service. Their major activities include the development of a special chair for farmers, a lighter spade, a wear-resistant sickle and a seedling transplanter. The special chair for farmers was developed for the purpose of relieving farmers of pain in the waist and knee when working on their farms and in greenhouses. The chair has a backstop bearing which can roll in one direction with wide wheels for stability. The lighter spade made of the high strength steel produced at POSCO is 20% lighter than current ones. Its function is strengthened by the blade of the spade through special heat treatment. To make a strong sickle which can cut not only grasses but trees, we tried to remake 'Joseon Sickle' with high strength and high toughness made of steel loaded with manganese. We have a plan to make much lighter and more durable spades and sickles through design optimization going forward.

### Cultural Assets Preservation Volunteer Group

Employees interested in our cultural assets join the Cultural Assets Preservation Volunteer Group, receive cultural property education from experts, and perform cultural asset preserving activities. The activities are connected with self-improvement. Many employees' families also participate in these activities. About 150 people visit cultural assets each year, from famous ones to less famous ones such as mountain fortresses, royal palaces, and royal tombs and take care of cultural assets.



### Voluntary Photographing Corps

The Voluntary Photographing Corps takes pictures for multicultural families, single-parent families, and the elderly who cannot visit photo studios. From beginners interested in photographing to those who have skills, the corps comes together with interest in and passion for photography, receive photo education for over 20 hours, and provide one-stop service from taking pictures to retouching and printing.



### Voluntary Agricultural Machine Repair Corps

The Voluntary Agricultural Machine Repair Corps visits farmers, repairs broken agricultural machines, and gives information on checking machines. The corps consists of 90 employees from the Gwangyang equipment technology department who receive special training on agricultural machine repair for two months to improve their repair ability with the help of the Gwangyang Agricultural Technology Center. Members of the corps visit farm villages in local regions on weekend and holidays and repair various agricultural machines such as cultivators, farm masters, power saws, sprayers, mowers, rice-planting machines and threshing machines.



### Voluntary Wallpapering Service Team

The Voluntary Wallpapering Service Team in Gwangyang offers services in wallpapering or floor papering to one-person families or grandparents-supported families in local communities. Each of the team members, to offer better papering service, has attained a licence in wallpapering by completing a course for three months offered by the Gwangyang City Government.



### Teaching Service Team

Gwangyang Teaching Service Team, made up of some 30 young engineers, is helping children at the community's children center with their studies. They teach English, mathematics and other subjects to children like their brothers and sisters. They help spur interest in studies and offer encouragement for the future. They also help through creativity-increasing activities, career guidance or grievance counseling.



### Housing Repair Service Group

The group was launched in February 2014 to provide housing repair service in the Pohang region with the participation of smaller voluntary service teams to improve poor people's houses. Team members completed professional training programs concerning wallpapering, floor-papering, door-papering and window-papering, etc to give satisfactory services to one-person or low-income families. The group has offered valuable services in improving residential areas by replacing old cracked slate roofings, dirty wallpaper or floorpaper, doors, wash basins, sinks, window frames, LED lights, and others with newer ones.

### Golden Time Service Team

The Pohang Golden Time Service Team composed of POSCO employees with first-class licenses in first aid treatment. They offer voluntary teaching service on first aid treatment and cardio-pulmonary resuscitation (CPR). The service team teaches students how to deal with ill or injured people in the face of an injury or sudden illness that may happen in our daily life. Indeed, the team teaches community people about safety measures against accidents that we may face in events, performance and others.



### Voluntary Service Team for Children's Happiness

With the help of the Pohang branch of Good Neighbors, a charity group for children and youth welfare, the Voluntary Service Team for Children's Happiness, composed of POSCO's young engineers, is helping students with their learning as well as with their psychological problems, gymnastic activities etc, playing the roles of their mentors.



## Talent-sharing Voluntary Service

Name	Volunteer activities	Area for activity
Clean Ocean Volunteer Group	Contributing to preserving the marine ecosystem by retrieving wastes and starfish at the sea where the POSCO Group business is located.	Nationwide
Dream Volunteer Group	Mentoring for middle school students by employees using their various majors and work experience.	Nationwide
English Volunteer Group	Employees who are gifted in English visit nearby welfare centers to teach English for elementary students once a week.	Seoul
Cultural Assets Preservation Volunteer Group	Raising awareness for the importance of cultural assets and preserving the cultural heritages near our business areas.	Seoul
Voluntary Photographing Corps	Taking photos of seniors and single-parent families and multicultural families who cannot visit photo studios.	Seoul
Green Home Team	Helping low-income families by wallpapering, covering floors with oilpaper and replacing old LED lights in cooperation of employees of POSCO Group affiliates.	Seoul
Voluntary Furniture Service Team	Making customized home furniture for low-income families.	Seoul
Techno Pro Bono Corps	Inventing tech-combined useful tools and equipment to POSCO's sister village and its residents.	Pohang
Protectors of Children's Happiness Volunteer Group	Tutoring elementary and middle school students on subjects at which they are poor at, career guidance support, cultural experience, one-to-one ties between mentors and mentees to prevent child abuse and provide growth support.	Pohang
Reform Volunteer Group	Improving living conditions for seniors living alone by volunteer activities such as putting up new wallpaper, window and door repair, painting, and lighting.	Pohang
Golden Time Service Team	Being friends and someone to talk to - for seniors living alone and doing their house chores twice a week or more, to prevent loneliness and support emotional stability.	Pohang
Serving Volunteer Group	First aid and CPR training by employees with those with medical emergency specialist certificates taking the lead.	Pohang
Mural Painting Volunteer Group	Improving the appearance of a backward town near POSCO and forming a cultural street in the town.	Pohang
Teaching Volunteer Group	Supporting children's and teenagers' education at local children's welfare centers.	Pohang
Friend Volunteer Group	Helping hand for farming villages, having a joint wedding for marriage immigrants woman, and bringing their parents' to Korea since 2003.	Gwangyang
Engineer Teaching Volunteer Group	Customized education for children using engineers' skills in English, math and science at the local children's center.	Gwangyang
Voluntary Agricultural Machine Repair Corps	Employees with ironsmith and maintenance skills provide volunteer services in maintenance repair of agricultural machinery, house gates, and repair and welding of steel structures.	Gwangyang
Voluntary Wallpapering Service Team	Employees who completed wallpaper certified technician course replace wallpapers and flooring for seniors living alone or grandparents raising grandchildren alone.	Gwangyang
Foot Massage Volunteer Group	Sharing love through physical contacts called "foot massage" by visiting local senior citizen welfare facilities.	Gwangyang
PC Repair Volunteer Team	Repairing broken PCs at public facilities such as community and welfare centers in local communities.	Gwangyang
Electric Device Repair Volunteer Team	Arranging wires and broken electric facilities in local community and welfare centers twice a month.	Gwangyang

## POSCO 1% SHARING FOUNDATION

The POSCO 1% Sharing Foundation is a non-profit organization which was founded and has been run with 1% of monthly salaries donated by employees of POSCO, POSCO Group affiliates and outsourcing partners.

### Vision

With the vision of “Sharing 1% for a Better World,” the foundation shared love with neighbors by kindling the POSCO DNA for sharing and public good.

### Purpose

To promote the sustainable growth of POSCO Group companies and local communities through a variety of social contribution activities to spread a 1% sharing culture.

- Enhancement of social welfare of marginalized people in Korea
- Relief activities at developing regions at home and abroad and support for people in such regions
- Promotion of culture and art and preservation of traditional culture
- Achievement of other goals as legal body

### Operation Direction



### Organizational Chart



Directors	Auditor
<ul style="list-style-type: none"> <li>• Kwon, Oh-Joon, CEO of POSCO (Chair)</li> <li>• Choi Gwang-Shik, professor of Korean history at Korea Univ.</li> <li>• Lim Chae-min, advisor to Law Firm Lee and Ko</li> <li>• Jung Jin-Ok, secretary general of Chungnam Community Chest of Korea</li> <li>• Ham In-Hee, dean of College of Social Science at Ewha Woman's Univ</li> <li>• Ahn Kyung-Soo, chairman of the Association of Pohang Works' Outsourcing Partners</li> </ul>	<ul style="list-style-type: none"> <li>• Yun Man-Ho, Vice chairman of Ernst &amp; Young Asia and Pacific</li> </ul>

## SOCIAL PROJECTS

The POSCO 1% Sharing Foundation is going forward with social contribution activities with a focus on POSCO Village, the succession and preservation of traditional culture, support for future generations' independence and employees' participation in social contribution activities.

### POSCO Village

**Building POSCO Village in Vietnam** The POSCO Village Project, a representative project of the POSCO 1% Sharing Foundation, is forming habitats for humanity for low-income families in Ba Ria-Vung Tau province where POSCO Vietnam is located. The project will build a total of 104 houses by partnering with the local government. The POSCO 1% Sharing Foundation began to build POSCO Village in 2014. Up until 2015, the foundation completed 45 houses. In 2016, they will hold a ceremony in honor of the completion of the remaining 59 houses. POSCO 1% Foundation Volunteer Corps took part in the project, enabling donors to directly join in social activities. They called the project a participatory voluntary service activity due to this fact.



↑ Employee Volunteer Corps painting playground in POSCO Village in Vietnam

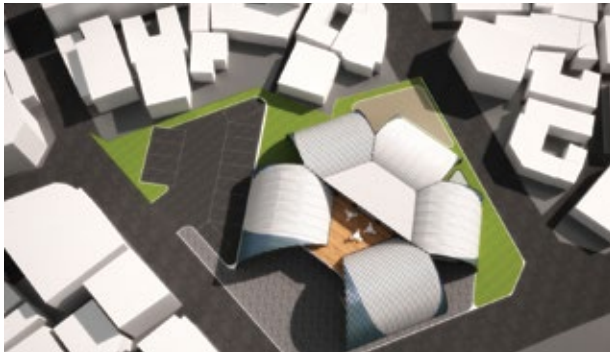
### POSCO Village

This is a project to build 104 houses with the participation of POSCO Group employees and members of the POSCO Youth Volunteer Corps(Beyond) in Vietnam. The local government offers land and the POSCO 1% Sharing Foundation pays the construction cost. POSCO A&C is maximizing the performance of houses by taking part in the design of the houses and making steel used in roofs and some pillars.

**Erecting Steel Welfare Facilities** This voluntary work is to build welfare facilities for the unprivileged here and abroad, helping them for their communities' self-reliance. The POSCO 1% Sharing Foundation has already erected the Happy Steel House for seniors in Pohang region (Jan. 2013), Happy Steel Welfare Center for visually and aurally impaired people in Gwangyang region (Jan. 2014), Gangbuk Youth Dream Center for children and youth in Seoul region (Jun. 2015), and others. The foundation started a welfare facility for infants and toddlers in cooperation with Incheon Dongu District Office (Dec. 2015).



The welfare facility, which will be made of POSCO's corrugated steel sheets and will be located in Hwasu-dong, Incheon, is going to function as a Kids Cafe in which infants and children of low income working couples can play and study.



↑ Bird's eye view of Steel House, welfare facility for kids in Dong-gu, Incheon

**Establishing and Managing PT KPSE Services Indonesia** The POSCO 1% Sharing Foundation founded PT KPSE Services Indonesia in 2014, an Indonesian social enterprise, in cooperation with the Korea International Corporation Agency (KOICA). PT KPSE Services Indonesia, located in Cilegon City, Indonesia, where Indonesian integrated steel mill is situated, returns the earnings of the company to the community as well as offering vocational training to the youths from the regions of Samangraya, Kubangsari, and Tegalratu. Selected trainees, after 6-month training on mechanical maintenance, welding, drainageway management, recourse recycling, are engaged in environmental arrangement within the steel mill. They also take computer education and some key training programs as well for better performance at work places. When their skills are improved, they are positioned to more stable jobs. Exactly 90 percent of first batch trainees moved to more stable positions as of December, 2015. Second batch trainees selected in November, 2015 are now eagerly engaged in their training.



↑ Trainees of first class of PT KPSE Services Indonesia in computer class

**Program to Foster Leaders of Developing Countries** We have launched a program to assist the development and self-reliance of major developing countries in Asia in which POSCO does its business. The program is designed to let participants experience the Korean Saemaul Movement in terms of regional development policy and healthcare systems. A total of 59 leaders were invited from Vietnam, Indonesia, Thailand, and China and gave a favorable evaluation to the program.

### Preservation of Cultural Heritage

**Small Concerts for Our Heroes** POSCO has held the a thank-you concert "Tribute to Our Heros(Woo Young Eum)" since 2015, as part of a project to support major intelligible cultural heritage. The concert is designed to offer a thankful and cheering message to manufacturing workers, commemorating POSCO's founding spirit that has led our nation into an industrialized country. The concerts were successfully held at industrial complexes in Munlae, Koryeong, and Sihwa, offering healing time to the workers there. With the crossover of traditional music and popular songs, the concert dedicated to the task of popularizing our cultural music. The concert also gave unknown singers an opportunity to introduce their own songs. We are intending to put on more concerts in 2016.

■ You can search YouTube for "Woo Young Eum," move to the "Woo Young Eum" Corner and watch past performance videos

### 2015 Concert Summary

**1st Concert – Munlae Iron Industry Complex** (April. 150 people attended)

**Performers:** Gayageum master Hwang Byeong-Kee ; Changjak Group Noni ; Gayageum player Jeong Min-Ah ; Pop-classic singer Sun Woo ; Guitar Group Piaster, etc

**2nd Concert – Koryeong Casting Complex** (August. 250 people attended)

**Performers:** Pansori Master Ahn Sook-Seon ; Gayageum player Lee Ji-Young ; Funky Butt Brass Band ; Bae Da-Hae ; Feel Good ; Wooreuk Youth Gayageum Band, etc

**3rd Concert – Siheung Sihwa Industrial Complex** (October. 350 people attended)

**Performers:** Korean classical musician Oh Jeong Hae ; Pop singer Gang San-Ae ; Golden Swing Band ; Damunhwa Orchestra Mongttang ; Band Aengmusae, etc



↑ "Gayageum" master Hwang's performance (in Munrae in April 2015)

**Connecting Generations, Yi-Eum Exhibition** As our living places become increasingly westernized, the traditional Duseok<sup>1)</sup> (ornamental metal plate for wooden furniture) is disappearing, and with it the chance to see the skills and wisdom of our forefathers. The POSCO 1% Sharing Foundation designated the craft of Duseok as an intangible cultural asset and gave support in 2015. At the Yi-Eum-Exhibition held at the POSCO Center (Jul 22- Aug 11, 2015), 10 works by Kim Geuk -Cheon/ Park Mun-Yeol (Duseok master No. 64) and 10 collaborated works by Kim Se-Joong, Kim Eun-Hak, Park Kil-Jong, Park Sang-Won, Lee Esther, Lee Jeong-Eun, and Han Jo-Won were exhibited and appreciated by 3,023 visitors. The foundation will continue to help preserve our traditional handicrafts.

<sup>1)</sup> Duseok refers to ornamental metal plates that used to be attached to our traditional wooden furniture or household goods for better looks or functions. The craftsman of Duseok is called Duseokjang.



↑ Yi-Eum Exhibition "Masters' Hands"

**Support for the Future Generation's Self-reliance**

**Chin Chin Rainbow<sup>2)</sup> Project** The project is designed to offer customized career guidance to students from multi-cultural families or North Korea. Project members help the students who want to enter college take the College Scholastic Ability Test. If, however, the students want to learn vocational skills, project members help them to learn such skills as nail art, hairdressing, mechanical maintenance, bakery. In 2015, 47 students successfully stepped into the vocational world or schools with scholarships that the rainbow project offered.

<sup>2)</sup> Chin Chin Rainbow: The rainbow project, reached its second year in 2015, was named so because the team is aimed to help students with diverse backgrounds and stories like the rainbow colors.



↑ Students who received "Chin Chin" Rainbow scholarship

**POSCO Care** This program is to help the families of sick children in local communities where POSCO outsourcing partners and the POSCO Group conduct business activities. In 2015, medical equipment and money for medical service were donated to such families. The POSCO 1% Sharing Foundation will continue such service for children who will lead the future.



↑ POSCO Care

**Employee Volunteer Participation**

**POSCO 1% Foundation Volunteer Corps** Donors to the POSCO 1% Sharing Foundation take part in the service personally. So, they can experience satisfaction from sharing and may have a more extensive bond of sympathy with the beneficiaries. Three batches of service teams were formed till 2015, and offered practical support (building houses, transferring housing construction and maintenance technologies and giving hygiene education) to residents in poor neighborhoods. The third batch was formed through a public announcement in 2015, showed very fierce competition, 10 to 1, which eloquently proved the high charity spirit of POSCO employee.



↑ POSCO 1% Foundation Volunteer Corps



**1% Sharing Camp by Parents and Children** The POSCO 1% Sharing Foundation held the 1% Sharing Camp of Parents and Children (“1% Sharing Camp”) in 2015. The camp was designed to teach the POSCO families’ children about the meaning of sharing and volunteer work as well as giving them pride. The camp took place once in Pohang and Gwangyang respectively. The camp featured such activities as lecture on sharing, talks on sharing, family love camping, making DIY (Do-It-Yourself) Kits, visiting-service to needed communities. Through the activities, the children could give warmth to the community, strengthening their family bonds once again.



↑ 1% Sharing Camp with Children

**Donors-selected Services**

The POSCO 1% Sharing Foundation is managed by a fund donated by POSCO executives. To applaud the donors, the foundation is preparing matching grant at the level of POSCO Group. The POSCO 1% Sharing Foundation gives supports so that each company under the POSCO Group can operate customized social programs in accordance with the characteristics of the community in which the company is located. In 2015, 21 companies of POSCO Group participated in 83 projects.



↑ POSCO M-Tech's scholarship program

**Overview of 2015 1% Sharing Camp**

<p><b>Pohang</b> (10.31~11.01) Participants: 95 people (25 families)</p>	<p><b>Gwangyang</b> (11.28~11.29) Participants: 70 people (19 families)</p>
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**Talent Donation Corps** This group made up of POSCO employee, perform services in furniture making, teaching children, photographing, equipment repair, etc, based on each participant’s specialty. In 2015 alone, the POSCO 1% Sharing Foundation offered 20 talent-sharing services in the areas of Pohang, Gwangyang, and Seoul.



↑ eNtoB's volunteer service at local children's welfare center

**Customized Service** POSCO offers customized services in accordance with the needs of beneficiaries. Each department of POSCO Group selects a service or services that fit the foundation’s objectives best among many service types requested by the regional dwellers. In 2015, 16 departments of Pohang Works carried out 27 projects while 26 departments of Gwangyang Works, 24. 12 departments of the Seoul Office engaged in 14 projects.

VOICES OF THOSE INVOLVED IN POSCO 1% SHARING FOUNDATION

The following are precious words of encouragement from those involved in the Posco 1% Sharing Foundation such as donors, beneficiaries and partners. I felt Posco employees' strong passion for sharing in 2015. I want to get excited once again with the the Posco 1% Sharing Foundation in 2016.

Park Dong-woo  
Gwangyang Steel Works

I share 1% of my salary with someone because I wish to see the sharing turn into more positive value. I really wish a warming sharing culture in our society spread through the Posco 1% Sharing Foundation.

Kim Jae-won,  
The Love Sharing Welfare Foundation in Gwangyang

I have supported 1% sharing activities with much interest in them. There is a saying that sharing makes people happy. I become happier, while sharing more.

Kim Jeong-sook  
POSCO M-Tech

I picture the foundation grow to reaching more people by brooding and making more efforts to promote a sharing culture. Just as silkworms become butterflies after getting out of their cocoons, I hope that 2016 will become a year of a new take-off for the POSCO 1% Sharing Foundation.

Ham In-Hee,  
a director of the POSCO 1% Sharing Foundation

Employees of the POSCO Group have strong capabilities to share their love with the marginalized. It is no exaggeration to say that there POSCO Group affiliates are involved in all types of sharing activities. In 2015, I took part in various sharing activities through the POSCO 1% Sharing Foundation. The foundation made me sure that sharing activities always make me happy.

Choi Jeon-Shik,  
Korea Food for the Hungry International (KFHI)

The POSCO 1% Sharing Foundation helped me take one step towards a better future. We were really happy at PT KPSE Services Indonesia for one year. This period helped us become more confident at work and as human beings. We ask PT KPSE Services Indonesia to give strong support to the next trainees so that they will have courage and pride.

Four members of the first class of  
PT KPSE Services Indonesia  
Abdul Azid · Fery Utama · Safroni · Sobirin Azid



# Financial Statements

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## INDEPENDENT AUDITORS' REPORT

POSCO

The Board of Directors and Shareholders

Feb. 25, 2016

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, 2015 and 2014, 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, 2015 and 2014, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with Korean International Financial Reporting Standards.

152, Teheran-ro, Gangnam-gu, Seoul, Korea  
(27th Floor, Gangnam Finance Center, Yeoksam-dong)

CEO of Samjong KPMG

**Kim Kyo-tae**

## POSCO and Subsidiaries

## CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

As of December 31, 2015 and 2014  
(in millions of Won)

	December 31, 2015	December 31, 2014
<b>Assets</b>		
Cash and cash equivalents	4,870,185	3,811,202
Trade accounts and notes receivable, net	9,595,935	11,786,055
Other receivables, net	1,679,879	1,956,216
Other short-term financial assets	3,910,387	1,462,920
Inventories	8,225,205	10,471,330
Current income tax assets	33,765	36,147
Assets held for sale	57,281	2,127,087
Other current assets	808,252	976,425
<b>Total current assets</b>	<b>29,180,889</b>	<b>32,627,382</b>
Long-term trade accounts and notes receivable, net	120,338	79,336
Other receivables, net	863,258	1,144,160
Other long-term financial assets	2,341,460	2,455,900
Investments in associates and joint ventures	3,945,333	4,060,507
Investment property, net	1,084,292	1,055,592
Property, plant and equipment, net	34,522,855	35,241,195
Intangible assets, net	6,405,754	6,884,989
Deferred tax assets	1,315,580	1,195,563
Other non-current assets	629,000	507,549
<b>Total non-current assets</b>	<b>51,227,870</b>	<b>52,624,791</b>
<b>Total assets</b>	<b>80,408,759</b>	<b>85,252,173</b>
<b>Liabilities</b>		
Trade accounts and notes payable	3,125,348	3,950,786
Short-term borrowings and current installments of long-term borrowings	12,371,032	12,195,484
Other payables	2,129,093	2,194,713
Other short-term financial liabilities	202,117	111,637
Current income tax liabilities	377,962	453,613
Liabilities of disposal group held for sale	34,202	590,982
Provisions	102,320	150,030
Other current liabilities	1,788,852	2,229,764
<b>Total current liabilities</b>	<b>20,130,926</b>	<b>21,877,009</b>
Long-term trade accounts and notes payable	11,098	88,469
Long-term borrowings, excluding current installments	12,849,199	15,232,773
Other payables	134,470	169,986
Other long-term financial liabilities	54,696	91,095
Defined benefit liabilities, net	182,025	290,325
Deferred tax liabilities	1,676,658	1,832,260
Long-term provisions	221,692	223,239
Other long-term liabilities	77,773	155,653
<b>Total non-current liabilities</b>	<b>15,207,611</b>	<b>18,083,800</b>
<b>Total liabilities</b>	<b>35,338,537</b>	<b>39,960,809</b>
<b>Equity</b>		
Share capital	482,403	482,403
Capital surplus	1,383,623	1,083,718
Hybrid bonds	996,919	996,919
Reserves	(594,756)	(408,773)
Treasury shares	(1,533,898)	(1,534,457)
Retained earnings	40,501,059	40,967,558
<b>Equity attributable to owners of the controlling company</b>	<b>41,235,350</b>	<b>41,587,368</b>
<b>Non-controlling interests</b>	<b>3,834,872</b>	<b>3,703,996</b>
<b>Total equity</b>	<b>45,070,222</b>	<b>45,291,364</b>
<b>Total liabilities and equity</b>	<b>80,408,759</b>	<b>85,252,173</b>



## POSCO and Subsidiaries

**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME(LOSS)**For the years ended December 31, 2015 and 2014  
(in millions of Won, except per share information)

	2015	2014
<b>Revenue</b>	58,192,345	65,098,445
<b>Cost of sales</b>	(51,658,098)	(57,815,041)
<b>Gross profit</b>	6,534,247	7,283,404
Selling and administrative expenses		
Administrative expenses	(2,395,248)	(2,309,756)
Selling expenses	(1,728,956)	(1,760,118)
<b>Operating profit</b>	2,410,043	3,213,530
Share of loss of equity-accounted investees, net	(506,054)	(299,893)
Finance income and costs		
Finance income	2,557,073	2,396,762
Finance costs	(3,387,054)	(3,221,987)
Other non-operating income and expenses		
Other non-operating income	549,048	269,406
Other non-operating expenses	(1,442,298)	(979,674)
<b>Profit before income tax</b>	180,758	1,378,144
Income tax expense	(276,939)	(821,485)
<b>Profit (loss)</b>	(96,181)	556,659
<b>Other comprehensive income (loss)</b>		
<b>Items that will not be reclassified subsequently to profit or loss:</b>		
Remeasurements of defined benefit pension plans	41,954	(75,101)
<b>Items that are or may be reclassified subsequently to profit or loss:</b>		
Capital adjustment arising from investments in equity-method investees	(82,509)	(45,754)
Net changes in the unrealized fair value of available-for-sale investments	(187,854)	(333,891)
Foreign currency translation differences	66,280	(836)
<b>Other comprehensive loss, net of tax</b>	(162,129)	(455,582)
<b>Total comprehensive income (loss)</b>	(258,310)	101,077
<b>Profit (loss) attributable to:</b>		
Owners of the controlling company	180,647	626,099
Non-controlling interests	(276,828)	(69,440)
<b>Profit (loss)</b>	(96,181)	556,659
<b>Total comprehensive income (loss) attributable to:</b>		
Owners of the controlling company	33,017	174,918
Non-controlling interests	(291,327)	(73,841)
<b>Total comprehensive income (loss)</b>	(258,310)	101,077
<b>Basic and diluted earnings per share (in Won)</b>	1,845	7,432

## POSCO and Subsidiaries

**CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY**For the years ended December 31, 2015 and 2014  
(in millions of Won)

	Attributable to owners of the controlling company								
	Share capital	Capital surplus	Hybrid bonds	Reserves	Treasury shares	Retained earnings	Sub total	Non-controlling interests	Total
<b>Balance as of January 1, 2014</b>	482,403	1,078,266	996,919	(23,076)	(1,579,124)	41,090,649	42,046,037	3,775,993	45,822,030
<b>Comprehensive income (loss):</b>									
Profit (loss)	-	-	-	-	-	626,099	626,099	(69,440)	556,659
Other comprehensive income (loss)									
Remeasurements of defined benefit pension plans, net of tax	-	-	-	-	-	(65,152)	(65,152)	(9,949)	(75,101)
Capital adjustment arising from investments in equity-method investees, net of tax	-	-	-	(50,920)	-	-	(50,920)	5,166	(45,754)
Net changes in the unrealized fair value of available-for-sale investments, net of tax	-	-	-	(335,626)	-	-	(335,626)	1,735	(333,891)
Foreign currency translation differences, net of tax	-	-	-	517	-	-	517	(1,353)	(836)
<b>Total comprehensive income (loss)</b>	-	-	-	(386,029)	-	560,947	174,918	(73,841)	101,077
<b>Transactions with owners of the controlling company, Recognized directly in equity:</b>									
Year-end dividends	-	-	-	-	-	(478,702)	(478,702)	(32,887)	(511,589)
Interim dividends	-	-	-	-	-	(159,568)	(159,568)	(76,854)	(236,422)
Changes in subsidiaries	-	-	-	-	-	-	-	91,551	91,551
Changes in ownership interests in subsidiaries	-	(9,401)	-	-	-	-	(9,401)	44,265	34,864
Interest of hybrid bonds	-	-	-	-	-	(43,600)	(43,600)	(26,175)	(69,775)
Disposal of treasury shares	-	14,576	-	-	44,667	-	59,243	-	59,243
Others	-	277	-	332	-	(2,168)	(1,559)	1,944	385
<b>Total transactions with owners of the controlling company</b>	-	5,452	-	332	44,667	(684,038)	(633,587)	1,844	(631,743)
<b>Balance as of December 31, 2014</b>	482,403	1,083,718	996,919	(408,773)	(1,534,457)	40,967,558	41,587,368	3,703,996	45,291,364

	Attributable to owners of the controlling company								
	Share capital	Capital surplus	Hybrid bonds	Reserves	Treasury shares	Retained earnings	Sub total	Non-controlling interests	Total
<b>Balance as of January 1, 2015</b>	482,403	1,083,718	996,919	(408,773)	(1,534,457)	40,967,558	41,587,368	3,703,996	45,291,364
<b>Comprehensive income (loss):</b>									
Profit (loss)	-	-	-	-	-	180,647	180,647	(276,828)	(96,181)
Other comprehensive income (loss)									
Remeasurements of defined benefit pension plans, net of tax	-	-	-	-	-	38,771	38,771	3,183	41,954
Capital adjustment arising from investments in equity-method investees, net of tax	-	-	-	(81,418)	-	-	(81,418)	(1,091)	(82,509)
Net changes in the unrealized fair value of available-for-sale investments, net of tax	-	-	-	(183,077)	-	-	(183,077)	(4,777)	(187,854)
Foreign currency translation differences, net of tax	-	-	-	78,094	-	-	78,094	(11,814)	66,280
<b>Total comprehensive income (loss)</b>	-	-	-	(186,401)	-	219,418	33,017	(291,327)	(258,310)
<b>Transactions with owners of the controlling company, Recognized directly in equity:</b>									
Year-end dividends	-	-	-	-	-	(479,958)	(479,958)	(32,410)	(512,368)
Interim dividends	-	-	-	-	-	(159,987)	(159,987)	(67,700)	(227,687)
Changes in subsidiaries	-	-	-	-	-	-	-	(311,548)	(311,548)
Changes in ownership interests in subsidiaries	-	301,029	-	-	-	-	301,029	857,244	1,158,273
Interest of hybrid bonds	-	-	-	-	-	(43,574)	(43,574)	(24,187)	(67,761)
Disposal of treasury shares	-	(35)	-	-	559	-	524	-	524
Others	-	(1,089)	-	418	-	(2,398)	(3,069)	804	(2,265)
<b>Total transactions with owners of the controlling company</b>	-	299,905	-	418	559	(685,917)	(385,035)	422,203	37,168
<b>Balance as of December 31, 2015</b>	482,403	1,383,623	996,919	(594,756)	(1,533,898)	40,501,059	41,235,350	3,834,872	45,070,222

POSCO and Subsidiaries  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

For the years ended December 31, 2015 and 2014  
(in millions of Won)

	2015	2014
<b>Cash flows from operating activities</b>		
Profit (loss)	(96,181)	556,659
Adjustments for:		
Depreciation	2,836,663	2,894,609
Amortization	381,583	343,940
Finance income	(1,165,340)	(1,046,718)
Finance costs	1,852,862	1,801,015
Income tax expense	276,939	821,485
Impairment loss on property, plant and equipment	136,269	64,833
Gain on disposal of property, plant and equipment	(22,730)	(15,039)
Loss on disposal of property, plant and equipment	101,732	50,006
Impairment loss on goodwill and intangible assets	161,412	55,220
Share of loss of equity-accounted investees	506,054	299,893
Impairment loss on assets held for sale	133,547	17,205
Gain on disposals of assets held for sale	(227,956)	(48,232)
Loss on disposals of assets held for sale	190,357	14
Costs for defined benefit plans	245,402	237,886
Bad debt expenses	337,235	205,306
Loss on valuation of inventories	152,952	41,713
Contribution to provisions	86,903	245,470
Others, net	(21,643)	126,802
	5,962,241	6,095,408
Changes in operating assets and liabilities	2,754,039	(1,913,972)
Interest received	198,193	238,817
Interest paid	(831,566)	(882,183)
Dividends received	237,715	114,694
Income taxes paid	(622,612)	(797,324)
Net cash provided by operating activities	7,601,829	3,412,099
<b>Cash flows from investing activities</b>		
Acquisitions of short-term financial instruments	(13,037,990)	(3,096,602)
Proceeds from disposal of short-term financial instruments	10,595,379	4,635,120
Increase in loans	(295,689)	(361,671)
Collection of loans	308,906	76,717
Acquisitions of available-for-sale investments	(87,824)	(75,582)
Proceeds from disposal of available-for-sale investments	308,161	252,056
Acquisitions of investment in associates and joint ventures	(77,155)	(702,989)
Proceeds from disposal of investment in associates and joint ventures	11,813	21,359
Acquisitions of investment property	(61,478)	(406,603)
Proceeds from disposal of investment property	1,120	43,167
Acquisitions of property, plant and equipment	(2,560,244)	(3,505,549)
Proceeds from disposal of property, plant and equipment	59,031	62,829
Acquisitions of intangible assets	(289,148)	(343,804)
Proceeds from disposal of intangible assets	12,832	9,043
Proceeds from disposal of assets held for sale	127,133	1,291
Cash paid in acquisition of business, net of cash acquired	-	(388,578)
Cash received from disposal of business, net of cash transferred	469,576	48,949
Other, net	(19,099)	(14,335)
Net cash used in investing activities	(4,534,676)	(3,745,182)
<b>Cash flows from financing activities</b>		
Proceeds from borrowings	1,779,097	2,522,495
Repayment of borrowings	(3,509,970)	(2,802,150)
Proceeds from (repayment of) short-term borrowings, net	(846,230)	1,037,912
Capital contribution from non-controlling interest and proceeds from disposal of subsidiaries while maintaining control	1,260,053	54,066
Payment of cash dividends	(822,570)	(677,000)
Payment of interest of hybrid bonds	(67,725)	(69,713)
Other, net	(34,256)	69,502
Net cash provided by financing (used in) activities	(2,241,601)	135,112
<b>Effect of exchange rate fluctuation on cash held</b>	<b>23,496</b>	<b>11,545</b>
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>849,048</b>	<b>(186,426)</b>
<b>Cash and cash equivalents at beginning of the period</b>	<b>4,022,136</b>	<b>4,208,562</b>
<b>Cash and cash equivalents at end of the period</b>	<b>4,871,184</b>	<b>4,022,136</b>

POSCO  
SEPARATE STATEMENTS OF FINANCIAL POSITION

As of December 31, 2015 and 2014  
(in millions of Won)

	December 31, 2015	December 31, 2014
<b>Assets</b>		
Cash and cash equivalents	1,634,106	1,742,767
Trade accounts and notes receivable, net	2,740,104	3,157,266
Other receivables, net	246,431	562,930
Other short-term financial assets	3,326,012	693,729
Inventories	3,427,011	4,383,568
Assets held for sale	25,892	1,051,177
Other current assets	28,083	31,692
<b>Total current assets</b>	<b>11,427,639</b>	<b>11,623,129</b>
Long-term trade accounts and notes receivable, net	19,895	23,841
Other receivables, net	93,757	26,360
Other long-term financial assets	1,804,374	1,794,590
Investments in subsidiaries, associates and joint ventures	15,737,287	16,178,891
Investment property, net	86,752	90,137
Property, plant and equipment, net	21,514,150	22,323,215
Intangible assets, net	490,762	403,907
Other long-term assets	134,793	133,253
<b>Total non-current assets</b>	<b>39,881,770</b>	<b>40,974,194</b>
<b>Total assets</b>	<b>51,309,409</b>	<b>52,597,323</b>
<b>Liabilities</b>		
Trade accounts and notes payable	577,856	777,401
Short-term borrowings and current installments of long-term borrowings	1,985,722	1,236,290
Other payables	946,735	1,032,496
Other short-term financial liabilities	25,676	9,236
Current income tax liabilities	227,569	304,362
Provisions	22,840	47,759
Other current liabilities	31,281	108,508
<b>Total current liabilities</b>	<b>3,817,679</b>	<b>3,516,052</b>
Long-term borrowings, excluding current installments	3,303,105	5,300,927
Other payables	37,656	88,807
Other long-term financial liabilities	81,496	50,574
Defined benefit liabilities, net	10,472	86,158
Deferred tax liabilities	994,867	1,047,666
Long-term provisions	21,954	31,474
Other long-term liabilities	16,623	234
<b>Total non-current liabilities</b>	<b>4,466,173</b>	<b>6,605,840</b>
<b>Total liabilities</b>	<b>8,283,852</b>	<b>10,121,892</b>
<b>Equity</b>		
Share capital	482,403	482,403
Capital surplus	1,247,581	1,247,616
Hybrid bonds	996,919	996,919
Reserves	(30,018)	94,042
Treasury shares	(1,533,898)	(1,534,457)
Retained earnings	41,862,570	41,188,908
<b>Total equity</b>	<b>43,025,557</b>	<b>42,475,431</b>
<b>Total liabilities and equity</b>	<b>51,309,409</b>	<b>52,597,323</b>



POSCO

## SEPARATE STATEMENTS OF COMPREHENSIVE INCOME

For the years ended December 31, 2015 and 2014  
(in millions of Won, except per share information)

	2015	2014
Revenue	25,607,221	29,218,854
Cost of sales	(21,473,390)	(24,955,649)
Gross profit	4,133,831	4,263,205
Selling and administrative expenses		
Administrative expenses	(890,446)	(933,984)
Selling expenses	(1,005,136)	(979,186)
Operating profit	2,238,249	2,350,035
Finance income and costs		
Finance income	896,406	1,050,794
Finance costs	(734,569)	(1,014,269)
Other non-operating income and expenses		
Other non-operating income	465,316	46,864
Other non-operating expenses	(1,197,119)	(712,031)
Profit before income tax	1,668,283	1,721,393
Income tax expense	(350,012)	(582,435)
Profit	1,318,271	1,138,958
Other comprehensive income (loss)		
Items that will not be reclassified subsequently to profit or loss:		
Remeasurements of defined benefit plans, net of tax	38,910	(42,464)
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	(124,060)	(309,897)
Total comprehensive income	1,233,121	786,597
Basic and diluted earnings per share (in Won)	16,067	13,858

POSCO  
SEPARATE STATEMENTS OF CHANGES IN EQUITY

For the years ended December 31, 2015 and 2014  
(in millions of Won)

	Share capital	Capital surplus	Hybrid bonds	Reserves	Treasury shares	Retained earnings	Total
<b>Balance as of January 1, 2014</b>	<b>482,403</b>	<b>1,233,040</b>	<b>996,919</b>	<b>403,939</b>	<b>(1,579,123)</b>	<b>40,774,284</b>	<b>42,311,462</b>
<b>Comprehensive income:</b>							
Profit	-	-	-	-	-	1,138,958	1,138,958
Other comprehensive loss							
Remeasurements of defined benefit plans, net of tax	-	-	-	-	-	(42,464)	(42,464)
Net changes in unrealized fair value of available-for-sale investments, net of tax	-	-	-	(309,897)	-	-	(309,897)
<b>Transactions with owners of the Company, recognized directly in equity:</b>							
Year-end dividends	-	-	-	-	-	(478,702)	(478,702)
Interim dividends	-	-	-	-	-	(159,568)	(159,568)
Interest of hybrid bonds	-	-	-	-	-	(43,600)	(43,600)
Disposal of treasury shares	-	14,576	-	-	44,666	-	59,242
<b>Balance as of December 31, 2014</b>	<b>482,403</b>	<b>1,247,616</b>	<b>996,919</b>	<b>94,042</b>	<b>(1,534,457)</b>	<b>41,188,908</b>	<b>42,475,431</b>
<b>Balance as of January 1, 2015</b>	<b>482,403</b>	<b>1,247,616</b>	<b>996,919</b>	<b>94,042</b>	<b>(1,534,457)</b>	<b>41,188,908</b>	<b>42,475,431</b>
<b>Comprehensive income:</b>							
Profit	-	-	-	-	-	1,318,271	1,318,271
Other comprehensive income (loss)							
Remeasurements of defined benefit plans, net of tax	-	-	-	-	-	38,910	38,910
Net changes in unrealized fair value of available-for-sale investments, net of tax	-	-	-	(124,060)	-	-	(124,060)
<b>Transactions with owners of the Company, recognized directly in equity:</b>							
Year-end dividends	-	-	-	-	-	(479,958)	(479,958)
Interim dividends	-	-	-	-	-	(159,987)	(159,987)
Interest of hybrid bonds	-	-	-	-	-	(43,574)	(43,574)
Disposal of treasury shares	-	(35)	-	-	559	-	524
<b>Balance as of December 31, 2015</b>	<b>482,403</b>	<b>1,247,581</b>	<b>996,919</b>	<b>(30,018)</b>	<b>(1,533,898)</b>	<b>41,862,570</b>	<b>43,025,557</b>

POSCO  
SEPARATE STATEMENTS OF CASH FLOWS

For the years ended December 31, 2015 and 2014  
(in millions of Won)

	2015	2014
<b>Cash flows from operating activities</b>		
Profit	1,318,271	1,138,958
Adjustments for:		
Costs for defined benefit plans	119,183	114,372
Depreciation	2,065,521	2,067,793
Amortization	70,742	74,112
Finance income	(681,205)	(773,099)
Finance costs	522,190	756,480
Loss on valuation of inventories	15,254	24,867
Gain on disposals of property, plant and equipment	(11,000)	(8,882)
Loss on disposals of property, plant and equipment	90,852	57,777
Impairment loss on property, plant and equipment	70,674	30,334
Impairment loss on investments in subsidiaries, associates and joint ventures	327,776	209,795
Gain on disposals of assets held for sale	(409,578)	-
Loss on disposals of assets held for sale	209,775	14
Impairment loss on assets held for sale	95,737	-
Contribution to provisions	2,174	89,844
Income tax expense	350,012	582,435
Others	(6,280)	106,479
Changes in operating assets and liabilities	998,125	197,954
Interest received	79,847	97,441
Interest paid	(263,483)	(321,684)
Dividends received	629,435	151,150
Income taxes paid	(454,084)	(433,055)
Net cash provided by operating activities	5,139,938	4,163,085
<b>Cash flows from investing activities</b>		
Proceeds from disposal of short-term financial instruments	9,273,767	4,103,905
Proceeds from disposal of long-term financial instruments	3	-
Proceeds from disposal of available-for-sale financial assets	135,236	41,740
Decrease in short-term loans	69,443	-
Decrease in long-term loans	514	19,751
Proceeds from disposal of investments in subsidiaries, associates and joint venture	4,713	427
Proceeds from disposal of investment property	-	18
Proceeds from disposal of intangible assets	3,570	2,347
Proceeds from disposal of assets held for sale	1,294,908	1,291
Acquisition of short-term financial instruments	(11,879,166)	(2,478,109)
Increase in short-term loans	(65,208)	-
Acquisition of available-for-sale investments	(1,526)	(30,727)
Increase in long-term loans	(139)	(26,451)
Acquisition of investment in subsidiaries, associates and joint ventures	(451,265)	(1,209,223)
Acquisition of investment property	(346)	(41)
Acquisition of property, plant and equipment	(1,466,910)	(1,643,789)
Payment for disposal of property, plant and equipment	(22,732)	(15,346)
Acquisition of intangible assets	(37,313)	(20,869)
Net cash used in investing activities	(3,142,451)	(1,255,076)
<b>Cash flows from financing activities</b>		
Proceeds from borrowings	23,671	1,429,041
Increase in long-term financial liabilities	3,850	7,196
Proceeds from disposal of treasury shares	-	43,188
Repayment of borrowings	(1,453,075)	(3,350,330)
Decrease in long-term financial liabilities	(4,701)	(7,125)
Payment of cash dividends	(639,561)	(637,927)
Payment of interest of hybrid bonds	(43,600)	(43,600)
Net cash used in financing activities	(2,113,416)	(2,559,557)
Changes in cash due to foreign currency translation	7,268	-
Net increase (decrease) in cash and cash equivalents	(108,661)	348,452
<b>Cash and cash equivalents</b>		
Cash and cash equivalents at beginning of the period	1,742,767	1,394,315
Cash and cash equivalents at end of the period	1,634,106	1,742,767

# Assurance Report

143	Independent Assurance Report
145	Assurance Report for POSCO Carbon Report



## 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 2015 (the “Report”).

### Scope and subject matter

The information for the year ended December 31, 2015 (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) G4 Index (the pages 154 through 157)” as subject to an external assurance (the “Sustainability Data”) is prepared based on the reporting principles set out on GRI G4 guidelines 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<sup>(1)</sup> and AA1000AS<sup>(2)</sup>

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 2015 performance only, as set out in the scope and subject matter section above. Information related to the year ended December 31, 2014 and earlier periods have not been subject to assurance by us.

<sup>(1)</sup> 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

<sup>(2)</sup> 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, 2015 is not fairly stated, in all material respects, in accordance with the Company's internal reporting principles set out on GRI G4 guidelines with Core option.

## Recommendations

As a result of our work, we have provided the following recommendations to the management.

- It is recommended to disclose its level of achieving goals and future plans regarding key performance indicators by sustainability aspect so that the Company can be recognized by its stakeholders for its authenticity in the execution process of systematic sustainability management.
- It is recommended to improve global data management process in accordance with G4 guidelines, in order to collect and manage corporate-wide Sustainability Data.
- In order to ensure the consistency of disclosed data, it is necessary to improve the data collection and management process of internal control system.

June, 2016

Samil PricewaterhouseCoopers

Seoul, Korea

Seiyoun Jung, Partner





## 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 2015 (the “Report”) on the pages 65 through 80.

### Scope and subject matter

The information for the year ended December 31, 2015 (hereinafter, collectively referred to as the subject matters) on which we provide limited assurance consists of:

- Direct (Scope 1) and indirect (Scope 2) CO<sub>2</sub> emissions per ton of crude steel for the year ended December 31, 2015 as described in table on page 75
- GHG Reduction Effect in Society data and the amount of investments in new energy-saving facilities and equipment that were completed in 2015 and investments initiated in 2015 for the research and development projects to reduce CO<sub>2</sub> emissions on page 77 through 78

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) CO<sub>2</sub> 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) CO<sub>2</sub> emissions per ton of crude steel for the year ended December 31, 2015 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 GHG Reduction Effect in Society data for the year ended December 31, 2015, and the amount of investments in new energy-saving facilities and equipment that were completed in 2015 and investments initiated in 2015 for the research and development projects to reduce CO<sub>2</sub> emissions are not presented fairly, in all material respects, in accordance with the POSCO Carbon Reporting Procedures set out on GRI G4 guidelines with Core option.

June, 2016

Samil PricewaterhouseCoopers

Seoul, Korea

Seiyoun Jung, Partner





# Norms and Guidelines

- 147 Code of Ethics
- 151 Code of conduct for POSCO Group supplier

## CODE OF ETHICS

### I. CEO's 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 elevated 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.

September 2015  
POSCO CEO Kwon Oh-Joon

### 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

##### ▣ Duty of Compliance with the Code of Ethics

- ① We must comply with related rules and regulations in all areas of the world where POSCO is conducting business operations.
- ② We must retain our dignity as POSCO employees and make efforts to maintain the company's reputation.
- ③ We must preserve integrity, fairness and trust throughout all jobs and business relations.
- ④ We must not become engaged in activities in which there are conflicts of interests between the company and individual.
- ⑤ We must not irrationally discriminate against other employees or stakeholders based on race, nationality, gender, disability and religion, and must respect the dignity and diversity of each individual.
- ⑥ We must make efforts to create a safe workplace and protect the environment.
- ⑦ We must be devoted to establishing an ethical culture by taking responsibility and practicing ethical conduct.

##### ▣ 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.

- ① 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.
- ② 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 law, 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 aims to eliminate all forms of favors and solicitations and eliminates 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 also prevent unethical conduct of members, and take the following measures in case of 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.

**Penalty 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 conduct such as accepting bribes, embezzlement, fabrication of information, and violation of sexual ethics.

- ① Conduct 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

### 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 demand or receive money and valuables from stakeholders. However, this does not include gifts for promotion or publicity that do not exceed 50,000 KRW, souvenirs with the company's logo, and souvenirs generally provided by all participants of 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.
- 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 stakeholders 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.
- 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.
    - 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 procedures
    - Request for negligence in management and supervision such as inspection or repair
  - 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 executives' 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 non profit activities in various fields including culture, arts, sports and education.
  - We will provide support for residents' 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 employees' 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.
- 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 con-



tributed 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, 2014): (enforcement date). These guidelines begin to take effect on Aug. 13, 2014.
- 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.

## 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.

② Occupational Safety

- Suppliers let employees be not exposed to potential safety hazards (ex. electricity, energy source, fire, vehicle and danger of falling) through proper design and engineering, administrative control, preventive maintenance and safe work procedure.

### 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.
  - No retaliation: A contractor shall try not to do any kinds of retaliation such as termination of business and unreasonable sanction by reasons of declaration of unfair trade, consultation of meditation related to subcontract or demurring to contract.
  - Consultation prior to visit to suppliers/ on-site inspection: Inform the visiting schedule in written or electrical form and get a confirmation before visiting suppliers.
- 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.

# APPENDIX

154	GRI INDEX
157	UN SDGS
158	UN Global Compact Index

# GRI INDEX

GRI G4	No.	Index Name	ISO 26000	Page	Assurance		
<b>1. General Standard Disclosures</b>							
Strategy and Analysis	G4-1	Provide a statement from the most senior decision-maker of the organization about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability.	4.7, 6.2, 7.4.2	4-5	●		
Organizational Profile	G4-3	Report the name of the organization.	6.3.10, 6.4.1-6.4.5, 6.8.5, 7.8	9	●		
	G4-4	Report the primary brands, products, and services.		9	●		
	G4-5	Report the location of the organization's headquarters.		9	●		
	G4-6	Report the number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report.		9	●		
	G4-7	Report the nature of ownership and legal form.		9	●		
	G4-8	Report the markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries).		9	●		
	G4-9	Scale of the organization (total number of employees, net sales, total capitalization, quantity of products or services provided)		9	●		
	G4-10	Report total number of employees by employment type (employment contract and gender, employment type and gender, total workforce by region and gender), and any significant variations in employment numbers.		38	●		
	G4-11	Report the percentage of total employees covered by collective bargaining agreements.		38	●		
	G4-12	Describe the organization's supply chain.		49-56	●		
	G4-13	Report any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain.		51	●		
	G4-14	Report whether and how the precautionary approach or principle is addressed by the organization.		13	●		
	G4-15	List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.			●		
	G4-16	List memberships of associations and national or international advocacy organizations.		23	●		
	Identified Material Aspects and Boundaries	G4-17		List all entities included in the organization's consolidated financial statements or equivalent documents, or report whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report.	5.2, 7.3.2-7.3.4	None	●
		G4-18		Explain the process for defining report content and the Aspect Boundaries, and how the organization has implemented the Reporting Principles for Defining Report Content.		2	●
G4-19		List all the material Aspects identified in the process for defining report content.		20-24	●		
G4-20		For each material Aspect, report the Aspect Boundary within the organization.		20-24	●		
G4-21		For each material Aspect, report the Aspect Boundary outside the organization.		20-24	●		
G4-22		Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements.		None	●		
G4-23		Report significant changes from previous reporting periods in the Scope and Aspect Boundaries.		None	●		
Stakeholder Engagement		G4-24	Provide a list of stakeholder groups engaged by the organization.	5.3	21-23	●	
	G4-25	Report the basis for identification and selection of stakeholders with whom to engage.		21-23	●		
	G4-26	Report the organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process.			●		
	G4-27	Report key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting. Report the stakeholder groups that raised each of the key topics and concerns.		24-25	●		
Report Profile	G4-28	Reporting period for information provided.	7.5.3, 7.6.2	2	●		
	G4-29	Date of most recent previous report.		2	●		
	G4-30	Reporting cycle.		2	●		
	G4-31	Provide the contact point for questions regarding the report or its contents.		2	●		
	G4-32	Report the 'in accordance' option the organization has chosen (chosen option, GRI Content Index, External Assurance Report)		152-154	●		
	G4-33	Report the organization's policy and practice with regard to seeking external assurance for the report, scope and basis of external assurance report, the relationship between the organization and the assurance providers, and whether the highest governance body or senior executives are involved in seeking assurance for the organization's sustainability report.	-	11	●		
Governance	G4-34	Report the governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts.	6.2, 7.4.3	11	●		
Ethics and Integrity	G4-56	Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.	7.7.5, 4.4, 6.6.3	147-152	●		
<b>2. Specific Standard Disclosures</b>							
Disclosures on Management Approach	G4-DMA	Report why the Aspect is material and its impact, how the organization manages the material Aspect or its impacts, and the evaluation of the management approach.		24-25	●		
Economic Performance	G4-DMA	Disclosures on Management Approach	5.3	14-15	●		
	G4-EC1	Direct economic value generated and distributed		38-39	●		
	G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change		72-73	●		
	G4-EC3	Coverage of the organization's defined benefit plan obligations		106	●		
	G4-EC4	Financial assistance received from government					
Market Presence	G4-DMA	Disclosures on Management Approach		29-37	●		
	G4-EC5	Ratios of standard entry level wage compared to local minimum wage at significant locations of operation	6.3.7, 6.3.10 6.4.3- 6.4.46, 8.1-6.8.2				
	G4-EC6	Proportion of senior management hired from the local community at significant locations of operation	6.4.3, 6.8.1-6.8.2, 6.8.5, 6.8.7	115	●		

GRI G4	No.	Index Name	ISO 26000	Page	Assurance
Indirect Economic Impacts	G4-DMA	Disclosures on Management Approach			
	G4-EC7	Development and impact of infrastructure investments and services supported	6.3.9, 6.8.1-6.8.2, 6.8.7, 6.8.9	116	●
	G4-EC8	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	116	●
Procurement Practices	G4-DMA	Disclosures on Management Approach		49	●
	G4-EC9	Proportion of spending on local suppliers at significant locations of operation	6.4.3, 6.6.6, 6.8.1-6.8.2, 6.8.7	38	●
<b>Environment</b>					
Materials	G4-DMA	Disclosures on Management Approach			
	G4-EN1	Materials used by weight or volume	6.5.4	66	●
	G4-EN2	Percentage of materials used that are recycled input materials	6.5.4	66	●
Energy	G4-DMA	Disclosures on Management Approach		72	●
	G4-EN3	Energy consumption within the organization	6.5.4	38	●
	G4-EN4	Energy consumption outside of the organization	6.5.4	38	●
	G4-EN5	Energy intensity	6.5.4	38	●
	G4-EN6	Reduction of energy consumption	6.5.4-5	83	●
	G4-EN7	Reductions in energy requirements of products and services	6.5.4-5	83	●
Water	G4-DMA	Disclosures on Management Approach			
	G4-EN8	Total water withdrawal by source	6.5.4	38	●
	G4-EN9	Water sources significantly affected by withdrawal of water	6.5.4	38	●
	G4-EN10	Percentage and total volume of water recycled and reused	6.5.4	38	●
Biodiversity	G4-DMA	Disclosures on Management Approach		67	●
	G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	6.5.6	67	●
	G4-EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	6.5.6	67	●
	G4-EN13	Habitats protected or restored	6.5.6	67	●
	G4-EN14	Total number of IUCN red list species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	6.5.6		
Emissions	G4-DMA	Disclosures on Management Approach		72	●
	G4-EN15	Direct greenhouse gas (GHG) emissions (scope 1)	6.5.5	38	●
	G4-EN16	Energy indirect greenhouse gas (GHG) emissions (scope 2)	6.5.5	38	●
	G4-EN17	Other indirect greenhouse gas (GHG) emissions (scope 3)	6.5.5	38	●
	G4-EN18	Greenhouse gas (GHG) emissions intensity	6.5.5	38	●
	G4-EN19	Reduction of greenhouse gas (GHG) emissions	6.5.5	83	●
	G4-EN20	Emissions of ozone-depleting substances (ODS)	6.5.3, 6.5.5	65	●
	G4-EN21	NOx, SOx, and other significant air emissions	6.5.3	65	●
	G4-DMA	Disclosures on Management Approach		63	●
	G4-EN22	Total water discharge by quality and destination	6.5.3-4	64	●
Effluents and Waste	G4-EN23	Total weight of waste by type and disposal method	6.5.3	64	●
	G4-EN24	Total number and volume of significant spills	6.5.3	None	●
	G4-EN25	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel convention annex and percentage of transported waste shipped internationally	6.5.3	None	●
	G4-EN26	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff	6.5.3	67	●
	G4-DMA	Disclosures on Management Approach			
	G4-EN27	Extent of impact mitigation of environmental impacts of products and services	6.5.3, 5.4, 6.5.5, 6.7.5	81-84	●
Products and Services	G4-EN28	Percentage of products sold and their packaging materials that are reclaimed by category	6.5.3, 6.5.4, 6.7.5		
	G4-DMA	Disclosures on Management Approach			
Compliance	G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	4.6	None	●
	G4-DMA	Disclosures on Management Approach			
Transport	G4-EN30	Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce	6.5.4, 6.6.6	78	●
	G4-DMA	Disclosures on Management Approach			
Overall	G4-EN31	Total environmental protection expenditures and investments by type	6.5.1-6.5.2	63	●
	G4-DMA	Disclosures on Management Approach		57-58	●
Supplier Environmental Assessment	G4-EN32	Percentage of new suppliers that were screened using environmental criteria	6.3.5, 6.6.6, 7.3.1		
	G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	6.3.5, 6.6.6, 7.3.1	57-58	●
	G4-DMA	Disclosures on Management Approach			
Environmental Grievance Mechanisms	G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	6.3.6		
	G4-DMA	Disclosures on Management Approach			
<b>Social</b>					
<b>Labor Practices and Decent Work</b>					
Employment	G4-DMA	Disclosures on Management Approach		107	●
	G4-LA1	Total number and rates of new employee hires and employee turnover by age group	6.4.3	115	●
	G4-LA2	Benefits provided to full-time employees	6.4.4, 6.8.7	108-114	●
	G4-LA3	Return to work and retention rates after parental leave	6.4.4	115	●

GRI G4	No.	Index Name	ISO 26000	Page	Assurance
Labor/ Management Relations	G4-DMA	Disclosures on Management Approach		105	●
	G4-LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	6.4.3, 6.4.5	105	●
Occupational Health and Safety	G4-DMA	Disclosures on Management Approach	6.4.6	88	●
	G4-LA5	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	6.4.6	97	●
	G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	6.4.6, 6.8.8	95	●
	G4-LA7	Workers with high incidence or high risk of diseases related to their occupation	6.4.6, 6.8.8	98	●
Training and Education	G4-DMA	Disclosures on Management Approach		107	●
	G4-LA9	Average hours of training per year per employee by gender, and by employee category	6.4.7	114	●
	G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	6.4.7, 6.8.5	110-114	●
	G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	6.4.7	114	●
Diversity and Equal Opportunity	G4-DMA	Disclosures on Management Approach	6.2.3, 6.3.7, 6.3.10, 6.4.3	102	●
	G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	6.2.3, 6.3.7, 6.3.10, 6.4.3	115	●
Equal Remuneration	G4-DMA	Disclosures on Management Approach		105	●
	G4-LA13	Ratio of basic salary and remuneration of women to men by employee category	6.3.7, 6.3.10, 6.4.3, 6.4.4	106	●
Supplier Assessment for Labor Practices	G4-DMA	Disclosures on Management Approach		57	●
	G4-LA14	Percentage of new suppliers that were screened using labor practices criteria	6.3.5, 6.4.3, 6.6.6, 7.3.1	52-54	●
	G4-LA15	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	6.3.5, 6.4.3, 6.6.6, 7.3.1		
Labor Practices Grievance Mechanisms	G4-DMA	Disclosures on Management Approach		102	●
	G4-LA16	Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms	6.3.6	102	●
<b>Human Rights</b>					
Investment	G4-DMA	Disclosures on Management Approach	6.3.3, 6.3.5, 6.6.6	102	●
	G4-HR1	Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	6.3.3, 6.3.5, 6.6.6		
	G4-HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	6.3.5	99	●
Non-discrimination	G4-DMA	Disclosures on Management Approach	6.3.6, 6.3.7, 6.3.10, 6.4.3	99	●
	G4-HR3	Total number of incidents of discrimination and corrective actions taken	6.3.6, 6.3.7, 6.3.10, 6.4.3	106	●
Freedom of Association and Collective Bargaining	G4-DMA	Disclosures on Management Approach		106	●
	G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	6.3.3, 6.3.4, 6.3.5, 6.3.8, 6.3.10, 6.4.5, 6.6.6	106	●
Child Labor	G4-DMA	Disclosures on Management Approach		99	●
	G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	6.3.3, 6.3.4, 6.3.5, 6.3.7, 6.3.10, 6.6.6, 6.8.4	99-100	●
Forced or Compulsory Labor	G4-DMA	Disclosures on Management Approach		102	●
	G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	6.3.3, 6.3.4, 6.3.5, 6.3.10, 6.6.6	102-103	●
Security Practices	G4-DMA	Disclosures on Management Approach		99	●
	G4-HR7	Percentage of security personnel trained in the organization's human rights policies or procedures that are relevant to operations	6.3.4, 6.3.5, 6.6.6		
Indigenous Rights	G4-DMA	Disclosures on Management Approach		100	●
	G4-HR8	Total number of incidents of violations involving rights of indigenous peoples and actions taken	6.3.4, 6.3.6, 6.3.7, 6.3.8, 6.6.7, 6.8.3		
Assessment	G4-DMA	Disclosures on Management Approach		100	●
	G4-HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	6.3.3, 6.3.4, 6.3.5	100	●
Supplier Human Rights Assessment	G4-DMA	Disclosures on Management Approach		57	●
	G4-HR10	Percentage of new suppliers that were screened using human rights criteria	6.3.3-6.3.6	52-54	●
	G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken	6.3.3-6.3.6		
Human Rights Grievance Mechanisms	G4-DMA	Disclosures on Management Approach		99	●
	G4-HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	6.3.6	100	●
<b>Society</b>					
Local Communities	G4-DMA	Disclosures on Management Approach		116	●
	G4-S01	Percentage of operations with implemented local community engagement, impact assessments, and development programs	6.3.9, 6.5.1-6.5.3, 6.8	117-119	●
	G4-S02	Operations with significant actual and potential negative impacts on local communities	6.3.9, 6.5.3, 6.8		
Anti-corruption	G4-DMA	Disclosures on Management Approach		99	●
	G4-S03	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	6.6.1-6.6.3		
	G4-S04	Communication and training on anti-corruption policies and procedures	6.6.1-6.6.3, 6.6.6	100	●
	G4-S05	Confirmed incidents of corruption and actions taken	6.6.1-6.6.3	100	●



GRI G4	No.	Index Name	ISO 26000	Page	Reporting Level
Public Policy	G4-DMA	Disclosures on Management Approach			
	G4-SO6	Total value of political contributions by country and recipient/beneficiary	6.6.1-6.6.2, 6.6.4		
Anti-competitive behavior	G4-DMA	Disclosures on Management Approach			
	G4-SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	6.6.1-6.6.2, 6.6.5, 6.6.7		
Compliance	G4-DMA	Disclosures on Management Approach			
	G4-SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	4.6		
Supplier Assessment for Impacts on Society	G4-DMA	Disclosures on Management Approach		57	●
	G4-SO9	Percentage of new suppliers that were screened using criteria for impacts on society	6.3.5, 6.6.1-6.6.2, 6.6.6, 6.8.1-6.8.2, 7.3.1	52-54	●
	G4-SO10	Significant actual and potential negative impacts on society 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		
Grievance Mechanisms for Impacts on Society	G4-DMA	Disclosures on Management Approach			
	G4-SO11	Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms	6.3.6, 6.6.1-6.6.2, 6.8.1-6.8.2	100	●
<b>Product Responsibility</b>					
Customer Health and Safety	G4-DMA	Disclosures on Management Approach			
	G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	6.7.1-6.7.2, 6.7.4-6.7.5, 6.8.8	69	●
	G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	4.6, 6.7.1-6.7.2-6.7.4-6.7.5, 6.8.8		
Product and Service Labeling	G4-DMA	Disclosures on Management Approach			
	G4-PR3	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements	6.7.1-6.7.5, 6.7.9	69	●
	G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	4.6, 6.7.1-6.7.5, 6.7.9	None	●
	G4-PR5	Results of surveys measuring customer satisfaction	3.7.1-6.7.2, 6.7.6	38	●
Marketing Communication	G4-DMA	Disclosures on Management Approach			
	G4-PR6	Sale of banned or disputed products	-		
	G4-PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes	4.6, 6.7.1-6.7.3		
Customer Privacy	G4-DMA	Disclosures on Management Approach			
	G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	6.7.1-6.7.2, 6.7.7		
Compliance	G4-DMA	Disclosures on Management Approach			
	G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	4.6, 6.7.1-6.7.2, 6.7.6		

## UN SDGS (SUSTAINABLE DEVELOPMENT GOALS)

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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	Project to support overseas welfare facilities	116
Goal 5.	Achieve gender equality and empower all women and girls	Project to support overseas welfare facilities	116
Goal 6.	Ensure availability and sustainable management of water and sanitation for all	Project to support overseas welfare facilities	116
Goal 7.	Ensure access to affordable, reliable, sustainable and clean energy for all	Energy-efficient housing condition for the marginalized	121
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Goal 11.	Make cities and human settlements inclusive, safe, resilient and sustainable	POSCO Steel Bridge	116
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Goal 13.	Take urgent action to combat climate change and its impacts		
Goal 14.	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Ocean cleaning activities	121
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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		
Goal 17.	Strengthen the means of implementation and revitalize the global partnership for sustainable development		

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## REGIONAL CONSOLIDATED STATEMENTS OF FINANCIAL STATUS

Category	2013	2014	2015	
Korea	External revenues	45,953,826	45,805,167	39,268,907
	Total revenue	70,607,949	71,065,893	61,306,161
	Internal revenue including inter segment revenue	-24,654,123	-25,260,726	-22,037,254
	Operating profit (loss)	2,925,926	3,175,318	2,872,657
	Income tax expense	557,867	790,584	403,958
	Assets	65,344,119	64,000,252	60,700,973
Japan	External revenues	1,920,253	2,047,686	1,934,808
	Total revenue	2,476,493	2,710,336	2,469,080
	Internal revenue including inter segment revenue	-556,240	-662,650	-534,272
	Operating profit (loss)	20,312	11,467	12,785
	Income tax expense	10,353	6,965	2,950
	Assets	985,012	899,313	900,182
China	External revenues	6,493,119	6,319,101	5,756,867
	Total revenue	9,997,909	11,110,443	9,812,043
	Internal revenue including inter segment revenue	-3,504,790	-4,791,342	-4,055,176
	Operating profit (loss)	14,420	54,200	-101,505
	Income tax expense	17,848	16,685	-10,133
	Assets	4,572,967	4,931,596	4,196,213
Other Asian countries	External revenues	3,011,980	5,055,373	5,888,045
	Total revenue	3,988,693	6,054,727	7,562,001
	Internal revenue including inter segment revenue	-976,713	-999,354	-1,673,956
	Operating profit (loss)	-14,596	-123,017	-425,703
	Income tax expense	19,355	17,910	5,232
	Assets	6,910,001	7,778,814	7,495,788
North America	External revenues	1,720,895	2,199,418	1,921,039
	Total revenue	2,094,638	2,626,163	2,317,256
	Internal revenue including inter segment revenue	-373,743	-426,745	-396,217
	Operating profit (loss)	81,351	59,840	38,677
	Income tax expense	25,676	22,480	4,947
	Assets	1,294,404	1,627,366	1,330,962
Other regions	External revenues	2,764,577	3,671,700	3,422,679
	Total revenue	3,443,778	4,660,356	4,005,203
	Internal revenue including inter segment revenue	-679,201	-988,656	-582,524
	Operating profit (loss)	-31,279	35,722	13,132
	Income tax expense	24,237	17,555	37,176
	Assets	5,348,904	6,014,832	5,784,641

\* Income tax expense: Total amounts in income tax expense accounts of corporations by regions. No income tax expense on a consolidated basis.

\* Source: 2015 POSCO Business Report (Financial Supervisory Service's DART)

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