



Integrated Report of Economic,  
Environmental and Social Sustainability

# **POSCO REPORT 2014**

**posco**

# ABOUT THIS REPORT

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## Integrated Report

The POSCO Report ("Report") is an integrated report of POSCO's economic, social and environmental performances in 2014. 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. In addition, starting from this year, we will integrate the Carbon Report that we started publishing in 2010.

## Reporting Approach

This Report was prepared 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).

## Reporting Period

This Report contains information from January 1st, 2014 to December 31st, 2014. Quantitative data includes figures from the three recent years, while some parts of qualitative data include those up to February 2015. The corporate governance section is based on the decisions made by the Board of Directors at the meeting held on March 13th, 2015. POSCO has published the Report each year since 2004.

## 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 covering performances in 2014 and future plans include economic performances of POSCO's subsidiaries. The Integrated Sustainability Performance Index accounts for nine POSCO subsidiaries whose annual sales exceed KRW 1 trillion or public companies. Some information such as fair trade, quality management, safety, and health contain information of the whole POSCO Family, which encompasses 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 of the Report. 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 136)
- Assurance Report for POSCO Carbon Report (page 138)

## 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

The high-strength automotive steel sheet currently being produced at POSCO's Gwangyang Works<sup>1)</sup>. While thickness is less, the strength is equal to or greater than normal steel sheets. It is possible to produce lighter automobiles, which increase fuel efficiency. Operating a vehicle that employs high-strength steel can reduce 185 kg of CO<sub>2</sub> emissions annually (assuming the vehicle runs 19 thousand km per year).

1) High-strength steel sheet: steel sheet with tensile strength of 340 MPa or higher.



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Environmental and Social Sustainability

**POSCO**  
**REPORT**  
**2014**

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**POSCO Sustainability Report**  
<http://www.posco.co.kr/homepage/docs/kor3/jsp/sustain/customer/s91d7000020l.jsp>

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



## MESSAGE FROM THE CEO



“In 2015, we will devote ourselves to growing together with all our stakeholders toward 'POSCO the Great' that is loved by the people and admired by the world. We hope for your unwavering interest and support.”

Dear stakeholders,

Last year, as the CEO of POSCO, we announced the new vision “POSCO the Great.” It means we will strive to be reborn as a great company that is loved by the people and admired by the world through our management principles of Creative POSCO, One POSCO, and Top POSCO.

This Report describes our efforts, performances, and plans in enhancing customer service, safety management, human resources management, social contribution, and environmental management.

Under market conditions where oversupply of steel products is worsening, we have emphasized that the company should give priority to “strengthening the fundamental competitiveness of our steel business.” We have been expanding “Solution Marketing,” which does not stop at just selling our products, but also provides differentiated technology and services that our customers need or are expected to need. As a result, sales in our high value World Premium (WP) products and sales linked to solution marketing increased by 13 percent and 186 percent respectively, while the ratio of WP products was increased to 33.3 percent, contributing to increasing profitability.

POSCO has adhered to the principle that “people are the company,” that was emphasized from the early years since the company’s beginning. We believe human talents are the key to overcoming difficult business circumstances and rebuilding a great POSCO. In February 2015, we opened the POSCO Group University where we will systematically cultivate human talents through top quality education and provide support for creating performance. Last year, we settled the “project-based working method,” building the basis for fostering experts and strengthening performance-oriented working method.

As our social contribution slogan “For a Better World” indicates, everyone here at POSCO practices sharing and volunteering, and we are expanding company-level social contribution projects. POSCO 1% Sharing Foundation celebrated its first anniversary in

November 2014. Employees and executives willingly donate 1% of their wages, and the company makes a matching gift. As of the end of last year, more than 29 thousand employees are participating in the 1% sharing program. We are also conducting various activities, such as the Steel Village project, designed to help families in need both within the country and across the border.

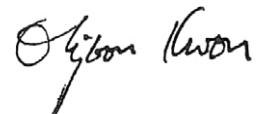
At the steelworks that produces a variety of steel products, we conduct regular general safety inspections and emergency response exercises for real situations in order to establish a systematic safety management system. We conducted environmental risk evaluation at the Group’s major business sites to check for environmental risks such as leakage and to take preventive measures against those risks. For this year as well, we will inspect environmental risks at the new sites and Group’s business sites and discuss the results and improvement measures at the Management Committee with the CEOs of the POSCO Group companies.

As a result of our major management activities during 2014, POSCO was named the world’s most competitive company in the steel industry by World Steel Dynamics for 5 consecutive years, and was selected as one of the leaders in the Dow Jones Sustainability Index 10 years in a row. In 2015, we will devote ourselves to growing together with all our stakeholders toward “POSCO the Great” that is loved by the people and admired by the world. We hope for your unwavering interest and support.

Thank you.

April 2015

CEO Kwon Oh-Joon



## BOARD OF DIRECTORS

Based on the vision and principles of POSCO's governance, the "Corporate Governance Charter" assures independent corporate governance and reinforces the rights of the shareholders.

The Board of Directors 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 or BOD's expert committees. In addition, outside directors convene exclusive meetings on a regular basis, systematically ensuring the opportunity to make independent decisions. Also, POSCO has adopted cumulative and voting in writing systems to significantly enhance the rights of shareholders and 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 CEO position 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, the Outside Director Code of Ethics was established and announced to ensure responsible and transparent activities of outside directors. In 2011, the operating rules of the Director Candidate Recommendation Committee was established for a more efficient operation of the Committee and the BOD operating rules were revised for more than one expert committee to review matters related to internal transaction, ultimately to strengthen the roles and rights of outside directors as well as expert committees. In 2012, the function and role of the expert committees were heightened by holding separate meetings according to different committees such as the Finance and Operation Committee.

### Outside Directors



|   |   |   |
|---|---|---|
| 1 | 2 | 3 |
|   | 4 | 5 |
|   | 6 | 7 |

#### ① Shin, Chae-Chol (chair)

- 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

#### ② Lee, Myoung-Woo

- CEO and President of Dongwon Industries
- 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

#### ③ 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

#### ④ 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

#### ⑤ 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

#### ⑥ 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

#### ⑦ 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



## Interview

### President Kim, Jin-Il

Head of Steel Production Division

In order to achieve the 2015 target, the Steel Production Division will devote itself to cost reduction and technology development on the precondition that quality and enhanced customer satisfactions are guaranteed. Everyone at POSCO is committed to achieving the vision "POSCO Quality" which represents our goal to move the customers' soul with our top-notch quality. We will continue our selection and concentration in cost reduction and technology development activities with the assurance that quality and customer satisfaction are improved. Moreover, in the area of safety, we will focus on SSS (Self-directed Safety Spread) activities, staying true to the basics, thus realizing a workplace that is safe and life is happy.

### Senior Executive Vice President Lee, Young-Hoon

Head of Finance and Investment Division

POSCO's goal for 2014 was to enhance its fundamental competitiveness and improve the financial structure. To meet this goal, the Finance and Investment Division sold those businesses that lacked synergy with POSCO, while procuring non-debt capital to improve our financial structure by selling non-core assets. In 2015, we plan to speed up business restructuring and continue improving our financial structure. To continue improving our financial structure we will improve the cash flow by increasing profits and raise non-debt capital by selling non-core assets. It will be a hard year on POSCO's primary business. However, if everyone strives to heighten their spirit of business startup, sacrifice and ethics, we will be able to achieve desirable results.

### Senior Executive Vice President Yoon, Dong-Jun

Head of Management Infrastructure Division

We founded the POSCO Group University, where education will not end at just that, but cultivate future human resources who will directly contribute to enhancing our business performance. In 2015, we will further foster the Thanks Sharing program to enhance employee satisfaction, while also eliminating unnecessary customs or wasteful work, and improve systems focusing on fairness and efficiency so that everyone can be a proud member of POSCO and concentrate on their work.

In addition, for the smooth communication with overseas business operations, we will establish the "POSCO Group Global HR Portal," where employees stationed overseas can have easy access to the company's information, and share information with other overseas employees.

### Senior Executive Vice President Oh, In-Hwan

Head of Steel Business Division

POSCO marked the year 2014 as the starting year for Solution Marketing. We focused our capacities on developing solutions centering on customers' application technology. In 2015, we will further enhance existing application technologies and provide an enterprise-wide commercial support so that customers may experience first-hand the differentiated added value that we provide. Moreover, we are stepping up the development of highly efficient products such as high-strength steel and high-manganese steel products so that customers may reduce greenhouse gas emissions at the usage phase. Although the year 2015 may be a tough one, if all sales persons of the Steel Division do their best to serve the customer, I believe we will meet our target.

## Inside Directors



|   |   |   |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 |   |

### 1 Kwon, Oh-Joon

- Chief Executive Officer 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

### 2 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

### 3 Yoon, Dong-Jun

- Senior Executive Vice President and Representative Director of POSCO (Head of Management Infrastructure Division)
- Former Vice President of POSCO E&C
- BA in Industrial Engineering at Soongsil University, MBA at George Washington University

### 4 Lee, Young-Hoon

- Senior Executive Vice President of POSCO (Head of Finance and Investment Division)
- Former Vice President of POSCO E&C
- BA in Economics at Seoul National University, PhD in Economics at University of London

### 5 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 in Economics at Yonsei University

## GOVERNANCE

### Board Composition

Inside director candidates recommended by the company are screened by the Director Candidate Recommendation Committee, which recommends the final candidates to the annual general meeting for appointment decision. As for outside director nomination, the Outside Director Candidate Recommendation Advisory Group comprised of five experts with various backgrounds such as industry, academia or law select a threefold 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 47th annual general meeting held on 13 March 2015, former president of LG CNS Shin Chae-Chol was reappointed as an outside director; and Bahk Byong-Won, chairman of Korea Employers Federation and Kim Ju-Hyun, adviser of Hyundai Research Institute were newly elected as outside directors. As for inside directors, President Kim Jin-Il and Senior Executive Vice President Lee Young-Hoon were reappointed and Senior Executive Vice President Oh In-Hwan was newly appointed. At the Board of Directors' meeting held subsequently, outside director Shin Chae-Chol was nominated as chairman of the BOD.

During 2014, the POSCO BOD meeting was held 10 times, and the attendance was 97.4 percent. (Inside director attendance: 100 percent, outside director attendance 95 percent)

Major agendas decided at the 2014 BOD meeting were as follows: Management plans for 2015, sale of POSCO Specialty Steel, donation to "Building a Safe Korea Fund" in relation to the Sewol ferry disaster, and year-end charitable giving.

### BOD Key Agendas

|       |  |
|-------|--|
| 01.29 | Approval of the 46th business report and gathering of the annual general meeting<br>Change of remuneration system for outside directors (draft)  |
| 02.24 | Recommendation for inside director candidates<br>Agendas to be submitted for discussion at the 46th annual general meeting   |
| 03.14 | Appointment of the chair of the board of directors<br>Appointment of expert committee members<br>Appointment of the CEO<br>Appointment of the president and designation of the inside director title   |
| 05.16 | Medium-term management strategy<br>Funding for the POSCO Educational Foundation<br>Funding for the POSCO 1% Sharing Foundation with the card mileage fund, and others  |
| 08.08 | Interim dividend payment plan for fiscal year 2014 (draft)<br>Investment in-kind (stock) for business restructuring<br>Funding for the Gangneung regional development fund, where POSCO's magnesium refining business is located<br>Donation to "Building a Safe Korea Fund" in relation to the Sewol ferry disaster |
| 11.07 | Sale of POSFINE shares<br>Disposal of common stock for the Employee Stock Ownership Plan   |
| 12.12 | Management plans for 2015<br>Selling of POSCO Specialty Steel shares<br>Year-end charitable giving   |

### Directors' Remuneration

| Remuneration limit | Total amount paid |
|--------------------|-------------------|
| 7 billion won      | 6.4 billion won   |

### 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

|   |
|---|
| <b>► Director Candidate Recommendation Committee</b><br>(Three outside directors, one inside director / chair Ahn, Dong-Hyun)<br>Meetings held in 2014: four times<br>Major reviews/decisions: review of qualification of inside and outside director candidates, appointment of expert committee members, appointment of CEO, designation of inside director title |
| <b>► Evaluation and Compensation Committee</b><br>(Four outside directors / chair Sunwoo, Young)<br>Meetings held in 2014: twice<br>Major reviews/decisions: assessment of 2013 business performance, evaluation plan for enterprise-wide business performance for 2014   |
| <b>► Finance and Management Committee</b><br>(Three outside directors, two inside directors / chair Lee, Myoung-Woo)<br>Meetings held in 2014: five times<br>Major reviews/decisions: funding for the POSCO 1% Sharing Foundation with the card mileage fund, selling of POSFINE shares, approval of short-term borrowings limit for 2015                           |
| <b>► Audit Committee</b><br>(Three outside directors / chair Kim, Il-Sup)<br>Meetings held in 2014: eight times<br>Major reviews/decisions: operation status of internal accounting control system in 2013, inside audit results of the 46th consolidated financial statements  |
| <b>► Internal Transactions Committee</b><br>(Three outside directors / chair Kim, Il-Sup)<br>Meetings held in 2014: seven times<br>Major reviews/decisions: funding for the POSCO Educational Foundation, sale of POSCO Specialty Steel shares  |
| <b>► Management Committee</b><br>(Five inside directors / chair Kwon, Oh-Joon)<br>Meetings held in 2014: 15 times<br>Major reviews/decisions: sale of treasury stocks linked to awards, exchange of obsolete equipment, exchange of obsolete control system at Pohang Hot-rolling plant 1, phase 1 improvement of Gwangyang Blast Furnace 5.                        |

\*The members and chairs of the expert committees are as of 13 March 2015.

## INVESTOR INFORMATION

### Credit Rating

International credit rating agencies have downgraded the ratings of major global steel makers due to the low growth and low earning trend that has continued for several years. In November 2013 Moody's downgraded our rating to Baa2, while S&P kept the rating at BBB+.

Nonetheless, the agencies appreciate our cost leadership and technology competitiveness, giving POSCO a high stand-alone rating compared to global major players.

### Changes in Credit Rating

|         | 2010             | 2011             | 2012               | 2013               | 2014               |
|---------|------------------|------------------|--------------------|--------------------|--------------------|
| S&P     | A<br>(Stable)    | A-<br>(Negative) | BBB+<br>(Stable)   | BBB+<br>(Negative) | BBB+<br>(Negative) |
| Moody's | A2<br>(Negative) | A3<br>(Negative) | Baa1<br>(Negative) | Baa2<br>(Stable)   | Baa2<br>(Stable)   |

### Dividend

In spite of declining profitability with the slow steel industry, POSCO has maintained a steady dividend policy to increase shareholder value. For the past three years, it has recorded dividend payout ratio of over 20% and dividend yield of over 2%. Especially, POSCO is continuing the "Find and Give Back Unpaid Dividends" campaign, where we find listed shareholders who own stock certificates since POSCO's initial public offering in 1988, but who are not receiving their dividends due to cancelled transfer accounts or other reasons, and pay them their due dividends.

| Category                              | 2012  | 2013  | 2014  |
|---------------------------------------|-------|-------|-------|
| 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) | 618   | 33    | 640   |
| Dividend payout ratio (%)             | 24.7  | 40.0  | 56.2  |
| Dividend yield (%)                    | 2.3   | 2.5   | 2.8   |



2015 POSCO Investor Forum



Bell ringing ceremony in celebration of the 20th anniversary of the ADR listing in the NYSE

### Corporate Value and External Evaluation

With the recession of the global economy that continued in 2014, POSCO's sales based on separate financial statement decreased by 4.3 percent at KRW 29,218.9 billion while operating profit increased by 6.1 percent at KRW 2,350 billion. Owing to reducing costs by lowering raw materials mixing price and optimizing equipment, and expanding the sales of world premium products and solution marketing, our non-consolidated profit margin reached 8.0 percent. Business restructuring such as the sale of POSCO Specialty Steel and non-core assets contributed to strengthening our financial soundness. Despite these efforts, the prolonged sluggishness of the steel market and low industrial demand brought down our stock prices from KRW 326.5 thousand as of end of 2013 to KRW 275.5 thousand as of end of 2014. Though the structural recovery of the steel economy may not be in the near future, we continue 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.

A global provider of steel information held the 29th Steel Success Strategies (SSS) conference on June 16th 2014. The result of World-Class Steelmaker Rankings was announced, where POSCO was named the most competitive among the 36 steelmakers in the world for five consecutive years.

World's most competitive steel company for five consecutive years (WSD)

Robeco-SAM Dow Jones Sustainability Index



POSCO ranked 36th in the "2015 Global 100 Most Sustainable Corporations in the World" index at the Davos Forum 2015



WSD evaluated 36 steel companies as of June 2014, in 23 areas including production capacity, profitability, technological innovation, market power, cost saving, financial soundness and raw materials procurement. POSCO received perfect scores in four areas including technological innovation and human resources, scoring a total 7.91 points (out of 10), winning the first prize.

POSCO was selected as a leader at the RobecoSAM-DJSI(Dow Jones Sustainability Indexes) reported in September 2014 for ten consecutive years, which had never been accomplished in the steel industry. In particular, 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 proportional improvement.

Meanwhile, at the Davos Forum held in January 2015, POSCO ranked 36th in the “2015 Global 100 Most Sustainable Corporations in the World” index, the highest among Korean companies, proving our leadership as a leading global steelmaker.

#### Results of the SAM-DJSI Assessment

(Unit: points)

| Category                  | Economic/<br>Business Status | Environ-<br>ment | Society | Total<br>Score |
|---------------------------|------------------------------|------------------|---------|----------------|
| POSCO's score<br>(points) | 81                           | 88               | 85      | 85             |
| Steel Average             | 54                           | 38               | 46      | 45             |
| Industry Highest          | 81                           | 88               | 85      | 85             |

#### Most Competitive Steelmakers (2010~2014)

| Rank | 2014.06               | 2013.06               | 2013.02               | 2012.06               |
|------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1    | POSCO<br>(Korea)      | POSCO<br>(Korea)      | POSCO<br>(Korea)      | POSCO<br>(Korea)      |
| 2    | Nucor<br>(U.S.A.)     | Severstal<br>(Russia) | NLMK<br>(Russia)      | NLMK<br>(Russia)      |
| 3    | NSSMC<br>(Japan)      | Nucor<br>(U.S.A.)     | Severstal<br>(Russia) | CSN<br>(Brazil)       |
| 4    | Gerdau<br>(Brazil)    | NLMK<br>(Russia)      | JSW<br>(India)        | Severstal<br>(Russia) |
| 5    | Severstal<br>(Russia) | JSW<br>(India)        | NSSMC<br>(Japan)      | Bao Steel<br>(China)  |

#### Awards Received in 2014

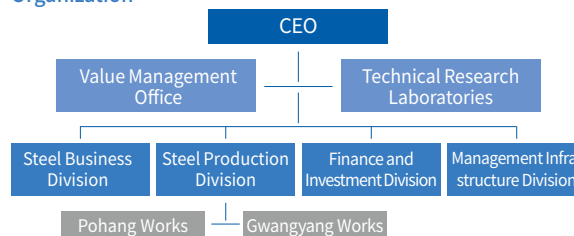
|   |         |   |
|---|---------|---|
| <br>Overseas | 2014.06 | Most Competitive Steelmaker, seven times in a row for five consecutive years (WSD)            |
|   | 2014.09 | Leading Company in the RobecoSAM Dow Jones Sustainability Index                               |
|   | 2014.10 | East Asia 30, 2014 (Hankyoreh Economic Research Institute, Asia CSR Expert Committee)         |
|   | 2014.12 | Dongfeng Peugeot-Citroën Automobile (DPCA) Excellent Supplier Award for two consecutive years |
|   | 2015.01 | Ranked 36th at Davos Forum's Global 100 (Corporate Knights)                                   |
|   | 2015.02 | Ranked 3rd in metals sector in World's Most Admired Companies (Fortune)                       |
|   | 2015.03 | Supplier of the Year (GM)   |
|   | 2015.03 | “Excellent” Value Improvement Award for two consecutive years (Toyota)                        |
| <br>Domestic | 2014.02 | 2014 Best Korea Brand, ranked second in Korea Master Brand                                    |
|   | 2014.03 | Korea Blog Award 2014, grand prize in Holding Company sector                                  |
|   | 2014.07 | Selected as Excellent win-win company at the Korea Win-win Conference                         |
|   | 2014.10 | CDP Korea, leading company in materials sector for six consecutive years                      |
|   | 2014.10 | Grand prize in the 2014 4th SNS Grand Awards (two consecutive years)                          |
|   | 2014.11 | Grand prize in the steel sector in Next Society CSR Summit 2014                               |
|   | 2015.02 | 5th prize in 2015 Most Respected Company in Korea (12 consecutive years)                      |

## ABOUT POSCO

### POSCO Summary (as of 31 December, 2014)

Established in 1968, POSCO produces hot-rolled, cold-rolled and stainless steel at Pohang Works, the largest single steel mill in the world, and Gwangyang Works. There are 17,877 employees working at POSCO as of end of 2014 and the organization under the CEO consists of the Value Management Office, Technical Research Laboratories, as well as four divisions – Steel Business Division, Steel Production Division, Finance and Investment Division, and Management Infrastructure Division.

### Organization



Name\_ POSCO

Head Office\_ 6261 Donghaean-ro (Goedong-dong), Nam-gu, Pohang-si, Gyeongsangbuk-do, Korea

Area of Business\_ Iron making, steel making, manufacture and sales of rolled steel products

CEO\_ Kwon Oh-Joon

Date of Establishment\_ 1 April 1968

Number of Employees\_ 17,877 (as of Dec 31st 2014)

### Financial Performance (consolidated basis)

|                             | Unit          | 2012   | 2013   | 2014   | Compared to previous year |
|-----------------------------|---------------|--------|--------|--------|---------------------------|
| Crude steel production      | Thousand tons | 39,702 | 38,261 | 41,428 | 8.30%                     |
| Sales                       | KRW 1 bn      | 63,604 | 61,865 | 65,098 | 5.20%                     |
| Operating profit            | KRW 1 bn      | 3,653  | 2,996  | 3,214  | 7.30%                     |
| Net profit                  | KRW 1 bn      | 2,386  | 1,355  | 557    | △ 58.9%                   |
| Operating margin            | %             | 5.7    | 4.8    | 4.9    | 2.10%                     |
| Assets                      | KRW 1 bn      | 79,266 | 84,455 | 85,252 | 0.90%                     |
| Liabilities                 | KRW 1 bn      | 36,837 | 38,633 | 39,961 | 3.40%                     |
| Liabilities-to-equity ratio | %             | 86.8   | 84.3   | 88.2   | 4.60%                     |
| Equity                      | KRW 1 bn      | 42,429 | 45,822 | 45,291 | △ 1.20%                   |
| ROE                         | %             | 5.7    | 3.1    | 1.2    | △ 61.3%                   |

### Integrated Sustainability Performance Index<sup>1)</sup>

|                        |   | Unit                        | 2012                       | 2013    | 2014    |         |
|------------------------|---|-----------------------------|----------------------------|---------|---------|---------|
| Innovation             | R&D expenditure <sup>2)</sup>               | KRW 1 million               | 618,146                    | 584,994 | 694,021 |         |
|                        | R&D to sales ratio <sup>3)</sup>            | %                           | 0.97                       | 0.95    | 1.07    |         |
| Employee <sup>4)</sup> | Training hours per capita                   | Hours                       | 181                        | 162     | 109     |         |
|                        | Training expenses per capita                | KRW                         | 925,607                    | 731,305 | 649,066 |         |
|                        | Employee satisfaction                       | Points                      | 79                         | 81      | 76      |         |
|                        | Turnover rate                               | %                           | 5.05                       | 3.04    | 6.07    |         |
|                        | Continuous service                          | Years                       | 11                         | 12      | 12      |         |
|                        | Ratio of non-regular workers                | %                           | 6.5                        | 6.1     | 9.7     |         |
|                        | Rate of return from parental leave (male)   | %                           | 100                        | 100     | 100     |         |
|                        | Rate of return from parental leave (female) | %                           | 71.0                       | 96.6    | 85.2    |         |
| Safety                 | Lost-time injury frequency rate             | Per million hours           | 0.14                       | 0.14    | 0.18    |         |
|                        | Number of accidents (average)               | Number of cases             | 4.1                        | 5.0     | 5.1     |         |
| Society                | Volunteering hours per capita               | Hours                       | 35.4                       | 30.3    | 27.4    |         |
|                        | Social contribution costs                   | KRW 1 million               | 101,783                    | 64,832  | 65,905  |         |
| Environment            | Energy usage                                | TJ                          | 941,555                    | 922,548 | 974,567 |         |
|                        | Greenhouse gas emissions scope 1 (direct)   | 1,000 ton CO <sub>2</sub> e | 85,678                     | 82,493  | 84,413  |         |
|                        | Greenhouse gas emissions scope 2 (indirect) | 1,000 ton CO <sub>2</sub> e | 3,682                      | 4,279   | 4,741   |         |
|                        | Water usage                                 | Water intake                | 1,000 m <sup>3</sup> /year | 140,838 | 140,497 | 144,054 |
|                        |   | Wastewater discharge        | 1,000 m <sup>3</sup> /year | 95,611  | 81,794  | 86,291  |
|                        | Waste                                       | Waste generation            | 1,000 tons/year            | 24,932  | 23,342  | 24,873  |
|                        |   | Waste volume (disposal)     | 1,000 tons/year            | 583     | 582     | 554     |
|                        |   | Waste volume (recycling)    | 1,000 tons/year            | 24,349  | 22,760  | 24,319  |

1) Scope of integrated sustainability performance index: Eight companies in total

(POSCO, Daewoo International, POSCO E&C, POSCO ENERGY, POSCO ICT, POSCO CHEMTECH, POSCO M-TECH, POSCO C&C)

2) 3) R&D to sales ratio: The consolidated R&D expenditure from POSCO's 2014 Annual Report is listed here.

4) Total number of employees is the total sum of the employee reported in annual reports of the eight companies.  
Number of employees was 30,072 in 2012, 29,727 in 2013, and 30,912 in 2014.



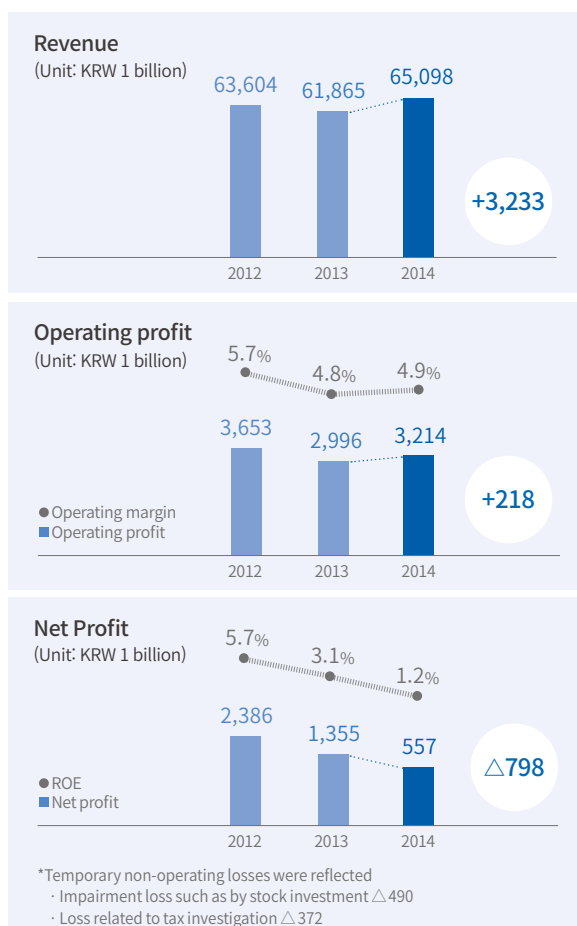
## 2014 PERFORMANCE AND 2015 OUTLOOK

The sales condition worsened in 2014 due to an overall slow global economy, which was mirrored in the automobile and ship-building industries. While demand for steel was low, the oversupply and excessive facilities in countries including China continued. The rapid increase of China's steel export, the low yen and the stagnant domestic demand all contributed to making business circumstances challenging for us. Despite these hurdles, POSCO announced the rebuilding of "POSCO the Great" and devoted itself to solidify its reputation as the most competitive steelmaker.

The consolidated business performances in 2014 are as follows. Sales recorded KRW 65,098.4 billion, operating profit was KRW 3,213.5 billion, and operating margin was 4.9 percent. While POSCO's non-consolidated sales decreased by a small margin at KRW 29,218.9 billion, operating profits increased slightly at KRW 2,350 billion and operating margin was 8 percent, owing to increased sales of high value added products.

The assets on a consolidated basis increased by 0.9 percent at KRW 85,252.2 billion, with the acquisition of POSPOWER and capital increase of POSCO Plantec. Liabilities increased by 3.4 percent to KRW 39,960.8 billion due to Daewoo International's sales increase and trade finance.

### POSCO Group's Consolidated Income



### Financial Structure



### Steel Sector



POSCO produces hot-rolled, cold-rolled and stainless steel at Pohang Works, the largest single steel mill in the world, and Gwangyang Works. POSCO C&C specializes in coated steel and POSCO P&S is a global general materials machining company that specializes in machining and fabrication of high quality steel products. There is also Zhangjiagang Stainless Steel in China that produces and sells stainless steel products, as well as overseas processing centers.

The aggregate consolidated crude steel production in 2014 was 41.42 million tons. POSCO produced 37.65 million tons, POSCO Specialty Steel 720 thousand tons, Zhangjiagang Pohang Stainless Steel Co., Ltd. 1.15 million tons, and PT. Krakatau POSCO produced 1.9 million tons. Sales of POSCO products increased as the overseas branches began fully operating, recording an increase by 410 thousand tons at 34.34 million tons. POSCO's performances in 2014 are as follows.

### First, we enhanced our fundamental steel competitiveness.

We provided more value to our customers through solution marketing that delivers steel products and application technology at the same times. We established technical service centers in five major overseas branches such as China, Japan and Southeast Asia to strengthen solution marketing. As a result, the sales ratio of world premium products increased to 33.3 percent, which exceeds our target, while also contributing greatly to improving our profitability.

### Solution Marketing

#### Products and technology solutions tailored to each demand industry

Securing differentiated competitive edge by providing technology and services that satisfy the needs of customer such as weight-saving products and substitutes for high priced materials.

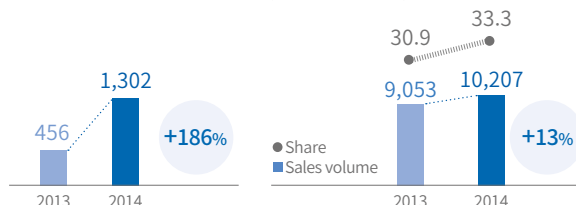
#### Examples of Solution Marketing

|                       |   |
|-----------------------|---|
| <b>Automobile</b>     | <ul style="list-style-type: none"> <li>• <b>Renault:</b> lighter vehicles through application of high-strength steel and magnesium sheet metal</li> <li>• <b>SsangYong Motor:</b> supplied entire volume of high-strength steel for the small SUV (Tivoli) model, enhancing stability and reducing weight.</li> </ul> |
| <b>Home appliance</b> | <ul style="list-style-type: none"> <li>• <b>LG Electronics:</b> cost reduction by substituting aluminum components with P&amp;O steel</li> <li>• <b>Samsung Electronics:</b> weight reduction by developing HGI components for TVs</li> </ul>   |
| <b>Construction</b>   | <ul style="list-style-type: none"> <li>• <b>Fourth nuclear power plant in UAE:</b> successful domestic production of high corrosion resistant stainless steel to reduce costs</li> </ul>  |
| <b>Energy</b>         | <ul style="list-style-type: none"> <li>• <b>High manganese steel for LNG storage:</b> the commercialization of cryogenic high manganese steel replaces the high priced stainless steel product</li> </ul>   |

### Adding Value to Products

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

Share of WP (world premium) products among all products (Unit: 1,000 tons, %)

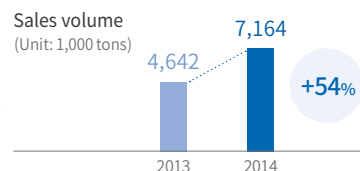


In January 2014, we successfully inaugurated the 2 million ton/year Plant No.3 applying FINEX, which is POSCO's unique innovation technology. In October, the 3.3 million ton/year Hot-Rolling Plant No.4 was completed in Gwangyang Works, greatly increasing our capacity for producing high-end automotive high-strength steel materials.

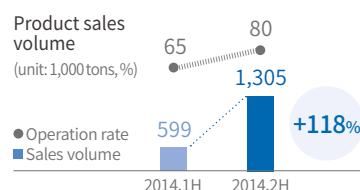
As for overseas steel branches, Krakatau POSCO of Indonesia solved the early complications and was able to successfully begin operations, while in Mexico, Canton China, Maharashtra India and in Thailand, we strengthened the automotive steel production system.

### Overseas Steel Business

Sales at overseas steel branches\* have increased with early stabilization of newly operating overseas branches. (\*Sixteen overseas steel producing subsidiaries)



Early recovery from the accident at the Indonesian integrated mill early this year has enabled us to build a basis for reach profitability.



### Technological Competitiveness

Strengthening development of high value products

Technology development cases in 2014

| WF (World First)   | WB (World Best)                                    |
|--|--|
| 17 technology types including CEM premium grade ultra-thin metal | 20 technology types including wire rod for bridges |

Establishing the sales basis for POSCO's unique technologies through technological leadership

| Technology | Details  |
|------------|--|
| FINEX      | The Chongqing Iron and Steel integrated mill joint project achieved the gratification requirement of the Chinese government (November 2014) - Production capacity: 3 million tons (1.5 m X 2 plants)<br>Signed MOU with Mesco Steel of India for the relocation export of the #1 FINEX D/P (June 2014) |
| CEM*       | Discussions for licensing agreement are currently under way with a foreign engineering company *Compact Endless Cast-rolling Mill  |

Second, we made preparations for the future through selection and concentration of new growth businesses. We chose lithium and nickel in source materials sector, and fuel cells and clean coal chemistry in the clean energy sector. In December 2014, we completed the demonstration plant in Argentina that employs the direct extraction technology of lithium, while we completed the hydrometallurgy processing technology for nickel and shaped the size and location for the demo plant. For the fuel cell, we conducted cost reduction measures at the Pohang cell manufacture plant currently under construction through automation and logistics optimization, for which construction progress is at 85 percent as of end of 2014. As for the clean coal chemistry business, we are preparing for the operation of the SNG (synthetic natural gas) plant, which is also currently under construction, and the progress rate as of end of 2014 is 94%.

Third, we improved our financial structure through bold business restructuring. We conducted business restructuring by selling POSCO Specialty Steel and POSFINE, disposed of non-core assets such as Masan Department Store and Vietnam IBC, while securing cash through fluidization of accounts receivables, procuring KRW 2 trillion worth of non-debt capital. In addition, we improved cash flow by reducing investment costs to reasonable levels. Through these efforts to improve our financial structure our consolidated debt to EBITDA ratio shrank from 4.8 as of end of 2013 to 4.4 as of end of 2014.

**Fourth, we reformed our business infrastructure.**

We introduced “project-based working method”, conducting various company-level activities to improve profitability. We discovered over 400 projects in a top down method and concentrated our management resources support within a short period to achieve quantitative results. We launched the expert executive officer system to enhance the expertise of the project implementing personnel and expanded the PCP (POSCO Certified Professional) system to cultivate internal experts.

We took the initiative in win-win and shared growth activities for the local community. We opened the “Creative Economy Innovation Center” at POSTECH in Pohang with a floor area of 1,983 m<sup>2</sup>, which is the first civilian-led establishment of the centers located nationwide. The center will integrate programs such as the win-win cooperation between large corporations and SMEs (small and medium enterprises), cultivating venture projects, and vitalizing the local economy.

The number of participants in the POSCO 1% Sharing Foundation led by POSCO employees and executives have increased from 20 thousand in 2013 to 28 thousand in 2014, and we also contributed to job creation for the socially vulnerable through the social enterprise POSCO HUMANS. In Indonesia, we established an environmental social enterprise to employ young community workers. We are taking the initiative in social responsibility and care both domestically and abroad.

As a result of our major management activities, we ranked 36th in the “2015 Global 100 Most Sustainable Corporations in the World” index at the Davos Forum, the highest among Korean companies. We were also named the most competitive steel company by WSD (World Steel Dynamics) for five consecutive years and were the first steelmaker to be included as a leader in the Robeco SAM Dow Jones Sustainability Index, enforcing once again our reputation as the world’s most competitive global steel company.

**Trade Sector**

**Daewoo International Corporation**, POSCO’s major trading company, consists of three divisions: Trade Division that deals with import and export of steel/metal, chemical/petroleum products, machinery/transportation equipment, agricultural/livestock products; Overseas Projects division building overseas plants and power infrastructure; and Resource Development division that develops gas, minerals and food resources. Daewoo International also pursues new businesses such as domestic and international manufacturing and distribution, and real estate development. The company also maintains over 100 networks including overseas branches and offices at major overseas locations. Among the businesses, trade used to account for a substantial proportion of sales/profit, but the resources development division is rapidly increasing its proportion as resources development projects are beginning to show results.

With the basic strategy of export and cross trading by utilizing the overseas networks to expand revenues, Daewoo International aims to become a World Top Class Trader, Investor and Developer. The company has recorded revenue of KRW 19,938.1 billion and operating profit of KRW 346.9 billion in 2014. This was accomplished by establishing the “speed growth system” that was made possible through continued enhancement of its competitive edge, which in turn enabled it to expand export and cross trading, increase trade volume of long-term trading partners and cultivate new customers.

Exports (including cross trade) accounted for 95.3 percent of Daewoo International’s revenue in 2014. Asia accounted for 63.3 percent of that export (including 23.4 percent to China), 7.8 percent to North America and 28.9 percent to other regions. Export portion by product was: steel/non-ferrous metals 58.1 percent, chemicals/commodities 25.2 percent, automotive components and machinery 13.2 percent, minerals/energy 2.7 percent, and electronics/other 0.8 percent.

In the case of oil and gas development and mineral resources development, the company’s revenue is closely linked to the raw materials’ price due to the nature of the business. The Myanmar gas field that recently started production, the oil field in Peru, and offshore gas field 11-2 in Vietnam comprise the majority of our revenues from resources development. Moreover, the nickel mine in Madagascar and bituminous coal development in Narrabri, Australia are beginning full operations. Thus the raw materials price that changes in flow with the economy will further affect the company’s revenues.

Since the commencement of sales of gas from the Myanmar gas field in July 2013, the drilling and completion at the Shwe gas field progressed in order and by December 2014 the ultimate production target of 500 million cubic feet was reached, which is when we began to see the full results from the resources development business. For the seabed area 6-1 in the East Sea, Stage 1 exploration began in 2011, the drilling subject structure was fixed and a drilling agreement signed in 2013. In the fourth quarter of 2014, the gas gusher production test was successfully completed through exploratory drilling. In March 2013, Daewoo International agreed with Woodside of Australia to explore field AD-7 near the Shwe gas field, and the Stage 1 exploration began in July 2013.

Meanwhile, in August 2013, Daewoo International signed an agreement with Bellatrix of Canada to acquire 50 percent of share in the Baptiste area, entering into the tight oil business. This business is meaningful in that Daewoo International will have the opportunity to further upgrade oil and gas exploration and development techniques, and that it will serve as the foothold for expanding the company’s scope of business to unconventional oil and gas development in the North American region, which is setting the trend in the latest energy revolution. Aside from the existing investment in oil field in Peru and gas field in Vietnam, Daewoo International continues to participate in the Oman LNG plant project and entered the onshore unconventional resource exploration business in Myanmar. Daewoo International plans to grow as a world-class resource developing company with its main area of business in oil and gas development.

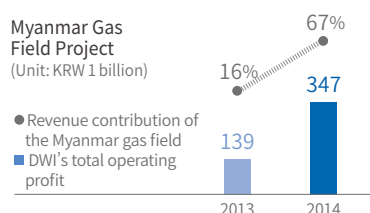
In the field of mineral resource development, Daewoo International participates in production, such as Ambatovy nickel mine (Madagascar) and Narrabri coal mine (Australia), as well as exploration for copper, uranium and tin.

The Ambatovy nickel mine where the company has a 4 percent stake is located in Madagascar Africa and is one of the three largest lateritic nickel mines. The production of nickel products began in July 2012 and will produce 60 thousand tons of nickel and 56 hundred tons of cobalt annually for the next 29 years. Daewoo owns 5 percent interest in the Narrabri coal mine. Pilot production began in 2010 and mass production in October 2012. It is expected to produce 6 million tons of coal annually. In addition, the company participates in mine exploration for copper, uranium and tin in Africa, Americas, Southeast Asia and Australia.

As for new businesses, the company is currently building a hotel in Myanmar, as well as pursuing the combined real estate development business such as Songdo commercial real estate operation and vessel charter or hire.

#### Myanmar Gas Field Project

Myanmar gas field's contribution to profits has increased as full-fledged production began.



#### Construction Sector



POSCO's top construction company 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 is expanding to low carbon green growth businesses through its renewable energy and urban regeneration projects.

In 2014, the accumulated domestic orders received amounted to KRW 4.8 trillion and that of overseas orders KRW 5.2 trillion, amounting to a total of KRW 10.0 trillion. Major new orders won for domestic construction were mainly in the housing and construction sector, such as the housing reconstruction of Daejeon Yongmun District Sector 1, 2 and 3 (KRW 345.4 billion), redevelopment of the Bokdae district in Cheongju (KRW 158.3 billion) and remodeling of Daechong apartments (KRW 158 billion). POSCO E&C also won the contract for Seokmun community energy construction project (KRW 167.6 billion) and the double track railway for the Jinjeob Line (KRW 88.2 billion).

Meanwhile, in the overseas market, POSCO E&C won the contract for the Uttam steel plant (KRW 1,666.1 billion) proving itself as a leading company in steel plant construction; won the first contract from Saudi Aramco, the world's largest oil company (sulfur

railcar loading facilities KRW 403.8 billion); the APU raw material regeneration project in Venezuela (KRW 268.3 billion), moving abroad for the first time in chemical engineering business. Meanwhile, the company is conducting aggressive marketing from the business planning stage in various projects such as power, rail and mining in order to enter into optional contracts that guarantee profitability.

In particular, unlike other large Korean construction companies, despite decreasing orders due to POSCO Group's shrinking investments, the order amount in 2014 was KRW 10,013.1 billion. Although it came short of the target, POSCO E&C was still able to record over KRW 10 trillion in order amount. Revenues recorded KRW 7,514.7 billion and operating profit was KRW 277.3 billion, meeting the management target. Owing to these results, POSCO E&C ranked third in the construction capability evaluation for the first time, entering the domestic Big 3.

Looking at the major management activities and performances, we enhanced our core competence: first, we won the construction contract for the Uttam steel plant, proving our global leadership in steel plant construction; successfully sold 13 thousand units of The Sharp (brand name) apartments through which we enhanced our brand power; and acquired certification for nine new technologies, maintaining the most number of new technologies (20).

Also, we won orders for the Ebonyi gas power plant in Nigeria, coal power plant in Guatemala (Jaguar Energy), Sun Metal of Oman and POSCO CGL in Thailand, thus opening new markets by entering these countries for the first time. We also won a contract from Saudi Aramco for the first time. We secured the basis for entering the resources development sector by signing an MOU with Adani, an Australian infrastructure company.

The company is expanding its business portfolio as well. The Construction Business Division is leading the vertical expansion remodeling business: the company won the remodeling order for Maehwa Apartment in the Bundang district, taking a lead in the market that is estimated to be worth KRW 68 trillion for the next 15 years. The Civil Works Business Division successfully completed the Gwangyang Donghoan seawater desalination project, securing reference for seawater desalination, while the Energy Business Division won the contract for APU raw material regeneration project in Venezuela, moving abroad for the first time in chemical engineering business.

Lastly, as a result of continued efforts of employees and executives to enhance safety management, the accident rate in 2014 was 0.07 percent, the lowest in the recent three years and the most outstanding among domestic peers. In particular, in relation to revenues, domestic large construction companies have recorded one injury per KRW 60 billion in revenue, while POSCO E&C's accident rate was one person per KRW 250 billion, achieving overwhelmingly superior results within the industry. In 2015, under the goal of "Realizing a safe project site with love for life and leading the global construction safety culture," we will improve our safety management through systematic safety activities. To this end we adjusted our system to center on accident

prevention, promoting safety culture with everyone's participation and advancing the safety diagnosis and support in order to achieve outstanding results just as we did in 2014.

### Increased Orders in New Overseas Markets

#### Major Projects

|  | Order amount<br>(KRW 1 billion) | Time of order |
|--|---------------------------------|---------------|
| Nigerian coal fired power plant                | 1,162                           | 2014.09       |
| Saudi Aramco sulfur railcar loading facilities | 404                             | 2014.09       |
| Uttam steel mill in India                      | 1,666                           | 2014.12       |

## Energy Sector



**POSCO Energy** launched the commercial operation of the LNG power plant in February 1972, the only civilian steam power plant in the country. In order to meet the government's policy to stabilize power supply to meet the rapid increase in demand for power in the early 90s, the company continued to expand the combined cycle power generation business and operates a reliable power plant.

The Incheon Power Plant has a capacity that corresponds to 12.4 percent of the power generated in the metropolitan area, greatly contributing to the stable supply of power to the area. The POSCO ENERGY's power plant is peak load steam power plant that is in charge of timelines with high power demand, having excellent mobility and output adjustment quality. This enables the power plant to respond instantly to power load fluctuations, which is necessary for stabilizing the power system of the metropolitan area. It is directly linked with the demand location, which allows for very low rate of electric power loss (1 percent), making it highly economical.

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, direct operation of fuel cell power plant and R&D.

In 2014, the reserve margin increased compared to the previous year due to increased power supply and lower demand that resulted from the government's strong power demand policy. Despite heightened competition, the company recorded separate sales of KRW 2,533.7 billion and operating profit of KRW 104.3 billion through stable power supply and improving the sales price of the off-gas electricity.

The major management achievements during the last year are as follows. First, we increased sales by improving the power unit price and strategic facilities operation. Despite deteriorating external conditions, such as the continued drop of electricity prices, the company changed the off-gas power's unit price criteria from total cost to industrial electricity price, improving the operating profit from the off-gas power plant business. In addition, the company

increased the availability factor and efficiency of the existing LNG combined cycle plants, while Combined Cycle Units 7 and 8, which boast the highest efficiency in the country, began commercial operation early, also contributing to increased sales.

Second, the company attained the cell technology for the fuel cell business and constructed a production plant, strengthening the basis for independent fuel cell production. Although the business viability decreased due to higher LNG prices and lower SMP (system marginal price), we continually developed new demand and put our utmost effort into expanding the market base through stronger networking. The company also focused on attaining cell technology and quality improvement, achieving 85 percent progress rate, while also reaching the production plan for MBOP and stack production.

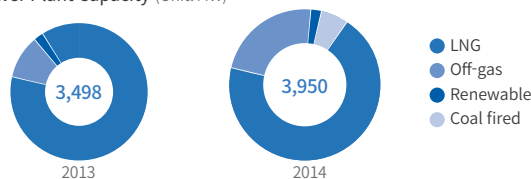
Third, we made a leap toward becoming a global general energy company by securing engines for future growth. We inaugurated POSPOWER after acquiring Samcheok Tongyang Power to enter the coal fired power generation business and successfully completed the Sinan solar power plant and the Tanchon Sewage Heat business, expanding the scope of renewable energy business and proactively responding to the country's RPS market. In overseas business, we completed the Indonesian off-gas plant in time and secured the CHP-5 business right in Mongolia, strengthening the foundation to grow as a global general energy company.

Fourth, all members of POSCO ENERGY devoted themselves to creating a happy organizational culture and to becoming a company that is loved by all. A new vision was established, the regional meetings with the CEO's participation and operation of the labor-management council enhanced trust and communication within the company. As a result, POSCO ENERGY ranked first in the POSCO Family Happiness Index. The company sincerely participated in social contribution activities such as the 1% Sharing Foundation, Hope Energy and Love Sharing campaign, and talent donations in order to become a company that is loved by all.

## POSCO ENERGY

**Completed construction of power plant that uses steelmaking off-gas and entered the thermal power generation market by acquiring Tongyang Power, diversifying the area of business.**

Power Plant Capacity (Unit: MW)



### New Power Plant Businesses

|            | Project               | Capacity | Progress                                    |
|------------|-----------------------|----------|---|
| Coal fired | Vietnam Mong Duong II | 600MW    | · Unit 1 completed (Dec. 2014)              |
|            | POSPower              | 2,100MW  | · Acquisition of Tongyang Power (Jun. 2014) |
| Off-gas    | Pohang Unit 2         | 145MW    | · Completed (Jul. 2014)                     |
|            | Indonesia             | 200MW    | · Completed (Apr. 2014)                     |
| LNG        | Incheon Units 7, 8    | 840MW    | · Completed (Oct. 2014)                     |



## ICT Sector



POSCO ICT continued value-oriented internal soundness building management in 2014 despite continued domestic and overseas market uncertainties and the slow growth trend. The company focused on improving the business structure and strengthening its financial soundness and the sales and operating profit decreased slightly at KRW 921.5 billion and KRW 47.8 billion, respectively.

The major management achievements during last year are as follows. First, the groundwork for enhancing internal soundness and growth was established. The company stabilized POSPIA 3.0, POSCO Group's next-generation IT service earlier than planned; proceeded with upgrading SWP (Smart Workplace), the Group's method of working; and successfully built POSCO Energy's PI system. In the area of energy efficiency enhancing business, which is a core strategic business of POSCO ICT, the company also built systems for Doosan Heavy Industries & Construction and POS-HI-METAL, securing successful reference. The company built the external foundation for environmental solution business by supplying 116 units of MPS (Micro Pulse System) to Datang Group, a power generation enterprise, in the Chinese market where demand for air quality systems is increasing.

Second, we established the basis for medium and long-term growth, setting the medium-term strategy of the company. We will establish plans and pursue the "Smart Factory business" based on Industry 4.0 that will lead internal and external manufacturing innovation in order to enhance POSCO's fundamental competitiveness in steel; the "Smart IT business" that will bring new value to the customer; and the "Total Energy Optimization business" that provides the optimization service for power generation (including system), supply and consumption in order to assure the company's continued growth. Lastly, the company devoted itself to EVA-based value-oriented management and to increasing its corporate value. Projects with low-profitability and in which the company lacks independent competence were reduced and the company is strengthening risk management centering on large-scale projects. In particular, the company actively reduced invisible costs by securing business soundness from the order receiving stage and advanced the management of projects currently in progress.

The outlook for the year 2015 is not bright, as L-shaped recession is expected to continue, leading to a prolonged uncertainty in the business environment. POSCO ICT plans to create performance by reconfiguring its businesses centering on strategic businesses according to the medium-term growth plan. The company will proceed with the pilot operation of Industry 4.0 to advance the control system for production, facilities and quality improvement, improve the IT services provided to POSCO and POSCO Family companies to build solutions based on the results that were developed and verified internally to external businesses. The environmental solution business will be expanded in China targeting the five power plants and steel mill, and developed into a total air quality solution that removes not only fine dust, but also NOx and Sox.

In the energy efficiency enhancement business that POSCO ICT is focusing on, the company will actively pursue the business at POSCO's two steel works (Pohang and Gwangyang) where it will secure the largest number of references, as well as external business such as the energy efficiency enhancement project for dilapidated industrial complexes supervised by the Ministry of Trade, Industry & Energy, securing tangible results. Moreover, the company plans to expand the business proposal activities targeting POSCO Family companies and building standardized operating system tailored to the business type of the Family company, heightening the level of cooperation with Family companies. Based on the steel EIC building capacity, the company will participate in the domestic and overseas power plant construction project conducted by POSCO ENERGY to discover EIC projects, while cooperating with POSCO E&C for the Smart Building and overseas new city development projects, and creating synergy with Family companies by cooperating with Daewoo International's endeavors in the overseas airport business.

## Materials Sector



POSCO CHEMTECH was established in 1994 through the merger of Samhwa Chemicals established for the production and sales of basic refractories in January 1963, and Pohang Industrial Furnace, a company that was established in May 1975 for the maintenance of industrial roads and furnace construction. It became a comprehensive materials company with an integrated system that covers refractory production to its construction, building its reputation not only domestically, but also overseas as a global refractory company. In 2008, the company began operation of lime calcination plant in the POSCO steel works. Between 2010 and 2011, the company grew externally through commissioned operation chemical plant at the steel works and the sale of refractory products. The company is now securing the foothold to take a leap as a global top-tier coal chemistry and carbon material maker. Currently, the company is diversifying its business scope to the chemicals sector by entering the rechargeable battery cathode material and needle cokes businesses.

In the lime business, the company has operated the lime calcination plants in Pohang and Gwangyang Works since 2008 and has the largest quicklime production capacity in the country. Starting with Indonesia in 2012, the company is moving to the global market as well.

For the chemicals business, the company operates the COG (Coke Oven Gas) refineries at Pohang and Gwangyang Works, purchases the coke oven gas byproducts to process them before selling. In addition, in order to produce domestically the rechargeable battery cathode material that was dependent on imports, the company acquired the cathode materials business from LS Mtron in August 2010 and entered the cathode materials business, and is currently manufacturing.

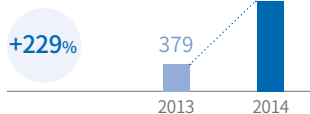
In the overseas business sector, the company joined the Indonesian steel mill project, currently conducting business in quicklime supply and the processing and selling of byproducts.

### POSCO CHEMTECH

**Increased sales of cathode material for rechargeable batteries used in IT and mobile devices**

- Began supply to large domestic rechargeable battery makers.

Sales volume  
(Unit: Ton)



**New installation of cathode material production facility to meet increased demand**

- Built natural graphite coating line (Feb. 2015)

Natural graphite coating line

1,200  
Ton/Year

Despite difficulties in 2014 such as slow growth of the global economy and the low yen, the company aspired to see through new perspectives, improved the way of work, established challenging goals and pursued them with passion. As a result, the separate sales reached KRW 1,330.6 billion and operating profit reached KRW 88.2 billion. In 2015, POSCO CHEMTECH will continue to share the operation target and implementation plans with POSCO in order to become the "Global top-tier coal chemistry and carbon materials company," through enhancing its competitiveness and corporate value.

**POSCO M-TECH** started as a company supplying iron and steel raw materials, and steel packing in 1973. For the past 40 years it has specialized in the supply of steel supplementary materials (aluminum deoxidizer, molybdenum) and packing of steel products. The company is expanding its business scope through the commissioned operation of POSCO's magnesium plant, high purity ferrosilicon plant and iron powder plant, and hopes to strengthen its position as the steel packing and supplementary materials supplier. The company concentrated its efforts in securing financial stability through business restructuring in order to proactively respond to challenging and uncertain business circumstances, but the separate sales in 2014 was KRW 432.2 billion with an operating loss of KRW 17.1 billion. The overall fall in the price of non-ferrous metals that affects the selling price of the company's main products, additional taxes related to urban mining business and the bad debt write-off of uncollectible receivables are the factors that diminished the company's profitability. However, during the year 2014, the company devoted itself to enhancing efficiency through business restructuring and work innovation to achieve financial soundness.

The year 2015 is expected to see slow growth for the global steel industry at approximately 2 percent due to slowed growth of China and the sluggishness of downstream industries including shipbuilding and construction. Despite these challenges, the company will devote itself to making profits by improving the

management system, securing financial soundness and building a stable business foundation. To this end, POSCO M-TECH will strengthen the competitiveness of the existing businesses such as aluminum deoxidizer and steel packing.

In addition, as the overall market slowdown continues, cost reduction and technology are affecting a company's profits more. As such, the company will exchange the obsolete equipment at the aluminum deoxidizer plant to maximize production efficiency as part of its efforts to reduce costs and stabilize product quality. For steel packing, which is the company's main business, the company will implement the 3 Zero campaign that aims for zero defects, breakdowns, and accidents. The company will also reduce inventory to reduce unnecessary costs. Moreover, the company undertook company-wide structure improvement measures in stages, reallocating human resources and slimming of the organization to reduce overhead costs. In particular, the company plans to enhance flexibility that can respond to changing management conditions by introducing the Project Based Working System and emphasize the importance of ideas to actively prepare for the changes to come in the future.

During the past few years, although the company grew by expanding its business scope and scale, there have been some shortages in maintaining financial stability, which led to losses in the previous fiscal year. In 2015, the company will complete restructuring low-profit businesses by selling the urban mining business and high-purity alumina plant, while reassessing the profitability of other existing businesses to ultimately improve its profitability. The company will collect due receivables, and focus on solving the additional taxation issue that occurred in 2014 to enhance its fiscal soundness.

Learning from the dust leakage that occurred last year at the ferrosilicon plant, POSCO M-TECH will strengthen its environmental management system and recheck the management system with the goal of realizing a business site of zero accidents and environmentally friendly workplace. The company plans to become a model company in the safety and environment aspect in 2015.

# PERFORMANCE HIGHLIGHTS

(POSCO ONLY)

| Category               | Index  |   | Unit             | 2012                  | 2013    | 2014    |
|------------------------|--|---|------------------|-----------------------|---------|---------|
| Society                | Social contribution expenses <sup>1)</sup>                         | Total                                       | KRW 1 bn         | 91.9                  | 49.9    | 59.9    |
|                        |  | Donation                                    | KRW 1 bn         |                       | 9.3     | 19.1    |
|                        |  | Investment in local community <sup>2)</sup> | KRW 1 bn         |                       | 36.6    | 38.0    |
|                        |  | Other(Commercial Initiative) <sup>3)</sup>  | KRW 1 bn         |                       | 4       | 2.8     |
|                        | Donation to charity <sup>4)</sup>                                  |   | KRW 1 bn         | 8                     | 8       | 8       |
|                        | Volunteering hours per person                                      |   | Hours            | 36                    | 31      | 29.5    |
|                        | Microcredit expenses <sup>5)</sup>                                 | Raised amount (aggregate)                   | KRW 1 bn         | 20                    | 20      | 25      |
|                        |  | Loan amount                                 | KRW 1 bn         | 7.3                   | 6.9     | 4.3     |
|                        | POSWITH – disadvantaged groups / number employed                   |   | Persons          | 283/466 <sup>6)</sup> | 191/369 | 195/367 |
|                        | POS Eco-housing – disadvantaged groups /number employed            |   | Persons          | 83/110                | 28/60   | 32/65   |
|                        | POSPLATE – disadvantaged groups / number employed                  |   | Persons          | 106/190               | 97/184  | 86/173  |
|                        | Songdo SE – disadvantaged groups / number employed                 |   | Persons          | 246/272               | 124/138 | 91/126  |
|                        | Sisterhood ties  |   | Number           | 240                   | 245     | 211     |
|                        | Corporate tax expenses   |   | KRW 1 bn         | 623                   | 403     | 582     |
| Partner                | Subsidiaries’ implementation of Compliance Program <sup>7)</sup>   |   | No. of companies | 25(22)                | 34(30)  | 32      |
|                        | Compensation under Benefit Sharing in purchasing cooperation       |   | KRW 100M         | 1,328                 | 536     | 544     |
|                        | Private-public joint R&D fund                                      |   | Cases            | 15                    | 15      | 3       |
|                        | Techno Partnership technology consultation                         |   | Times            | 1,057                 | 595     | 607     |
|                        | POSCO Certified Partners   |   | Number           | 39                    | 41      | 48      |
|                        | Purchasing cost  | Raw materials                               | KRW 1 bn         | 22,176                | 17,578  | 15,893  |
|                        |  | Materials                                   | KRW 1 bn         | 1,914                 | 1,803   | 1,846   |
|                        |  | Subcontracting fees                         | KRW 1 bn         | 1,997                 | 2,079   | 2,204   |
|                        |  | Total                                       | KRW 1 bn         | 26,087                | 21,460  | 19,943  |
|                        | (Ratio to sales)   |   | %                | 76.7                  | 70.3    | 68.3    |
| Investor <sup>8)</sup> | Crude steel production   |   | 1,000 tons       | 37,986                | 36,416  | 37,650  |
|                        | Sales  |   | KRW 1 bn         | 35,665                | 30,544  | 29,219  |
|                        | Operating profit   |   | KRW 1 bn         | 2,790                 | 2,215   | 2,350   |
|                        | Net profit   |   | KRW 1 bn         | 2,500                 | 1,583   | 1,139   |
|                        | Operating margin   |   | %                | 7.8                   | 7.3     | 8.0     |
|                        | ROE  |   | %                | 6.5                   | 3.9     | 2.7     |
|                        | Assets   |   | KRW 1 bn         | 52,320                | 54,242  | 52,597  |
|                        | Equity   |   | KRW 1 bn         | 39,165                | 42,311  | 42,475  |
|                        | Liabilities-to-equity ratio  |   | %                | 33.6                  | 28.2    | 23.8    |
|                        | Total cash dividends paid  |   | KRW 1 bn         | 618                   | 633     | 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              | 32,359                | 20,052  | 13,858  |
|                        | Payout ratio   |   | %                | 24.7                  | 40      | 56.2    |
| Customer               | Customer satisfaction index (domestic companies)                   |   | %                | 88                    | 88      | 84      |
|                        | Customer satisfaction index (overseas companies)                   |   | %                | 81                    | 79      | 74      |
|                        | Number of eco-friendly products developed                          |   | Number           | 37                    | 30      | 22      |
|                        | Sales volume by product  | Hot-rolled steel                            | Tons             | 18,757                | 17,516  | 17,969  |
|                        |  | Cold-rolled steel                           | Tons             | 14,479                | 14,643  | 14,685  |
|                        | Stainless steel  | Tons  | 1,812            | 1,770                 | 1,683   |         |
| Employee               | Employee satisfaction index  |   | Points           | 82                    | 82      | 70      |
|                        | Number of employees  |   | Persons          | 17,623                | 17,832  | 17,877  |
|                        | Number of new hires  |   | Persons          | 818                   | 873     | 879     |
|                        | Retired employees  |   | Persons          | 1,029                 | 520     | 1,375   |
|                        | Retired employees who reached retirement age                       |   | Persons          | 654                   | 0       | 626     |
|                        | Turnover   |   | %                | 5.85                  | 2.91    | 7.69    |
|                        | Continuous service   |   | years            | 18                    | 18.5    | 18.1    |
|                        | Female employees   |   | Persons          | 702                   | 778     | 842     |
|                        | Female employees in manager position or higher                     |   | Persons          | 146                   | 166     | 199     |
|                        | Employees with disabilities  |   | Persons          | 474                   | 485     | 431     |
|                        | Employees with disabilities (POSCO)                                |   | Persons          | 254                   | 255     | 241     |
|                        | Employees with disabilities (POSWITH Division within POSCO HUMANS) |   | Persons          | 220                   | 230     | 190     |

| Category   | Index   | Unit  | 2012                         | 2013                        | 2014    |         |         |
|--|---|---|------------------------------|-----------------------------|---------|---------|---------|
| Employee   | Ratio of employees with disabilities                | %   | 2.7                          | 2.7                         | 2.4     |         |         |
|  | Employees who used maternity leave                  | Persons   | 56                           | 55                          | 67      |         |         |
|  | Rate of return after maternity leave                | %   | 100                          | 100                         | 100     |         |         |
|  | Employees who used parental leave                   | Persons   | 61                           | 77                          | 81      |         |         |
|  | Employees who used parental leave (male)            | Persons   |                              |                             | 12      |         |         |
|  | Employees who used parental leave (female)          | Persons   |                              |                             | 69      |         |         |
|  | Rate of return after parental leave                 | %   | 86                           | 98                          | 98      |         |         |
|  | Number of employees trained                         | Persons   | 432,859                      | 523,184                     | 356,133 |         |         |
|  | Training hours per capita                           | Hours   | 234                          | 205                         | 128     |         |         |
|  | Training costs per capita                           | KRW 10 thousand   | 101                          | 80                          | 68      |         |         |
|  | Trainee satisfaction index                          | Points  | 4.48                         | 4.62                        | 4.65    |         |         |
|  | Number of accidents (direct management)             | Cases   | 3                            | 10                          | 12      |         |         |
|  | Number of fatalities (direct management)            | Persons   | 1                            | 1                           | 1       |         |         |
|  | Number of accidents (contractor)                    | Cases   | 4                            | 4                           | 3       |         |         |
|  | Number of fatalities (contractor)                   | Persons   | 1                            | 1                           | 1       |         |         |
|  | Lost-time injury frequency rate (direct management) | Accidents per million work hours                        | 0.08                         | 0.26                        | 0.32    |         |         |
|  | Lost-time injury frequency rate (contractor )       | Accidents per million work hours                        | 0.10                         | 0.10                        | 0.08    |         |         |
|  | (Total lost-time injury frequency rate)             | Accidents per million work hours                        | 0.09                         | 0.18                        | 0.20    |         |         |
|  | Cost of labor                                       | Payroll   | KRW 1 bn                     | 1,367                       | 1,401   | 1,435   |         |
|  |   | Provisions for retirement benefits                      | KRW 1 bn                     | 113                         | 135     | 129     |         |
|  |   | Legally required benefits cost                          | KRW 1 bn                     | 102                         | 90      | 108     |         |
|  | Pension subsidies                                   | National pension (paid by company)                      | KRW 1 bn                     | 35.1                        | 36.5    | 37.5    |         |
|  |   | Personal pension subsidy                                | KRW 1 bn                     | 9.1                         | 9.7     | 9.7     |         |
|  |   | Number of personal pension beneficiaries                | Persons                      | 14,317                      | 14,736  | 10,473  |         |
|  | Employee Welfare Fund                               | Contributed amount                                      | KRW 1 bn                     | 59.1                        | 57.6    | 58.9    |         |
|  |   | Aggregate contribution amount                           | KRW 1 bn                     | 816                         | 874     | 933     |         |
|  | Environment   | Air pollutant emissions                                 | SOx                          | 1,000Tons/year              | 21.9    | 24.0    | 21.0    |
|  |   |   | NOx                          | 1,000Tons/year              | 33.3    | 33.1    | 33.5    |
|  |   |   | Dust                         | 1,000Tons/year              | 4.0     | 3.8     | 3.6     |
|  |   | Energy usage  |                              | TJ                          | 798,111 | 776,115 | 837,220 |
|  |   | GHG emissions   |                              | 1,000Tons CO <sub>2</sub> e | 77,038  | 74,691  | 74,911  |
|  |   |   | Scope 1 (direct emission)    | 1,000Tons CO <sub>2</sub> e | 73,567  | 70,612  | 70,394  |
|  |   |   | Scope 2 (indirect emission)  | 1,000Tons CO <sub>2</sub> e | 3,471   | 4,079   | 4,517   |
| CO <sub>2</sub> emissions per ton of steel produced (direct)   |   |   | t-CO <sub>2</sub> /t-s       | 1.88                        | 1.87    | 1.87    |         |
| CO <sub>2</sub> emissions per ton of steel produced (indirect) |   |   | t-CO <sub>2</sub> /t-s       | 0.10                        | 0.12    | 0.13    |         |
|  |   |   |                              |                             |         |         |         |
| Water usage  |   | Processing water usage                                  | Million m <sup>3</sup> /year | 135.2                       | 135.1   | 138.2   |         |
|  |   | Wastewater discharge                                    | Million m <sup>3</sup> /year | 64.2                        | 58.7    | 60.9    |         |
| Wastes   |   | Waste generated   | 10,000 tons/year             | 2,396                       | 2,209   | 2,411   |         |
|  |   | Waste volume (recycled)                                 | 10,000 tons/year             | 2,358                       | 2,171   | 2,366   |         |
|  |   | Waste volume (disposed)                                 | 10,000 tons/year             | 38                          | 38      | 45      |         |
|  |   | Landfill  | 10,000 tons/year             | 19                          | 33      | 39      |         |
|  |   | Incineration  | 10,000 tons/year             | 19                          | 5       | 6       |         |
| Chemicals release  |   |   | Tons/year                    | 73                          | 69      | 92      |         |
| Environmental facility investment                              |   | Air   | KRW 1 bn                     | 480                         | 139     | 138     |         |
|  |   | Water   | KRW 1 bn                     | 102                         | 65      | 135     |         |
|  |   | Recycling and others                                    | KRW 1 bn                     | 53                          | 90      | 27      |         |
| Environmental costs  |   | Environmental facilities operation cost/ Recycling cost | KRW 1 bn                     | 921                         | 986     | 924     |         |
|  |   | Depreciation cost                                       | KRW 1 bn                     | 146                         | 150     | 158     |         |
|  |   | Administrative cost                                     | KRW 1 bn                     | 35                          | 35      | 36      |         |
|  |   | Environmental R&D cost                                  | KRW 1 bn                     | 13                          | 17      | 12      |         |
|  |   | Energy recovery cost                                    | KRW 1 bn                     | 34                          | 33      | 46      |         |
|  | Total   | KRW 1 bn  | 1,149                        | 1,221                       | 1,176   |         |         |

1) The social contribution expenses are categorized into social welfare, sports & culture, human resources cultivation and volunteering according to the standard suggested by the Federation of Korean Industries. Since 2013, details classified as donation, investment in local community and others have been added to the disclosed information.

2) Investment in local community is different from the local community concept of our five major social contribution areas.  
- Investment in local community: Expenditures 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

3) Commercial initiative: Social contribution expenses for advertisements

4) Applies to POSCO only.

5) Based on POSCO's contribution accounting standards

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

7) Figures within parentheses are the decreased number due to the merger.

8) Financial data for POSCO only.

# 02

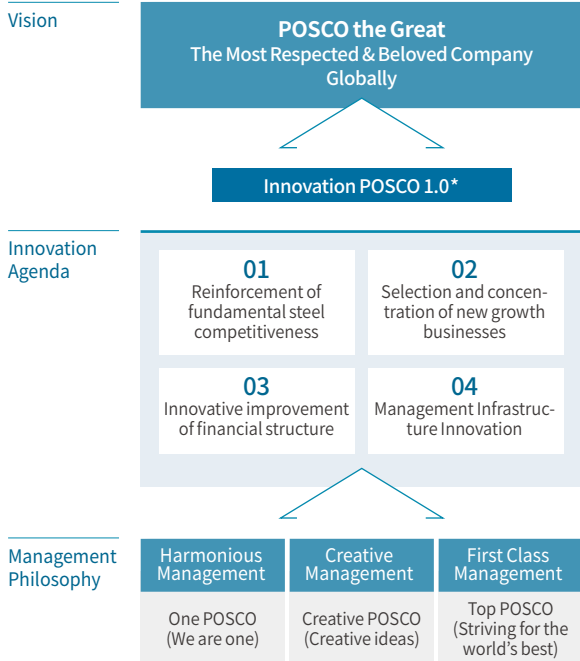
## Management Report

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## VISION & STRATEGY

### Vision Diagram



\* What is 1.0? Basic, First, One, Top / Restore a great company by reviving the spirit of making steel in fidelity to Korea

**2014 Performance Review –Summary** The core goal of the medium-term strategy established in 2014 was to enhance corporate value by pursuing the four innovation agendas. This goal was established to reach KRW 0.1 trillion in EVA, KRW 8.5 trillion in EBITDA, threefold in debt to EBITDA ratio and establishing the basis for mega growth by 2016. The performance for the year 2014, the first year of the medium-term strategy is as follows: It is estimated that EVA will be negative KRW 0.7 trillion and EBITDA to be KRW 6.5 trillion, which exceed our target for the year; and our debt to EBITDA was improved from 4.8 times as of end of 2013 to 4.4 times as of end of 2014.

## RISKS AND OPPORTUNITIES IN 2015

### Outlook on Economy and Industry for 2015

The global economy in 2015 is forecast to recover rather unstably with the United States being the main contributor to the growth. China will continue with its restructuring policies, with growth rates expected to be 7.2 percent, while the dwindling of the Abenomics effect will see Japan grow by 1.0 percent.

As for the Korean economy, there are concerns that the slowing Chinese economy and low yen will weaken our exporting competitiveness. The global steel environment does not look promising either with the continued low demand and low price.

China's steel demand is expected to fall short of 1.0 percent, leading to the worst over-supply ever seen and as a result, steel prices will not likely recover. As for POSCO Group's major industries, business conditions will be slightly improved, but become more competitive. Construction is expected to see different speed in recovery according to region and construction type. Domestic power demand will recover by a small margin, but the high operating reserve is expected to limit the profitability improvement of peaking power generation such as LNG generation. In the case of materials, although decent growth momentum is expected, competition will grow fiercer, whereas in the ICT sector, the race to occupy high growth markets such as energy solutions and IoT (Internet of Things) will escalate.

### Strategy for 2015

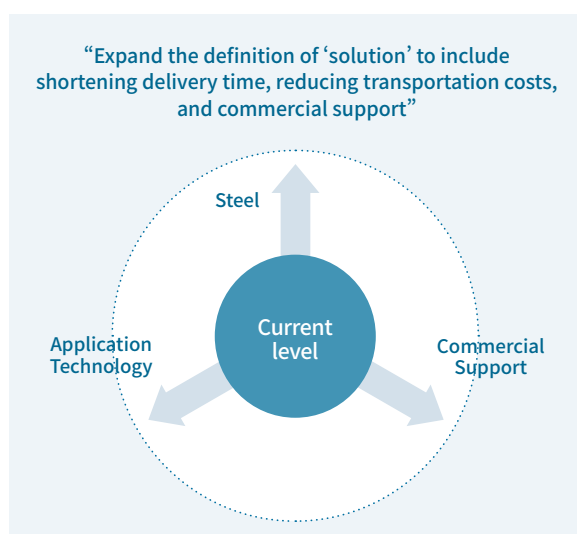
Under these business conditions, we expect the year 2015 to be challenging, requiring further efforts to increase profitability and competitiveness. With the goal of "Creating Financial Performance" which is POSCO's key word for 2015, and as we enter the second year of our three-year plan, we will achieve financial performance through our four core management agendas, making it the year where we take a big step toward reaching our medium-term goal for 2016. Thus, POSCO Group's strategy for 2015 is to enhance our profit structure by expanding solution-based marketing, to speed up the business restructuring process and building a sound financial structure. In addition, we will stabilize the project based working system to increase financial performance, build the foundation for core new growth businesses and further enhance the efficiency and synergy of our group management.

### Strengthening Solution-based Profit Structure

POSCO is accelerating the premium product strategy through solution marketing, which incorporates technology and sales. This was our strategic choice after long and hard consideration of how to ensure long-term survival in an environment, which becomes more and more competitive. In 2015, We will focus our corporate capacity on developing world premium products and providing solution marketing, expand our global solution in-

infrastructure such as technical service centers and solution networks, and provide an evolved form of solution marketing that expands into commercial support. POSCO Family companies that operate mainly on contracts will draw upon POSCO Group's capacities to strengthen their solution marketing by planning and taking initiative in customer-oriented development projects.

### Strengthening Solution-based Revenue Model



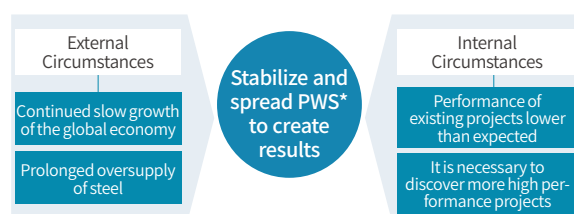
\*Solution is providing application technology together with the steel product, so that the customer can purchase and utilize the steel product more easily.

### Accelerating Business Restructuring

In 2014, POSCO established the master plan for the Group's restructuring and prioritized the sale of non-core businesses and assets that are comparatively easy to sell. In 2015, the company plans on taking fundamental measures including restructuring of businesses that do not contribute to the present or future revenues. In addition, the company is actively enhancing the efficiency of invested capital by reducing working capital such as inventory assets, as well as enforcing the management of off-balance-sheet assets that had been loosely managed.

### Stabilizing and Spreading Project Based Working System

Project based working system is a strategy to bring outstanding results by discovering projects and concentrating managerial resources within a short period in order to improve profitability and reach the financial target. The core of this strategy is to realize the quantitative financial target. We established the principle that the performances achieved shall be compensated in a fair and definite manner. In 2015, we are concentrating our capacities in discovering profitable projects and achieving tangible results at the POSCO Group level so that the project based working system will settle down within the organization as a powerful tool for creating results and as a system that brings win-win for both the company and the employees.



\*Project-based Working System

### Laying the Groundwork for Commercializing Key New Growth Businesses

With the inauguration of the new CEO Kwon Oh-Joon in 2014, POSCO announced that it would continue to cultivate new businesses as engines for future growth through selection and concentration. Selection and concentration means we will concentrate our capabilities on technologies that we have the upper hand in. The lithium extraction technology, for which we completed the phase 3 plant in Argentina and the phase 2 pilot testing for nickel refining in Pohang, will be moved to commercial stage. We will improve the performance and economic viability of the fuel cell technology to build a competitive commercial generation system and strive for early process stabilization of the SNG (substitute natural gas) plant operation that is currently under construction in Gwangyang.

### Enhancing Efficiency and Synergy of Group Management

In 2014, POSCO launched the Value Management Office to function as the Group's corporate center and selected EVA (economic value added) as a key performance index, strengthening target management of POSCO and POSCO Group companies.

In 2015, we plan to further concentrate on enhancing POSCO Group's management efficiency, value and synergy. As for the operation of the industry group system core, Family companies will take leadership and strengthen a cooperating system. We will also operate representative branches by region and block to expand a group-level collaboration and coordination for the group's overseas business.

SUSTAINABLE MANAGEMENT

Sustainability Policies

POSCO defines sustainability to be achieving economic performance based on environmental and social responsibility. POSCO's sustainability policy to meet this goal is to ensure responsible management based on trust with the stakeholders and providing sustainable solutions for the 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 such as society, investors, partners, customers and employees. The Finance and Investment Division, Management Infrastructure Division, Steel Business Division and Steel Production Division continue to communicate with internal and external stakeholders to find ways to enhance stakeholders' value. We will strive to make the result of our continued communication with stakeholders create value that our stakeholders can recognize.

**Responsible Management** As a member of society, POSCO strives to practice responsible management. POSCO strictly adheres to code of conduct, safety and health policies and human rights policies, and tries to ensure that these regulations are compatible with global standards. As such, 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 in domestic and overseas business sites, and support human rights related international 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 covenants on human rights
- ISO 26000 (Guidance on social responsibility)

The core of sustainability management policies



**Providing Sustainable Solutions** POSCO strives to enhance customer value through product development and continuous innovation. Last year, POSCO declared the start of solution marketing that aims 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 brings 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 will contribute to a global sustainable development.

Sustainability Management System

With the aim to systematically execute socially responsible corporate management, we declared sustainability management philosophy that combines economic profitability, environmental soundness and social responsibility, and launched the CSM (Corporate Sustainability Management) Team in 2013. Currently, the Environment and Social Contribution Office within the Finance and Investment Division is responsible for POSCO's overall sustainability management activities. The Environment and Social Contribution Office takes charge of responding to sustainability management evaluation and internal sustainability activities, as well as providing diagnosis and consultation for group affiliates' sustainability management capacities. The result of their activities is reported regularly to the CEO at the annual POSCO Group CEOs' Meeting and Management Meeting.

Sustainability Management Governance



### Sustainability Management Committees

| Category                           | Meeting interval | Chair person                            | 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, representative of SMEs             | POSCO executives, CEOs of subsidiaries, presidents of SMEs         | Establish strategies for shared growth activities, review and share POSCO Family's performance                          |
| CSR Committee                      | Once/year        | Head of Finance and Investment Division | POSCO executives and outside experts                               | Discuss ways to improve social contribution programs, strategic CSR, stakeholder communication, subsidiaries' CSR, etc. |
| POSCO Family Safety Committee      | Twice/year       | Head of Steel Production Division       | POSCO's executive in charge, CEOs of subsidiaries                  | Review safety activities and establish 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   |

### POSCO Subsidiaries CSR Assessment

Since 2011, POSCO has been collaborating with POSRI (POSCO Research Institute) for the assessment of POSCO Subsidiaries's CSR capabilities to enhance their CSR capabilities and for managing non-financial risks such as the environment and society. The assessment checklist adheres to the global sustainability guidelines such as ISO 26000, SAM-DJSI evaluation criteria and GRI guideline, while reflecting the characteristics of each Family company. It is upgraded every year to reflect the CSR trends and changes in the Family companies' business status.

The assessment checklist is comprised of 10 categories (such as CSR leadership, CSR vision and policies, CSR system/culture, customers, investors, and environment) and 61 criteria, and the special criteria that reflect the nature of that particular company's business. The process involves self-assessment and expert inspection & feedback, which are used for each company's improvement activities. The assessment results are reported at the CEOs' meeting.

### POSCO Subsidiaries's CSR Assessment Checklist (10 categories, 61 criteria)

|            |   |   |  |
|------------|---|---|--|
| Structure  | Philosophy of Firm of Endearment  |   |  |
|            | CSR Policy  | Stakeholder Management  |  |
|            | CSR Implementation System   | CSR Leadership  |  |
|            |   |   |  |
| Activities | Performances in 6 Stakeholder Categories  |   |  |
|            | <br>Investor | <br>Customer | <br>Environment |
|            | <br>Partner  | <br>Employee | <br>Society     |
|            |   |   |  |

### POSCO Subsidiaries CSR Assessment Score in 2014

| Year | Number of Assessed Companies | Points (out of 100) |
|------|------------------------------|---------------------|
| 2011 | 8                            | 65                  |
| 2012 | 8                            | 71                  |
| 2013 | 12                           | 76                  |
| 2014 | 11                           | 76                  |

\*Subsidiaries that were assessed in 2014: Daewoo International, POSCO E&C, POSCO ENERGY, POSCO ICT, POSCO CHEMTECH, POSCO M-TECH, POSCO C&C

The assessment target companies were selected according to the company's size, nature of the industry and whether they have overseas operations and each company's priority. The 2014 assessment result shows that existing companies' CSR capacities are steadily growing.

### Plans for 2015

POSCO has been reporting sustainability data such as environment and society of the POSCO Subsidiaries in order to ensure a more objective CSR assessment since 2014. An independent third party, Samil-PwC, conducted data verification. In 2015, sustainability data was evaluated together with the Family companies' CSR assessment.

## MATERIALITY ANALYSIS

POSCO identifies stakeholders' issues of interest and their business impact, which are reported as its sustainability performance. In 2008, POSCO designed its own materiality test process, which is updated every year by reflecting improvements and feedback. POSCO has used the materiality test scheme to identify issues of common interest to its stakeholders and those issues with a high potential impact on its business activities and has prepared this Report based on those findings.

### Improvements compared to the previous year in Materiality Analysis

#### High scoring environmental and social issues were put into case studies

We made case studies of important environmental and social issues in order to provide more detailed information on issues that stakeholders want to know about.

#### Stakeholder opinions were reflected in the materiality test

As with last year, we reflected stakeholder opinions gathered through interviews. For this year, we interviewed not only sustainability experts, but also experts in the fields of environment and social sciences to gather more balanced opinions.

### Top 10 Issues Identified Through the Materiality Test

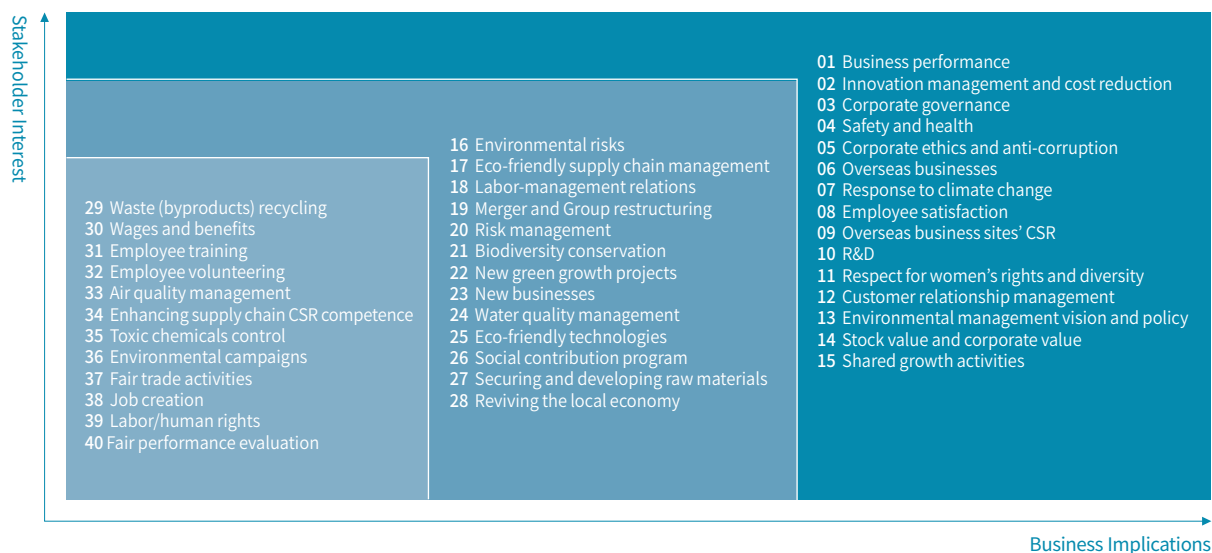
| Rank | Sub-category  | Rank Change | Rank | Sub-category  | Rank Change |
|------|---|-------------|------|---|-------------|
| 1    | Business performance (financial performance such as sales and operating profit) | -           | 6    | Overseas businesses   | ▲ 7         |
| 2    | Innovation management and cost reduction  | ▲ 10        | 7    | Response to climate change                                      | ▼ 1         |
| 3    | Corporate governance (appointment of CEO etc.)                                  | ▼ 1         | 8    | Employee satisfaction (work-life balance)                       | -           |
| 4    | Safety and health (accidents, lost-time injury frequency rate, etc.)            | ▼ 1         | 9    | Overseas business sites' CSR (human rights management)          | ▲ 11        |
| 5    | Corporate ethics and anti-corruption  | ▲ 17        | 10   | R&D (R&D expenditure, achievements, new technology development) | ▼ 5         |

### Materiality Test Process

|   |  |
|---|--|
| <b>1</b> Identifying Internal and External Issues       | <div> <b>Social Issues</b> <ul style="list-style-type: none"> <li>Analyze media, SNS</li> <li>Interview stakeholders</li> <li>Analyze peer group's KPI</li> <li>Sustainability management evaluations: SAM-DJSI, Global 100 etc.</li> <li>Sustainability management guidelines: GRI, ISO 26000 etc.</li> <li>CSR trends, WBCSD vision</li> <li>Suggestions from verification agency of 2014</li> </ul> </div> <div> <b>Business Issues</b> <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> <li>Company policies and guidelines</li> <li>Employee survey</li> </ul> </div>   |
| <b>2</b> Creating Materiality Matrix                    | We created the matrix according to stakeholders' interest and impact on business in order to identify major issues.  |
| <b>3</b> Identifying and Reflecting Main Issues         | We drew material issues from the matrix, added the congregate opinions of internal and external stakeholders, improving our sustainability management reporting method. <div> <b>Internal Stakeholders</b> <ul style="list-style-type: none"> <li>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, Audit Office, Value Management Office and Shared Growth Group</li> </ul> </div> <div> <b>External Stakeholders</b> <ul style="list-style-type: none"> <li>Please refer to the stakeholders' opinion (p. 31)</li> <li>We report on stakeholders' issues of interest through case studies for each sector.</li> </ul> </div> |
| <b>4</b> Verification and Reporting to Management Level | After interviews with management and working-level staff, the assurance provider prepares the assurance report with their opinions on the verification. The report is then briefed to the management level to be reflected in corporate management activities.   |
| <b>5</b> 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.   |



## Materiality Matrix



## Top 5 Material Issues in the Environment and Social Sector

Material issues in the environment and social sectors are described in detail in the Case Studies or the main contents.

### Environment Sector Top 5 Material Issues



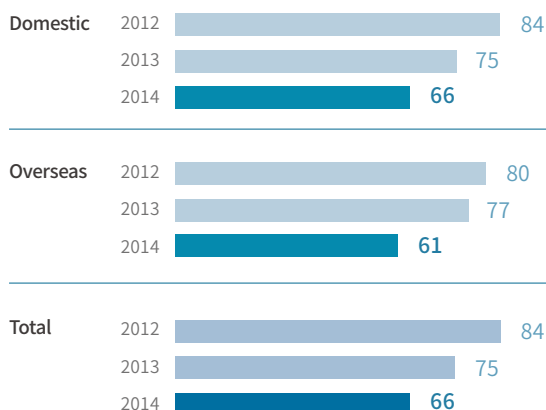
|   |          |
|---|----------|
| ① Response to climate change (greenhouse gas and energy management) | 102 page |
| ② Environmental management vision/policy                            | 94 page  |
| ③ Environmental risk management                                     | 95 page  |
| ④ Eco-friendly supply chain management                              | 95 page  |
| ⑤ Biodiversity conservation   | 100 page |

### Social Sector Top 5 Material Issues



|  |         |
|--|---------|
| ① Safety and health (accidents, lost-time injury frequency rate) | 72 page |
| ② Corporate ethics and anti-corruption                           | 66 page |
| ③ Employee satisfaction (work-life balance)                      | 55 page |
| ④ Overseas business sites' CSR (human rights management)         | 69 page |
| ⑤ Respect for women's rights and diversity                       | 54 page |

## Media Positivity Trends (Unit:%)



\*Positivity: Positive media coverage/total number of articles

### Positive Reports

- World's first RFID technology for thick plates
- Increased market dominance with TWIP steel, energy steel and FINEX processing method
- Venture investments, idea marketplace
- Won the Dongfeng Peugeot-Citroën Automobile (DPCA) Excellent Supplier Award
- Included in the Global 200 for four consecutive years
- Entered the Global 100 at the Davos Forum

### Negative Reports

- Concerns regarding possible delayed profits from Indonesian steel plant
- Gas explosion at Pohang Works leaves five injured
- Decontamination plan briefing held for the phenol leakage accident
- Explosion at Gwangyang Works leaves three injured
- Explosion at Krakatau Steel in Indonesia

# STAKEHOLDERS

## STAKEHOLDER ENGAGEMENT

Based on our understanding that a company's management activities start from the 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.

**Stakeholder Interview** Aside from the stakeholder communication channels, we listen to various stakeholder opinions prior to publishing the Report from socially responsible investors, NGOs, sustainability evaluation institutions and scholars, and reflect them in our Report.

\*For more details please refer to the Stakeholder Interview section (page 31)

**Stakeholder Communication** Since 2011, POSCO has been inviting opinion leaders in the environment sector to hold stakeholder talks with them. At these talks POSCO's executives participate to listen to the valuable opinions of the stakeholders. Through the discussions with stakeholders in the environment sector, we can listen to their opinions on POSCO's role in relation to environmental issues and the ways the issues can be addressed. The participating stakeholders get a chance to better understand POSCO.

\*For more details please refer to the Environment Dialogue section (page 33)

### POSCO's Policies on Stakeholders

#### Charter of Firm of Endearment

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

#### Customer

##### Bring success to the customer

- Satisfy customers with customer-oriented marketing and trust-based relationship.
- Realize customer value by facilitating their competence and competitiveness.
- Advance the ecosystem of the market and accomplish sustainable growth with customers.

#### Employee

##### Practice human respect and encourage self-realization

- Foster employees' abilities and qualities to nurture them into the best talents.
- Offer fair compensation to employees and help them strike a good work-life balance to improve their quality of life.
- Practice human respect as well as encourage employees' growth and self-realization founded on autonomy and trust.

#### Partner

##### Attain shared growth as family

- Ensure fair trade practice through healthy communication and mutual trust.
- Foster competitiveness and growth potential of suppliers via win-win cooperation.
- Establish a virtuous circle of sustainable and inclusive growth to enhance the competitiveness of the ecosystem.

#### Environment

##### Create harmony between humanity and nature

- Foster sustainable environment protection and green environment through low-carbon green growth.
- Lead the greening of industry through raising energy efficiency and developing clean technology.
- Develop new materials and energy sources to improve the ecosystem and promote more eco-friendly lifestyle and culture.

#### Investor

##### Make shareholders proud for investing in POSCO

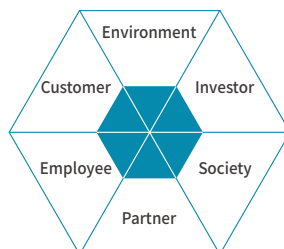
- Built shareholders' trust through transparent management and active communication.
- Protect shareholders' interests by increasing corporate value.
- Increase shareholders' future value through continued growth.

#### Society

##### Serve as a responsible corporate citizen for social development

- Develop the local community and fulfill social responsibilities to contribute to the society.
- Take a leading role in bringing forth a just society in cooperation with civic groups and the government.
- Contribute to creating social value and culture as a free corporate citizen.

## Stakeholder Classification and Communication Channels



| Customer  | Investor   | Society   | Employee  | Partner   | Environment   |
|---|--|---|---|---|---|
| Customers are the life source for POSCO's growth. When customers grow sustainably as a result of POSCO's efforts for value creation, POSCO will grow sustainably too. | Shareholders and investors are the owners of POSCO, providers of capital and long-term partners. | Win-win with the local community where the business site is located is the base for our growth and win-win cooperation with the local community is essential for sustainable development. | POSCO, which was founded in country with scarce natural resources, considers human resources as the most precious resource and the foundation of competitiveness. | The corporate ecosystem will become strong only when partners (suppliers and outsourcing partners) are healthy, and they always play an important role in the long-term competitiveness of the company. | Materials industry including the steel industry is an energy-intensive industry. Without consideration for the environment, sustainable growth would be impossible. |

| Communication Channels  |  |   |   |   |  |
|---|--|---|---|---|--|
| <ul style="list-style-type: none"> <li>Customer Relationship Management (CRM)</li> <li>Customer satisfaction survey</li> <li>Joint research (EVI: early vendor involvement)</li> <li>Exchange meetings (as needed)</li> </ul> | <ul style="list-style-type: none"> <li>CEO forum (annual)</li> <li>Business briefing (quarterly)</li> <li>Public announcement (website)</li> <li>Face-to-face meeting (as needed)</li> <li>Credit rating regular consultation</li> </ul> | <ul style="list-style-type: none"> <li>Pohang / Gwangyang cooperation team</li> <li>POSCO News</li> <li>Corporate image survey</li> <li>NGO Day</li> <li>Interview with sustainability management expert</li> </ul> | <ul style="list-style-type: none"> <li>Labor-Management Council</li> <li>Young Board</li> <li>Employee satisfaction survey</li> <li>PI RI (POSCO's in-house twitter)</li> <li>POSCO&amp; (in-house blog)</li> <li>Management Meeting</li> </ul> | <ul style="list-style-type: none"> <li>Suppliers</li> <li>Supplier Relationship Management (SRM)</li> <li>Shared Growth Conference</li> <li>Information exchange meeting for POSCO Family suppliers</li> <li>Subcontracting partners</li> <li>Department discussion meetings</li> <li>Information exchange meeting</li> </ul> | <ul style="list-style-type: none"> <li>Digital environment watch system</li> <li>Environment Improvement Council (Gwangyang)</li> <li>Environmental information system</li> <li>Iron &amp; Steel Conference</li> <li>Green School with POSCO</li> <li>Carbon Report</li> </ul> |

| Key Issues  |   |   |   |   |   |
|---|---|---|---|---|---|
| <ul style="list-style-type: none"> <li>Enhancing customer satisfaction</li> </ul> | <ul style="list-style-type: none"> <li>Stable governance</li> <li>Increasing corporate value</li> </ul> | <ul style="list-style-type: none"> <li>Enhancing competence of the local community</li> <li>Social contribution activities</li> <li>Cultivating local human talent</li> </ul> | <ul style="list-style-type: none"> <li>Enhancing employee satisfaction</li> <li>Securing talented human resources</li> <li>Fair performance evaluation</li> </ul> | <ul style="list-style-type: none"> <li>Securing stable source of supply</li> <li>Quality improvement</li> </ul> | <ul style="list-style-type: none"> <li>Abiding by the law</li> <li>Developing eco-friendly products</li> <li>Eco-friendly processes</li> <li>Reducing greenhouse gases</li> </ul> |

**Stakeholders at the business location and their involvement activities** The Administration and Liaison Group that is responsible for stakeholder involvement activities in the Pohang area arranges for various exchange and bond-building activities with the local institutions and civic groups to convey correct information about the company and achieve win-win for both the community and the company.

### Main stakeholder groups in Pohang area

- Institutions: parliament members of Nam-gu and Buk-gu, Pohang City, Pohang Chamber of Commerce and Industry, Pohang Branch of Daegu District Court, Pohang District Public Prosecutor's Office
- Civic groups: Brothers of Pohang, Pohang Youth Club, Pohang JCI, Pohang Regional Development Conference, Citizens' Coalition for Economic Justice Pohang Branch

### Activities for main stakeholder groups

- Briefings: Briefing sessions are held as necessary to convey the correct information in the event a company-related issue arises.
- Gatherings: Gatherings with stakeholders are the place to build human networks and to manage relationships (frequency depends on the importance)

## Activities Related to the Local Community (Pohang, Gwangyang)

## 1 Vitalizing the Local Economy

Wages paid to employees and executives, construction orders in Pohang area, and continued investments contribute to vitalizing the local economy.

Construction orders placed with the local construction companies

(Unit: KRW 100 million)

| Category     | 2010  | 2011  | 2012  | 2013  | 2014    |
|--------------|-------|-------|-------|-------|---------|
| Order amount | 3,664 | 2,933 | 2,945 | 1,358 | 1,199   |
| (*Ratio)     | (48%) | (68%) | (51%) | (47%) | (46.4%) |

\*The ratio of orders placed with companies located in the Pohang area out of the total construction order amount.

Amount Invested Local Community (Pohang) Area

Total of KRW 10,759.4 billion  
(2005~2014)

Average Investment (Pohang)

KRW 1,100 billion invested

Investment Budget for 2015

KRW 2,900 billion  
(Investment in Pohang area KRW 960 billion)

## 2 Cultivating Human Talent

With the goal of cultivating human talents in the Pohang and Gwangyang areas, our location of business and provide support for the education of employees' children, we established the POSCO Educational Foundation in 1995 and operate 12 elementary, middle, and high schools.

**Pohang** \_ POSCO High School, Pohang Jecheol Technical High School, POSCO Middle School, Pohang Jecheoldong Elementary School, Pohang Jecheolso 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

## Free Hangul Class support (1994~)

Target: Illiterate persons in the low-income group

No. of people educated: 4,111 (1994~2014)

Sponsor: Pohang YWCA

Contributed amount: KRW 170 million (1994~2014)

## Mentoring for Seniors

Living Alone (2009~)

Target: Forty-six seniors living alone near the steelworks

Activities: Companionship volunteering, grocery shopping, listening to their problems

Visitations: Once a week or more

## 3 Medical Support

## Free Medical Attendance Project (2006~)

Target: The medically vulnerable near the steelworks (seniors, disabled)

Caregivers: Nine (aggregate 163 caregivers)

Recipients: 2,946 (2006~2014)

Providing medical assistance and housekeeping service through visitation

Costs: KRW 2.85 billion (2006~2014)

## 4 Preservation of the Cultural Heritage

We conduct activities to preserve the cultural assets of the region through employee volunteering.

- During the Global Volunteer Week, 230 employees participated in preserving the cultural assets in the Gwangyang region. (12 June 2014)
- Subject: (Gwangyang) Bonggang Ssanguisa (shrine), Okryongsaji (temple site), Jungheungsanseong (mountain fortress), Bongarmsanseong (mountain fortress), Buramsanseong (mountain fortress), Marosanseong (mountain fortress), Gwangyanghyanggyo (Confucian school), Jeong Byeong-Wuk's House (where poet Yun Dong-ju's manuscripts were preserved).

## 5 Building Infrastructure

## Building the POSCO Family Corporate Park

POSCO has been building corporate parks within Gwangyang city's jurisdiction where Gwangyang Works is located since 2008. Until now, 17 POSCO Family companies have participated in building 22 corporate parks, taking a leading role in building a green city of Gwangyang.

- Eleven POSCO Family corporate parks were built
- Major participating institutions: POSCO, POSCO Family (POSCO SNG, Jeonnam Dragons, SNNC, POSCO CHEMTECH), four subcontracting partners (Gwangyang Enterprise, Gwangyang Landscape, Irreco, UNITECH)

## Installation of Solar Generator

POSCO installed solar generators at the homes of the socially disadvantaged to reduce their energy expenditure and supply low-carbon clean energy in the Gwangyang area.

- Discussed selecting the beneficiaries with the local government and installed the solar generator (since March 2015)

## 6 Environment Preservation

## Clean Ocean Volunteer Group – Cleaning the marine ecosystem

The Clean Ocean Volunteer Group was launched in 2009 and has since grown into the biggest POSCO volunteer group with over 700 members from across the company (123 in Gwangyang). They conduct cleanup activities for the marine ecosystems, removing discarded fishing nets, tires and starfish.

| Number of Clean Ocean Volunteer Groups as of 2014 | Number of cleanup volunteering activities | Cleanup performance |
|---|---|---------------------|
| 665   | 303                                       | 1,009               |

\*Performances of Pohang, Gwangyang and Seoul volunteer groups

## Gwangyang Works contributes to alleviating the regional water shortage problem through a desalination facility

In consideration of the water shortage problem of the region, Gwangyang Works chose the seawater desalination technology to produce good-grade water to the new plant. The country's first desalination plant with a daily processing capacity of 30 thousand tons was completed on September 3rd 2014. The industrial water to be supplied to the new plant has to be taken additionally from the Gwangyang area, but the Sueo Dam water is also the source of drinking water for the local residents. In this aspect, obtaining fresh water from seawater is a meaningful contribution to the local community.

## STAKEHOLDER INTERVIEW

POSCO makes the effort to listen to the stakeholders' opinions. Each year as we prepare to publish the Sustainability Report, we listen closely to the opinions of experts from various fields including the environment, society, and socially responsible investment, and we reflect them in POSCO's Sustainability Report.

**Stakeholder involvement** In 2014, we listened to the opinions of domestic and foreign sustainability management experts and NGOs. The individual interviews were conducted together with Samil-PwC, the assurance provider.

### Stakeholder Interview History

|           |  |
|-----------|--|
| 2003~2009 | Survey targeting domestic and overseas stakeholders were conducted   |
| 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)             |
| 2013~2014 | Interviews with domestic and foreign sustainability management experts   |

### Stakeholder Interviewees



1. Ryu, Yeong-Jae CEO, Sustinvest
2. Park, Yoo-Kyung Director, APG
3. Chung, Moo-Sung Vice President, Soongsil Cyber University
4. Yum, Hyung-Cheol Secretary-General, Korean Federation for Environmental Movement

1 2 3 4

**Q** POSCO is to publish its twelfth report this year. What are your opinions on the previous reports?

**A Park, Yoo-Kyung** A sustainability report should explain core issues of the company, not simply list them in department store style. As an investor, I want to know the company's clear direction and KPI regarding sustainability. Also, an investor wants to know detailed information regarding current issues through the report.

**A Yum, Hyung-Cheol** It seems most corporations are using the sustainability report as a promotion tool. Although the reliability of the information contained on the report are verified by third-party verification, the content of the report may seem to be for promotion purposes, which explains some bias on the content of a report. One company that I know of supports a study group comprised of civic groups and stakeholders. The group serves as a medium to share recent information as well as mediating the different stance of the environmental groups, the company and the government. I think it is a good example of sincere communication between stakeholders. In the viewpoint of an NGO, I think it is mutually beneficial because steady communication enhances exchanges with the companies.

**Q** As an investor, how is the sustainability report or sustainability information utilized in making investments?

**A Park, Yoo-Kyung** In the case of APG, we often look at the sustainability report as many stakeholders and pension investors demand it. I consider ESG (Environmental, social and governance) and analyze earnings in various methods when making an investment. Considering ESG differs for every case as well. For example, although it is our principle to avoid investing in coal fired power plants, in the case of developing nations such as India where power shortage is a big impediment to social development, we occasionally allow it. As APG handles pensions, public significance is taken into account when making investments.

**A Ryu, Yeong-Jae** As an evaluator of SRI (socially responsible investment) I don't find it recommendable for sustainability report to contain a lot of information. I think what is important is reporting on important issues of the company.

**Q** What do you think are major issues surrounding POSCO in 2014?

**A Ryu, Yeong-Jae** I think major issues are greenhouse gas, development of lightweight materials, safety (industrial safety) and governance.

**A Yum, Hyung-Cheol** Major issues for POSCO would be the Odisha project in India and the issue of environmental safety.

**Q** Although it has been over 10 years since we started sustainability management, it seems we still have a long road ahead of us.

**A Chung, Moo-Sung** As my field of expertise is social contribution, I will focus on this aspect for the answer. It can be said that in regards to social contribution, there is something special about POSCO. Many companies disclosed information and participated in social contribution early on as per the government's request. Of course, POSCO took part in such a trend. But what is particular of POSCO is that the company implements social contribution projects centering on the local communities where the plants are located. I also appreciate the fact that POSCO was not swayed despite various circumstances and did not stray from its principles. As POSCO is a B2B company, the scope of stakeholder communication may be vague sometimes. I think focusing on human talent cultivation is a good reflection of the company's business type (fostering human resources in engineering and providing support for global activities). In addition, for the contribution to the foundations, while most companies employ direct contribution, majority shareholders' contribution, or a mix of the two, POSCO's 1% Sharing Foundation allows for the direct participation of the employees, which I believe is a unique and desirable model. This is one of the elements that add to the sincerity aspect. Also, I happen to visit Vietnam often to attend events, and POSCO is a good example there. In particular, the steel house project in Myanmar has become famous in the region, and a symbol for a strong, straight image of Korea.

**Q** Recently more companies are voluntarily disclosing their non-financial performances and there is a move to legislate such disclosure. What are thoughts on this trend?

**A Chung, Moo-Sung** Just because some large European economies are expanding mandatory social responsibility requirements doesn't mean that we should blindly follow suit. In Korea, the social contribution expenditure is sufficient and I think we can ease up on that for now. In some aspects, guidelines such as ISO 26000 are a new type of trade barrier against other countries.

**Q** It seems Korean companies' interest in CSV (creating shared value) has grown immensely with Professor Michael Porter's visit to Korea.

**A Chung, Moo-Sung** I don't think it desirable to get too excited about CSV only. As Professor Michael Porter mentioned, CSV is a sub-concept of CSR, not a replacement. The reason for such enthusiastic reaction toward CSV is proof that the direction of CSR within Korea may have been erroneous in some aspects. CSV must not be considered as a means of escaping the government's taxing demands.

**Q** We would like your advice concerning POSCO's sustainability management communication.

**A Ryu, Yeong-Jae** The scope of questions from investors and evaluators is not limited to financial aspects but is expanding to all elements related to a company's values. In order to communicate effectively with investors, there should be a sustainability management expert within the IR division.

**A Park, Yoo-Kyung** The Odisha project of POSCO India was wanting in the early communication strategy, and thus was not able to respond appropriately to the risk that could have been avoided. A strategy on how to communicate with stakeholders such as investors and NGOs, and the management's sincere commitment to adhere to the strategy are important. Also, the company's R&R in the aspect of sustainability management should be made clear in order to ensure close communication with the stakeholders.

**A Yum, Hyung-Cheol** I think there was a problem of communication with the NGOs for the Odisha project. Trust should be built with the stakeholders in order to communicate effectively. The civic groups' method of responding to issues may be provocative at times, but this is aimed at drawing out action from the company and this problem can be resolved by enhancing communication with each other.

**Q** Are there any last words or advice for POSCO?

**A Ryu, Yeong-Jae** Professor Ahn Byeong-Hun at KAIST said, "In the future, the word 'responsible' in socially responsible investment will disappear. This is because responsibility is an integral part of investment." I agree with him. Corporate management should be based on sustainability, and a corporation can exist in the long term only when there is communication with the stakeholders. External emphasis on sustainability management is only an excuse for companies, with no real contribution to enhancing the company's value. A truly sustainable company sincerely pursues the fundamental business of the supply chain.

**A Chung, Moo-Sung** My frequent visits to Vietnam help me understand the role of multinationals including POSCO. As young Koreans find it harder to find jobs within the country, they have look outside the border. If they get to experience first-hand the developing economies before getting a job, I believe they will understand the need for coexistence. In this sense, I hope POSCO will focus on cultivating global human talents.



## ENVIRONMENT DIALOGUE

Since 2011, POSCO has been inviting opinion leaders in the environment sector (Government, NGO, & Academia) to the Environment Dialogue under the theme of the corporations' role in environmental issues.



### [Subject of Stakeholder Dialogue]

- 2011. 6. 24 Low-carbon, green growth and the role of business corporations
- 2012. 5. 30 The age of the green economy and the role of business corporations
- 2013. 6. 03 Environmental welfare and the role of business

For past Stakeholder Dialogues, please refer to p48, [http://www.posco.co.kr/homepage/docs/kor3/dn/sustain/environ/POSCO\\_2013CarbonReport\\_kor.pdf](http://www.posco.co.kr/homepage/docs/kor3/dn/sustain/environ/POSCO_2013CarbonReport_kor.pdf)

### [Panelists]

**Lee, Seung-Hun** Chairman, Committee on Green Growth  
**Han, Hwa-Jin** Vice President, Korea Environment Institute  
**Noh, Jong-Hwan** Vice President, KHAN E&E and Ilshin  
**Cho, Young Tak** Professor, Hanbat National University

### [Host]

**Lee, Young-Hoon** Senior Executive Vice President of POSCO

On November 13th, 2014, POSCO held the 2014 POSCO Environment Dialogue under the theme of "The trend of the global energy market, the government's changing energy policy and the role of business corporations" at the POSCO Center. At the Dialogue, four opinion leaders in the environmental sector representing the government, research institute, academia and industry, discussed the trend of the energy market, changes in the government's energy policies and the roles of business corporations.

**Q Lee, Young-Hoon (Host)** The theme we will talk about today is "The trend of the global energy market, the government's changing energy policy and the role of business corporations." First, with the emergence of shale gas, we can sense great changes to come into the energy market. Please tell us how the energy sector is changing and what we should prepare for in the aspect of energy supply and demand.

**A Cho, Young-Tak** The International Energy Agency once mentioned the 21st century will be the "Golden age of gas," with shale gas in mind. There are two conditions to this. Currently shale gas development is lead by the United States and it is difficult to expect a global increase in supply. Also, since it requires a large amount of water, it affects the environment. So, although we must not get our hopes up too high for shale gas, it will definitely change the international energy market.

First, the chances are high that shale gas will change the power generation sector. In particular, after the Fukushima disaster, concerns about nuclear energy increased. There is a high possibility that shale gas will gain more attention as an alternative that will fill the void of nuclear power and as a means for greenhouse gas reduction by replacing coal. It can also technically supplement the non-continuity of solar or wind power. Through this process, shale gas will be the stepping-stone that connects fossil and nuclear energy with renewable energy.

Meanwhile, as Korea imports gas according to a medium to long-term plan, we will not see it immediately affecting the Korean market. But if shale gas contributes to stabilizing oil prices, gas prices that are linked with oil prices will fall as well and we will be able to import gas on favorable terms. This poses an opportunity for us to consider using gas as a stepping-stone in our energy policy. On the other hand, there is also the possibility that the gas and chemical industry in the United States may cause shrinking of the Korean petrochemicals industry, which in turn can lead to lower energy demand, so preparation is of utmost concern.

**A Noh, Jong-Hwan** I think there is still room for debate on whether shale gas has the potential to become the eye of a typhoon. This is because shale gas development has environmental problems to address. After about a year's drilling, the production amount drops drastically. In other words, it gushes out at once and diminishes quickly, making it difficult to continue stable supply.

In order to solve global warming, a fundamental approach such as developing new and renewable energy is necessary, and there are some who are concerned that shale gas will cause these investments to be postponed or delayed. It may seem all right at the moment, but we might regret it after 10 years, saying, "We should have invested in renewable energy back then."

■ **A Han, Hwa-Jin** Some issues related to shale gas development include the destruction of land caused when drilling many holes and if chemicals are used with the water that is used to drill the gas can cause pollution. I believe the U.S. government is aware of these problems and is examining regulations.

■ **A Lee, Seung-Hun** The fact that an energy source acts as the central axis of an era means that all tools for living are greatly dependent on that energy. If the energy source is depleted many equipment used in everyday life and industry would become unusable, greatly impacting the lives of the people. It is natural that the move from one energy source to another meets with incredible resistance. I expect that for a while, renewable energy and oil will compete with each other. Even when the threat of climate change is great, it would be hard for new energy to completely replace oil. Renewable energy will replace fossil fuel, but gas will be used together with renewable energy. If the demand to address the climate change issue becomes stronger and renewable energy price goes down, in the long-term, I think oil prices will stabilize.

■ **Q Host** Early this year the government announced the Second National Energy Plan and also seems to be giving significant weight to related policies. Will there be any energy security issues for Korea? Please explain the essentials of the energy plan.

■ **A Lee, Seung-Hun** In terms of energy, Korea is totally dependent on other countries. In other words, most of the energy sources are imported into the country. However, solar and wind are resources that we have too. If we could get energy from the sunlight and blowing wind, nothing would be better. One of the strengths of renewable energy is that it does not incur variable costs; meaning operation costs are close to none. Therefore, if we focus on developing technology with a long view to lowering installation costs, even if it lacks profitability for the short term, it will be possible to achieve some degree of energy independence through renewable energy.

■ **A Cho, Young-Tak** When the RPS (renewable portfolio standard) was introduced through the "Fifth Basic Plan of Long Term Electricity Supply and Demand," I thought that maybe the target for wind power was set too high. When establishing the Sixth Plan, I looked at the implementation results for the Fifth Plan, and found that only one-fifth of the target had been achieved. Although wind power is a viable resource, it is true that it causes a lot of civil complaints because of the destruction of ecosystems and noise. The remaining solution is offshore wind power. The offshore wind power generation still has many hurdles to overcome, such as high installation and operation costs, but since Korea is on a peninsula, it is worth giving our best effort.

■ **A Han, Hwa-Jin** The production, consumption and development of energy, be it thermal or renewable power, entails various environmental issues such as greenhouse gas emission, air pollution, safety and social acceptability related to location. Energy and environment cannot be separated, which means we must look at environment in the win-win perspective – in other words with the view of sustainable energy.

■ **Q Host** When talking about energy, it always overlaps with the issue of the environment. Nuclear, fossil, and even shale gas is no exception. It seems in order for renewable energy to become a perfect solution there are still some issues to be solved. What should we do to solve the issues of energy and environment at the same time?

I think it is important to enhance energy efficiency and expand renewable energy supply if we are to solve the issues of energy and environment at the same time. Also, the government should implement consistent and predictable policies so that the civilian and corporate sector can plan ahead. In this sense, direct regulations on transportation or building, which have low price flexibility, could be effective. Inevitably, we should manage energy demand in areas where policies will be more effective.

■ **A Noh, Jong-Hwan** Energy policy should be looked at with a long view. There can be no solutions if we only look at the short-term results. Renewable energy is a good example. We should not stop technology development and investments within a short time period due to this or that reason, when in fact both should be undertaken consistently and simultaneously. We must be aware that energy is security.

■ **A Cho, Young-Tak** In Korea, electricity rates are abnormally low and the gap with renewable energy is big. The reason renewable energy is expanding rapidly in Germany is because the burden of introducing renewable energy is low. The electricity rates should be made realistic and installation costs for renewable energy should be reduced through various financing (financial support) programs.

**Q Host** Energy and environment are tasks to be solved not only for the government but for corporations as well. What are the issues that the industrial sector should pay attention to and play a role in?

**A Noh, Jong-Hwan** Businesses are facing the problem of having to contribute to the virtuous cycle of society through sustainable development, as well as making profit in the process. Corporations should think hard on what is needed at this time and what they should do. In other words, they should think what to do at a time when the environment including the climate change convention is an issue, in order for them to continue to exist.

As the environment has already changed, it is necessary to optimize accordingly. We don't have to talk about the past. This is because the environment has changed. The Stone Age or Bronze Age did not end because stone and bronze were depleted.

The same applies when addressing the energy issue. We cannot think that the energy system will change from the age of oil because we ran out of oil. The only way to solve the climate change issue is through technology. The evolution and change of technology have led to fundamental changes. The problem is that the Bronze Age was simple and easy to see, but not so much nowadays. As technology is divided and manifests in various forms, how well corporations develop those technologies will decide whether they can continue to grow sustainably into the next generation.

**A Cho, Young-Tak** Considering Korea's transmission network, dispersed self-generation located near demand centers is very important. Only a decade ago, the self-generation rate of Korea and Japan were similar, but since then, while Korea's self-generation rate steadily declined (4 percent), Japan's self-generation rate increased (approximately 20 percent). Self-generation rate in Korea decreased because electricity rates are too low. In order to solve the transmission network issue and stabilize the national supply and demand, we should increase the rate of dispersed renewable power generation.

**Q Host** Let's narrow down the subject a bit to electricity. While electricity demand in the future is expected to rise with electric vehicles and what not, there are also opinions that electricity prices should be raised to reduce electricity consumption. It seems the viewpoint on electricity vary according to each sector. Please give us your opinion in the supply and demand perspective.

**A Lee, Seung-Hun** Electricity rates will keep rising. This is because if the current rates are maintained, the government will no longer be able to handle it. I think we need a dispersed power policy. In the past, electricity demand forecast was necessary for KEPCO to supply electricity. If dispersed power generation is realized, demands that do need to be estimated will increase greatly, such as the energy zero buildings and micro grids on isolated islands. The master plan should be established with policy moving away from the government-led central power supply to dispersed power generation where consumers produce their own electricity.

**Q Host** Korean manufacturers are having a hard time in the global economic recession. I thank you for your visit to POSCO, and would like to hear your thoughts or advice for POSCO, the country's representative steel producer.

**A Lee, Seung-Hun** We may be entering a time when if you start a business, you will surely go bankrupt, as was once true. Hostile waters on all sides surround us. There is a phrase in Lao Tzu's, Tao Te Ching, which is "Do the difficult things while they are easy and do the great things while they are small." We must start with the easy things. I understand POSCO is a company that uses a lot of energy, but has also put much effort into energy conservation and is an expert in energy. I expect POSCO will set the right direction and solve the energy issue wisely.

**A Han, Hwa-Jin** I understand that POSCO is trying hard in the given circumstances and is implementing green management. POSCO should carefully analyze external changes such as the greenhouse gas reduction announcement from the U.S. and China, and respond wisely. I think the company should discover a next-generation staple such as FINEX that can guarantee the company's future.

**A Lee, Seung-Hun** POSCO's business is energy intensive with a high burden of greenhouse gas emission. Thus, communication activities with stakeholders such as the sustainability report or the book that Eagle-Owl published in collaboration with an NGO are important. At a time when the traditional energy and steel environment is changing, POSCO should deeply consider what to strive for. No one else can answer that. An answer that is already known cannot become a staple. You should look with insight. This is the outline of the age of climate change that we live in.

**A Cho, Young-Tak** POSCO's growth into a global steelmaker founded upon the philosophy of patriotism through steel is a valuable asset of the country. The way POSCO can overcome the risks such as global recession and environmental regulations is to heighten the value of its products while enhancing energy efficiency as if wringing water out of a dry towel.

## MARKETING

## SOLUTION MARKETING

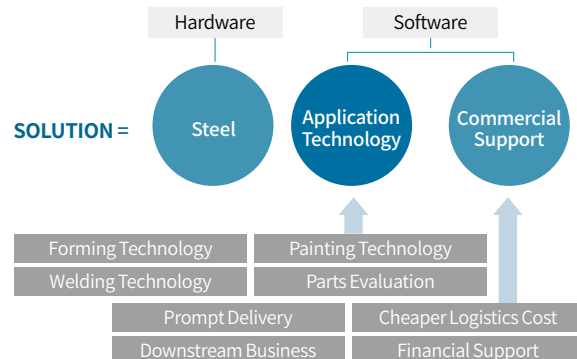
Even good quality steel products cannot be chosen by customers if they are uneconomical, or inconvenient for consumption. POSCO pursues Solution Marketing which provides not only hardware - "top performance steel products" - but also accompanying software - "application technology" and "commercial support," so that the customer can use POSCO's products more easily and economically.

**Background for Introducing Solution Marketing** Since 2007, POSCO has been undertaking the EVI (early vendor involvement) activity, whereby the company participates in the customer's product development stages, providing support in performance evaluation of the steel material and a variety of application technologies needed for the product manufacturing. For the purpose of maintaining its competitiveness in an ever more competitive market, POSCO began the full fledged implementation of Solution Marketing in 2014, which is an advanced form of EVI. Solution Marketing is in context with the conventional value com-

petition activity in that it provides differentiated value to the customers by satisfying their potential needs. POSCO launched Solution Center, composed of large research manpower under the Steel Business Division, in order to successfully implement Solution Marketing. Solution Center is where systematic solutions are developed and provided to the customers.

**Solution Marketing, Together with the Customer** POSCO held the Global EVI Forum under the theme of "From Steel Supplier, to Solution Partner," to explain solution marketing to more customers and strengthen the partnership between POSCO and its customers. At the event, CEO of POSCO introduced Solution Marketing to over 1,200 participants from more than 500 client companies, including domestic automakers, shipbuilders and home appliance manufacturers, as well as global companies such as Volkswagen and Nissan. Here, he delivered the message that POSCO will contribute to its customers' success and advancement by providing differentiated solutions. This event also provided an opportunity for POSCO to materialize the results of Solution Marketing by enabling the initiation of over a hundred technology co-operations and sales agreements with its customers.

### Solution Marketing Concept



**Major Performances in Solution Marketing by Industry Sector** POSCO has a differentiated competitiveness where the company provides a total solution that encompasses the development of high quality steel products, application technology and commercial support. POSCO will devote enterprise-wide competencies to further advance solution marketing, enhance the company's profitability and competitiveness, as well as achieve shared growth with the customers.

### Construction Sector

Mega truss structure solution



In Dongdaegu Transit Center project which is to be completed in 2016, POSCO participated in a bid for the whole structural steel order. By providing solutions of concrete composite structure with high strength steel of HSA800 and its welding technique of mega truss connection, POSCO won the bid and received an order of 35,000 tons of the structural steel. The customer was able to improve constructability and saved construction costs. The solution brought win-win benefits on both the customer and POSCO, and it became a representative solution marketing case.

### Shipbuilding Sector

Brittle fracture prevention solution for the welding zone in the hull



With the trend of container ships becoming larger in size, the International Association of Classification Societies installed regulations that mandate brittle fracture prevention design in order to secure safety against brittle fracture of the hull. The new regulation is to be applied to all ships that are contracted as from 2014. POSCO proactively developed 3 types of welding zone brittle fracture prevention solutions and presented them to the shipbuilding companies, securing differentiated competitiveness in thick plates for shipbuilding. POSCO expect sales to pick up beginning from 2015.

### Automobile Sector

Weight-saving solution



At the Paris Motor Show, held on October 2014, the 1-liter car (highly efficient, eco-friendly car that uses 1 liter of fuel per 100 km) EOLAB, gained much attention from the media. EOLAB is a concept car designed by Renault under the motto of best fuel efficiency and it employs various innovative technologies such as weight reduction. POSCO was the only steelmaker to participate in the development of EOLAB and provided solutions needed to realize the lightweight car body, where it greatly contributed to reducing the weight by approximately 30 percent.

## Enhanced Sales Competitiveness through Customer Satisfaction Survey on 7 Strategic Industries.

POSCO conducts a customer satisfaction survey each year to listen to customers' opinions on POSCO's products and services, improvements to be made and to enhance customer value creation activities.

For the survey conducted in 2014, which is the beginning year of "POSCO the Great," the survey method and questions were modified significantly. First, until 2013, the survey was comprehensive, but in 2014 the survey focused on customers in POSCO's 7 strategic industries – energy, shipbuilding and marine engineering, electric vehicle, high carbon steel wire rod, steel building material, and STS – and the questions were redesigned to focus on the customers, while also adding questions regarding solution marketing.

The 2014 survey was conducted between July and November, using the questionnaire and visitation interviews. Survey analysis results showed that domestic customers rated POSCO higher compared to other competitors, but overseas customers rated POSCO at similar level with competitors. In addition, both domestic and overseas customers both answered they have high demand for POSCO's solution marketing to enhance their competitiveness.

POSCO will turn the 180 customer needs identified through the 2014 satisfaction survey into tasks and concentrate on making improvements, through which POSCO will enhance its sales competitiveness and shared growth with the customers. In addition, the 2015 survey will be conducted in the same manner as that of 2014 that focused on the 7 strategic industries and will continue its efforts to listen closely to the customer's voice and discover their needs and improve them.

### Customer Satisfaction Index

(Out of 100 points)

| Category | 2011 | 2012 | 2013 | 2014 |
|----------|------|------|------|------|
| Combined | 86   | 85   | 84   | 79   |
| Domestic | 91   | 88   | 88   | 84   |
| Overseas | 81   | 81   | 79   | 74   |

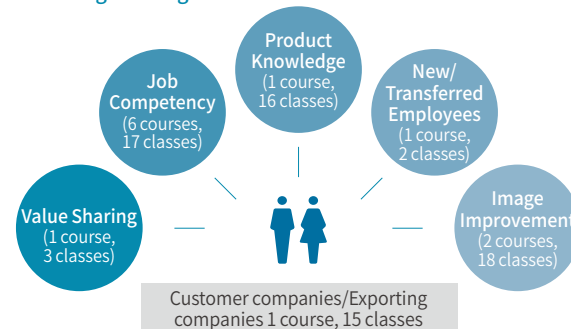
\*2014 Target: 80

## Marketing Training to Enhance Customer Value

POSCO built the training department within the Steel Business Division to enhance customer satisfaction and value. The training department coordinated 13 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 2014, the training provided was a one-time only event that did not consider the knowledge level and experience of the employees, and was limited in fully developing employees' competency. In order to remedy this, the product knowledge program was divided into three courses (basic, in-depth, and field OJT) in 2015 for short continued service employees of less than three years so that they can immediately utilize their training at the job. For employees holding posts, the courses on strategy/tactics, sales knowhow and special lectures, both internal and external, were offered so that all trainees, including general staff to management level executives, can share the head office's strategy and heighten the sense of crisis. Therefore, directly contribute to increasing sales and creating value.

### Marketing Training in 2014



## CASE STUDY

### Customer Information Security

In September 2014, POSCO acquired the ISMS (Information Security Management System) certification for service operation of "e-Sales," which is the online steel sales website, for the first time within the steel industry. ISMS is the certification system operated by the Ministry of Science, ICT and Future Planning to improve the security and reliability of information assets, while the Korea Internet & Security Agency conducts objective evaluation prior to granting the certification. Through the ISMS certification, POSCO's information security will be recognized externally and customers will use the information service knowing their information is secure. Meanwhile, POSCO had also won the grand prize at the Information Security Awards hosted by the Korea Communications Commission in 2012. POSCO is now preparing for the PIPL (Personal Information Protection Level) certification hosted by the Ministry of Government Administration and Home Affairs.

### Training Course Details

Total of 13 courses,  
71 Classes/year

- ❶ Product knowledge: knowledge of related products, ordering items, technical terms
- ❷ Job competency: process of receiving orders, sales & production, logistics, strategies
- ❸ Value sharing: executives' sales knowhow, understanding solution marketing
- ❹ Image enhancement: image enhancement and enhancing brand value
- ❺ New/transferred employees: organizational structure of the divisions, introduction to main work tasks
- ❻ Customer companies/exporting companies are invited to training program at the steel works.



# POSCO PRODUCTS

## Hot-rolled Steel

Major applications: pipes, structural steel, automotive frames/wheels, containers

Hot-rolled products include the hot-rolled steel in coil form, which is formed out of hot strip mills, and the hot-rolled sheet, which is made by cutting the hot-rolled steel. POSCO manufactures products using latest equipment and technology, controls all the processes by the computer to produce products that meet the customers' requirements and operates fully-automated facilities to enhance precision and quality characteristics of its products.

Types and uses for hot-rolled steel <http://www.posco.co.kr/homepage/docs/kor3/html/product/info/s91e3000010c.jsp>

## Steel Plates

Major applications: ships, large structures, bridges, etc.

Plate products generally refer to thick steel plates with a thickness of 6mm or more, which are manufactured in the form of plates, unlike hot-rolled or cold-rolled steel that are in the shape of tissue rolls. While they are mainly used for vessels, bridges, large structures and shipbuilding plates, usage also includes a wide variety of special applications such as extremely low-temperature containers, industrial machinery and military equipment. POSCO is focusing on developing production technology for welding construction, offshore structures, pressure containers and thick plates for extremely cold weather in order to meet the advanced industrial demands.

Types and uses for steel plates <http://www.posco.co.kr/homepage/docs/kor3/html/product/info/s91e4000010c.jsp>

## Wire Rods

Major applications: bridge wire, tire cord, spring, architectural structures, etc.

Wire rod products are produced in thin and long shapes. They are divided into general and special steel. General steel is used to produce general wire rods that are used in daily life, like screws and nails, and special wire rods, which are used in the manufacturing of cars, bridges, machinery, submarine cables, etc. Special steel is used to produce bolts/nuts for automobiles, high-strength bolts for construction and tire cords. We are developing high-end products that can meet the demand for high strength and lightweight products.

Types and uses for wire rods <http://www.posco.co.kr/homepage/docs/kor3/html/product/info/s91e5000010c.jsp>

## Titanium Products

POSCO combines the world's top production technology in the steel and stainless sector to produce the highest quality titanium products.

Types and uses for titanium steel <http://www.posco.co.kr/homepage/docs/kor3/html/product/info/s91e1000010c.jsp>

## Cold-rolled Steel

Major applications: automotive sheets, high-end home appliances, metal equipment, etc.

Cold-rolled steel is produced by rolling hot-rolled materials at a low temperature. Its high-quality surface finish and formability make cold rolled steel ideal materials for a wide range of products, from home appliances such as refrigerators and washing machines, to cars, industrial machinery and various construction materials. Generating new demand such as steel cans and steel houses is making cold-rolled steel a high value added product.

Types and uses for cold-rolled steel <http://www.posco.co.kr/homepage/docs/kor3/html/product/info/s91e6000010c.jsp>

## Hot Dip Galvanized Steel

Major applications: home appliances, coated sheet materials, pipes, etc.

The surface of the cold-rolled coil is cleaned and annealed before being dipped in a bath of molten zinc, coating the metal with a layer of zinc. It is used for automobiles, electric equipment, civil engineering and construction, and has outstanding corrosion resistance, formability and paintability.

Types and uses for hot dip galvanized steel <http://www.posco.co.kr/homepage/docs/kor3/html/product/info/s91e9000010c.jsp>

## Electro-galvanized Steel

Major applications: slight forming such as flat forming or roll forming, bending, etc.

The surface of the cold-rolled and annealed sheet goes through electroplating. In addition to using Pure Zn, alloys such as Zn-Fe and Zn-Ni can also be used. When post-treated such as phosphate and fingerprint resistance, it can be applied to home appliances and automobiles.

Types and uses for electro-galvanized steel <http://www.posco.co.kr/homepage/docs/kor3/html/product/info/s91e2000010c.jsp>

## Electrical Steel Sheets

Major applications: transformers, motors, power generators, etc.

These are products with high electromagnetic properties. Electrical steel is in greater demand as the need for clean energy grows to conserve energy and prevent environmental degradation. Electrical steel products are divided into grain-oriented and non-oriented steel depending on the rolling direction. They are mainly used as cores for electric or electronic products.

Types and uses for Electrical steel plates <http://www.posco.co.kr/homepage/docs/kor3/html/product/info/s91e7000010c.jsp>

## Automotive materials

POSCO supplies automotive materials not only for domestic automakers but also car companies around the world including Japan, Americas and Europe. POSCO's automotive materials have excellent properties in hardness, machinability, weldability, corrosion resistance, formability, paintability and gloss, according to the part being applied to, making them appropriate for the function or surface requirement of each part. POSCO maintains a strong position as a global top automotive materials manufacturer by producing high quality products that undergo strict quality assurance, technology development, solution providing, and close relationship with the customer.

Types and uses for automotive materials <http://www.posco.co.kr/homepage/docs/kor3/html/product/info/s91e0100010c.jsp>

## Stainless Steel

Major applications: kitchenware, medical devices, building interiors/exterior, automotive parts, etc.

Stainless is special steel, which has a nice sheen and is resistant to corrosion. It is a high value added product with various applications without requiring extra treatment. Stainless steel is mainly used in automotive piping, kitchenware, and electronic devices. Ever since it was used in the construction of Incheon International Airport and the Seoul World Cup Stadium, its popularity as a material for building exterior walls and roofs has been rising.

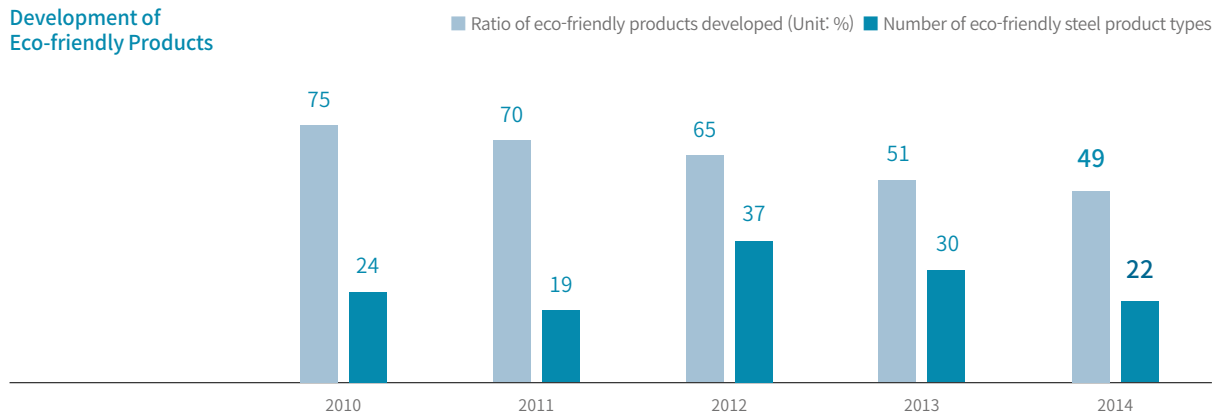
Types and uses for stainless steel <http://www.posco.co.kr/homepage/docs/kor3/html/product/info/s91e8000010c.jsp>



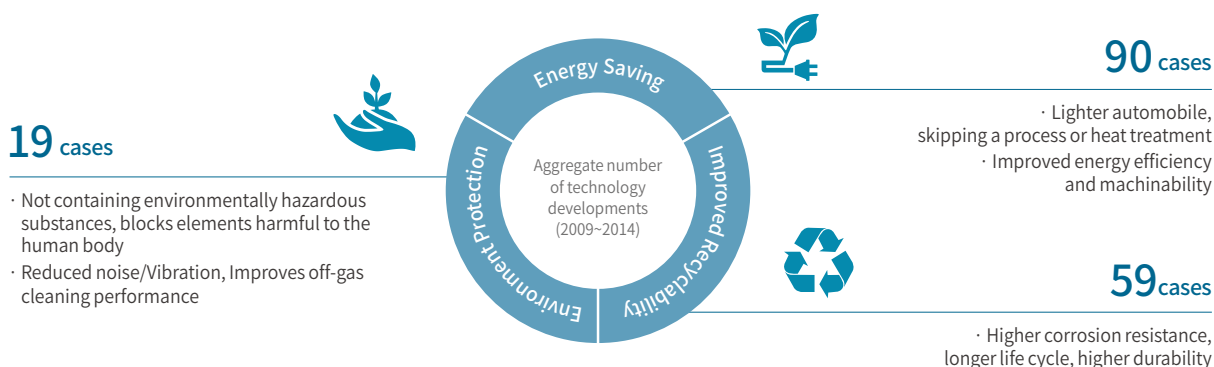
## ECO-FRIENDLY PRODUCT

In 2014, the number of eco-friendly products took up 49 percent of all new products developed and the number of eco-friendly steel product types was 22.

### Development of Eco-friendly Products



### Types of Eco-friendly Product Development



### Eco-friendly Product Categories

|  |  |
|--|--|
| <b>1 High-performance hot-rolled steel</b> <ul style="list-style-type: none"> <li>Alclad heat resisting steel for radiators</li> <li>Seawater corrosion resistant steel, POSEIDON500</li> <li>Sour resistance guarantee below API X42</li> </ul>           | <b>5 High efficiency electrical steel sheets</b> <ul style="list-style-type: none"> <li>35PNT650Y for eco-friendly vehicle</li> <li>50PNH300 high efficiency compressor</li> </ul>   |
| <b>2 Thick plate for energy industry</b> <ul style="list-style-type: none"> <li>E500-TM(50t) for LNG carriers</li> <li>Sour resistance X65(50.4t) PWHT</li> </ul>  | <b>6 Making lighter vehicles</b> <ul style="list-style-type: none"> <li>490 MPa grade dual phase steel sheet for automobile GA outer panel</li> <li>Automobile CR reinforcement 1,180 MPa grade transformation induced plasticity steel sheet</li> <li>Automobile GA reinforcement 1,180 MPa grade transformation induced plasticity steel sheet</li> <li>900 MPa grade tensile strength TWIP sheet for automotive PO wheel disk</li> <li>1,300 MPa grade tensile strength Martensite sheet for automotive GI reinforcement</li> <li>1,800 MPa grade post heat treatment sheet for automotive PO stabilizer bar</li> </ul> |
| <b>3 Wire rods</b> <ul style="list-style-type: none"> <li>8T grade(80kg) microalloyed steel for automobile steering part</li> <li>6T grade(60kg) microalloyed steel for automobile steering part (PosNH6)</li> </ul>                                       | <b>7 STS</b> <ul style="list-style-type: none"> <li>1.4828 (poStrip) for automotive bellows</li> <li>POS-SD for replacing general-use 304</li> <li>S31803 for radiator</li> </ul>  |
| <b>4 High performance cold-rolled steel</b> <ul style="list-style-type: none"> <li>FCW welding rod for binding CR cold-rolled special steel</li> <li>CR base PosMAC high-strength steel</li> <li>Process skip type slide rail for CR re-rolling</li> </ul> |  |

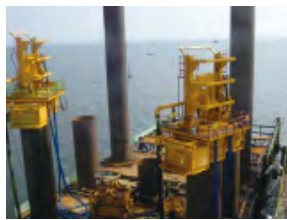
**POSEIDON500 – High seawater corrosion resistant steel**

High seawater corrosion resistant steel has high resistance against salinity (Cl component), and is mainly used for marine structures such as steel sheet piles, steel pipe piles and port facilities. Alloy elements such as chromium, copper, nickel and phosphorus are concentrated on the surface to slow down the speed of corrosion. Furthermore, it becomes resistant to seawater environment, especially for splash zones. The corrosion resistance of POSEIDON500 reduces the corrosion rate and its high strength (YS 380 MPa or higher) reduces thickness, making it a more economical and durable product. POSEIDON500 has been undergoing long-term exposure tests at three locations (Pohang, Gwangyang, Sihwa) since 2010 and it has been proven that the product's corrosion resistance is 40 percent higher than ordinary steel. Seawater corrosion resistant steel loses less rust scale to the water, which is a pollutant, and is thus eco-friendly in itself. It is also often used for shielding against pollutants for this characteristic.

POSEIDON500's formability was already verified at the field as U-shape and Z-shape sheet pile. HSM500, STKM500 and SKK500 are registered in the KS (Korean Industrial Standard) corresponding to the standard D 3003, D 3300 and F4602. POSCO plans to develop the world's top quality seawater corrosion resistant steel such as POSEIDON600 and further strengthen the low-temperature impact guarantee by building a brand for eco-friendly seawater resistant steel.



Steel sheet pile



Foundation for sea bridge



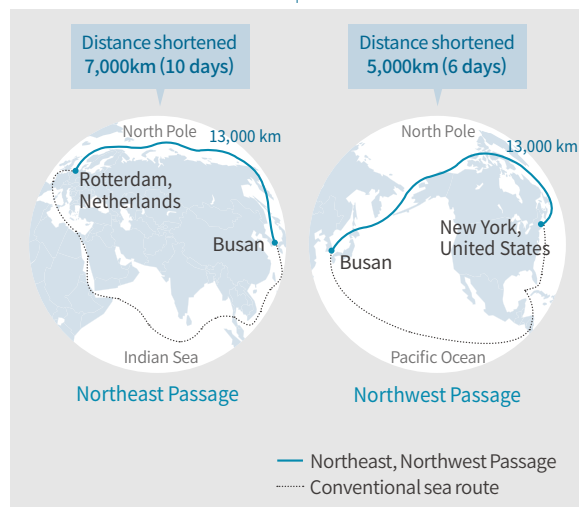
Port structure

**E500-TM – Steel applied to the first ice-class LNG carrier's ice belt zone**

Defining polar shipping lanes is being actively pursued with the purpose of energy conservation and shortening transportation period by developing shorter sea routes. A large-scale LNG project was perceived in the Yamal region of Russia. This project involves building a total of 15 LNG carriers, each requiring 32 thousand tons of steel materials. For the E500 steel that is used at the ice-breaking part, each carrier will require 7 thousand tons.

The E500 has to break through ice 2~3 meters in thickness, thus requires very strict steel properties. The base metal must guarantee low-temperature impact toughness at -40°C (criteria: 1/2t, 50J). POSCO's product has low-temperature toughness that is 9 times higher than standard. The base metal CTOD (criteria: 0.25) of POSCO's product is 10 times higher at 2.85, thus acquiring the Russian Maritime Register of Shipping certification. Based on this certification, POSCO delivered steel materials for the first ice-class LNG carrier in 2014, accumulated steel supply record and will supply steel material for the remaining 14 carriers based on a blanket order.

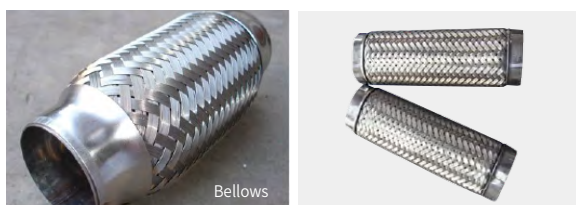
Distance is saved by more than 30% when using polar sea routes.



### STS EN1.4828 steel for automotive exhaust bellows



The world's demand for STS exhaust systems is 2 million tons and is on the rise every year. As guarantee period increases, the need for high performance engine, high fuel efficiency and weight saving rises as well. In addition, the Euro 6 is strengthening environmental regulation on exhaust bellows. Automakers are speeding up the development of materials for higher engine performance, using more high-Cr 400 series. The EN1.4828, developed by POSCO, is a heat resistant metal with 20Cr-11Ni-2Si, containing silicon, with excellent material properties in oxidation resistance, heat fatigue resistance and high-temperature salt resistance. In particular, it is used in the bellows, which is situated between the exhaust manifold and converter, and has the function of engine noise reduction, vibration absorption and thermal expansion compensation. Specifically, EN1.4828 steel is applied to the inner sleeve, protecting the flexible from hot exhaust gas. In the future, POSCO will develop steel materials such as DPF, SCR and EGR to reduce exhaust gas CO<sub>2</sub>, actively responding to the demand for environmentally friendly component materials.



### CR for slide rail that skips re-rolling



All drawers in furniture and home appliances such as desks, washing machines and ovens use steel slide rails. Slide rails must comply with strict requirements in strength for smooth movement and safe usage, roughness for lowering friction factor with the bearing and machinability for manufacturing. Existing slide rail steel was made by re-rolling PO products to increase strength and roughness. This process is costly and needs resources due to the long processing time and frequent transportation of materials. POSCO developed the cold-rolled CR steel material that can skip the re-rolling process to reduce production cost and CO<sub>2</sub> emissions from slide rail material. POSCO's slide rail CR that enables the customer to save on costs is becoming more popular with domestic home appliance and furniture manufacturers.

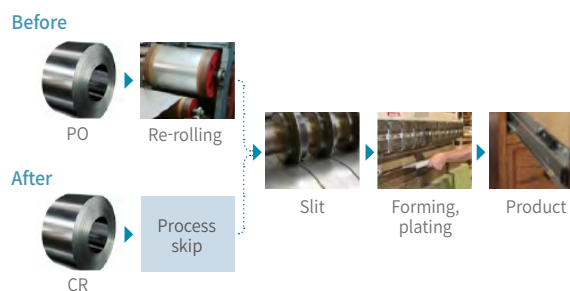


### 8T (800MPa) micro-alloyed steel for automobile steering part



The keywords for automakers in the 21st century are environment and sustainable development. Automakers are not only developing electric vehicles and hybrid vehicles to reduce CO<sub>2</sub> emissions, but they are also actively conducting research on reducing the weight of automobiles through higher-strength automotive parts. In order to meet this demand from automobile manufacturers, POSCO has put much effort into developing part materials that can skip heat treatment. The 8T grade (800 MPa) micro-alloyed wire rod is a result of such efforts, which, when applied to the steering part, displays the same physical properties with materials that have been heat treated, even when the quenching and tempering treatments have been omitted. Thus, the customer can save the energy needed for heat treatment and reduce CO<sub>2</sub> emission, contributing to mitigating global warming. POSCO will continue to develop heat treatment omitting materials, taking the lead in protecting the environment and reducing production costs.

### Customer's production process before and after development

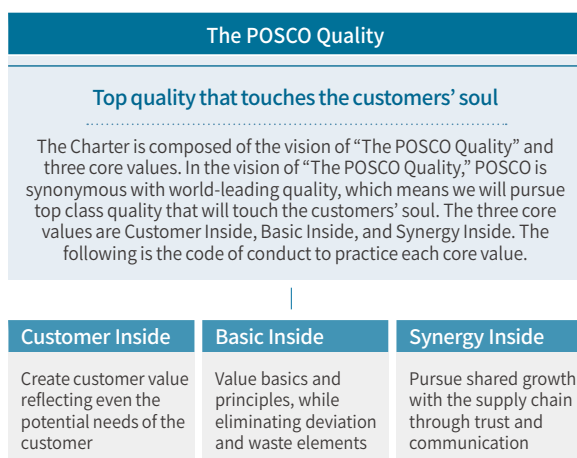


## QUALITY MANAGEMENT

### POSCO Family Quality Charter

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

#### POSCO Family Quality Charter



### Customized Quality Education by Ranks

POSCO runs a customized education program for employees of POSCO, POSCO Family companies, overseas branches, outsourcing partners and suppliers, to raise awareness on quality and to help them enhance their competencies. In 2014, the quality education program was expanded throughout the supply chain, now encompassing not only POSCO and its Family companies, but also overseas branches, core quality outsourcing partners and suppliers. In addition, the quality management expert academy was launched in 2012, which consists of basic and in-depth courses and the certification auditor program to cultivate in-company experts who will lead the maintenance and improvement of our quality management system. Through the academy, 339 POSCO Family quality management experts were produced. They are playing a leading role in diagnosing and providing guidance for quality management. In 2015, we will expand the work-oriented customized training that reflects the requirements by rank and job to further cultivate job competency for each rank.

#### Quality Training

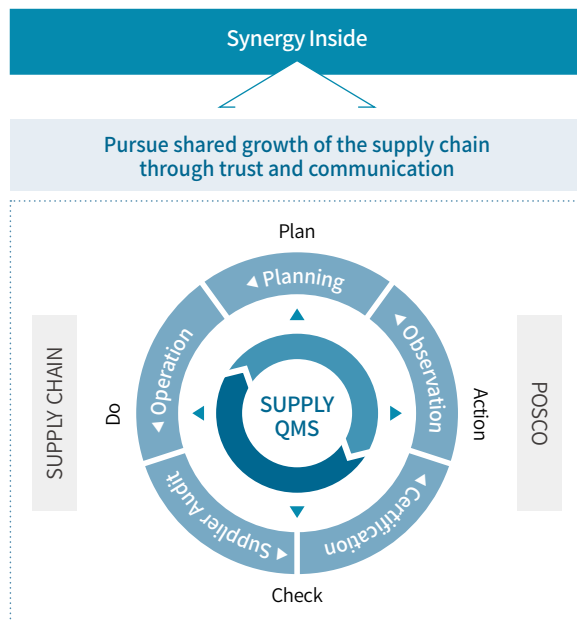
(Unit: persons)

| Category | Collective Training |              |                |                            | E-learning     |              |
|----------|---------------------|--------------|----------------|----------------------------|----------------|--------------|
|          | General             |              | Expert         |                            |                |              |
|          | No. of courses      | Participants | No. of courses | Participants (accumulated) | No. of courses | Participants |
| 2012     | 9                   | 3,900        | 1              | 66                         | 7              | 20,800       |
| 2013     | 7                   | 1,700        | 3              | 200                        | 10             | 14,300       |
| 2014     | 6                   | 760          | 3              | 339                        | 12             | 17,400       |

### POSCO Supplier Quality Certification (PosQC)

POSCO operates the POSCO Supplier Quality Certification (PosQC) system to secure quality at origin by preventing inflow of faulty materials from outsourcing partners and suppliers, and 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 a certification in 5 grades (Q1~Q5). Partner companies who receive Q3 rating or higher are awarded a separate certificate as recognition for their quality assurance competency.

After the pilot operation in 2012, we conducted evaluation on 58 core quality-outsourcing partners and material suppliers in 2014. At the evaluation, 31 companies got Q3 rating or higher. EG Tech and Buhmwoo were selected as the best companies in the outsourcing partner and material supplier sectors, respectively, winning the Synergy Prize at the POSCO Quality Awards. In 2015, our plan is to expand the subjects for quality evaluation to 110 companies and bring the Q3 rating to 80 percent. We will also actively support outsourcing partners and suppliers to establish their independent quality assurance system and continue their quality innovation activities, so that POSCO and partner companies may achieve shared growth as well as creating customer value by providing the best quality possible.



#### Supply Chain Quality Certification Status

| Category                      | 2012 | 2013 | 2014 |
|-------------------------------|------|------|------|
| Number of companies evaluated | 6    | 43   | 58   |
| Q3 rating or higher (%)       | 100  | 42   | 53   |

## Quality Management Assessment

POSCO conducts a POSCO Family quality management assessment every year for a quantitative evaluation of its process performance and effectiveness of quality management system, and to make continuous improvements. The diagnosis system is based on the Quality Charter's core values and code of conduct, and consists of about 50 categories. It evaluates quality management maturity by dividing it into 5 stages: Beginning ▶ Improving ▶ Succeeding ▶ Controlling ▶ Leading. In 2014, the result of the quality management assessment conducted on 14 POSCO Family companies showed that POSCO is at Leading A+ level within the industry (the highest rating) and the Family companies excluding POSCO are at Controlling B++ level, which indicates continued improvement from 2011, when they were at Succeeding C+ level. In 2014, the service quality assessment, which was operated separately, was integrated with the quality management assessment, enhancing efficiency and inner substantiality. In 2015, we will establish the independent diagnosis system and conduct assessments on Family companies that have comparatively lower quality management ratings and achieve higher average quality management rating of the POSCO Family.

## POSCO Quality Awards (PQA)

POSCO Quality Awards (PQA) is granted to POSCO Family companies with outstanding quality management performance at the annual POSCO Family Quality Assessment. The CEO awards the POSCO Quality Awards to POSCO Family companies that operated the quality management system effectively and produced outstanding quality management innovation performance.

The awards are categorized as the Grand Prize and Innovation Prize awarded to large companies and SMEs respectively; Take-Off Prize awarded to those companies who have achieved the greatest advancement compared to the previous year regardless of the size of the company; and Synergy Prize, which is awarded to outsourcing partners and suppliers. In particular, the Synergy Prize is awarded according to the results of the PosQC evaluation. PQA motivates Family companies to implement the POSCO Family quality vision, greatly contributing to the continuous upgrade of quality management and synergy creation among POSCO Family companies.

### POSCO Quality Award Winners

| Category         | 2011                  | 2012           | 2013               | 2014                |
|------------------|-----------------------|----------------|--------------------|---------------------|
| Grand Prize      | POSCO Gwangyang Works | POSCO E&C      | POSCO Pohang Works | POSCO Pohang Works  |
| Innovation Prize | POSCO TMC             | POSCO CHEMTECH | POSCO C&C          | POSCO Plantec       |
| Take-off Prize   | POSCO A&C             | POSCO A&C      | POSCO Plantec      | POSCO Energy        |
| Synergy Prize    | Stollberg, Samil      | Buhmwoo        | Buhmwoo            | Chosun Refractories |
|                  | Po Roll Tech          | Gwanghee       | -                  | EG Tech             |

## Quality Management Assessment for Overseas Branches

In 2015, POSCO conducted the first quality management assessment for overseas branches to assess their quality management level and improve them until they achieve a quality management system that matches the level of the mother company. The characteristics of the overseas production branches were analyzed in detail and the assessment model constructed of 32 diagnosis items was developed. We first conducted the assessment on Mexico CGL, POSCO Vietnam and Guangdong Coated Steel, and we are undergoing activities for securing their core competencies and realizing customer value. Through these efforts, the quality of products manufactured at the overseas branches will have the same level of quality manufactured at the mother company.

### CASE STUDY

#### Quality Management Education for Overseas Branches: Provided in 7 languages including Thai

POSCO developed the customized "Global Quality Management" e-learning program targeting the resident and local employees of 13 overseas production branches. Employees at the 13 overseas production branches including Krakatau POSCO (Indonesia), POSCO-Maharashtra (India), Zhangjiagang Pohang Stainless Steel (China) and POSCO Mexico can take the quality management course through the e-campus system.

The program was designed by POSCO's quality experts to help employees enhance their understanding of quality management and learn the essential statistical techniques. The subjects include: Global quality vision, Quality management job training and Statistical quality management, and are provided in UCC form to teach job knowhow on each subject.

In particular, to help local employees better understand, the courses are provided in 7 languages - Korean, English, Chinese, Indonesian, Vietnamese, Thai and Turkish.

## POSCO's New Quality Assurance System

In 2014, POSCO developed and operated Q-CAPS (Quality Check and Pass System) and an integrated system for corrective measures to secure both quality and profitability, while strengthening the customer-oriented quality assurance system. Q-CAPS, that was developed based on the quality management message "We will not make, give or take defects," collects all work data of 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. Hence it is effectively utilized to detect and prevent defects. Meanwhile, the integrated system for corrective measures that is designed for correcting the fundamental reason for nonconforming items that were found during quality evaluation or customer claims and to prevent their recurrence, promotes a more effective and systematic corrective measure activities so that the nonconforming item will not recur and strengthens the preventive quality system.

## WORLD PREMIUM TECHNOLOGY DEVELOPMENT

### INNOVATION

With the goal of widening the competitiveness gap in steel technology, POSCO systematically established and implemented technology strategies and technology development plans. Development of WP (World Premium) products such as POSCO's unique WF (World First) and WB (World Best) products, WM (World Most) products with high operating profits, coupled with custom-tailored solution technologies greatly contributed to increasing POSCO's profitability. In addition, we proceeded to commercialize POSCO's unique innovative iron, steel-making technology and processing technologies that maximize profitability. Further advancing our world's top-class plant floor manufacturing technique, enabled us to cut costs and improve productivity and quality, contributing to generating revenue. We continued our efforts to develop CO<sub>2</sub> emission intensity lowering technologies and established the Open & Collaborative development system to discover creative iron & steel convergence technologies by acquiring technologies more effectively.

#### Major Achievement in Technological Development

|  |   |  |
|--|---|--|
|  <p><b>Iron Making</b></p>  | <p>■ <b>Heightened competitiveness by stabilizing the low-cost, high-efficiency operation technique of iron making process both domestically and abroad.</b></p> <ul style="list-style-type: none"> <li>Established an economical raw material usage technology to respond flexibly to the fluctuating price of iron ore and coal.</li> <li>Built POSCO's first overseas green field blast furnace (Indonesia) and secured operation competitiveness.</li> </ul>  | <p>■ <b>Developed high value added cokes production technology that uses large amounts of cheap coal with high volatile content.</b></p> <ul style="list-style-type: none"> <li>Acquired coal mixing and operation technology that increased the production of high-priced chemical byproducts*.</li> <li>Developed technology that maintains a steady cokes quality when using cheap coal with high volatility.</li> </ul> <p><small>*Chemical byproducts: oil-based substances that are produced by capturing hydrocarbons while refining gas that is generated during coal coking.</small></p>  |
|  <p><b>Steel Making</b></p> | <p>■ <b>Increased automation rate of operation control of the steel making process and developed low-cost operation technology.</b></p> <ul style="list-style-type: none"> <li>With the development of the converter operation model, quality deviation owing to human elements has been reduced.</li> <li>Developed technology for using cheap fuel and cost reduction technology through optimization of the whole iron-steel making process.</li> <li>Secured high product quality through usage of low grade raw materials and shortening refining lead time, improving end-point oxidation limit and end-point temperature.</li> </ul>   | <p>■ <b>Secured mass production capacity for energy steel by improving production technology of thick plate slab products.</b></p> <ul style="list-style-type: none"> <li>Enhanced the quality of thick steel plate with the development of PosHARP and 400mmt slab production technology.</li> <li>Secured cost competitiveness with the development of continuous caster LICC* for thick plate slab.</li> </ul> <p><small>*LICC (Large Ingot Continuous Casting): this continuous casting process substitutes the existing ingot production process, whereby rectangular slabs for thick plates are produced.</small></p>  |
|  <p><b>Rolling</b></p>      | <p>■ <b>With the completion of the Gwangyang Hot-Rolling Mill #4, the basis for developing high-function products and expanding sales have been achieved.</b></p> <ul style="list-style-type: none"> <li>Enhanced technological power such as designing self-engineered high rigidity rolling mill and self-designing Level 1.</li> <li>Applied new technologies such as hydraulic looper control technology and shape control technology using variable crown work roll.</li> </ul> <p>■ <b>Secured competitive edge for low energy consuming electrical sheet production technique.</b></p> <ul style="list-style-type: none"> <li>POSCO leads the market for high efficiency grain-oriented electrical steel sheets for transformers through the development of extremely low core loss high magnetic induction electrical steel sheet production technology.</li> <li>POSCO leads the electrical steel for automotive and industrial electrical steel through the development of electrical steel with excellent core loss properties at high frequency.</li> </ul> | <p>■ <b>Enhanced competitiveness in TMCP products through improvement of accelerated cooling technology for plates.</b></p> <ul style="list-style-type: none"> <li>The Quick Mask function that we developed improves temperature difference of stern end and width direction, enhancing flatness.</li> <li>The development of accelerated cooling facilities diagnosis technology contributed to stabilizing TMCP quality.</li> </ul> <p>■ <b>Established technology for using molten iron for producing 400 series stainless steel and developed differentiated products.</b></p> <ul style="list-style-type: none"> <li>Developed technology for dephosphorization of stainless steel at high temperature and the high-speed high-efficiency refining technology.</li> <li>Developed the high formability Lean Duplex steel that can replace general use 304 type.</li> </ul> |



## TECHNOLOGIES OF NEW BUSINESS

After 50 years of business centering on steel material, we are focusing our R&D competencies in new businesses in the source materials and clean energy sectors, in order to secure the engine for future growth that will lead the POSCO Family for the next 50 years.

In the source materials sector, we are aiming at becoming the global leader by early commercialization and absolute cost competitiveness of the lithium extraction technology developed independently by POSCO and the hydrometallurgical nickel refining technology. For clean energy, we are cultivating clean coal chemical that taps into our steel infrastructure and the fuel cell that is regarded as the energy source of the future. We are also creating new business opportunities by strengthening R&D cooperation with domestic and overseas research centers and large customers, such as joint development cooperation with universities/research institutes on next-generation cell materials and discovering new business/technology through work agreement with KST (Korea Science & Technology Holdings). We are continuing the R&D Open Collaboration as well.

In particular, POSCO was nominated by the Ministry of Science, ICT and Future Planning as a pilot corporation in the “M&A Promotion Project between Large and Venture Companies.” The company will use the large-venture company technological cooperation and information exchange meetings as a platform for technological exchange/cooperation and M&A mediation. In addition, as POSCO was selected as the “Startup planning operator” by the Small and Medium Business Administration, the company will provide support by equity participation and startup nurturing program (mentoring, IR briefings) to help venture companies secure a foothold and to nurture them into global startups. POSCO will jointly cooperate with POSCO Family companies’ new businesses, such as ESS (Energy Storage System), desalination project and e-Mobility, to contribute to enhancing Family companies’ technologies for new businesses and creating synergy.

### ■ Secured investment and operation competitiveness by starting operation of 200 million ton FINEX that employs Slim FINEX\* technology

- The completion and normal operation of the 200 million ton FINEX plant will enable us to achieve higher productivity and low-cost operation with the same amount of investment for a 150 million ton FINEX process
- Signed an MOU for investment in an integrated steel mill applying FINEX method in Chongqing, China

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

### ■ Secured production technology for premium grade thin foil by upgrading the CEM’s high-productivity, high-quality thin plate production technology

- Developed low carbon/high carbon and high strength steel endless rolling technology, broadening the type and size of steel products that can be manufactured
- With the development of the CEM direct endless rolling technology\*, the competitiveness of thin slabs with outstanding dimensional accuracy was enhanced

\*CEM direct endless rolling technology: starting from the continuous casting process that produces slabs to the final coil product from the rolling process, the slab does not need cutting.

### ■ Established foundation for large-scale manufacture of competitive high-Mn/high-Al steel for making lighter and stronger vehicles.

- Built manufacturing system of high-Mn steel by establishing the smelted Mn process
- Secured cost competitiveness through the high-Al continuous casting technique through POCAST

\*POCAST is a technology that feeds mold flux in liquid form instead of the conventional solid mold flux.

### ■ Developed the world’s strongest cable (PosCABLE92) for super long span bridges

- In cooperation with KISWIRE, Hyundai E&C and POSCO E&C, we developed the strongest bridge cable that is 15~30 percent higher in strength than the existing product which is 1,860 MPa
- Commercialized the core technologies that can ensure economical construction of super long span bridges by building the product’s performance verification system and applying the product to the test bed

### ■ Developed AHSS for automobiles that has excellent press formability and customer solution technology

- Developed the world’s first highly ductile CR 980 MPa grade X-AHSS, CR/GA 980 MPa grade TRIP steel, Al coated 1,800 & 2,000 MPa grade hot press forming steel
- Developed design technique for car body with improved small overlap crash performance

### ■ Developed innovative process technology for high performance cold-rolled, coated products and differentiated products.

- Developed the world’s first ink jet printing technique to steel products, high corrosion resistance EG/GI product with SST\* 300 hour guarantee
- Completed the production technology for hot dip Zn-Mg high corrosion resistant coated sheets
- Developed ultra high strength side trimming technology using laser heat treatment technique

\*SST (Salt Spray Test) is a test for corrosion resistance using salt.

## Major Achievements in Technological Development

### Developed Technology for Direct Extraction of Lithium from Brine

POSCO, as it moves toward a general materials company, developed the direct extraction technology for lithium, which is widely used in batteries for cell phones, tablet PCs and electric vehicles. The conventional method of natural evaporation takes at least 12 months to produce lithium and the lithium recovery rate was low due to impurities in the brine such as magnesium and calcium. In comparison, POSCO's direct lithium extraction technology is the world's first technology that takes less 2 months, or 8 hours minimum to produce lithium, and is the first method that can increase the lithium recovery rate from the previous 30 percent to over 80 percent. Unlike the natural evaporation method, it has few limitations in terms of weather and location, and almost no impact on the environment, making it an environmentally friendly technology.

Lithium resources are categorized into minerals, brine (liquid mineral containing lithium) and seawater. Currently, the most cost competitive type is brine, accounts for 70 percent of all lithium compounds produced throughout the world. In December 2012, we built a pilot plant with an annual capacity of 20 tons near Copiapo, Chile, and successfully completed empirical study. In 2014, we completed the large-scale pilot plant with an annual capacity of 200 tons in Cauchari salt lake, Argentina, and we are currently conducting empirical study for commercialization.

**Nickel Hydrometallurgic Refining** Nickel is a popular material for secondary batteries and stainless steel and is normally obtained through pyrometallurgical extraction from high-grade sulfide ores, but high-grade ores have short mining years and are at risk of depletion, which led to the worldwide efforts to use oxide minerals, which are abundant. Until now, these efforts have not been successful because production of nickel from low oxide minerals was less economical compared to extraction from high-grade ores. POSCO is developing a new hydrometallurgic refining technology using low-grade oxide minerals. POSCO's independently developed technology has now reached 90 percent extraction rate at the pilot operations with an annual capacity of 150 tons. We have also developed technology to recover valuable metals from the dump leaching liquor and residue, which we expect will increase economic viability. We will build and operate a demo plant, complete commercialization technology and achieve early operation.

### Fabrication Process for Anode and Cathode Materials for Secondary Batteries

We are concentrating our research competence and cooperation at the POSCO Family level for the secondary battery materials field, which we expect will contribute to diversifying our portfolio and enable our early dominance of the next-generation materials technology. In the anode material development sector, we completed development of the dry LCO process that has equal capacity and life span of those of our competitors, and will begin mass production in 2015. We are also developing the concentration gradient type NMC, an anode materi-

al with high capacity and high stability. Our target is to start mass production in 2016. We are expanding the customer base by improving the performance of the natural graphite cathodes, while also conducting research on commercializing artificial graphite and Silicon-Graphite composite anode material.

### Clean Coal Chemicals Technology Development

SNG (synthetic natural gas) is a clean fuel that is made by gasifying cheap coal at high pressure, which then goes through gas cleaning and methanation to have the same compound as natural gas. POSCO developed one of the main processes - the methanation process. Compared to existing methanation technology, the facility is simple and has higher heat efficiency, while the catalyst, which is the core technology in the process, has higher efficiency. POSCO's technology costs much less than existing methanation technology, and when the demo plant currently in construction in Gwangyang is completed, we expect plant exportation will be possible. We are also developing technologies to produce high value added chemical products or renewable energy by recycling heavy oil or off-gases. In particular, POSCO has secured technologies that can retrieve more than 95 percent of H<sub>2</sub> and CO that is abundant in the off-gases; capture carbon dioxide using ammonia; as well as the DMC (dimethyl carbonate: eco-friendly chemical product) production technology that can utilize the capture carbon dioxide. POSCO's clean coal chemical technology maximizes the value of waste resources and contributes to building a sustainable environment through recirculation of resources.

**Fuel Cell Systems** With the spread of urban distributed generation, fuel cells are considered to be the optimal high efficiency distributed power generation source. POSCO has fostered the domestic fuel cell business since 2003, contributing to the national growth of the next generation.

POSCO established an independent service grid and construction system for MCFC (molten carbonate fuel cell), building the basis for independent business operation and supplied over 140 MW domestically, occupying more than 90 percent of the domestic market. In addition, we will localize in stages the MCFC technology that we brought in from FCE of the United States and reach 100 percent by the first half of 2015. We will thus enhance our competitiveness in fuel cell business, continue to build fuel cell industrial clusters to expand win-win cooperation with small and medium businesses, and promote fuel cells as the major export item of the next-generation. We will accelerate the independent technology development of SOFC (solid oxide fuel cell), the next-generation fuel cell that has various applications including cogeneration system for buildings with a capacity of a few dozen kW, MW-level systems and for powering ships. POSCO secured the world's highest level technology in cell fabrication, which is the core technology of SOFC. POSCO developed Korea's first 10kW-grade SOFC system and will now concentrate on opening the market for fuel cells for buildings.

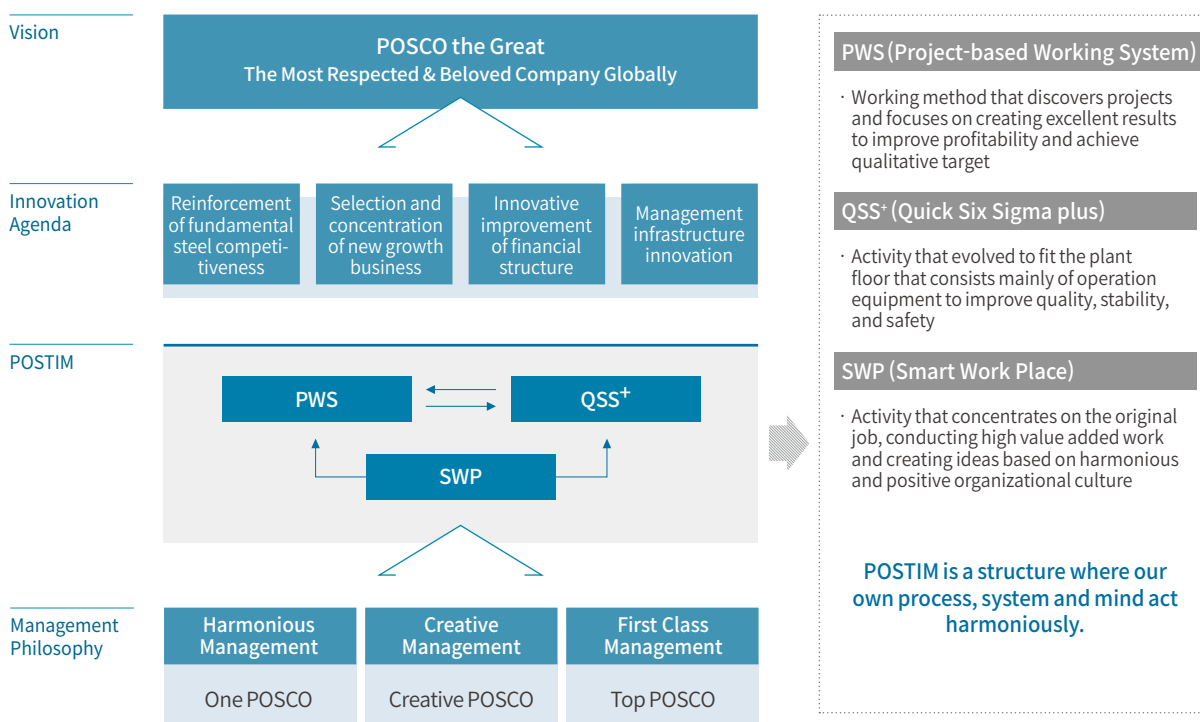
## INNOVATION

In order for us to achieve our vision “POSCO the Great,” various conditions must be met, such as a challenging goal, unwavering devotion and appropriate methodology. POSCO has continued to build competencies by introducing innovative methodologies, cultivating innovative human talents and building a smart working environment. We also continued innovation activities of improving low effectiveness and for-show activities. Tapping into our competency and experience, we have launched POSTIM (POSCO Total Innovation Methodology), which is POSCO’s unique innovation methodology.

POSTIM is the powerful execution engine for realizing our vision “POSCO the Great”. Its basic principles are the unification of work and innovation; voluntary participation and compensation proportionate to performance; building a working environment that can enhance creativity and concentration; and cultivating and

compensating talents who have technical knowledge and problem solving capabilities. POSTIM is composed of the following: PWS (Project-based Working System) that discovers projects and focuses on creating excellent results to improve profitability and achieve qualitative target; QSS<sup>+</sup> (Quick Six Sigma plus), which is an activity to reduce quality defects, operation difficulties and safety hazards that is appropriate to the plant floor that consists mainly of operation equipment; the SWP (Smart Work Place), which are activities to conduct high value added work and concentrate on their original job of generating creative ideas based on a harmonious and positive organizational culture.

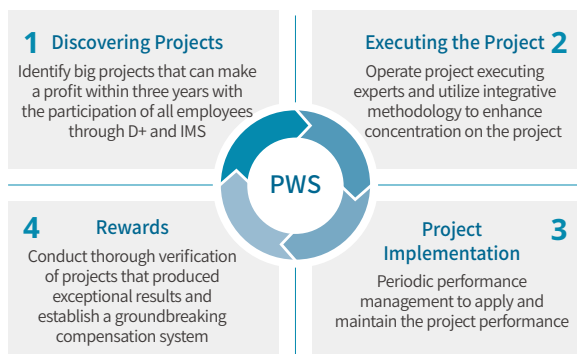
### Structure of POSTIM



## 1 PWS(Project-based Working System)

PWS is a working method that discovers projects and focuses on creating excellent results to improve profitability and achieve qualitative targets. The key elements of success for PWS are right project, right management and right reward.

### Operating Process of PWS



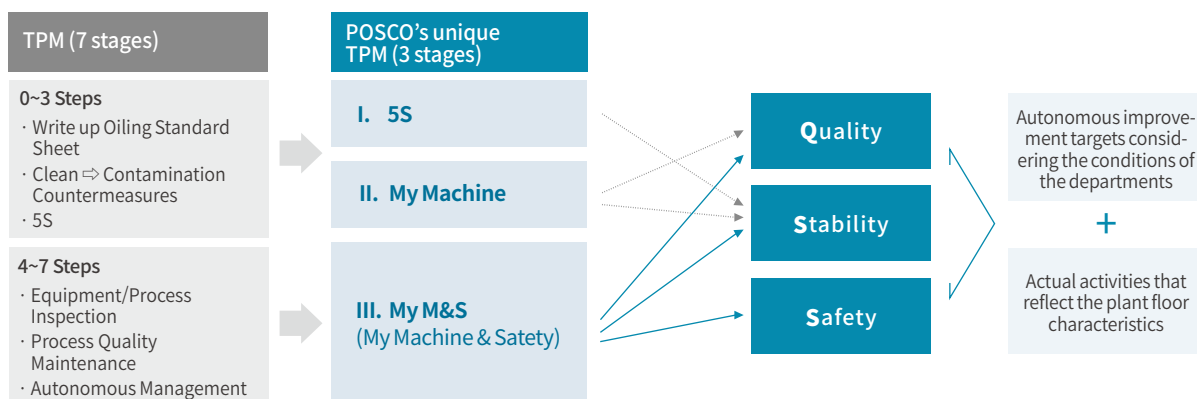
In order to promote discovering the Right Project, we can utilize two methods – the Top-down project guidance and Bottom-up suggestion. The Top-down suggestion method discovers projects directly linked to management targets through senior executives and departments level D+ and the research task discovering process. The Bottom-up suggestion method utilizes workshops at the division or office level to discover projects. We conduct idea contests and competitive exhibitions to encourage idea suggestions, and any employee with ideas and competency can be-

come the leader or executor of the project, unrelated to the wage or annual salary system. For the Bottom-up idea suggestion, the head of division or managing director proposes a theme that fits the division's characteristics and holds a public contest, then selects the IP project.

Right Management, the second key element for the success of PWS, consists of People, Method, Communication, and Control. First, in the People aspect, the expert executive and PCPs (POSCO Certified Professional) are chosen to take charge and concentrate on the project. In 2014, we selected 200 persons who devoted themselves on executing the projects through the Kick-Off. We built an environment so that the project executing personnel can engage themselves on their work by installing the project team as an official organization. We conducted education on project management & process, and innovation methodology in order to enhance their project execution competency, and to help them apply the roadmap and tools for innovation methodology. The principle we chose for implementing projects is "project first, methodology second." In order to enhance the usability of the methodology, we developed the performance-based "PWS innovation methodology" by integrating Six Sigma, TRIZ and VE. In the communication aspect, we utilized Visual Planning for the management of targets, plans and issues, and maintained a lively team atmosphere through "Thanks Sharing" program. Lastly, in the Control aspect, we developed the PPMS (POSCO Project Management System) so that project executors can efficiently manage the execution process and status data and to facilitate communication and support from the managing director.

### Concept of QSS<sup>+</sup>

**QSS<sup>+</sup>** ▶ Follows the TPM (Total Productive Maintenance) idea, but has been evolved into POSCO's unique methodology that fits the steel works characteristics.



The third key element for success of PWS is Right Reward. It means that when groundbreaking realized profits are achieved as a result of executing the project, groundbreaking compensation that matches the results will be awarded. In order to ensure thorough verification, we check whether the realized profit is reflected in the financial statement and calculate the contribution rate and reverse effect. The reward is given to projects that achieved over KRW 1 billion in excess realized profit\*, the compensation is divided among the participants (idea proposer, project executor) according to their contribution and the result of the project is shared with all employees through the Gain Sharing\*\* system.

\*Excess realized profit: the profit that exceeds the ordinary profit attainable by utilizing the direct costs, and the personnel and assets that went into the project.

\*\* Gain Sharing: considering the company's characteristic that involves continuous processes, Gain Sharing is a system of giving a congratulatory reward to all employees who contributed indirectly to bringing forth the IP Project's performance, as a way to encourage them.

## 2 QSS+(Quick Six Sigma plus)

We are implementing activities to enhance the robustness of our facilities according to the QSS+ method that we developed, which contains the meaning that we will take a leap once more through autonomous and actual activities that reflect the characteristics of the steel plant, in order to secure facility competitiveness (Stability, Quality) based on a safe plant floor (Safety). QSS+ is a combination of the traditional TPM (Total Productive Maintenance) activities with POSCO's unique methods that fits the steel works' characteristics. We held the QSS+ announcement ceremony with the participation of the CEO and employees, established action plans with the mentoring of the leader ranks and employees' participation and the detailed plans by each department and plant was supervised personally by the director of the steel works. We created an atmosphere to encourage participation by holding a Kick-off event for the 26 departments at the Pohang and Gwangyang Works, hosted by the vice director of the steel works. Based on these activities, establishing the QSS+ execution plans was completed. As a result of establishing targets in 1, 3, 5 year-periods in connection with each department's KPI, we were able to finalize 106 indices for the 32 departments at the two steel works. As such, POSCO is settling its unique plant floor innovation activities, such as implementing customized innovation activities that select the key facilities and improvement methods according to the floor circumstances, establishing QSS+ plants under the supervision of the steel works director and executing early the innovation activities in connection to large repairs, or setting their own unique execution plans.

## 3 SWP(Smart Work Place)

In order to create an environment that will bring high performances, POSCO is building the SWP (Smart Work Place) that fosters employees' positive work engagement through convenient IT infrastructure, advanced working method and thanks sharing. In the aspect of convenient IT infrastructure, the mobile approval system has enabled employees do their work more quickly (the approval time was reduced by 74 percent compared to 2010), and the video conference enabled meetings to be held regardless of time or space constraints (business travels decreased by 16 percent compared to 2010). In addition, immediate response to customer requests and inconveniences is possible at the field (customer feedback time was reduced by 75 percent compared to 2012). In the aspect of advanced working method, we enhanced employees' work engagement by improving the briefing culture; and simplified human resources, education and innovation systems to help employees concentrate on their original work. The thanks sharing program contributes to creating an engagement environment with the initiative of the leaders to create a positive atmosphere and expanding the subjects of thanks sharing to the families, customers and suppliers.

### SWP Summary

Companies with high degree of engagement recorded operating profits six times higher than companies with low degree of engagement.

(Research on 360 thousand employees in 41 global companies)

**Engagement is,  
Taking voluntary and active efforts**

SWP

① Convenient  
IT infrastructure

Provide IT environment with no time and space constraints

② Advanced  
method of work

Remedy low added value and expand creative work

③ Thanks sharing

Foster a positive mindset and love for the company

## RISK MANAGEMENT

### RISK MANAGEMENT FRAMEWORK

Amidst prolonged global recession, worsening low-growth trend of the steel industry, and exposure to global risks as we expand to overseas markets, POSCO is putting enterprise-wide efforts into detecting potential risk factors both internally and externally while taking preventive measures. These efforts will enable POSCO to respond to the rapidly changing business environment, prevent risks and maintain an amicable relationship with stakeholders, thus securing the basis for sustainable growth.

#### Risk Management Overview

Beginning from the first half of 2010, POSCO strengthened the risk management process for growth-investment projects, securing the operational foundation for the ERM (Enterprise Risk Management) system, which includes establishing risk management policy and protocol while setting up the risk management organization. With global risks becoming more diverse, permanent and complex,

POSCO established the early warning indicator in 2012 for sectors that affect POSCO's business performance such as steel, finance, marketing, raw materials, banking, and emerging markets in order to respond proactively and effectively to changes in the business environment. In 2014, we expanded the risk management system from POSCO to the Group level, building the "basis for Group companies' risk management system." The scope of monitoring was also expanded from steel to non-steel sectors. Through these measures, we aim to resolve the information unbalance between the head office and group companies while fostering risk related communication within the group for the early detection and response to risks.

In 2015, we will operate a system for constant checking for key risk elements that hinder the Group from achieving its management targets, focusing on risk mitigating activities to increase our corporate value.

🖨 Risk management policy <http://www.posco.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000010c.jsp>

🖨 Risk management protocol <http://www.posco.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000030c.jsp>

#### Risk Management System & Governance

In general, risks are easy to measure and manage, while crises occur suddenly due to external factors and are difficult to respond to. The safety and hazard prevention departments at each Works take charge of disasters or crises, maintaining a safe and accident-free operation.

POSCO's risk management system revolves around business risks and non-business risks. Among the business risks, internal risks in the aspect of the company's business are managed based on the affiliates' financial risk management indices, while external risks in the aspect of external conditions are managed based on the composite risk index for each industry group. Distinguishing and responding to business risks are conducted jointly by the Value Management Office and each affiliate company. Meanwhile, the Audit Office coordinates non-business risks relating to ethics, compliance and reputation under the risk self-prevention system (RMS).

#### POSCO Group's Risk Management System





## Financial Risk Management Structure

POSCO Group's risk management system was built under the following principles. First, we distinguished the risk elements in the EVA perspective. In other words, we defined key risks to be those elements that diminish EVA and identified quantitative indices to measure them. Second, we took each company's "nature of business" into consideration when building the financial risk indices. To do this, we schematized the revenue/loss generation structure and type by each company, defined business risks that affect their performance and selected the indices that can finally distinguish those risks. After completing the establishment of POSCO Group's risk management system, we identified 146 risk indices for the 17 major affiliates and designed the system so that when a risk level exceeds the threshold, a caution/alert signal is activated automatically.

\* 17 Companies subject to focused control: POSCO, DWI, E&C, ENERGY, ICT, CHEM-TECH, M-TECH, C&C, Plantec, P&S, PT. KP, Zhangjiagang, P-Mexico, P-Maharashtra, Vietnam Cold Rolling, Thainox, Assan TST

## Monitoring External Economic Risks

POSCO developed the CRI (Composite Risk Index) separately from the financial risk index and uses it to measure risks by each industry. We divided the businesses operated by POSCO into three groups (Steel group/non-steel group/overseas business group), and we conduct monthly monitoring of the total 196 risk indices by each industry group. In other words, we track how external conditions surrounding POSCO are changing and reflect them in our management plans.

### POSCO Group's External Risk Concept Map

(Total 196 indices)

| Steel Group CRI       |                        | Non-Steel Group CRI | Overseas Branch CRI |
|-----------------------|------------------------|---------------------|---------------------|
| Steel Industry Aspect | Demand Industry Aspect | By Industry Group   | By Region           |
| Macroeconomic Risk    | Steel                  | Construction        | China               |
| Quantity Risk         | Automobile             | Energy              | Indonesia           |
| Price Risk            | Shipbuilding           | ICT                 | India               |
| Cost Risk             | Electric/Electronic    | Trade               | Mexico              |
| Export Risk           | Machinery              |                     | Vietnam             |
|                       | Construction           |                     | Thailand            |
|                       |                        |                     | Turkey              |

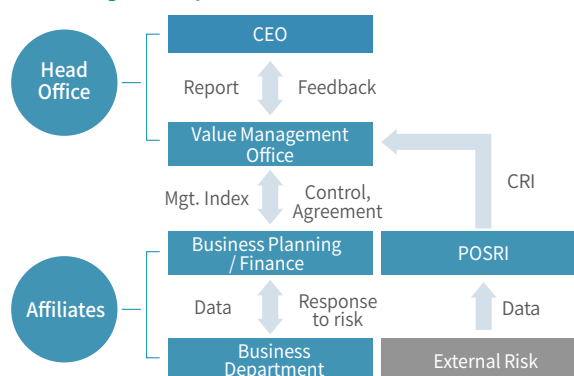
## Operation Plan for Risk Management System

Beginning from 2015, we plan to operate the risk management system in a way that POSCO, the affiliate companies and POSCO Research Institute all participate. When group affiliates prepare the monthly risk index, POSCO's Value Management Office conducts management and control activities such as compilation and feedback. The climate change risk and opportunity factors are organically connected to the company-wide management system to be analyzed in various angles and the results are reflected in the medium to long-term management strategies.

The POSCO investment guideline mandates that when making decisions on investments, businesses that are expected to entail environmental risks such as greenhouse gas should undergo the agreement process with related departments.

POSCO Research Institute monitors the composite risk index and conducts non-scheduled preliminary inspections on major affiliates' business risks. Major issues that are drawn from the risk management activities will be regularly reported to the management level or submitted to the POSCO Group CEOs Meeting for discussion, to strengthen the execution power of the risk management system. When the Group's risk management system settles down we can expect sustainable growth by ① reducing potential loss by proactive response and ② efficient risk management.

### Risk Management System



## Trends of Major Risks

In the steel industry, high-level risks continued in 2014. The unbalance between supply and demand worsened due to oversupply from China, which led to falling product prices, and with the overflowing Chinese steel products, the domestic steel products market became even more competitive. In particular, the risk index rose for the automotive and home appliance in addition to the already high shipbuilding sector, which heightened the demand in industry related risks. However, the iron ore prices dropped rapidly during the second half-year, improving profitability by increased spread between steel price and material price.

As for risks in the overseas regions where POSCO has a presence, risk levels were high at the beginning of 2014 because concerns about the United States ending quantitative easing led to unstable currency rates in emerging economies, but this also improved rapidly in the second half year. With the fluctuating oil prices at the end of 2014, country risks including that of Russia is increasing again, but it is expected that risks in emerging economies will roll out differently depending on oil price benefits and political stability. Composite risks for POSCO Group's affiliates have increased: sluggish global trade (trading company), low electricity price (energy company) and shrinking overseas construction (construction company). However, the fast-recovery of the financial and business structures at the Group level is lowering uncertainties and we expect risks will decrease as well.

Sensitivity Analysis on Major Risk Factors and Stress Test

Factors that affect POSCO's business performance are currency rates, oil prices and iron ore/coal prices. POSCO and each affiliate monitor the changes in those indices and the changes in sales, cost and profits at least once a month. When big business risks are expected, we immediately make response plans and execute them.

POSCO Group's management plans are established in 5 (S1~S5) versions according to the different economic outlook scenarios ranging from booming to lowest. We make plans based on negative scenarios from S3 to S5 and evaluate our performance each month.

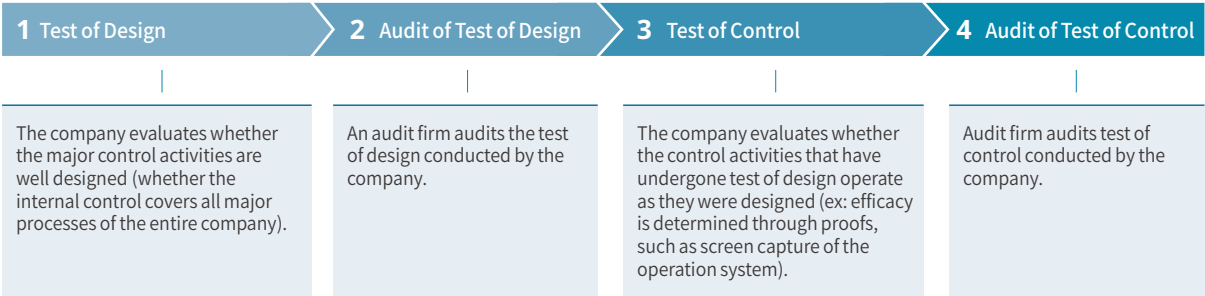
Internal Control of Financial Report

As POSCO is listed in both Korea Exchange and New York Stock Exchange, we established a system to evaluate internal control of the financial reporting process, such as the CEO/CFO approval procedure on public announcement and internal control and operating the Public Announcement Committee, in December 2003. We have been conducting self-evaluation of internal control since 2004. Under the SOX Act<sup>1)</sup>, external audits have become compulsory since 2006, and to this end, we completed the internal control evaluation system in March 2005 at the POSCO Group level that includes subsidiaries.

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 also designed and operate control activities. An auditor of an independent department who understands the current work process must conduct the evaluation of the efficacy of the internal control. The internal control manager reports the internal control status of each fiscal year to the Board of Directors and Audit Committee according to the Act on External Audit of Stock Companies that was revised in 2009.

1) SOX (Sarbanes-Oxley) Act: The Public Company Accounting Reform and Investor Protection Act that was enacted in July, 2002 in the United States. It allows strong penalties for accounting fraud.  
2) COSO (Committee of Sponsoring Organizations of the Treadway Commission): A joint initiative of the United States that evaluates corporate internal control systems.

Internal Control Process for Financial Reporting



## EMPLOYEE

## CORPORATE CULTURE

POSCO undertakes various activities to foster employees' self-esteem and a positive atmosphere to create an environment that promotes engagement in their work.

### Improving the Organizational Culture

**Employees Action Guideline: Practicing Basics** We established the "Guideline for Practicing the Basics" that promotes going back to basics, as part of our efforts to discard the sense of superiority, and to refrain from taking advantage of one's position and role for one's own convenience, or provide excessive benefits to particular ranks. The Guideline for Practicing the Basics is composed of five categories: Beautiful (using beautiful language), Abandon (abandoning the sense of authority and entitlement), Serve (serving the customer), Improve (correcting unfair practices) and Check (checking work principles). We are conducting promotion campaigns so that employees and executives will understand them, and we plan to improve systems and processes that may be misunderstood as a sense of superiority.

**Making Gratitude a Custom: Thanks Sharing** We are conducting a campaign to share gratitude by expressing thanks in everyday life. Moving away from one-time event activities that burn bright like campfire but go out quickly, the Thanks Sharing program is based on leaders' setting the example and employee's voluntary participation, that will burn low but long, like ember in a brazier. We anticipate that the culture of being thoughtful and appreciative of others will soften the organizational culture and help employees engage themselves in their work roles and create results.

### Communication

The representative organization for open communication between employees is the Labor-Management Council and we also operate communication channels such as the Young Board and Junior Board. In addition, we operate the "POSCO &," a two-way channel to build consensus on the company's major policies and exchange views. In 2014, we began the meeting for conversation between highest-ranking management level and employees.

**Young Board** Young Board is a communication channel, which began operation in 1999, where young employees can make suggestions regarding the company's strategies, and the management level can pick up fresh ideas. In 2007, this was expanded to employees of affiliated companies, and in 2009, to the POSCO Family including overseas branches.

**Employee Meetings** We are expanding opportunities for communication through the meetings between high-ranking management level and employees. There is the "Group Meeting" where employees of certain groups such as female employees, or employees who joined POSCO through career change meet to exchange opinions on a given subject; and the "Luncheon Dialogue" where participants can talk freely on any subject. (Held seven times in 2014) Through these meetings, mutual sense of intimacy is built, points that need improvement are discovered and the employees get an opportunity to feel pride and sense of belonging.

☞ Employee meeting <http://blog.posco.com/998>

**HR Forum for Overseas Business Sites** Between September and November 2014, POSCO held the Global HR Forum targeting Southeast and Southwest Asia, North and Central America, Europe, China and Japan. The aim of the Global HR Forum was to share systematic policies for cultivating overseas human resources and enhance the HR competency of the dispatched employees to secure competitiveness of the overseas business sites, as POSCO Group's sales from overseas business have expanded and the number of overseas employees has surpassed that of employees working within Korea. At the forum, we emphasized the need for building universal and open HR criteria so that all members of the POSCO Group will have the same opportunity to advance to the highest level regardless of their company of origin or nationality. We also discussed ways of providing support for human resources development that can respond quickly to the changing environment of the global market.

In addition, we discussed the following topics as the criteria for human resources management. A standardized rank system to foster a sense of unity between overseas branches and the head office, and enhance responsible management; the communication standard as a global company; standardized education content that overseas branches can use; and cultivating instructors. At the meeting that was held to actively listen to the local employees, we also explained that POSCO would implement a global human resources policy in order to enhance their potential as a member of the POSCO Family. POSCO will provide full support so that the opinions discussed at the Global HR Forum will be implemented at the head office and overseas branches. Beginning from 2015, POSCO plans to operate regional HR workshops under the coordination of the regional base branches to convey the head office's global HR policy and continue the communication between the head office and overseas branches.

**Labor-Management Council** Based on the Act on the Promotion of Worker Participation and Cooperation, the Labor-Management Council was launched as an employee representative body on 17 November 1997, with 20 members from management and labor unions. The labor members negotiate on company-wide interests including wage, working policy, welfare, increasing productivity and distribution of results, safety, health, and 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 the 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 the 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 395 basic members.

Based on the 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 the employees' representative body.

In particular, in 2012, the Council took a leading role in the 1% sharing movement and since 2014, They are contributing to achieving the company's vision by taking 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 addition, in 2015, as part of the GWP movement, the Council will devote itself to the SSS activity (self-directed safety spread), and to prevent wastage when using materials, to promote win-win between the company and employees. The labor members of the Labor-Management Council are selected by direct and secret voting, with 3-year tenure. The 6th members of the council as of 2014 were chosen in October 2012, with their tenure ending in November 2015.

**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 layoffs or involuntary termination for the reason of business recovery or increasing profitability. POSCO states in the Job Regulation (Article 36) that "Employees will not be terminated or dismissed without just cause," in order 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 terminate 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, and 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 of its employees.

## Non-Discrimination and Diversity

As POSCO started its business in a country with little natural resources, POSCO considers human resources as its greatest asset and has adopted protection of human rights as the basic principle of management. POSCO established this principle in the Code of Ethics (Article 7. Protection of and Respect for Human Rights), and adheres to the rules.

### Code of Ethics, Standard of Conduct, Article 7. Protection of and Respect for Human Rights

#### 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 just cause.

**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 present the vision for advancement so that they can realize their full capabilities.



#### Child Care

##### Day Care Center

We operate day care centers in Pohang, Gwangyang and Seoul that can accommodate 430 children. They help alleviate the childcare burden, expand female employment, and contribute to increasing the birthrate.

##### 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 and after childbirth, female employees can use up to two years of 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

In order 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 coaching from seniors on work and life. (twice/year)

##### Communication Channel for Female Employees

We operate an online in-house study group where all female employees join, which they can use to build networks, share information and resolve various grievances.

## Enhancing Employee Satisfaction

POSCO conducts a survey on the organizational culture and employee satisfaction each year, with a high participation rate at over 70 percent. Until 2013, we used the self-developed “Happiness Index” to evaluate the level of happiness employees feel at the work place. However, the Happiness Index was limited in that it could not measure the degree of employee engagement and performance, and was difficult to use comparatively with other companies. In order to overcome these shortcomings, we developed the new “P-GWP (POSCO-Great Work Place)” index in 2014, jointly with an external institution. It replaces the Happiness Index as the new survey method for measuring employee satisfaction. The P-GWP that was introduced in 2014 showed 72 percent participation and also showed that POSCO employees’ sense of ownership is at the highest global level. Analysis concludes that this is due to the presentation of the vision POSCO the Great, introduction of the project-based working system and high employment stability, which lead to vision for advancement and sense of achievement of the individual employees. The organizational culture index in the P-GWP survey showed employee satisfaction index was 70 points (out of 100). \*Target for 2014 was 70.

The company will continue to improve the organizational culture by implementing various related projects.

> The employee satisfaction index between 2011 and 2013 were 79, 82, and 82 points respectively, and related information can be found in the 2013 Sustainability Report, page 86.

☞ 2013 Sustainability Report, [http://www.posco.co.kr/homepage/docs/kor3/dn/sustain/customer/2013\\_SR\\_kor.pdf](http://www.posco.co.kr/homepage/docs/kor3/dn/sustain/customer/2013_SR_kor.pdf)

**Flexible Work Program** POSCO began operating 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, in order to create an atmosphere to enhance their work engagement. Employees eligible for application are those working at the head office, desk 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 10:00~14:00, 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.

## CASE STUDY

### POSCO named as “Great Work Place,” Third in Manufacture Sector and First in Steel Industry Group

At the 2014 K-GWPI, POSCO ranked third in the manufacturing sector and maintained first place in the steel industry group for seven consecutive years. The K-GWPI (Korea-Great Work Place Index) was developed by KMAC in 2008 to present the objective standard and direction for building a “Happy Workplace” where the corporation and its employees grow together. The evaluation is conducted every year.

At the Best 30 evaluation that was conducted on 50 companies in the manufacturing sector and 51 companies in the service sector, POSCO ranked third in the manufacturing sector after Samsung at first place and Yuhan-Kimberly at second.

At the evaluation, POSCO ranked third in “Excellent vision”, third in “Fair system,” fifth in “Happy culture,” fourth in “Commitment” and third in “Total happiness level,” recording overall high scores. In particular, we improved from ninth to fifth in “Happy culture,” and from fourth to third in “Total happiness level,” showing that POSCO has taken a step toward building a happy workplace for the employees.

The evaluation for the best company by each industry group was conducted on 17 companies in manufacturing, 22 in service, and 8 in public: a total of 220 companies in 47 industry groups. POSCO scored 78.1 points, ranking first for seven consecutive years ever since the index was first introduced in 2008.

In tandem with social changes, POSCO extended the retirement age from 56 years to 58 and implemented the wage peak system and re-hiring of retired employees, which boosts employees’ morale.

In addition, we improved the company system related to maternity and parenting such as operating the POSCO Day Care Center, granting a maximum two years of parental leave, flexible Work Program and home-care leave program, so that employees can find happiness both at work and at home. POSCO also holds the quarterly POSCO Concert, Eco-Farm (eco-friendly farming training center), and provides recreational facilities to encourage taking leisure time with the family.

In recognition of these efforts, POSCO was included in the first “100 Happy Companies of Korea,” and won the grand prize in the “Great Company to Work For Awards” hosted by Donga.Com in June 2014.



## CASE STUDY

## Psychological Counseling Center

Managing stress at the work place where one spends the longest hours of the day is now understood to be an important element not only for individual happiness but also for enhancing productivity of the company.

POSCO has been operating the health checkup and health management programs to help employees maintain a healthy mind and body and to enjoy a happy life both at home and at work.

In particular, we recognized the importance of psychological health management, and introduced the psychological counseling center within the company in the mid 90s for the first time in Korea, and installed counseling centers at Pohang and Gwangyang Works in 2005, providing a variety of counseling services to the employees and their families. Since September 2014, we opened a psychological counseling center at the Seoul Office as well, for the mental wellbeing of all employees.

At the Seoul counseling center, we provide customized programs in personal counseling, psychological test, and psychological education that reflect the characteristics of each psychological stability level and age group. Employees that show signs of psychological crises are provided with in-depth counseling, and those experiencing difficulties in everyday life receive customized counseling and related services. For employees who are interested in psychological health, we offered psychological test services and preventive psychological education. The psychological education is held once a month during lunchtime in the form of special lectures. The subjects included self-management techniques to help organizational adjustment, and the Working Mom & Daddy Care Program. As the lectures on child upbringing were particularly well received, and we ran a series of lectures divided into age groups.

Psychological counseling at the Seoul Office is operated from Tuesdays through Fridays, from twelve to six o'clock in the afternoon, four times a week. In 2014, an average of 3.5 individual counseling was provided daily between September and December, and more than 200 employees participated in counseling and special lectures, showing great interest and response.

Gathering the problems that employees experienced, our counseling goal for 2015 was set as "Healthy self, harmonious family, and happy work place," and we plan to operate psychological education programs for each of those three goals.

Meditation training will be offered to manage stress and maintain a "healthy self," and for the middle-aged group who are hesitant to visit the counseling center with their heavy burden from the weight of life, we will provide "Designing your mind for after retirement." The Working Mom & Daddy Care Program designed for the "harmonious family," will be composed of special lectures on child upbringing and couple counseling & training. Meanwhile, for building a "happy work place" by enhancing communication and harmony among co-workers, we will offer organizational advancement programs in the form of team healing using the personality and psychological test on "effective communication training," which we expect will be a good means for vitalizing the organization.

The POSCO Seoul Counseling Center will be the mind's retreat where employees can let go of the problems in their hearts, and find rest and calm, and the opportunity for growth that will bring energy and harmony to the company.





## Fair Evaluation and Compensation

POSCO's salary system reflects how long the employee has worked for the company, performance, and the company's overall performance. In other words, the inflation rate and the extra years of work are reflected; automatically raising the salary to support stable livelihoods; and the raises in salary is applied differently by each employee according to their performance.

In addition, the company's business performance such as reducing production cost and improving productivity is systematically applied through the business performance-based benefit system, to be evenly distributed among employees. With this method, there is less conflict among the labor union and the management compared to the method in which the labor and management have to agree upon the incentives. Especially, in 2012, POSCO reinforced the performance-based incentives by changing from the existing fixed incentives system of annual 400 percent to a variable business-performance based system.

In particular, the same salary criteria (single table) are used for both male and female employees, where individual performance and years of continued service are reflected in adjusting the salaries. Thus, POSCO's compensation system does not incur different income according to gender. Moreover, POSCO operates various HR systems to actively cultivate female employees and enhance their competitiveness, and implements programs to help them maintain work-life balance.

## Welfare Benefits

POSCO contributes part of the company profits to the employee welfare fund to boost the employees' quality of life. The fund is used for house purchasing loans and stabilization of livelihood, 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, POSCO operates a welfare support center to provide employees with vacation facilities and medical check-ups, as well as conducting assessments of the workplace environment. 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 & sports facilities were built in Pohang and Gwangyang, and in 2012 the Goheung Training Center was opened to the 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 group insurance. In 2014, we conducted the GWP (Great Work Place) campaign, improving human resources management and education system, and minimizing over management by simplifying administrative work so that employees may engage themselves in their work. In addition, campaigns such as practicing basics to enhance the company's fundamental competitiveness were implemented as part of our efforts to create a happy work place for the employees.

## Employee Welfare Fund

(Unit: KRW 1 billion)

| Category               | 2011  | 2012  | 2013  | 2014  |
|------------------------|-------|-------|-------|-------|
| Contributed amount     | 62.1  | 59.1  | 57.6  | 58.9  |
| Cumulated contribution | 757.2 | 816.3 | 873.9 | 932.8 |

## Labor Costs Paid Out

(Unit: KRW 1 billion)

| Category   | 2011  | 2012  | 2013  | 2014  |
|--|-------|-------|-------|-------|
| Payroll <sup>1)</sup>                            | 1,277 | 1,367 | 1,401 | 1,435 |
| Provisions for retirement benefits <sup>2)</sup> | 137   | 113   | 135   | 129   |
| Legal welfare expenses <sup>3)</sup>             | 100   | 102   | 90    | 108   |

- 1) Payroll: Total of monthly salary, cashable welfare expenses (lunch money, personal pension subsidy, business performance-based benefit, incentive)  
 2) Provisions for retirement benefits: Retirement fund for general employees for the year (executives excluded)  
 3) 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                                  | 2011   | 2012   | 2013   | 2014   |
|---|--------|--------|--------|--------|
| National pension (company's contribution) | 33.3   | 35.1   | 36.5   | 37.5   |
| Personal pension subsidy                  | 9.1    | 9.1    | 9.7    | 9.7    |
| No. of beneficiaries of personal pensions | 13,970 | 14,317 | 14,736 | 10,473 |

## CASE STUDY

### Discounted Employee Stock Ownership Program

The employee stock ownership program is a method where employees acquire the company's stocks through the Employee Stock Ownership Association for a certain period time. The program fosters a sense of pride as an owner of the company and a sense that the company's profit is the employees' profit, promoting the work motivation of the employees.

POSCO implemented the employee stock ownership program in 2013, which had been ended in 2008, providing support for employees' tax benefits. At that time, employees' response and satisfaction was very high. In 2014, we enhanced the program by giving 30 percent discount on the stock prices and giving one share for free for all association members.

The employee stock ownership program that was implemented to heighten work motivation and promote active participation in achieving the company vision "POSCO the Great" brought tax benefits and an opportunity to increase employees' benefits through the 30 percent discount, as well as promoting the sense of ownership, contributing to securing the basis for competitiveness for both the company and the employees.

## POSCO PEOPLE



A cosmopolitan is a person who has the competence to be active in a global setting, with an open mind and diversity.

### Global Competence

Global mindset, business etiquette, and communication skills such as language and IT to lead the global age.

### Openness

The quality that respects and is sensitive to diversity and difference through open mind and action, thus building a trusting relationship.

+



A creator never ceases to challenge oneself with an unwavering commitment and passion to achieve the highest goal, and creates new value through a unique perspective and approach.

### Challenging Spirit

The devotion and passion that voluntarily sets high goals, and does not give up despite any hardship.

### Creativity

The ability to observe phenomena and problems in a new perspective, integrate them analytically, and present original answers and solutions.

+



A performer is a person who has expert skills and knowledge in his/her field, and a sound work ethics to complete one's task till the end.

### Expert Competence

Expert skills in his/her field, know-how, and a broad perspective and insight.

### Work Ethics

A person with good work ethics has a sound mentality and moral sense, stays true to basics and principles, and completes one's task with self-esteem and pride.

## Recruitment Process

POSCO introduced the Structured Selection method in 2003 to recruit talents that fit 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 in order to minimize disparity depending on the evaluator. The recruiting processes differ in the number of evaluation steps and procedures depending on the type of hire. However, generally they are conducted in three steps – basic qualification evaluation, job competency evaluation, and value fit test.

### STEP.1

#### Basic Qualification Evaluation

This is the document evaluation stage, where the applicant is evaluated on educational background, work experience, language test score, expert license, and social activities that are written on the application form, as well the reason for applying, personality and guiding principles in life, and vision for advancement that are described in the self introduction letter.

### STEP.2

#### Job Competency Evaluation

##### ● AP (Analysis & Presentation)

**Problem Solving Example Analysis & Presentation** This stage evaluates the applicant's individual job competency by performing analysis and presentation on a given task. Applicants are given one hour to analyze a business case presented to them, solve the problem and make a presentation in front of the interviewers. AP evaluates the applicant's strategic thinking, creative problem solving ability, planning ability, presentation ability, and the ability to analyze and utilize information.

##### ● GD(Group Discussion)

**Group discussion on given subject** A group discussion is held between five to six people on a given subject, and the job competency is assessed through the discussion process. The points of evaluation are teamwork, leadership, situation awareness, communication, and the ability to form external relations.

##### ● ST1(Specialty Test1)

**Organization Fit Test** This stage evaluates the applicant's level of settlement or adjustment to the company, and growth potential. The applicant is questioned on the level of understanding of the company, motive for application, growth vision, and the personal history written in the resume. The applicant is also tested for sense of responsibility, competence development, sense of balance, managerial mind and listening ability.

##### ● ST2(Specialty Test2)

**Job Fit Test** This stage evaluates whether the applicant has the appropriate knowledge, skills, and attitude for the job being applied for. The interviewer from the field department conducts an in-depth interview to test the level of knowledge in his/her field of major, expertise and applicability at the job.

#### Character Test

A test sheet is used to evaluate the applicant's customer orientation, pursuit of challenge, valuing execution, respect for humanity, adherence to ethics, which are POSCO's core values, and the job competency such as planning ability, communication skills and managerial understanding.

## STEP.3

## Value Fit Test

This stage determines how fit the applicant is to the concept of POSCO People, and is conducted in face-to-face interview with the executives. The Value Fit Test proceeds in question and answers about the applicant's values, job value, views on occupation and life, character, and lifestyle. In this process the applicant is evaluated for his/her challenging spirit, creativity, organizational adjustability, honesty and ethics. The above-mentioned procedure is for college graduate recruitment and the job competency evaluation content and method is different depending on the type of recruitment.

## Researcher Recruitment Process

The recruitment process for researchers is conducted through job competency evaluation that consists of document screening, organization fit test (ST1), and interview seminar and the Value Fit Test.

## Interview Seminar

This stage evaluates the expert competence fit for the field being applied for. Applicants prepare presentation material in their area of research, and evaluation takes place through discussions with current researchers in the field. The applicant is evaluated on his/her presentation ability, expertise and field applicability.

## Career Changer Recruitment Process

The career changer recruitment process consists of basic qualification evaluation, organization fit test (ST1), interactive group discussion (IGD), and value fit test. The IGD is composed of applicant's presentation, then interactive discussion with an employee from the field department.

POSCO Recruitment Site, <http://gorecruit.posco.net/>

## Human Resources Statistics

| Employment       | Classification  | 2012   | 2013       | 2014       |
|------------------|---|--------|------------|------------|
|                  | Total number of employees   | 17,623 | 17,832     | 17,877     |
|                  | Pohang  | 6,521  | 6,556      | 7,506      |
|                  | Gwangyang   | 6,217  | 6,232      | 6,337      |
|                  | Head office / Technical Research Laboratories / Offices / Other             | 4,885  | 5,044      | 4,034      |
|                  | Employees by employment type (persons)                                      |        |            |            |
|                  | Regular   | 16,675 | 17,005     | 17,017     |
|                  | Contract-based worker*  | 748    | 827        | 860        |
|                  | Employees over the age of 50 (percentage among total number of employees)   |        | 5,493 (31) | 5,748 (32) |
|                  | Employees by gender (male)  | 16,921 | 17,045     | 17,035     |
|                  | Employees by gender (female)  | 702    | 778        | 842        |
|                  | Employees with disabilities (persons)                                       | 474    | 485        | 431        |
|                  | (ratio %)   | 2.7    | 2.7        | 2.4        |
|                  | (POSCO)   | 254    | 255        | 241        |
|                  | (Withplus division of POSCO Humans)   | 220    | 230        | 190        |
|                  | Average years of service  | 18     | 18.5       | 18.1       |
| Recruitment      | New hires   | 818    | 873        | 879        |
|                  | Male  |        |            | 800        |
|                  | Female  |        |            | 79         |
| Retirement       | Turnover rate (%)   | 5.85   | 2.91       | 7.69       |
|                  | Resignation (persons)   | 1,029  | 520        | 1,375      |
|                  | Retired employees who reached retirement age (persons)                      | 654    | -          | 626        |
|                  |   |        |            |            |
| Female Employees | Ratio (%)   | 3.98   | 4.4        | 4.5        |
|                  | Ratio of female employees in manager (G10)** positions and above (%)        | 21     | 21         | 35         |
|                  | Number of female employees in manager (G10)** positions and above (persons) | 146    | 166        | 199        |
| Maternity        | Employees who used maternity leave (persons)                                | 56     | 55         | 67         |
|                  | Average length of maternity leave that was used (days/person)               | 71.3   | 61.7       | 61.6       |
|                  | Return ratio after maternity leave (%)                                      | 100    | 100        | 100        |
|                  | Employees who used parental leave (persons)                                 | 61     | 77         | 81         |
|                  | Male  |        |            | 12         |
|                  | Female  |        |            | 69         |
|                  | Return ratio after parental leave (%)                                       | 86     | 98         | 98         |
|                  | Employees who used spouse paternity leave (persons)                         | 532    | 518        | 499        |
|                  |   |        |            |            |

\*Contract-based workers are rehired personnel after retirement, and professionals such as lawyers and nurses.

\*\* G10 corresponds to a manager (rank system was changed in 2011)

## GLOBAL TALENTS

### Talents Nurturing System

POSCO strives to nurture each employee into a creative human talent with the highest expertise so that POSCO may achieve the vision POSCO the Great, and secure the world's top-level human competitiveness. We established an education system by each group that includes executives, engineers, administrative staff and plant floor technical staff, and we provide continued and systematic education programs so that they may acquire the competencies necessary. From new employees to executive ranks, we provide education programs considering their respective roles. Programs cover management issues, spreading the management philosophy, and cultivation of next-generation leaders by rank. In particular, we established the job education system tailored to the characteristics of the job in order to cultivate experts in that job. In addition, we provide education for future life planning so that employees may prepare for life after retirement. We are also enhancing win-win management by providing support not only to domestic and overseas Group companies, but also to outsourcing partners and suppliers through the SME Consortium Education project.

### Focus Area of Human Talent Nurturing in 2014 and Plans for 2015

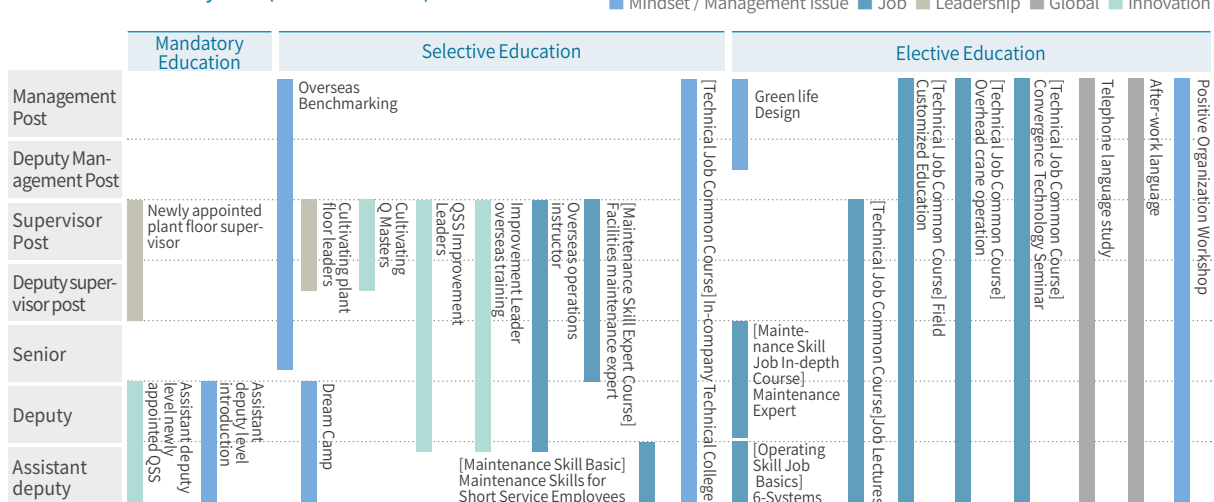
In 2014, POSCO strived to cultivate creative, smart human talents who have the right understanding of the business environment as well as the competence to fulfill their jobs. The programs offered under this goal are as follows. Understanding the new management philosophy and policies; cultivating management leaders based on nurturing roadmap by each rank; enhanced job competency training to secure the basis for growth and innovation; cultivation of field-oriented technological experts to enhance the company's fundamental competitiveness; and win-win management by strengthening education for POSCO Group companies and SMEs. In 2015, we plan to pursue four focus areas to cultivate performance-driven, creative human talents of the future: Enhancing execution capacity of all Group companies;

nurturing next-generation management leaders and enhancing character-building education for employees who served less than five years; operating a systematical education program to cultivate the world's top level job experts and connecting them to HR management; and enhancing business execution capacities of overseas branches and POSCO Group companies by providing more support.

### Developing New Employees' Competencies

POSCO's training for new recruits is focused on giving them a sense of pride by sharing the company's core values and fostering a sense of belonging. Before entering the company they take e-learning courses, and during the three years after joining the company, we offer courses on POSCO history, core values, steel production process and job-related education, OJT, and task execution training according to a training roadmap, in order to help new employees adjust to the organization, cultivate character and leadership, and to help create results for the organization. Before being assigned to their posts, new employees receive POSCO Family introductory training, POSCO's own introduction education, and four weeks of field tour and basic skills training to prepare for their first steps as a POSCO member. After assignment to their posts they receive OJT and mentoring for six months, which is designed to enhance the new employees' job competency and performance, and character and attitude building. The mentor proceeds and instructs the new employees throughout the OJT, helps them adjust quickly and enhance their job performance, listens to their grievances and has face-to-face talks for career advancement. Mentors receive allowance to help them fulfill their role as mentor, and are required to register their mentoring activities as Management by Objectives (MBO) items, so that their duties are recognized as real work and to motivate them. At the time after one year has passed since entering the company, the new employee and mentor who received high scores at the OJT evaluation are rewarded. In addition, the Junior Leadership

POSCO's Education System (Plant Floor Post)



Camp (3-day collective education) is held for the 1st year, 2nd year, and 3rd year employees, as a continuance of cultivating job competence and character building, so that new employees will acquire the required job competency early.

### Cultivating Global Leaders of the Next Generation

POSCO operates diverse leadership programs to cultivate leaders of the next generation with creative and strategic thinking, fit for the ever-changing age of global competition.

First, we established “Essential learning roadmap for position holders” in 2011, which is an education system to ensure that only those who have proven their leadership qualities through extensive training are assigned to a position. In particular, in order to cultivate next-generation leaders with consilience in knowledge and a comprehensive and long-term perspective, POSCO runs a two-track training system. One is training courses for newly promoted employees, and the other is a cultivation course that train high-potential talents before they are positioned to a higher rank. Among the two, those who enter the cultivation course are given business identification tasks and are asked to solve the problem through task-based action learning, so that the challenging and practical solution they drew in the top management’s perspective can be applied at the field.

To foster talent who will conduct global business, we are also providing various education opportunities. We offer business communication skill courses for executives and English camp for the leader ranks in order to cultivate global communication capabilities of employees and executives. The off-job global leader education targeting junior executives and team leaders cultivate global capacities and leadership through core MBA and basic quality education. In addition, for expatriates who are crucial to the success of overseas projects, training programs are prepared

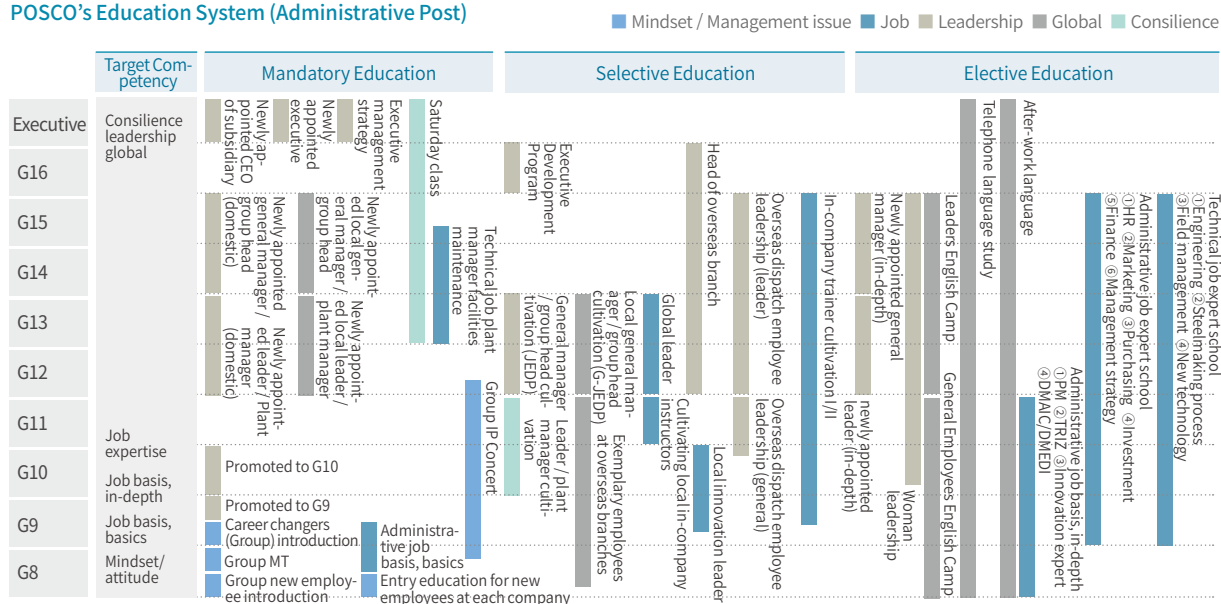
for before and after they are deployed, for them to successfully prepare for the various capacities required at the field. We have also introduced a program for the expats and their spouses to get the training together, so that the family members can better adjust to the new environment.

Local employees are offered various programs to better understand the vision, core values, innovation activities and other important aspects of POSCO. The “Education of Model Employees at Overseas Corporations” course is offered to employees recommended by the head of overseas branches. They receive mental training and a tour of the steelworks to heighten their sense of belonging and pride. In addition, we operate the Global Training Trainer for cultivating in-company trainers among local employees who will convey the POSCO Values to their colleagues, the POSCO Innovative Innovator course that is designed to strengthen the job competencies of local staff in charge of education, and the G-JEDP (Global Junior Executive Development Program) which aims to cultivate leaders among the local HR pool.

### Cultivating Creative Consilience Talents

POSCO operates the Saturday class and TRIZ College to foster POSCO and POSCO Family employees’ creative problem-solving competencies. The Saturday classes provides position holders such as executives, general managers and leaders to share POSCO Group’s management philosophy and business issues, and to enhance consilience capacity through various content including literature, history, philosophy and art. In 2015, the Saturday class that was run in two periods will be extended to three, touching on various genres such as “business environment & strategy” to foster a business mind; “humanities” to reflect on humanity’s fundamental question in the perspective of convergence, collaboration and creation; and “sharing the Group’s values” to broaden the scope of thought at the Group level.

### POSCO’s Education System (Administrative Post)





The TRIZ College is an in-company college for engineers and researchers, which aims to help engineers and researchers strengthen their creativity through level 1 to level 3 courses. We operate the TRIZ Instructor program which cultivates expert instructors for the technology sector, and another course that applies strategic TRIZ courses to the field of strategy and planning; spearheading the advancement of education curriculum that will contribute to bringing actual results throughout all areas of work such as technology, planning and strategy. Through the TRIZ college program we will integrate various innovation methodologies into the project-based working method, and spread it throughout the POSCO Group to enhance efficiency of carrying out projects as well as spread a creative organizational culture.

### Building Harmony and Sharing Vision

With the aim to share the vision direction of “POSCO the Great” and strengthen the commitment to accomplish the vision, we coordinated the IP (Innovation POSCO) Concert, which helped align all employees to look in the same direction and heighten their self-esteem. The IP Concert was held 19 times for employees working in Pohang, Gwangyang and Seoul at the company art hall. It was a time to share the three management principles and innovation agendas for recreating the great POSCO with the employees. The corner dubbed “Thoughts of 100 POSCO People,” where the audience answer questions through a remote control enabled us to hear the honest thoughts of the employees and spark communication between employees and the management level. The concert program consisted of media performance, executive’s lecture, conversation with the employees and concert, under the theme of the company’s new management philosophy. In particular, for the executive’s lecture corner, the CEO and division heads gave lectures, heightening understanding and consensus of the employees.

In 2015 we plan to expand the audience to the POSCO Group under the theme “Change Management and Passion,” add discussion-type programs and participatory performances to create the opportunity for change and strengthening the execution capacity to achieve the vision POSCO the Great.

### Training Support to Secure Proprietary Technology

In order to support training to secure proprietary field technology, we integrated and standardized the category and name of training courses at the company level. For high school graduate employees, we reopened the vocational education and training that was run until 2003 to nurture excellent employees that the company needs. The 4-week program consists of liberal arts, character education, and basic skills, after which they receive a 3-month OJT to become able workers with the job skills and work ethics we need. In addition, outstanding students at leading Meister schools are selected, to whom we offer in-depth field skill training for 5 weeks during the summer and winter vacations before hiring them.

University graduates receive intensive training on basic steel technologies such as element technology, the steelworks process, and facilities technology for 18 weeks before being as-

signed to their posts, in order to cultivate them as consilience talents versed both in liberal arts and engineering. Employee candidates in the POSCO Scholarship, which is another form of our recruiting method, receive field technology training as well as character education for a total of eight weeks during the summer vacation in their junior or senior year. In the future, we will focus on providing expert knowledge training to shorten the time for new employee education so that we may assign them to their posts sooner. We will also add training programs to help employees who have been with POSCO for less than five years that will help them maintain and advance their field skills.

For employees in equipment operation, we provide basic and in-depth maintenance training that teaches equipment maintenance, and for maintenance employees with short service years, we provide field training in maintenance skills, in-depth maintenance and expert facilities maintenance programs to cultivate their basic maintenance competence with problem solving capacities.

In the first half of 2014, we developed 22 element technology courses in mechanics and electric & measuring equipment that are necessary for solving problems at the field, as part of the element technology program for engineers. In the second half of the same year, we added six element technology courses in metal and process. A total of 28 courses are provided to help engineers enhance their steel and facilities related competencies. The expert technology course for engineers is theory-based education necessary for developing new steel technologies. We developed 12 courses in the areas of metal, mechanics, and electric & control. This program is operated under the industry-university co-operative system, where professors from POSTECH, PCPs (POSCO Certified Professionals) and researchers are the instructors for the 3-days’ focused course targeting outstanding engineers in the manager post or higher.

In 2015, we plan to expand the field and courses for engineering education, enhance motivation by linking education and HRM, and develop a competence development system that can monitor education results and give feedback, continuing the systematic operation of engineering technology education.

### Employee Life Design Support

We operate the Green Life program to help employees prepare for their retirement in an aging society. Reflecting the demand for ample preparation for the life after retirement, we designed education courses not only for expectant retirees of the year, but also for employees over 50 years of age and those who have already retired, and provide them with life design services. 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. A total of 3,150 retirees have completed the course since 2002. In the preparatory Green Life program, employees over 50 years of age have learning opportunities to cherish life and work and prepare for retirement through asset management. The Green Life portal that is also open to those who already retired, is a place to share various information and learning content about planning a second life, as well as building



networks. Videos of senior colleagues who have successfully started their second life in farming, country life, re-employment or opening a business are also available at the portal.

In 2015, we will consider providing services and supporting life design at the POSCO Group level not only for retired employees but also for former employees, building a senior-friendly corporate image.

### Self-Directed E-Learning

In 2014, over 166 thousand POSCO employees participated in the e-learning program, and studied an average of 74 hours a year. The number of e-learning courses the employees applied for self-directed learning was 844 (708 domestic, 36 overseas). The type of courses were value-sharing 52, leadership 94, job expertise 159, liberal arts 38, language 501. Some of the major courses that were made available in 2014 were Mandatory Management course, Easy-to-Learn IP 1.0, and POSCO-MBA. The Mandatory Management course that all employees are required to complete teaches corporate ethics, information security and intellectual property. All employees and executives also took the legally mandated sexual harassment prevention course. The Easy-to-Learn IP 1.0 course was opened to quickly spread the new management guideline and Innovation POSCO (management strategy) 1.0 and achieve one-direction alignment of the employees. This course covers innovation, marketing, technology, finance, energy, materials, E&C · ICT, environment and overseas investment (9 areas), and all POSCO executives, position holders, part leaders, and foremen have completed the course. We operated the 1-year POSCO-MBA, which is a form of blended learning that combines e-learning and off-the-job training in order to cultivate manager-level employees as the leaders of the future. More than 400 individuals participated in the program. Those who completed the program with outstanding results were awarded, and the program is connected to the human resources management department, so that they will earn points when being evaluated for domestic/overseas regular MBA courses, and as candidates for overseas investment specialists.

The core task for 2015 is to build a culture of self-directed learning that incorporates work and learning. This will be achieved by securing content for enhancing job competence; supporting local employees enhance their competence; and establishing a smart learning environment that meets the advancements in the web technology. We will provide a variety of in-company and outside-of-company content to enhance job basic and job expert competence, and a self-directed learning system accommodating different job expertise levels. For enhancing competence of overseas local employees, we will establish a standardized learning system on value sharing, leadership, job expertise and language, and the content going along with them.

Recently, with the development of web technology, many tools that support collaboration and communication have emerged, and the trend is moving toward smart learning that promotes unofficial learning using these technologies. To meet this trend,

we will build by steps a POSCO-style smart learning basis, where students produce knowledge on their own and learn from each other. We will utilize various internal and external learning resources and combine them like modules to provide custom-tailored content, which will be accessible without restriction of devices such as PC, tablet PC or smartphones, so that continued learning will be possible.

### Strengthening Innovation Education to Accelerate Achievement of Company's Vision

With the PI (Process Innovation) that started in 1999, POSCO introduced 6 Sigma in 2002 to cultivate innovative talent and fulfill tasks and in 2006, developed and implemented the POSCO-style 6 Sigma. Since 2012, we have continued our management innovation activities to secure competitiveness based on BI (Breakthrough Innovation), CI (Continuous Improvement), and PO (Process Optimization) activities. We continue to operate the MBB, BB and GB cultivation education to nurture innovation leaders who will spearhead the company's management innovation.

In 2014, the PWS (Project-based Working System) was introduced to secure competitiveness by undertaking profitable projects. Thus, we unified the existing task activities based on various innovation methodologies with the project execution activities. We opened the methodology course designed to enhance project executors' problem solving capacities, and operated the project execution course. We are revamping the courses so that students can select programs to fit the project type and the level of innovation education the executor has completed. Reflecting the opinions demanding improvement of the QSS activities – a facilities maintenance activity – we upgraded it to QSS+, which is an autonomous and practical activity that fits the steel works' environment. The biggest characteristic of QSS+ is the My M&S activity, which means the employees autonomously establish targets in stages to secure the world-top facility competitiveness (Quality, Stability) and build the safest possible working environment (Safety). One-year, three-year and five-year targets are set that are linked to the KPI, and the key facilities are selected. In order for plant floor employees to execute the My M&S activities, it is essential to enhance their innovation competencies, and thus we strengthened their job competencies through the OJT program. In addition, we continued to cultivate QSS-Leaders and QSS-Facilitators (former QSS-Masters) according to the conditions of field departments, enhancing their improvement capacities. In 2015 we renovated the QSS-Facilitator textbook; and newly installed the QSS+ theory education course for part leaders and foremen to enable them to take the leading role in QSS+ activities, and the My M&S course that includes field practice.

### HRD Consortium for Win-win Management

In November 2004, POSCO was designated as the “National HRD Consortium” operating institution by the Ministry of Labor and Employment, and has been operating the consortium in full-swing since 2005. Although POSCO had been providing various education supports to outsourcing partners since 1994 to enhance their competitiveness and to achieve the goal of shared growth at the POSCO Family level, POSCO participated in the HRD consortium to provide a more organized and systematic education support. We constructed the HRD consortium to include cultivation training and enhancement training. Cultivation training targets those who are to start work and offers two classes, overhead crane operation and industrial equipment maintenance. The enhancement training targets employees already working at the SMEs and provides training in courses such as national technical certificates, mechanics, electricians, IT, 6 Sigma, QSS and safety, supporting their job competence enhancement.

If we look at the performance of the HRD consortium, in the early stages in 2005 we provided training to 4,241 persons in 132 member companies, but in 2014 that number increased to 407 SMEs, 95 collective training and 37 e-learning courses. We were approved by the Ministry of Labor and Employment as a corporate college without a degree, and operated three majors for 60 students. In 2015, we plan to operate 135 courses and five corporate college majors including the Steel Meister major through the consortium project.

Through the HRD consortium project, POSCO was able to contribute to enhancing the SMEs’ competitiveness, which also enabled us in turn to secure better quality products and service, while the SMEs improved the employees’ job performance and productivity for free, which significantly improved their business management. In recognition of these efforts, POSCO was named the best SME vocational training institution for nine consecutive years from 2006 to 2014, and in 2007 we even received the president’s commendation.

### Training Support Provided Through the HRD Consortium

| Category           | 2011   | 2012   | 2013   | 2014   | 2015(plan) |
|--------------------|--------|--------|--------|--------|------------|
| Member companies   | 418    | 472    | 428    | 407    | 398        |
| Number of trainees | 42,436 | 72,766 | 71,490 | 56,304 | 52,800     |

\* The HRD consortium is a system where large companies with outstanding training infrastructure form a consortium with SMEs and provide training support in order to enhance SMEs’ competitiveness through improving their employees’ job competence, thereby achieving shared growth between SMEs and large corporations. The government (Ministry of Labor and Employment) supports the costs to large companies from the employment insurance paid by the SMEs.

### POSCO’s Education Index

POSCO operates an education index to measure the efficacy of the education and training programs. Major indices include number of trainees, training hours per capita, and training costs per capita. To measure the efficacy, we conduct satisfaction surveys for all the courses offered, and we evaluate the trainees’ level of understanding (achievement level) for the 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 them.” 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 less training hours but higher satisfaction.

### Major Indices (KPI)

| Category                                    | 2011    | 2012    | 2013    | 2014    |
|---|---------|---------|---------|---------|
| Number of persons to receive training       | 530,086 | 432,859 | 523,184 | 356,133 |
| Training hours per capita                   | 252     | 234     | 205     | 128     |
| Total training costs (KRW 100 million)      | 253     | 178     | 142     | 122     |
| Training costs per capita (KRW 10 thousand) | 145     | 101     | 80      | 68      |
| Trainee satisfaction (points)               | 4.47    | 4.48    | 4.62    | 4.65    |

Note: Data is based on off the job training (Future Creation Academy, plant floor supervised training, on-site lifelong learning, commissioned training) and e-learning

\*Details of the 2014 training hours per capita: collective training 37 hours, e-learning 74 hours, on-site lifelong learning 15 hours, commissioned training 2 hours

# 03

## Responsibility Management

|                                    |     |
|------------------------------------|-----|
| Business Ethics                    | 066 |
| Human Rights Management            | 069 |
| Safety and Health                  | 072 |
| Safety                             | 078 |
| Health                             | 081 |
| Supply Chain Management            | 084 |
| Fair Trade                         | 090 |
| Win-win Growth                     | 092 |
| Venture Support Program            | 094 |
| Supply Chain CSR Competitiveness   | 096 |
| Environment                        | 100 |
| Environmental Management           | 101 |
| Environmental Performance          | 102 |
| Biodiversity Policy & Activities   | 110 |
| Communication on Environment       | 117 |
| Climate Change                     | 121 |
| Carbon Management                  | 124 |
| Climate Change Response Activities | 126 |
| Climate Change Partnerships        | 127 |
| Social Responsibility              | 128 |
| Local Community                    | 128 |
| Future Generation                  | 128 |
| Green Planet                       | 128 |
| Diverse Society                    | 128 |
| Cultural Heritage                  | 128 |

## BUSINESS ETHICS

### Business Ethics

Along with excellent facilities and efficient processes, the right values held by the human constituents who control them is becoming the yardstick for measuring a world-class company's competitiveness. On 2 June 2003, POSCO took another step forward toward becoming a trusted and respected global company by announcing the Code of Ethics that pledges a global ethics practice. After declaring the Code of Ethics, backed by the firm determination of the CEO, 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 the employees' participation and stakeholders' understanding." To this end we continuously emphasize the model role to be played by the field staff and put our efforts into enhancing constituents' ethical awareness and judgment through repeated education and training.

We established various systems to steer employees to practice and experience business ethics in everyday life, going beyond an abstract sense of ethics to experience ethics through execution. The experience so accumulated is becoming a part of POSCO's organizational culture.

### Continued Employee Training and Campaigns

With the understanding that in order to incorporate ethical practices into our corporate culture it is most important for employees to establish the right ethical values, we have continuously developed and operated online and offline education programs. Starting with the pledge to honor the Code of Ethics at the beginning of the year, all employees are mandated to complete the online education programs for business ethics and prevention of sexual harassment. In addition, offline programs are provided to new employees and career changers, and customized courses to fit each circumstance, such as promotion or overseas dispatch are provided as well.

In particular, the offline education program is designed for various ranks and situations. First, executives receive 1-to-1 educations once a year through the Executives' Ethics Session on the recent trends in business ethics and example audit cases and they compile separate material for ethics education to implement ethics education to employees under his/her supervision.

#### Business Ethics Education Completion Rate in 2014

| Classification    | Completion Rate |
|-------------------|-----------------|
| Business ethics   | 94.5%           |
| Sexual harassment | 96.4%           |

For those who are promoted as position holders such as team leaders or group heads, we provide ethics education to fit that position, and we also included business ethics as a mandatory course in the leader cultivation program. Employees who are to be dispatched overseas receive in-depth education on FCPA (Foreign Corrupt Practices Act), and overseas branch presidents receive 1-to-1 interview education from the heads of the Audit Office and Finance Office. We introduce POSCO's ethical management and systems to expatriates dispatched overseas and locally hired employees, and conduct offline education twice a year for Ethics Helpers who are charged with the duty to spread ethics education to the departments.

In addition, business ethics is promoted regularly to enhance employees' ethics awareness. The main activity is the business ethics newsletter sent to all employees at the end of each month. The newsletter introduces cases from ethics counseling, commentaries on ethical dilemmas, and ethics-related activities of the subsidiaries. In addition, promotions are held twice a year regarding outside lecture fee donations, amounts given for congratulations or condolences, and gift return centers to refresh employees' awareness. In 2014, posters were put up at the entrances of all business sites so that employees will be exposed to ethics every day.

### Building and Spreading Infrastructure for Ethical Practices

POSCO has built and operated various advanced regimes and infrastructure for effective ethical practices. In order to eradicate unethical behavior, management responsibilities were expanded from senior position holders to the executives in 2011; bribery or other criminal acts are reported to the police; and disciplinary measures are published on the company's intranet.

Since 2004, we reward reporting of unethical actions, and from 2011, when such a report had led to reduced loss or more profit, the maximum reward was significantly increased to KRW 1 billion. The door for reporting unethical behaviors and seeking ethics consulting is available not only to executives and employees but also to the general public through phone, fax, mail, or the internet. In addition to the company-wide activities to eliminate ethics-related risks, we operate the Corporate Ethics Voluntary Practice Program where ethical risks within the departments are identified and preventive measures are taken.

#### Reports Received by Unethical Behavior Report Center

(Unit: cases)

|         | 2012 | 2013 | 2014 |
|---------|------|------|------|
| Details | 267  | 253  | 259  |

#### Measures Taken by POSCO in 2014

(Unit: %)

|         | Disciplinary action | Warning | Caution | Total |
|---------|---------------------|---------|---------|-------|
| Details | 34.2                | 39.2    | 26.6    | 100   |

## Reward System for Reporting Unethical Behavior

We hereby execute the reward system for reporting unethical behavior with the aim of settling an ethical corporate culture by preventing unethical behavior.

**01. Behaviors Subject to Reporting** (The following unethical behavior of employees of POSCO or POSCO affiliates)

- ② The act of receiving money/valuable or treats in relation to ones' job from an external stakeholder.
- ② Using one's position to take improper gains or causing losses to the company through unjust means or intentions.
- ② Other unethical behaviors related to external stakeholders.

### 02. Reward Criteria for Reporting Unethical Behavior

A. Reward Subjects – Employees of POSCO and its affiliates, external general public

B. Reward Criteria

- ② Maximum Reward Amount: KRW 1 billion
- ② In the case the report brought increase in profits or decrease in losses (Maximum of KRW 1 billion shall be rewarded)

- In the case the report brought increase in profits or decrease in losses

| Amount of Increased Profits or Decreased Losses | Reward Criteria  |
|---|--|
| Less than KRW 100 million                       | 20%  |
| Between KRW 100~500 million                     | KRW 20 million + 10% of amount exceeding KRW 100 million |
| Between KRW 500~ 1 billion                      | KRW 60 million + 10% of amount exceeding KRW 500 million |
| More than KRW 1 billion                         | KRW 110 million + 10% of amount exceeding KRW 1 billion  |

- When the individual directly related to the case in question reports voluntarily, the maximum reward shall be KRW 100 million.
- When the increase in profits or decrease in losses occurs intermittently reward shall be determined based on the total amount; when the effect takes place over a long period, the estimated annual amount shall be the criteria for determination.

- When estimating increased profits or decreased losses is difficult: KRW 1 million ~ 50 million according to gravity.

- ② In the case of reporting unethical behavior of receiving money or valuables.
- Reporting Other: Tenfold of received amount (maximum KRW 50 million)
- Voluntary Self-Reporting: Fivefold of received amount (maximum of KRW 20 million)
- Reward amount will vary according to the time lapse between the point of incident and reporting, from 1.5 times to 5 times of reported amount.
- Employees shall be rewarded only when incident is reported within five working days from the time he/she was made aware, and when more than five days have passed, will be exempt from receiving the reward.
- In cases where the money or valuables was asked for or could have been refused, the reward shall not be given.
- In the case of reporting unethical behavior of other: KRW 50 thousand ~ 20 million shall be rewarded depending on gravity.
- ② Amounts discovered in the course of the Audit Division's investigation will be excluded from the reward amount, and in the case the grounds for reward occurs repeatedly, the largest amount will be awarded.

C. Exemptions to Rewards

- ② When the report is proved to be false or indeterminable due to lack of evidence.
- ② When the report concerns unethical behavior that does not involve an external stakeholder.
- ② However, cases resulting in direct losses to the company such as embezzlement or theft of company assets may be rewarded.
- ② In the case the incident has already been reported, or an auditing unit, a related department or external institution is already aware and proceeding with investigation, or disciplinary action is under way or completed.
- ② Incident has been made public by the media.

- ② The report was made anonymously or under a false name, making it impossible to know who made the report.

- ② Incident is related to simple work-related improvement.
- ② An employee of the Audit Office made the report.
- ② Other cases where reward evaluation concluded that reward is inappropriate.

### 03. Secrecy of the reporter's identity

A. Payment of reward to individual who made the report.

In order to prevent exposure of identity in the process of paying the reward, the leader of the audit group will receive the award money and relay it through a method of the recipient's choice that will guarantee secrecy (details on the actual recipient is not recorded on the company's account).

B. Prohibition of leaking or tracking down reporter's identity

- ② Prohibition of leaking or tracking down reporter's identity: any employee or executive who is made aware of the reporter's identity by coincidence or in the course of one's work must not leak his/her identity.
- ② Prohibition of tracking down reporter's identity: the subject of the report, or the department he/she is part of, or any other related department may not inquire to the Audit Office regarding the reporter's identity, or take questioning or any other action that might reveal the identity of the reporter.
- ② Prohibition of revealing the identity by an employee of the audit office: the identity of the reporter or anyone who cooperated with the investigation may not be revealed or hinted at without the consent of the reporter.
- ② Violation of the duty to protect the reporter's identity shall be punished.

C. Prohibition against disadvantages to the reporter and management of the post of reporter whose identity has been revealed.

- ② Investigation of leakage: in the event the reporter's identity has been revealed, it shall be notified to the Audit Office, which will investigate the course of the identity leakage and punish those responsible.
- ② Prohibition of disadvantageous treatment in human resources management, and management of post: prohibition of disadvantageous treatment in human resources management, and stipulation of punishment in case of violation. When disadvantage is expected, the reporter may be assigned elsewhere, and if necessary, assigned to the Audit Office before being posted to another department.

### 04. How to Make a Report

A. Report to: Audit Office

B. Reporting Method

- ② Cyber report, mobile report, mail, phone, fax, visitation, or other method that reporter finds most convenient.

C. How to Make a Report

- ② State one's own name, the subject of the report, and the details of the violation under the five Ws and one H, and attach proof. However, in cases of emergency such as violation going on at the time of reporting, only the facts without proof may be permissible.

D. Submission of Report

- ② Unethical Behavior Report Center – when outside the company premises, log on to the company website ([www.posco.co.kr](http://www.posco.co.kr)), go to Unethical Behavior Report Center → Click Report

② Mobile Report

② Phone/Fax, Visitation

|                    | Phone   | Fax  |
|--------------------|---|--|
| Outside of company | 080-390-3366<br>02-5467-3366(Seoul)               | 080-391-3366 (collect call)<br>3457-1991 (POSCO Center 16th fl.)                 |
| Inside company     | 054-220-3366 (Pohang)<br>061-790-3366 (Gwangyang) | 220-2499 (Pohang Head Office 9th fl.)<br>790-4999 (second main building 6th fl.) |

- ② Mail: 135-777 440 Teheran-ro, Gangnam-gu, Seoul, Korea POSCO Center Head of Audit Office (892, Daechi-4dong, Gangnam-gu, Seoul, Korea)

Under the assumption that the ones to know best about the persistent ethical risk elements within a department are the departments themselves, we are making actual improvements each year through activities to eliminate ethical risks under the supervision of the head of the field department. In particular, departments with the best results are chosen for review and performance presentation. The subsidiary and department with the highest evaluation scores are selected and rewarded.

In addition, POSCO runs the Gift Return Center as part of the campaign against giving or taking gifts during the holidays. Items that are difficult to return are auctioned to the employees. Congratulatory flowers for executives' promotions are also auctioned, and the income is donated to the POSCO 1% Sharing Foundation to help people in need.

In addition, in case congratulatory or condolence money was received but is difficult to return, or for external lecture fees that was based on the knowledge acquired in the company, these contributions are also channeled to the 1% Sharing Foundation. The reason POSCO implements such various activities are to encourage employees to understand ethics with a positive mindset, and to promote direct participation to enhance their ethical awareness.

### Ethical Management that Grows with the POSCO Family

POSCO operates various ethical management infrastructures to spread ethical management to the POSCO Family level that includes subsidiaries, outsourcing partners and suppliers. The "Corporate Ethics Voluntary Practice Program" is a movement centering around the field departments to eliminate ethical risks, which we have expanded to subsidiaries and overseas branches. In 2014, 25 companies (21 major subsidiaries and 4 overseas branches) participated in the program. With the goal of effectively implementing the program, an exchange meeting of the personnel in charge of the Corporate Ethics Voluntary Practice Program was held twice during the last year. In addition, subsidiaries with exemplary performances are awarded.

In 2014, we provided a comprehensive reference material package in order to assess the level of business ethics infrastructure at each subsidiary and to help them build the lacking infrastructure independently. For companies having difficulty in building the infrastructure on their own, POSCO visits them for consultation.

Moreover, we are conducting visitation activities to overseas branches to spread POSCO's ethical management philosophy. Before visiting the branch, we assess the ethics level and convey the results to the president of the branch through Overseas Branch Presidents' Session. We provide ethical education for the branch president and dispatched employees while providing ethical education to the locally hired employees as well, and hold meetings to discuss related matters.

### Preventing Ethical Risks in Global Business Management

POSCO has been putting efforts into global-level ethical risk prevention at the overseas branches and offices. POSCO provides collective training to employees and overseas branch presidents who are about to be dispatched, as well as ethics education and coaching to expatriates and locally hired employees, as part of our efforts to spread ethical management practices.

In 2014, we visited POSCO Family branches in Vietnam and Uzbekistan to conduct ethics education, FCPA (Foreign Corrupt Practices Act) training and ethical practice coaching to the expatriates and locally hired employees. Furthermore, POSCO was the first to establish and introduce the "Foreign Corrupt Practices Act 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, which takes place at the beginning of each year. We operate an exclusive FCPA line as well.



## HUMAN RIGHTS MANAGEMENT

The importance of human rights management grows ever more important as corporations' influence on society become stronger. Moreover, human rights, forced labor, wealth gap, and discrimination are continually becoming issues in the international society, and the corporations' role to resolve these issues is being emphasized. POSCO builds a working environment where no employees are discriminated and actively communicates with the local society so that the community will grow together with the POSCO Family.

### Human Rights Management Based on the Code of Ethics

As a member of the UN Global Compact, POSCO respects the UN Global Compact's principles on human rights and labor. In addition, under POSCO's Code of Ethics, POSCO abides by the global human rights standards including the UN Policy Framework and the Guiding Principles. 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 which respects diversity.

On June 2nd 2014, on the opportune moment of the 11th anniversary since the announcement of the Code of Ethics, POSCO reflected the changes in the global environment, and revised the Code of Ethics on articles on human rights, environment protection and social responsibility, and implemented the revised Code. The trend of ethical management is changing from anticorruption of not conducting unethical behavior, to an active practice of coexistence and win-win with the ecosystem surrounding the corporation. In global business, the demand on corporations to respect the law and human rights of the country and protect the environment is becoming stronger.

Through the revision process, the Practice Guideline that was composed mainly of conflict of interests such as receiving money or valuables, treats or special treatment were modified to include content relating to protecting customers and investors, respecting human rights, environmental protection, win-win, and social contribution. During the revising process we included main contents from the Charter of Firm of Endearment, Environmental Management Directive, Code for Shared Growth, and the Quality Charter, and also referred to the case of global companies such as GE and Siemens, and the UN's Guiding Principles. In particular, we changed the ethics standard to prohibit receiving any kind of congratulatory or condolence money from suppliers, outsourcing partners and customers, and we will strive to set an example in building a more sound and transparent trade order.

The 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, deal with human rights already. However, mentioning human rights in a separate rule within the Code of Ethics signifies our commitment to respect human rights as a global corporation, and thus has significance.

POSCO's Code of Ethics <http://www.posco.co.kr/homepage/docs/kor3/html/company/ethics/s91a3000050c.jsp>

### Protecting Human Rights through Ethical Practices

The vision "POSCO the Great" is composed of three new management philosophies – One POSCO, Creative POSCO and Top POSCO. Among the three management philosophies, Top POSCO means aiming for the common goal through harmonious relationships. All the constituents share a common goal and the direction for change, come together with a sense of ownership and execute the goal in unison. It pursues development based on social value and aims for shared growth with customer companies, suppliers and the society. POSCO does not stop at rhetoric but links this philosophy with effective regimes 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 the campaign against sexual harassment. The Code of Ethics Practice Guidelines, Article 7 stipulates, "We will not engage in verbal, physical or demonstrative acts that may offend others or infringes other's human rights such as sexual harassment."

POSCO also provides an e-learning course and operates a Sexual Harassment Helpline as well. Upholding the Ten Principles of the United Nations Global Compact, POSCO abides by the Standards of Child and Forced Labor and Discrimination Convention if ILO in all its business activities. In addition, in order to promote the employment of the disabled and vulnerable groups, POSCO operates three social enterprises: POSCO HUMANS, which is Korea's first standard workplace for disabled persons, POSPLATE and Songdo SE.

### System for Addressing Human Rights Grievances - Shinmungo

POSCO listens to stakeholders' voices through various channels. We gather complaints from internal and external stakeholders and reflect them in our management activities to make improvements. One of our major efforts in this respect is the Shinmungo (grievance mechanism), through which we identify and improve human rights issues. The Shingmungo 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 the person reporting must be absolutely guaranteed.

Therefore, it is stipulated in our regulations that if the identity of the person who filed the report is exposed, the one responsible will be penalized, 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 Audit Office personnel hold an "Informant Identity Protection Pledge Ceremony" at the beginning of each year to ensure their identities are protected.

Unethical behavior reporting system and report center <http://www.posco.co.kr/homepage/docs/kor3/html/company/ethics/s91a3000160c.jsp>

### Spreading Awareness on Human Rights Management in the POSCO Family

We at POSCO are putting our efforts into realizing the principle of respecting human rights throughout all the POSCO Family companies that have overseas operations. In 2014, we developed a checklist to examine the principles necessary to realize human rights management that reflects the trend of emphasizing respect for human rights in global business, and conducted an "Overseas Branches Human Rights Management Self-Inspection." The checklist consists of three areas – human rights management, anti-corruption activities and ethical practices – and 71 items, and was developed to determine human rights risks that can arise at the overseas branches as precisely as possible. Overseas branches built a system for regular self-inspection to check their understanding of ethical activities including those related to human rights in order to practice ethical management befitting a global company and meet stakeholders' demands. The self-inspection is conducted once a year and is utilized as basic data for human rights management.

### Inspection of the Human Rights Issue on the Uzbekistan Cotton Business

In relation to the issue related to Daewoo International's cotton business in Uzbekistan raised by NGOs, the ILO and investors regarding forced labor, an inspection team composed of internal

experts from POSCO and Daewoo International was sent to Uzbekistan in October 2014, to inspect the local situation and have discussions with government officials.

The Uzbek government has already signed an MOU with ILO for the Decent Work Country Programme for a three-year period in April 2014, and has received continued monitoring of labor conditions (unscheduled visits and interviews). The ILO has said that forced child labor is not taking place in the country, and also praised the Uzbek government's efforts to resolve the issue of child labor and forced labor.

POSCO too confirmed through the visit that child labor and forced labor has been improved significantly. The ILO foresees that by 2016 Uzbekistan will be able to achieve 90 percent or higher in mechanization rate for the cotton picking business. Daewoo International, who occupies an important position as a long-time partner of Uzbekistan, and POSCO, DWI's mother company, conveyed the international society's demands on the human rights issue and the difficulties faced by the POSCO Group directly to the Uzbek government, and we anticipate that this will provide an opportunity for the government to revisit the realities of the issue of human rights and speed up their improvement measures.

## CASE STUDY

### Human Rights Management at Overseas Operations: The Odisha Integrated Steel Mill Project in India

In 2005, POSCO signed an MOU with the Government of Odisha (GoO) to construct a 12 million ton integrated steel plant. However, the project could not make any substantial progress for the last ten (10) years due to the oppositions from some civil groups and local residents together with legal and administrative tangles. In particular, for the recent two years, the project has merely seen any progress.

#### What are POSCO's investment philosophy and the scope of investment in India?

India is believed to be an ideal destination for strategic investment as it has abundant resources and high growth potential. POSCO hopes to build a cooperative relationship such as building a competitive steel plant using its unique technologies such as FINEX as well as technological cooperation. In particular, using the FINEX technology, India will be able to increase the utilization of low-grade iron ore, replace high-end imported steel products and vitalize the local economy. Based on our investment philosophy to grow together with the local community, POSCO has also invested in downstream steel plants in Maharashtra and processing centers in other States of India while pursuing to construct the integrated steel plant.

#### What is the current status of the mine development?

The MOU provides that the GoO will grant POSCO a Prospecting License (PL), and made recommendation to the central government according to procedure. We are currently waiting for the central government's decision whether they will grant us the prospecting license, but there has been no progress so far. Moreover, in January

2015, a mining ordinance was passed by the Central Government according to which companies have to go through the auction route to acquire mining rights.

#### What is the progress on the environmental approval?

The central government accorded Steel Plant Environment Clearance (EC) to POSCO in 2007. After evaluation of data and information furnished by POSCO, in 2014, the Central Government revaluated the steel plant EC.

#### What is the progress on securing land?

During almost 10 years after signing the MOU, the GoO has been trying to provide POSCO with the land needed for constructing the steel plant.

Among the 4,004 acres where POSCO planned to build the steel plant, 89 percent, or 3,566 acres is owned by the GoO, and the remaining 11 percent, or 438 acres is privately owned land. It is taking a long time for the GoO in convincing the local residents currently farming in the government-owned land, and the area for which official contract has been signed to date is 548 acres.

☐ For the history of the progress of the Odisha project and FAQ, please refer to the 2013 Sustainability Report page 32~33.  
[http://www.posco.co.kr/homepage/docs/kor3/dn/sustain/customer/2013\\_SR\\_kor.pdf](http://www.posco.co.kr/homepage/docs/kor3/dn/sustain/customer/2013_SR_kor.pdf)

## CASE STUDY

Human Rights Management at Overseas Operations:  
Daewoo International's Cotton Business in Uzbekistan

POSCO's subsidiary Daewoo International 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 in the cotton pulp production branch (Global KOMSCO Daewoo, LLC). The cotton business is a national key industry, and the whole process from seed planting-picking-sales-distribution is state-controlled. The cotton textile branches purchase raw cotton and process them to be sold within Uzbekistan or exported.

After BBC (British Broadcasting Corporation) reported on the forced child labor in Uzbekistan in October 2007, NGOs such as the Cotton Campaign, which is an international coalition of NGOs have been boycotting Uzbek cotton and continuously raising the issue. Simultaneously with joining the ILO in 1992, Uzbekistan ratified the "Convention concerning Forced or Compulsory Labour (No. 29)," and in 1997 ratified the "Convention concerning the Abolition of Forced Labour (No. 105)." In particular, by ratifying the "Convention concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour (No. 182)" in 2008, and the "Convention concerning Minimum Age for Admission to Employment (No. 138)" in 2009, the Uzbek government demonstrated a strong will to eliminate forced child labor, and established and implemented the "National Action Plan" and "Plan on Additional Measures." The National Action Plan and Plan on Additional Measures consists of prohibiting the mobilization of children for forced labor, and introducing a nation-wide monitoring system of forced child labor status by zones and region. In July 2013 the Uzbek government approved the ILO's due diligence procedure during the harvest season in 2013, and cooperated with the monitoring mission from September 11th 2013 to October 31st 2013 to conduct field monitoring. After the two-month monitoring, the ILO officially announced through the 2014 ILO report that evidence of systematic forced child labor was not found during the harvest period of 2013.

In April 2014, the Uzbek government and ILO agreed to the Decent Work Country Programme, which sets priorities the Uzbek government should put efforts into, and ILO will provide technical support for the next three years to aid the government in meeting those agendas, and receive reports and monitor the progress. The DWCP sets the goal as improving working conditions of the agricultural sector including the cotton industry to meet international standards, and includes provisions for conducting surveys, due diligence to inspect forced labor status, and dispatching labor inspectors.

In addition, the Prime Minister Shavkat Mirziyoyev announced at the International Uzbek Cotton and Textile Fair held in October 2013 that Uzbekistan would mechanize more than 90 percent of the cotton production process by 2016. Under these plans to mechanize cotton harvesting, Korea's LS Mtron signed a contract with ASI (Agromash Sanoat Invest), a state-owned agricultural machinery company, for the supply of tractors for cotton harvesting until 2019, worth USD 1 billion.

As a global corporation that fulfills its social responsibilities, Daewoo International established the CSR Council in June 2013, composed of the heads of relevant departments such as the Management Support Division and Audit Office. The purpose of the CSR Council is to rapidly respond to CSR issues (such as human rights and environment), and holds quarterly meeting or whenever an issue arises in order to solve the problem. The CSR Council continually sends official letters to the Uzbek government calling for measures, and requests improved human rights through regular meeting with government agencies, responding in an organized and professional manner to the issue at hand. In July 2013, DWI conducted an independent human rights diagnosis jointly with POSCO and the Daewoo Textile Fergana. Based on Code of Ethics revised in June 2014, POSCO and DWI's Audit Office visited the two textile branches (Fergana and Bukhara) in October to conduct a survey on the overall CSR management including human rights. In addition, DWI plans to promote win-win with the local community through the after-school education program at the local children's center and the eye disease medical camp.



## SAFETY AND HEALTH

### SAFETY

#### POSCO's Safety

In 2014, large-scale disasters such as the gymnasium roof collapse at Mauna Ocean Resort in Gyeongju, Sewol-ho ferry disaster and the ventilation shaft collapse at the Techno Valley in Pangyo have brought widespread concern on the issue of safety. The government installed the Ministry of Public Safety and Security in November to prepare for large-scale disasters on the national level and strengthen the safety management system. POSCO also improved the organization and system to greatly reduce disasters and conducted various safety activities such as safety education customized for each rank. We also focused on practical activities such as the Good Driver campaign and are striving to build a safe and happy work place by fostering and internalizing self-directed safety activities.

#### POSCO Family's Safety & Health Management System

The POSCO Family established a safety and health policy to eliminate hazard elements at the plant floor and improve the employees' health and quality of life, while promoting continued improvements through the PDCA cycle. Moreover, we are creating a safe working environment by making sure everyone thoroughly fulfills the roles, responsibilities and procedures of their respective ranks, which is the core of safety management.

☞ Pohang/Gwangyang Works Safety & Health Management System Certificate, [http://www.posco.co.kr/homepage/docs/kor3/html/sustain/staff/staff\\_01.jsp](http://www.posco.co.kr/homepage/docs/kor3/html/sustain/staff/staff_01.jsp)

#### POSCO Family's Safety & Health Management System



#### Safety Score \_ Number of Accidents

(Unit: cases (fatalities))

| Category   | 2008  | 2009  | 2010  | 2011  | 2012 | 2013  | 2014  |
|------------|-------|-------|-------|-------|------|-------|-------|
| Employee   | 6(1)  | 13(1) | 13(1) | 12(0) | 3(1) | 10(1) | 12(1) |
| Contractor | 5(3)  | 3(0)  | 1(1)  | 6(0)  | 4(1) | 4(1)  | 3(1)  |
| Total      | 11(4) | 16(1) | 14(2) | 18(0) | 7(2) | 14(2) | 15(2) |

#### Safety Score Lost Time Injury Frequency Rate

| Category   | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|------------|------|------|------|------|------|------|------|
| Employee   | 0.18 | 0.39 | 0.38 | 0.33 | 0.08 | 0.26 | 0.32 |
| Contractor | 0.12 | 0.07 | 0.03 | 0.15 | 0.10 | 0.10 | 0.08 |
| Total      | 0.14 | 0.21 | 0.19 | 0.23 | 0.09 | 0.18 | 0.20 |

\* 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 2014 = total (72,001,436 hours), direct operations (36,709,887 hours), outsourcing partners (36,589,256 hours)

\* LTIFR of 2014, according to OSHA (Occupational Safety and Health Administration) standard of 200,000 working hours is: Total (0.04), direct operations (0.06), sub-contractors (0.01). Second number after decimal was cut-off

#### Safety Activities: People – Safety Education and Training

POSCO recognizes that in order to ensure employees' safety, preventive education and training is most important, along with an established education system and various activities. We also put our efforts into securing actual emergency response capacity at the smallest organizational unit.

**Safety & Health, Disaster Prevention Education** We expanded the safety education program consisting of 16 courses in 4 areas to 23 courses in 6 areas. The 6 areas are divided into general, system, special, customized, by rank, and Group companies to provide customized education to enhance the POSCO Family's safety competency. We aim to cultivate managers who set the example and employees who work safely through these education courses. In addition, the POSCO Global Safety Center, equipped with a lecture hall, exhibition room, 4D theater and experience room, opened in October 2011, laying the groundwork for systematic and continuous safety training both in theory and in practice. The center operates safety education and tour programs for students and the general public as well.

☞ Global Safety Center : <http://safety.posco.co.kr/>

**Cultivating Safety & Disaster Prevention Experts** We conducted an education program to cultivate safety & disaster prevention experts who will take the lead in the safety activities on the field and enhance their sense of responsibility. We provided education and training to the Pohang and Gwangyang Works safety leaders and safety personnel from contractors on Occupational Safety & Health Acts and safety management theory over a one-month period. Over 500 field experts were cultivated through this program.

#### Number of Safety Education Participants

(Unit: persons)

| Classification       | 2012   | 2013   | 2014   | Cumulated |
|----------------------|--------|--------|--------|-----------|
| Regular course       | 26,205 | 22,746 | 19,163 | 68,114    |
| Non-scheduled course | 15,068 | 33,949 | 24,437 | 73,454    |
| Visitors             | 32,651 | 27,906 | 21,963 | 82,520    |
| Total                | 73,924 | 84,601 | 65,563 | 224,088   |

\* Regular course (10 courses): Facilities Safety/ILS, Electric, Gas, Height/lifting weight work, CPR, Fire Safety, Industrial Health, Disaster Management, Safety Rules, PSM (Process Safety Management)

\* Non-scheduled course: all courses aside from regular courses

\* Visitors: citizens and students who visited the Global Safety Center

#### Safety Activities: People – Preventing Unsafe Behavior

**Voluntary Reciprocity** Voluntary reciprocity means general staff without positions point out immediately when a coworker acts unsafely or violates safety standards, in order to keep each other safe. The employee who was pointed out is required to send a thank you note for helping correct the unsafe behavior.

**Coworker Love Card** POSCO has set 10 Safety Iron Rules that must be observed at the workplace in order to prevent accidents. In case the 10 rules or standards are violated Manager issues a Coworker Love Card and when they act safely Manager issues a compliment card. If a worker receives 2 Coworker Love Cards within a year for violating the 10 rules, the department head will warn the worker, and if he/she receives 3 cards, we apply strict measures such as submitting to the HR Committee, so that POSCO employees and Contractors will always observe the 10 rules.

**Safety Audit and Patrol** In order 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.

**CCTV Monitoring for Unsafe Behavior** We actively prevent accidents by monitoring unsafe behaviors using CCTVs installed at high-risk locations within the steel works. We installed CCTVs at 60 locations classified as high-risk locations since February 2014, discovered 547 cases of unsafe behaviors and completed corrective measures.

#### POSCO Family's Safety Education and Training Courses (23 courses in 6 areas)

| General (10 courses)                                      |  |
|---|--|
| Facilities safety / ILS*                                  | ILS during stop/during operation to prevent confinement etc.                     |
| Electrical Safety   | Education on electrical devices and safety measures to prevent electric shock    |
| Gas Safety  | Risk identification and measures to prevent poisoning or asphyxiation            |
| Height/Lifting weight work Safety                         | Safety measures for operating cranes and preventing falls                        |
| CPR   | CPR training and actions to take for the "miracle of four minutes."              |
| Fire Safety   | Training on using the fire extinguisher and initial response to extinguish       |
| Industrial Health   | Industrial health and MSDS education for the industrial field                    |
| Disaster Management                                       | Chemicals control, management and control of fires and explosions                |
| Safety Rules  | Types and wearing of personal protective equipment / 10 Safety Iron Rules        |
| PSM (Process Safety Management)                           | Safety measures to prevent major industrial accidents                            |
| Systems (3 courses)                                       |  |
| Risk Assessment   | Risk assessment theory, managing risk elements                                   |
| Global Safety & Health System                             | Safety activities using the computer system, managing safety-related data        |
| Facilities Safety Engineering                             | Standards for installing safety facilities from the design stage                 |
| Special (3 courses)                                       |  |
| Basic Safety & Health Education for Construction Industry | Risk elements for each construction work type and how-to work safely             |
| Dangerous Objects Education                               | Treatment of hazardous and dangerous objects and wearing protective gear         |
| Entering the Steel Mill                                   | Basic safety rules before entering a steel mill                                  |
| Customized (4 courses)                                    |  |
| Cultivating Safety Managers                               | Safety management for cultivating safety managers                                |
| PSRS Auditors   | Method and procedure for diagnosing safety level and evaluation method           |
| Safety Leadership   | Leadership, safety & health law, accident case study, roles and responsibilities |
| Special Spot Training                                     | Whenever a need arises such as an accident occurs, or there was request          |
| By rank (1 course)  |  |
| Education by Rank   | Special education on safety & health disaster prevention by ranks                |
| Group companies (2 courses)                               |  |
| Visitation Education by Family Company                    | Simple theory-based education  |
| Global Safety Center                                      | Hands-on, learn-by-experience education at special training location             |

\*ILS(Isolation Locking System)



## Safety Activities: People – Emergency Response Exercise

**Emergency Response Exercise** POSCO conducts a systematic emergency response exercise based on the manual. We strengthened such 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 the fire control process and chain of command for spreading the word for each plant, minimizing losses in case emergencies occur.

### Emergency Response Exercise Interval

| Name of exercise     | Public-Private Joint Exercise | Fire Preparedness Simulation Exercise                 | Self-exercise for Plant's Vulnerable Spots |
|----------------------|-------------------------------|---|--|
| Supervision          | Fire department               | Safety & Disaster Prevention Department at both works | Plant                                      |
| Target               | Steel Works                   | Plant   | Part leader/foreman                        |
| Interval (Pohang)    | Once/year                     | Once/quarter  | As necessary                               |
| Interval (Gwangyang) | Twice/year                    | Once/half year  |  |

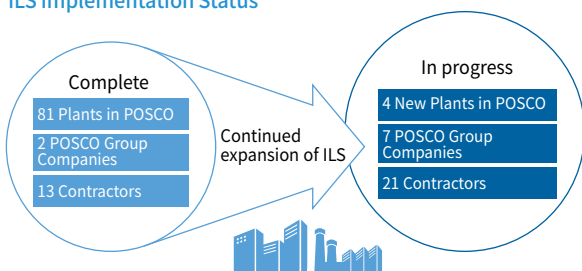
## Safety Activities: Facilities – Identifying and Improving Risk Elements

To realize a safe work place, POSCO continues to identify and improve Hazards and operates the facilities safety system through ILS.

**ILS (Isolation Locking System)** POSCO started full operation of the ILS since 2008 that shuts down the energy source before repair work; and controls entry into operating facilities to protect enterer (worker).

The ILS is divided into During Stop ILS and During Operation ILS. 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.

### ILS Implementation Status



We are building the ILS for the Group companies and outsourcing companies as well in order 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.

**Near Miss Management and Report System** POSCO stipulates the process that involves discovery, improvement and dissemination, in order to promote the Near Miss system. We also built the Global Safety & Health system that any POSCO employee can access easily, to record all safety activities including Near Miss into data and manage them systematically.

First, when a Near Miss occurs, the person who experienced it quickly reports the details of the occurrence and the risks to his/her immediate supervisor (position holder) and enters it in the Global Safety & Health System. The supervisor checks the location, takes steps so that the same Near Miss will not occur again at the same spot, then checks similar locations and relays the Near Miss case to the employees in charge of those locations. In order to "Sign off"<sup>1)</sup> the Near Miss entered, the safety leader<sup>2)</sup> holds a discussion meeting under the supervision of the team/plant manager to analyze the cause and establish measures within 15 days of entry of the Near Miss. According to the results of the meeting, improvement plans are entered in the system within a month through co-operation with related departments. The employee designated to take charge completes the improvement measure within schedule and enters the measures that were taken in the system. Finally, the head of the department verifies whether the improvement measures for the Near Miss and potential risk have been implemented appropriately during a one month period (includes verification and improvement results on similar cases). When the head of the department decides the risk element has been completely eliminated, it is "Closed off"<sup>3)</sup> in the system. The Safety & Health department reflects this in the comprehensive analysis and safety activity plans for each steel works, and conducts education to promote the Near Miss reporting system.

When "Signing Off," the Near Miss is classified into one of 4 grades (A~D) according to the risk level (gravity) / operation frequency (possibility to occur) matrix. Grade A is relayed throughout the steel works, grade B is relayed to the department, grade C to the team/plant, and grade D is relayed to the part unit. In 2014, a total of 7,120 Near Miss cases were registered.

1) Sign off / 3) Close off: entry of a Near Miss or potential risk in the "Global Safety & Health System" is completed after going through the signing off and closing off process. This process involves establishing improvement measures on the risk entered in the system, and verifying the improvement result. First, "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.

2) Safety leader: a safety leader is not a safety & health supervisor designated by law, but is a manager in charge of safety & health to build pleasant and safe working environment for each department / plant.



**Fatal Hazard Top 5** We classified Fatal Hazard Top 5 that can critically affect the before and after processes such as explosions, large-scale accidents and serious disasters into grades A~C, and tightly control them. The 145 cases of Fatal Hazard Top 5 that fall into Grades A and B which have high risk level and the 2,194 core hazards are linked with the management's safety audit.

### Safety Activities: Facilities – Employment of Advanced Fire Prevention Equipment

**Advanced Fire Prevention Equipment** POSCO applies advanced fire prevention technology at vulnerable spots to prevent large-scale accidents. In particular, we introduced the unmanned flexible fire apparatus to effectively respond to fires in high places and the state-of-the-art multi-video based fire detection system to detect fires early, establishing a systematic and scientific response system for emergencies.



Unmanned flexible fire apparatus  
(boom length: 60 m)

Multi-video based fire detection system

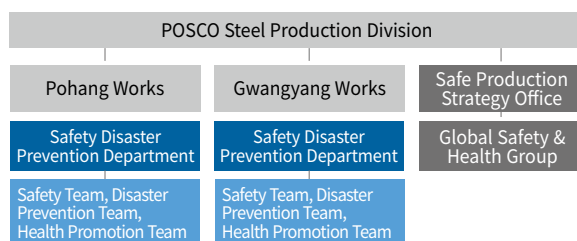
### Safety Activities: System – Organization and System Improvement

POSCO is building the POSCO Family's safety & health management system by improving the safety & health organization to focus expert competencies and providing support for education, system and diagnosis so that the whole POSCO Family will achieve zero accidents.

#### Improving the Safety & Disaster Prevention Organization

With safety our core value and systematically implement safety management, we newly installed an organization and changed the name of some existing organizations. The Steel Production Strategy Office was renamed as Safe Production Strategy Office, and the Safety & Health Executive Office was changed to Global Safety & Health Group, to emphasize the importance of safety. Next, we combined the Safety Team, Disaster Prevention Team and Health Promotion Team, and newly installed the Safety Disaster Prevention Department, focusing on the safety, health and disaster prevention function. In addition, the position of the Safety Master in charge of safety management of the production departments was elevated to safety leader to spread the awareness of the importance of safety at the field.

#### Safety and Health, Disaster Prevention Organization

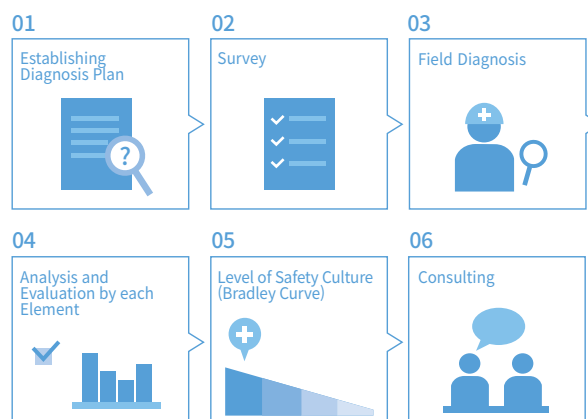


### Safety Activities: System – Diagnosis and Consulting

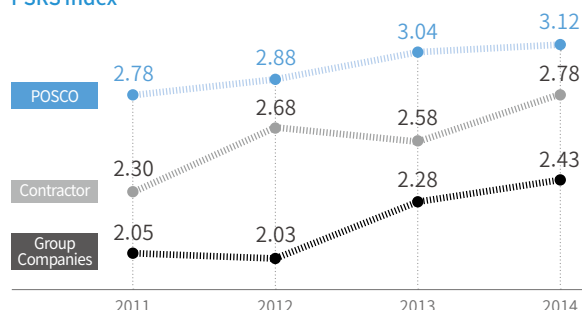
**PSRS Safety Diagnosis and Consulting** Based on our safety know-how, we develop the POSCO Safety Rating System, a global-level safety-rating tool. The PSRS conducts quantitative evaluation by inspecting the implementation of safety leadership, organization, equipment and activities for each company. 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 Diagnosis Order



#### PSRS Index



\*POSCO (6 departments): (Pohang) 2 departments including Hot Rolled Steel Dept. (Gwangyang) 4 departments including Steelmaking Dept.

\*Contractors (22 companies): (Pohang) 8 companies including Mate-M, (Gwangyang) 14 companies including Unitech

\*Group companies (6 companies): POSCO HUMANS, Busan E&E, POSCO M-TECH, POSCO P&S, POSMATE, POSCO CHEMTECH

\*Other: Safety Hub and Shared Growth SMEs safety consulting (8 companies), 3 overseas branches including POSCO-Maharashtra (India)

### Safety Activities: System – Supporting Group Companies and Overseas Branches to Establish Safety & Health Management System

#### Group Company Consulting Provided by Management Level

The management-level executive personally checks the Group companies' safety accident prevention status and provides support through customized consulting and change management, to enhance the level of the Group companies' safety level. Each month a management-level executive visits one of the 17 Group companies that own production facilities to discuss ways to enhance their safety level and provides consultation. In addition, based on the consulting results, the direction of the customized support is decided and monitoring is conducted.

**Safety Support for Overseas Production Branches** In 2014, POSCO provided instructions for diagnosis and building a safety & health management system for four overseas branches, as well as education and advice on safety techniques. We provide computer systems customized to each overseas branch to help with systematic safety activities. In particular, the e-learning program for local employees is prepared in their language. In the first half of 2015, we will conduct safety diagnoses for 15 overseas production branches and in the latter half of the year we will focus on providing support in education and consulting.

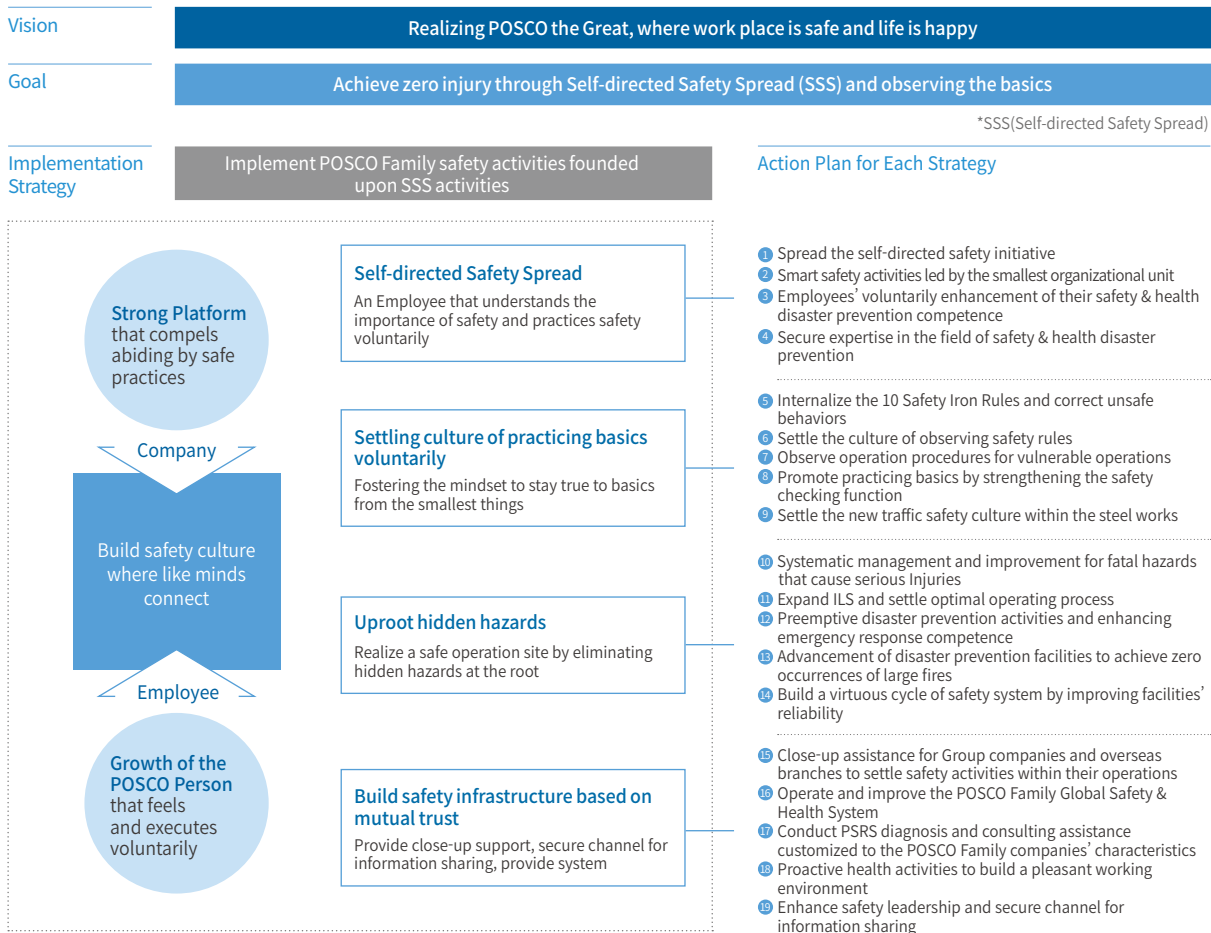
### 2015 Safety & Health Accident Prevention Strategy for the POSCO Family

POSCO set the year 2015 as the starting year for settling the voluntary safety culture and announced the vision "Realizing POSCO the Great, where work place is safe and life is happy" to be achieved by employees, the company coming together and joining forces. We plan to shift the paradigm from the company-led safety management to employees' voluntary safety activities and enhance their safety awareness based on the SSS activities, building a culture in which employees voluntarily practice safety.

To this end, we established four implementation strategies. From the employees' aspect, we pursued "self-directed safety spread (SSS)" and "settling a culture of practicing basics voluntarily"; while from the company's aspect, we established a strong platform that compels abiding by safe practices by "uprooting hidden hazards" and "establishing safety infrastructure based on mutual trust".

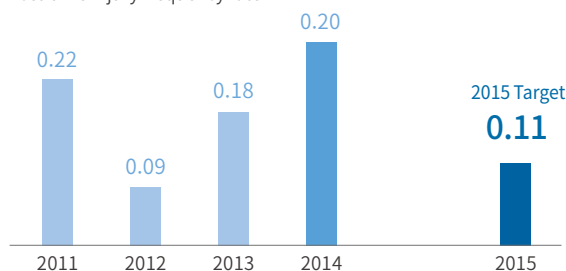
Based on these four implementation strategies we will build a safety culture where "like minds connect," encouraging the voluntary participation and execution of all members of POSCO to achieve zero accidents.

#### Vision and Implementation Strategy for 2015



## Safety KPI

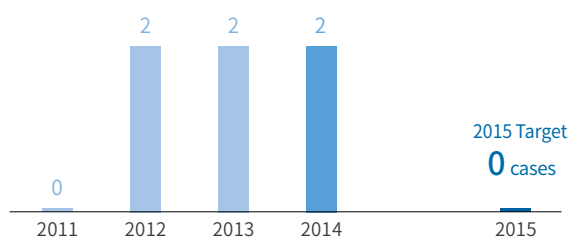
### Lost-time injury frequency rate



**KPI definition:** the index that indicates the accident frequency, calculated as number of accidents per 1 million annual work hours. It is the representative index of industrial hazard statistics (cases/work hours x 10<sup>6</sup>)

### Serious Injuries

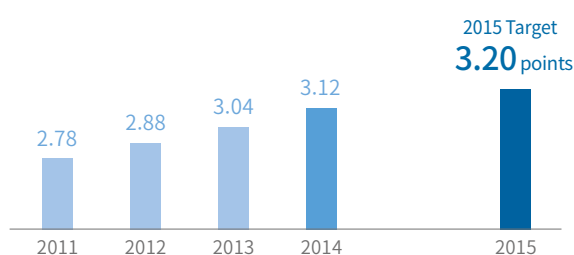
(Unit: cases)



**KPI definition:** cases of serious injuries  
- Discover Hazards for serious injuries (i.e. confinement) and make improvements (risk assessment)

### Safety Culture Index

(Unit: points)



**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)

## CASE STUDY

### Good Driver Campaign

We launched the Good Driver campaign in August 2014 to prevent car accidents occurring within the steel works and foster an advanced traffic safety culture.

There are four major activities in the Good Driver campaign.

**First** is turning the headlights on during daytime. Some industrialized countries recommend turning the headlights on while driving, and there is proof that this helped greatly decrease the number of car accidents. Turning the headlights on during daytime can let others know of one's location, increase awareness and focus, leading to fewer accidents.

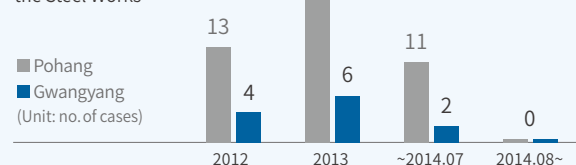
**Second** is getting off the bicycle when passing a crosswalk. Getting off the bicycle is a basic safety rule when passing a crosswalk. In addition, as a bicycle is classified as a vehicle, if an accident occurs while passing the crosswalk on a bicycle, he/she will not be protected as a pedestrian.

**Third** is enforcing the "40 km/h" speed limit within the premises. By lowering the current speed limit, which is at 50 km/h, we enhanced traffic safety within the steel works with heavy vehicles and cargo trucks.

**Fourth** is the "stop or park in designated areas only" campaign. Illegal parking by the side of the road confuses traffic flow, causes accidents and hinders emergency vehicles such as fire trucks or ambulances from passing. Other activities include cutting down trees that block the drivers' view, maintaining clean road mirrors and installing alarm honks and lights at the rear of large vehicles.

POSCO will continue the Good Driver campaign to uproot all automobile accidents in the steel works.

### Traffic Accidents in the Steel Works



## HEALTH

### Employee Health Management System

Based on the belief “Healthy employees make a healthy company,” POSCO conducts medical examinations every year to manage the employees’ health. Examination results are recorded and saved to provide systematic and customized healthcare services for employees.

We conduct health consultation based on the examination results with occupational medicine specialists and prescribe customized diet and exercise routines according to the health condition of each employee. Based on the prescriptions, employees receive health education and regular checkups, and if necessary they use the psychological counseling center and fitness center. For employees who found health problems, we provide regular medical follow-ups and treatment to prevent their illness from worsening, and we allocate a nurse to take charge of the follow-ups for each department. Apart from the basic health care activity, we provide our own tumor marker test (4 types: liver, pancreas, colon, and thyroid) and cancer tests at external institutions (12 types) for the early detection of cancer, which is the major cause of death in modern society. We also provide general examination for the employees’ spouses every two years so that all members of the POSCO family will maintain their health.

Moreover, in order to prevent musculoskeletal disorders, we operate physical therapy clinics equipped with disc decompression system and disc rehabilitation machine in Seoul, Pohang and Gwangyang.

### Health Enhancement Campaign

POSCO believes that the health of the employees is the source of a happy workplace and company’s competitiveness. Based on this belief, POSCO is carrying out no-smoking, healthy drinking, reduce obesity, low salt diet, and don’t get angry campaigns. Since 2009, POSCO declared its steelworks “smoke-free” with the campaign to quit smoking. The love for colleagues and love for family no-smoking campaign was carried out successfully. Recently some employees have begun smoking again, but 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 good restaurants or going to see sports games and cultural events. In order to prevent obesity, POSCO promotes a range of obesity control programs for its employees; 8-week weight loss program, healthy walking campaign, developing a healthy diet and riding bicycles movement.

Moreover, as the Korean diet is comparatively high in sodium content, the possibility of lifestyle diseases such as hypertension and obesity is high. The company cafeteria lowered the sodium content of the food served and promotes low-sodium diet. Gwangyang Works is undertaking the “Peaceful mind” campaign, considering that anger is the foremost element that threatens 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.

1) 123 movement: Twice in One week, less than Three glasses

2) 2-2-2 movement: Pour 1/2 of a glass, propose toast twice at most, and end the get-together in 2 hours.

### Industrial Hygiene Management

In order to maintain perfect health, the internal and external environment surrounding workers need to be pleasant. POSCO is enhancing the convenience and performance of personal protective equipment with the help of personal protective equipment manufactures. Meanwhile, POSCO developed health standards such as “Hearing Protection Program” for areas that are vulnerable to sound pollutions, and the “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, putting our utmost efforts in the POSCO Family industrial hygiene management sector. Thanks to such efforts, POSCO showed an outstanding performance at the “Work Environment Evaluation Management” program, hosted by the Ministry of Employment and Labor every year. Pohang and Gwangyang Works were both designated by the Ministry as a “Self-evaluating Organization of Work Environment.”

### Establishing a Global Safety & Health System

We completed building the integrated health system in 2013 in order to prevent occupational disease in the POSCO Family. Currently, we have built a database encompassing 80 companies in the POSCO Family and contractor, keeping track of work environment measurements and special inspection results, and sharing work environment risk information and occupational disease status on a real-time basis. Starting from Krakatau POSCO steel mill in Indonesia, we are expanding the application to overseas branches and conducting health management of the POSCO Family that fits the local characteristics.

## Health Education

POSCO's Global Safety & Health Group provides online e-learning courses under the topic of "Industrial Health," as well as of-line education on industrial health custom-tailored to the field to enhance employees' health.

In 2014, we provided customized industrial health education to POSCO team leaders, plant managers and part leaders. Meanwhile, we provided customized visitation education for POSCO CHEMTECH, POSCO's Group Company, Geumwon, an contractor, and employees at the FINEX plant.

The program consisted of health enhancement, improving life-style, health examination, management/improvement of working environment and preventing health issues.

The online e-learning course on industrial health is open to all POSCO Family company employees. The Global Safety & Health Groups at Pohang and Gwangyang Works operate the industrial health class that employees can take any time.

### Employees to Complete the Industrial Health Education (e-learning)

(Unit: persons)

|      |       |
|------|-------|
| 2012 | 959   |
| 2013 | 2,121 |
| 2014 | 524   |

### Employees to Complete the Regular Industrial Health Course

| Pohang  | Gwangyang                                      | 2014  |
|---|--|---|
| 917<br>(Including 152 Family company employees) | 555<br>(Including 72 Family company employees) | 1,472<br>(Including 224 Family company employees) |

## Expanding Access to Health Promotion Center to the POSCO Family

POSCO has expanded the medical service provided only to POSCO staff by the in-house medical facility Health Promotion Center, to POSCO Family members (in Sep. 2011 for Pohang, and Jan. 2012 for Gwangyang). Establishing infrastructure through expanding personnel and facilities to provide additional service, 86 subsidiaries and contractor employees working at the steelworks can receive the same medical service benefits as POSCO employees at free of charge.

### Employees to Use the Health Promotion Center (2014)

(Unit: cases)

| Category  | POSCO   | POSCO Family                                |
|-----------|---|---|
| Pohang    | 36,953 (Clinic)<br>+7,027 (Physical Therapy)  | 4,410 (Clinic)                              |
| Gwangyang | 25,640 (Clinic)<br>+14,024 (Physical Therapy) | 3,151 (Clinic)<br>+2,185 (Physical Therapy) |
| Seoul     | 18,858<br>(Clinic+Physical Therapy)           | 1,505 (Clinic)                              |

## Stress Management and Counseling

Since the 1990s POSCO has been offering in-company counseling for the first time in the country with the aim of enhancing the employees' happiness and mental health. Pohang and Gwangyang Works has been operating a psychological counseling center with a permanent counselor since 2005. Employees and their families can make appointments and receive counseling through phone, email, and other methods. Using a range of counseling techniques, the center offers group counseling, doctor's detailed counseling, free drug treatment from an outside psychiatric hospital and all procedures are conducted in confidence under the supervision of the counselor.

Since September 2014, the Seoul Office began offering customized counseling programs such as individual counseling, psychological tests and psychological education, customized according to the level of psychological stability and age. The psychological education is held once a month during lunchtime in the form of special lectures. The subjects included "Stress management techniques to help organizational adjustment," and the "Working Mom & Daddy Care Program," as part of our efforts to enhance the psychological health of all POSCO members.

### Counseling Service Provided in 2014

| Category  | 2012                                      | 2013                                      | 2014   |
|-----------|---|---|--|
| Pohang    | 1,883 persons<br>(992 cases)              | 1,337 persons<br>(809 cases)              | 1,968 persons<br>(1,063 cases)                           |
| Gwangyang | Individual counseling<br>1,331 cases      | Individual counseling<br>905 cases        | Individual counseling<br>849 cases                       |
|           | Family program 241<br>persons (26 times)  | Family program 377<br>persons (42 times)  | Family program 76<br>persons (8 times)                   |
|           | Group education 979<br>persons (23 times) | Group education 387<br>persons (13 times) | Group education 430<br>persons (13 times)                |
| Seoul     | -   | -   | 43 persons (212 times)<br>Group education<br>152 persons |

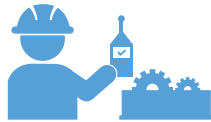
## GLOBAL SAFETY & HEALTH GROUP'S FOCUS ACTIVITIES IN 2015

### Goal

#### Proactive Health Activities to Build a Pleasant Working Environment



**Strengthening Industrial Health Education, Establishment & Revision of Standards**



**Developing POSCO's Unique Industrial Health Diagnosis Tool, and Conducting Diagnosis**



**Building a Healthy Working Environment**

- Set office environmental standard
- Injury prevention activities through psychological counseling service



**Preemptive Response to Legal Risks Related to Industrial Health**

- Total asbestos inspection
- Strict management of enclosed areas, etc.

### Focus Activities

#### Pohang Works Health Promotion Department's Focus Activities in 2015

- **"Strengthening Safety Awareness" using psychological counseling techniques**
  - Preventing unsafe behavior through safety psychology coaching (2015.03~)
  - Operating psychological counseling program to enhance mental health (2015.01~)
- **Eliminating source of risk at work area**
  - "Improved asbestos survey method" for Pohang Works facilities and pipes (~2015.05)
  - Detailed investigation of "hazardous air pollutants (HAPs)" at rolling area (~2015.12)
- **Inspection of whether standard for preventing gas poisoning is being observed**
  - Preparing the manual for "Healthy Work Program for Enclosed Areas" and inspection of its implementation
  - Minimizing time loss by "Operating respirator delivery base locations" (2015.02)
- **Preventing occupational diseases taking into account the characteristics of the working environment**
- **Early diagnosis and strengthened management of employees with high risk health problems**

#### Gwangyang Works Health Promotion Department's Focus Activities in 2015

- **Enhancing management of "Health Caution" employees through the individual health indicator (3 items)**
  - Classification and trend follow-up of main health indicators for each individual → Health Caution employees are provided with 1:1 management by the nurses (5)
  - Launched the individual/grade (A,B,C) program
- **Voluntary participation in exercise roadmap and focused management of body fat percentage**
  - Classify the body fat percentage of health caution employees (once/year) → Execute curriculum taking into account the exercise pattern and work characteristic of the employee (once/quarter)
- **Operating customized psychological counseling program to heal psychological stress and enhance work engagement**
  - PTS (post traumatic stress) healing program for employees who were in an accident (5 persons/month)
  - Mental health education for new employees (one/half year), family healing program (once/half year)
- **New implementation of sample analysis equipment for the working environment (ICP-OES, Inductively Coupled Plasma) to enhance reliability of the working environment measurement**
- **With the strengthened laws regarding voluntary MSDS, we changed the method of posting hazardous objects and strengthened related education for employees**
  - Distributed leaflets (10,000 copies) and site visitation education (twice/month)
- **Built a pleasant office environment by introducing a pollutant measuring process for the offices within the steel works**
  - From the 320 locations for working environment evaluation → Indoor operating rooms and offices were added (1,200 locations) \*Pollutant analysis (total 9 substances), suitability test (once/month)



# SUPPLY CHAIN MANAGEMENT

## FAIR TRADE

### Fair Trade

Since POSCO adopted the Compliance Program (CP) in 2002 to comply with fair trade law and conform to a liberal market order among businesses, we at POSCO 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 for voluntary compliance. At the annual enterprise management meetings and POSCO Group CEOs' meeting, the CEO frequently emphasizes the importance of fair trade and to comply with the relevant laws.

\*The Compliance Program is the internal compliance system such as education and audit that a company operates internally according to the "Fair Trade Voluntary Compliance Standards," with the aim of preventing violation 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.

### POSCO's Compliance Program



### Major CP Operation Performances

|           |  |
|-----------|--|
| 2002.8    | Introduced the POSCO Compliance Program                        |
| 2003.4    | Board of Directors appointed the Compliance Officer            |
| 2003.6    | CEO declared the commitment for compliance with Code of Ethics |
| 2004.3    | Inaugurated the Internal Transactions Committee                |
| 2004.4    | Inaugurated the CP operation organization                      |
| 2006~2012 | Acquired AA rating for four consecutive years at CP evaluation |
| 2013      | Acquired highest rating at the Win-win Growth Index evaluation |

Starting with the introduction of the Compliance Program in 2002, the CEO declared the company's commitment for voluntary compliance on fair trade by announcing the Code of Ethics in 2003. In 2004, the Internal Transaction Committee was established under the Board of Directors, as well as the Fair Trade Support Team that was charged with overseeing fair trade related tasks, which was promoted to a group in 2012 to further strengthen its functions. In addition, between 2006 and 2012, POSCO acquired AA rating for four consecutive years at the CP operation evaluation, which was a first among Korean companies. In 2013, we acquired the highest rating at the Shared Growth Index evaluation.

### CP Operation Performance

As prevention is most important for complying with fair trade regulations, POSCO is exerting much effort into preventive education to minimize the risks of fair trade violation. Since the launching of the e-learning course for the executives and employees in 2002, we have offered fair trade e-learning programs "Easy-to-learn Fair Trade" and "Cases of Fair Trade Violation" to enhance employees' understanding on fair trade. As of the end of 2014, a total of 17,616 personnel (POSCO 8,641, affiliates 8,975) have completed the e-learning course.

Since we opened the in-company fair trade website - an online inspection and consultation system - in 2004, employees and executives conduct fair trade self-check 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 the 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 breach of law. After completing the self-inspection process, field departments can get consultation from the specializing department within the company on areas they need advice.

(Consultation as of 2014: 99 cases)

#### POSCO's Compliance Program Activities

- Established online education regarding fair trade (new courses opened: 2002 – Easy to Learn Fair Trade, 2013 – Cases of Fair Trade Violation. 17,616 employees completed the course as of 2014)
- Operated collective off-the-job education divided according to rank and division (Total 104 times, 5,075 employees as of 2014)
- Provided self-inspection and checklist function by launching the fair trade website (Introduced in 2004)
- Conducted customized fair trade consultation for field departments (Total 99 cases as of 2014)
- Fair Trade Voluntary Compliance Pledge of employees and executives (2,317 persons as of 2014)
- Established the self-inspection system for risk of law violation by developing the smartphone application for fair trade check list and publishing various fair trade handbooks

In addition, we have established the Internal Transactions Committee in April 2004 to enhance transparency and fairness of transactions between affiliates. The Internal Transactions Committee is composed of three outside directors to ensure independence when reviewing agendas and the cases reviewed until the end of 2014 totaled 103. In particular, in 2014, field departments that deal with many internal transactions reported the internal transaction status and risk prevention plans, heightening their efforts and interest to comply with fair trade laws.

In 2012, we developed the checklist application for the smartphone to help employees and executives do self-checks on violating the law. The fair trade handbook for each division, the integrated handbook for the POSCO Family and the guideline for purchasing and sales sectors were distributed so that employees can check fair trade law violation risk on their own, and abide by the regulations. In 2014, we conducted collective off-the-job education for 5,075 employees in 104 classes, divided according to rank and group such as new employees, newly promoted employees and employees in the purchasing and sales departments. We also conduct education supervised by the Fair Trade Officer targeting POSCO Family executives each year. Meanwhile in 2014, we had 2,317 employees in the contract sector who have high risk of violation of the law to pledge voluntary compliance to enhance their awareness on observing fair trade regulations.

Furthermore, in order to enhance the fair trade compliance mindset and strengthen execution at the working level departments, there are several channels through which we hold regular seminars, information exchange and workshops: the Compliance Committee consisting of department heads who are group leader levels or higher, the Fair Trade Practice Leaders comprised of working level employees, and FTA (Fair Trade Academy) where employees in affiliates' fair trade departments come together to study fair trade, are some of those channels for spreading the culture of voluntary compliance at the POSCO Family level.

## CP Adoption Status of POSCO Family

In 2014, 2 affiliates newly implemented the Compliance Program, making a total of 32 companies that have the program in operation. In order to spread and settle CP at the POSCO Family level, we actively participate in the CP grade rating hosted by the Fair Trade Commission. In the 2014 evaluation, four affiliates received outstanding ratings. (AA: Daewoo International, POSCO P&S, A; POSCO A&C, BBB: POSCO TMC) In addition, we continuously foster a compliance mindset through fair trade education, posting articles on the ethics webzine, mailing weekly fair trade trends and publishing a guidebook that reflects the revisions made to the Fair Trade Act.

### CP Adoption Status of the POSCO Family

|  |  |    |
|--|--|----|
| ~2003                                    | POSCO, POSCO E&C, POSCO ICT, POSCO SS  | 4  |
| 2006~<br>2010                            | POSCO C&C, POSCO M-TECH, POSCO CHEMTECH, POSCO PLANTEC, POSCO P&S, POSMATE, POSCO A&C, POSCO ENERGY, POSCO ENGINEERING, SNNC | 10 |
| 2011                                     | Daewoo International, eNtoB, POSCO AST, POSCO TMC  | 4  |
| 2012                                     | POSFINE, POREKA, POS-HiMETAL   | 3  |
| 2013                                     | PNR, NewAltec, SRDC, SPFC, POSCO HUMANS, POSCO TERMINAL, PONUTech, Blue O&M, POSCO ESM                                       | 9  |
| 2014                                     | POSRI, POSCO CAPITAL   | 2  |
| Total 32 companies (as of December 2014) |  |    |

## Our Plans to Settle the Fair Trade Culture

During the year 2015, we will do our best so that the fair trade culture will settle throughout the POSCO Family. Most of all, we will focus on risk prevention related to unfair internal transactions and unfair subcontracting that has become a social issue recently and actively conduct compliance program activities.

In addition, we will expand the CP to all affiliates except SPCs (special purpose companies); actively participate in the move toward making CP an ISO standard; adding substance to the fair trade self-inspection system to uproot price fixing; deepening education programs by field to enhance each company's expertise; monitoring to prevent violation of the law; and providing support for shared growth activities, further enhancing the operation of the compliance program at the POSCO Family level. Furthermore, we will devote ourselves to preventing fair trade law violation at overseas businesses by strengthening fair trade education for overseas branches and offices, and providing information on the law enforcement trends of each country.

## CASE STUDY

### Conflict Mineral Management

As the rebels in the Democratic Republic of Congo own and control the mines in conflict zones, the revenues from the sales of those minerals go to them, perpetuating the inhumane conflict in the region. In particular, in the mines controlled by armed forces there are reports of human rights violation 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 of the United States requires companies to report whether gold, tungsten, tin, or tantalum mined in the DR Congo or the neighboring states were used during production.

POSCO uses tin and ferro-tungsten for manufacturing purposes. All the tin and ferro-tungsten used in 2014 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.

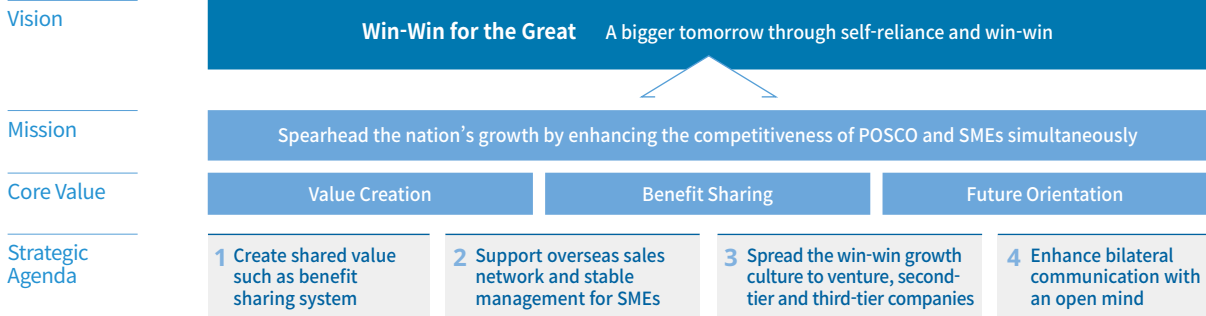
In line with our principle of restricting trade with suppliers that commit socially condemnable acts (page 148, POSCO Group Supplier Code of Conduct), we ensure our products do not contain conflict minerals sourced from controversial regions mentioned earlier. Our terms are stipulated in the purchasing 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 provide education to prevent problems due to conflict minerals within the POSCO Family.

## POLICIES AND PROGRAMS FOR WIN-WIN GROWTH

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

Going beyond a unilateral, support-oriented CSR toward the pursuit of CSV with SMEs, POSCO and the Country



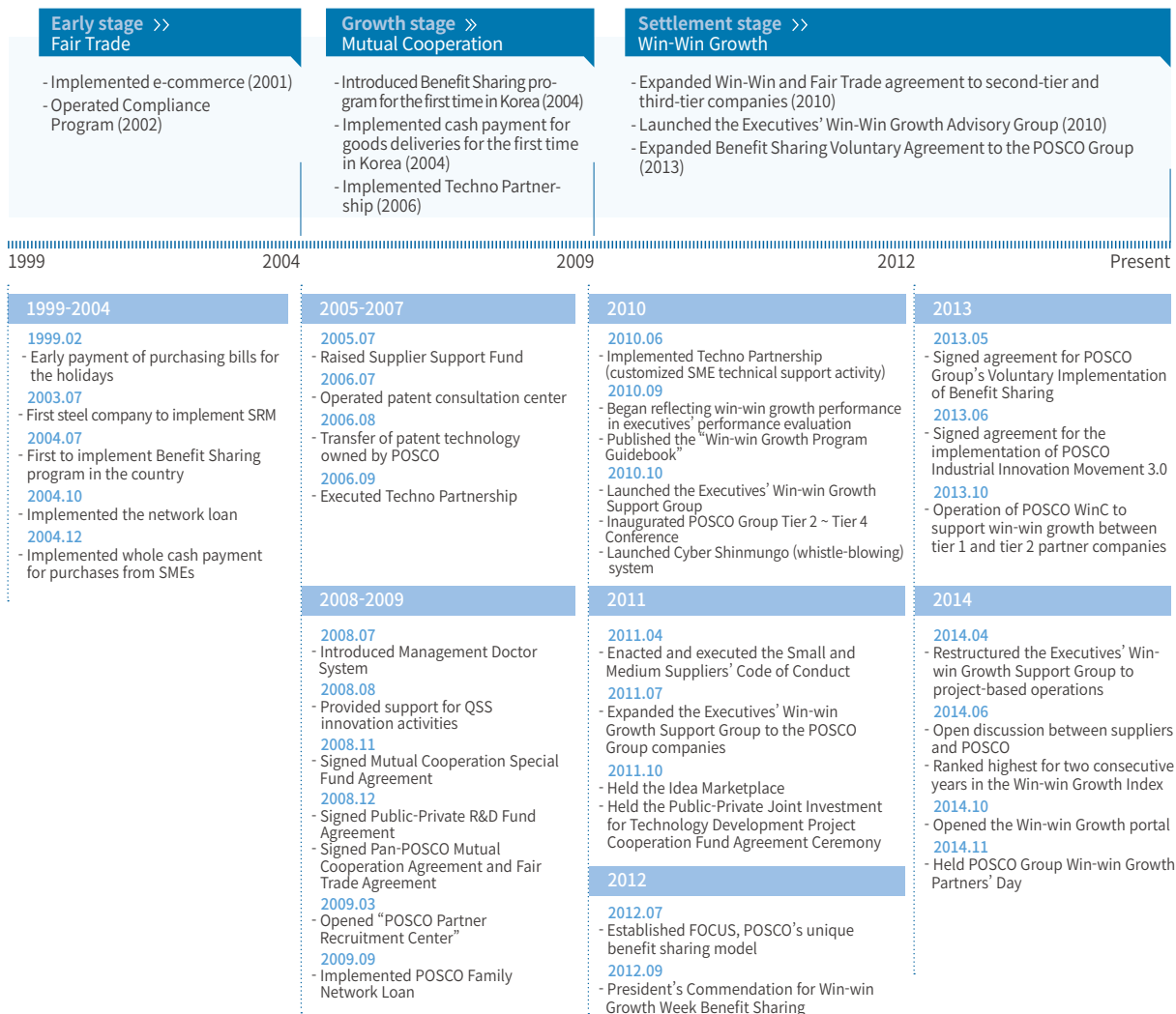
\*CSR (Corporate Social Responsibility): corporations' social responsibility activities by returning part of their operating profits to the society.

\*CSV (Creating Shared Value): corporate activities that create social value and economic profits simultaneously

### Win-win Growth History

#### Win-Win Growth that Started since POSCO's Establishment

With "Patriotism through steel" engraved into our DNA, POSCO has spearheaded the growth of the country and the industrial ecosystem



## Win-win Growth Activities Introduction

**Win-win Growth** Under the vision “Win-Win for the Great,” POSCO strives for building a better tomorrow through SMEs’ self-reliance and mutual growth. Since the 1990s, POSCO has pursued mutual growth with the SMEs and established a team solely in charge of providing support for SMEs in June 2005. Currently the Mutual Growth Group is supervising the activity.

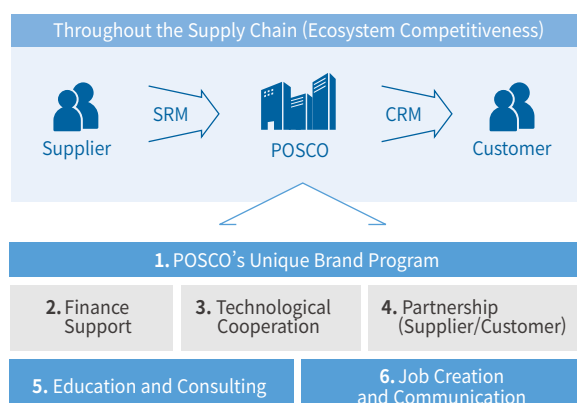
Currently, POSCO operates 32 mutual growth programs in six categories – POSCO’s unique brand program, finance support, technological cooperation, building partnerships, consulting & education, and job creation & communication – to implement a systematic mutual growth activity that covers all aspects of management. In 2015, we will continue to improve and complement the program in order to implement mutual growth activities that the SMEs can actually feel.

### Major Activities in 2014

|          |   |
|----------|---|
| April    | Restructured the Executives’ Win-win Growth Support Group to project-based operations   |
| June     | Open discussion between suppliers and POSCO   |
| June     | Ranked highest for two consecutive years in the Win-win Growth Index  |
| October  | Revised the win-win growth program (32 programs in six categories)  |
| November | Opened the Win-win Growth portal  |
| November | Held POSCO Group Win-win Growth Partners’ Day<br>- Announced the win-win growth vision “Win-win for the Great”<br>- Twenty-two rewards in four categories (Benefit sharing, technological cooperation, executives’ support for win-win growth, QSS) |

## Win-win Growth Programs

**Composition of Win-win Growth Program** POSCO actively operates win-win growth programs that cover all aspects of management, targeting not only suppliers but customers as well. (32 programs in six categories)



## POSCO's Unique Brand Program

**Benefit Sharing** POSCO's Benefit Sharing program, which was launched in July 2004, is a program where POSCO and suppliers conduct improvement activities together and share the benefits. Through this program SMEs are encouraged to voluntarily enhance their business soundness and create profits from technological development, while POSCO secures long-term competitiveness and quality improvement.

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 2014, POSCO has awarded a total of KRW 54.4 billion for 465 new projects that have completed performance evaluation.

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

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

The advisory group visits the company each month to provide consulting such as on-site diagnosis and technical education, and 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 a partnership. In 2014, POSCO provided 607 cases of technological consultation and 418 cases of free test analyses for a total of 98 companies.

**Cash Payment for All Purchases from SMEs** Since 2004, to foster a stable business environment for our partner SMEs, we have been paying in cash to all suppliers that are registered as SMEs, within three working days of delivery and twice a week regardless of the sum. During national holidays when capital flow is concentrated, we adjust the schedule to daily payment starting from one week before the holiday.

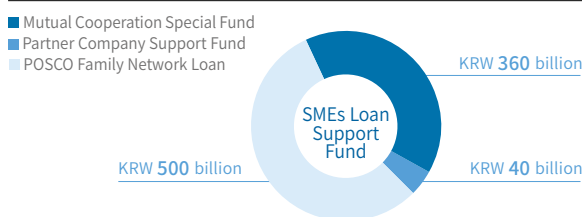
**Idea Marketplace** POSCO supports venture startups through the Idea Marketplace program, presenting another model for win-win growth. At the Idea Marketplace, the people with the idea, investors who are looking to make a business of the idea, and specialists who play the advisor role participate. It is a marketplace where ideas shared and sold. Since the introduction of the program, POSCO has invested KRW 6.52 billion in 39 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 been contributing to enhancing SMEs' competitiveness by transferring their management expertise such as management innovation and labor relations to tier 1 and tier 2 partner companies. In 2014, the Group underwent extensive renewal reflecting the voices of the SMEs and POSCO Group's executives who had participated in the program and shifted to a project-based activity. The main direction of the changes are △to companies that really need them, △ the person who is a perfect match △ provides support in a "smart" way. Companies who have definite needs and the management's strong will are selected; executives who fit the needs of the selected company are matched; and the targets are set based on the project, to provide a systematic support. After the program was revised, 51 projects were selected and executed. As of end of 2014, 15 tasks have been completed, contributing to KRW 12.7 billion in revenue and KRW 6.6 billion in cost reduction, which leads to our high expectation to see visible results for both the SMEs and POSCO.

### Finance Support for SMEs Having Financial Difficulties

**SME Loan Fund** In order to provide low-interest loans to SMEs having trouble financing, POSCO operates a fund worth KRW 900 billion. In 2014, 386 partner companies of the POSCO group received low-interest loans amounting to KRW 415.8 billion through this fund.



**Win-win Growth Investment Fund** In order 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 KB Financial Group and Hanhwa Group. Through this fund we can make equity investments in competitive SMEs trading with POSCO as well as in new businesses, and maintain a POSCO Group ecosystem through equity relations, which will enable us to maintain close ties and competitiveness within the POSCO Group. As of 2014, POSCO has invested a total of KRW 4.89 billion in four SMEs.

**Financial Stability Support Fund** Together with IBK (Industrial Bank of Korea), POSCO created a Financial Stability Support Fund worth KRW 101 billion to SMEs that own outstanding intellectual properties but are experiencing temporary financial problems. Through this fund we are able to assist SMEs with high growth potential but who are temporarily going through financial instability to get back on their feet and thus contribute to enhancing SMEs' competitiveness that are the foundation of a sound national economy. In 2014, POSCO invested a total of KRW 7.99 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 the installment payment system for equipment purchasing in 2010 to assist SMEs with the production and operation costs. The installment payment system is an instrument that pays installments to SMEs who are building equipment with a long lead-time to lower their burden due to a long production time and capital requirements, and to 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 less the advance payment.

### Technology Cooperation for Enhancing R&D Capability

**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 a fund to provide SMEs cash grants for R&D under the POSCO's purchase guarantee so that they may proceed under stable conditions. SMEs can receive up to 75 percent of the total R&D expenditures or a maximum of KRW 1 billion. A successful R&D project will guarantee an SME a three-year long-term contract rights. Following suit the agreement signed in 2008, POSCO signed an agreement in December 2011 with the SMBA to create an R&D fund worth KRW 100 billion. Since 2008 until now, POSCO has funded a total of 51 SME R&D projects.

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

**Technology Escrow System** The technology escrow system was designed to guard the technological assets such as technological know-how from large corporations by depositing SMEs' intellectual properties. POSCO adopted the technology escrow system run by the Large & Small Business Cooperation Foundation in 2011 and has signed 162 technology escrow agreements as of 2014.

#### Number of Technology Escrows

(Unit: cases)

| Category                               | 2011 | 2012 | 2013 | 2014 | Total |
|--|------|------|------|------|-------|
| Number of technology escrow agreements | 12   | 50   | 50   | 50   | 162   |

### Strengthening Partnerships and the 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 a diverse range of benefit programs to certified suppliers.

(Selection criteria: positive results at the SRM evaluation for the sourcing group the company belongs to and supplier that has delivery history that exceeds a certain amount)

#### Number of PHPs

(Unit: cases)

| Category | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|----------|------|------|------|------|------|------|------|------|------|
| No. PHPs | 25   | 26   | 31   | 38   | 42   | 39   | 41   | 48   | 52   |

**Supporting SMEs' Overseas Market Expansion** POSCO provides support in various angles to help SMEs expand to overseas markets. We take advantage of the broad overseas network of Daewoo International, which is a POSCO subsidiary and one of Korea's leading trading companies, to provide SMEs with overseas market information and opportunities to meet local buyers. We also operate a joint brand marketing project where we supply high strength steel, the customer makes products from them and the two companies develop a new market for the product jointly. In addition, we expand to overseas markets together with supplier companies that have abundant experience and excellent technological competence to secure stable operations and maintenance of POSCO's steel mills in Indonesia, China, India and Vietnam, providing the partner company with an opportunity to continue to trade with POSCO.

#### Export Assistance through Prioritized Supply of Steel Products

In order to enhance SMEs' export competitiveness, we provide steel products necessary for exporting secondary products such as hot-rolled steel, steel plate, wire rods, cold-rolled steel and electrical steel with highest priority. In 2014, we supplied 330 thousand tons to 56 companies.

#### Solution Providing Program for SME Customers

Solution Providing program for SMEs is designed to provide manufacturing skills (in particular, figuration, welding and coating) suitable for each material to customers who purchase materials not only from POSCO but also from various domestic and overseas companies and to solve the problems involved in all processes ranging from purchase of steels to the production of final products. Under this program, POSCO offers support in the quality analysis of products made by customers using our own testing and analysis machines and we provide support in press working and welding techniques using our own professionals. In 2014, 101 customers participated in this program and received assistance in 299 cases.

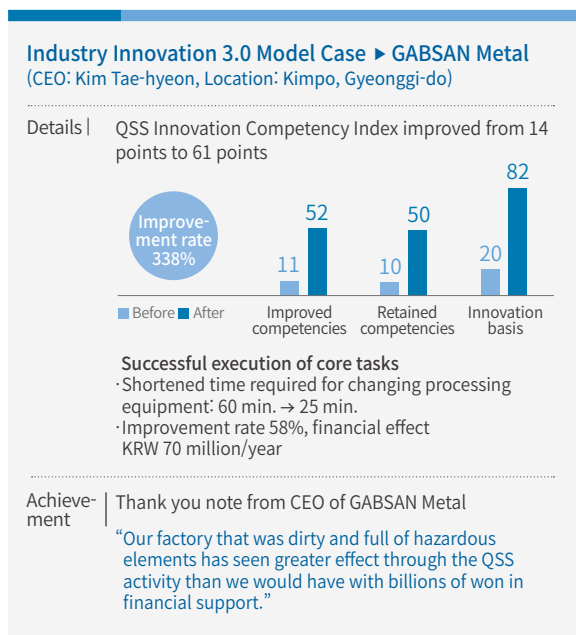
#### Joint Ventures with Parts Companies

Tapping into our global network, we establish overseas joint ventures with small and medium-sized parts producing companies to assist their overseas market expansion. In 2014, we provided assistance to 7 companies for overseas market expansion.

## Education 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 2014, the number of persons to complete the SME training consortium's training program on the POSCO Group level was 55,715 persons. Since January 2009, we have also 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, and to help them cultivate entrepreneurial spirit.

**Industry Innovation Movement 3.0** As a way of participating in the government's Industry Innovation Movement 3.0, POSCO has devoted itself to spreading innovation throughout the industrial sector since 2013. Industry Innovation Movement 3.0 inherits the self-help spirit of the factory Saemaul Movement (1.0) during the 70s and 80s and expands shared growth that was centered on tier 1 companies (2.0) to include tier 2 and tier 3 companies (3.0), which will lead to SMEs' improved business structure and productivity through management innovation, improvement of the working environment and production process. In 2014, POSCO provided support to 170 companies. They include not only tier 1 and tier 2 partner companies, but also non-trading companies, and we plan to further expand the scope in 2015.



**Customized Consulting for SMEs** In order to help SMEs overcome their weakness and chronic problems, POSCO provides consulting services using our own professionals. We provide customized consulting to the tier 1 and subsequent tier 2 through to tier 4 prospective SMEs and POSCO-Group-recommended SMEs on subjects they desire, such as safety, energy, IT, and QSS. In 2014 we provided consulting support to 45 companies.

**"Management Doctor" System** POSCO works with partner SMEs and the Management Consultation Group under the Federation of Korean Industries, to form a three-sided support system to substantially improve SMEs' management environment. The Management Doctor System effectively utilizes the knowledge and expertise of former CEOs of major corporations and executives, to effectively guide SME management and enhance their competitiveness. As of 2014, 15 SMEs (11 in the first half year, 4 in the second half year) have participated in this program at the POSCO Group level.

### Model case ▶ 2014 Management Doctor Program

|                          |  |
|--------------------------|--|
| SME Name                 | Kwangwoo   |
| Reason for Participation | Lacked the basis for long-term growth, needed strategy for expanding the business and to expand new overseas markets and secure new customers, but the company lacked overseas infrastructure and information.   |
| Project Details          | Survey on Southeast Asian companies with actual demand for the company's product and pursued marketing activities. Utilizing experience of exporting to Japan, searched for companies in the same business and proceeded to commence supply. Conducted survey for demand companies in Turkey, Central Asia and Russia. |
| Expected Effect          | Increased export USD 1.95 million (2013) → USD 3 million (2015) is expected. Built an export marketing system for each country.  |

**Export Business Mentoring** In April 2014, we introduced the Export Business Mentoring program jointly with the Management Consultation Group under the Federation of Korean Industries targeting SMEs who have the quality and technical competency but lack experience in overseas business. The Export Business Mentoring is a program that provides information on the local market and export marketing knowhow necessary to expand to the overseas market. A consultant is matched 1-to-1 for each company to provide focused consultation. In 2014, one of each supplier, customer and outsourcing partner participated in the mentoring program.

### 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. It is a strategy to solve the problems of youth unemployment and labor shortage of SMEs at the same time by connecting job seekers with SMEs. In 2014, a total of 354 job seekers found employment at 24 POSCO Group's partner companies via this program. When a participating SME hires an employee through the Job World website, they receive discount charge from Korea Industrial Bank and loan interest rate (KRW 1 million per person hired), and can use the recruitment website for free.

**Mutual Growth in Payment System (POSCO WinC)** In order to ensure that the 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 and to stabilize fair trade practices by improving the payment terms between tier 1 and tier 2 companies. Currently, 1,865 companies are participating in the fair trade agreement and payment monitoring between tier 1 and tier 2 companies.

**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 for a program directly. The Win-win Growth portal is composed of four elements: win-win growth vision & philosophy; introduction to win-win growth programs; task request & model cases; and communication plaza. We expect the portal will contribute to enhancing active communication between SMEs and POSCO.

**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 pains and light injuries, as well as physical therapy. All employees working at Pohang and Gwangyang Works are eligible to use this service. In 2014, 6,076 individuals used POSCO's medical facilities.

**Win-win Growth Performance is Reflected in Executives' Evaluation** With a view to firmly incorporating win-win growth into POSCO's corporate culture, performance in win-win growth activities is included in the evaluation criteria of the executives' review process. In 2014, POSCO and 10 POSCO Group companies participated in this initiative. Win-win growth and Fair Trade agreement results, activities within the Win-win Growth Support Group and outstanding accomplishment in win-win growth projects are used as evaluation criteria.

### 2015 Plans for Win-win Growth

Based on open communication, POSCO will continue to spread the culture of win-win growth with partner SMEs, venture companies and tier 2~tier 3 SMEs, contributing to strengthening the industrial ecosystem's competitiveness.

**Spreading the Win-win Growth Culture to Venture and tier 2~ tier 3 Companies** POSCO will widen the window of opportunity for tier 2~tier 3 companies' participation by operating the open sourcing system and provide more opportunities for venture startups through the Idea Marketplace program. We will use the WinC system so that the win-win growth benefits among tier 1 companies will spread to tier 2 companies as well. In addition, we will strengthen the Industry Innovation Movement 3.0 that was launched in 2013 to improve productivity not only of POSCO partners but also of companies that do not trade with POSCO, in order to spread QSS (POSCO's unique innovation activity) throughout the industrial sector.

**Enhancing Two-way Communication with SMEs** POSCO opened the Win-win Growth portal in 2014 and improved accessibility so that companies trading with POSCO, as well as those that do not, and the general public can easily access and utilize POSCO's win-win growth programs. We will operate various communication channels such as the SME consultation center under the company website's Shinmungo menu, and the Open Purchasing Consultation Room of the e-Procurement page, to listen more closely to SMEs' opinions.

**Providing Support for Stable Management by Expanding Benefit Sharing** For the Benefit Sharing, which is POSCO's representative program, we will pursue mutual value creating win-win growth rather than a one-time project such as maximizing financial performance.

In addition, we will strengthen programs that help SMEs to enhance their technological competency such as Techno Partnership and Private-Public Joint Investment and continue to operate patent support system and technology escrow to protect SMEs' technologies.

## VENTURE SUPPORT PROGRAM

### POSCO Idea Marketplace

POSCO began operating the POSCO Venture Partners program since November 2011, whose main program is the Idea Marketplace. The Idea Marketplace is a support program for youth startups and venture companies in their beginning phase, taking on the role of both a business incubator and angel investor. The business incubator nurtures blue-chip venture companies, while as an angel investor we focus on supporting the initial ideas of new startups. To fulfill these two roles, we established a venture support organization called “POSCO Idea Marketplace” providing comprehensive support from ideas and business model planning, investment and growth management. We hope to help venture companies who are full of ideas but were 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, nurturing those ideas through our unique venture support program, such as the idea nurture camp and expert mentoring, and finally introducing them to investors at the market place and help them secure investment.

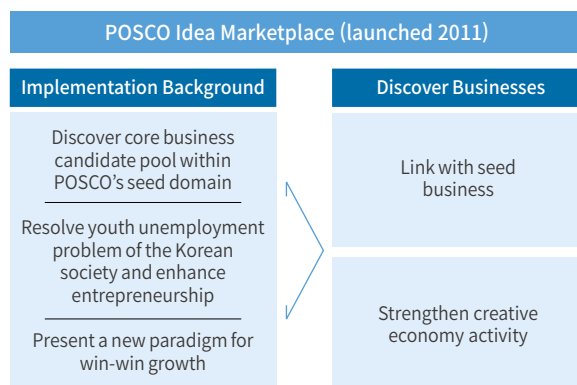
The Idea Marketplace also has a program that helps SMEs that have failed once to start again. SMEs that have completed the Healing Camp run by Foundation Jaegi: Revitalization Center for Strained Entrepreneur, or the Small and Medium Business Administration's restart support program are given an opportunity to participate in the POSCO Venture Partners Membership Program. In addition, we strengthened support for young people and women CEOs, a demographic in the periphery of the investment market, so that the socially vulnerable groups can achieve independence.

Major performances in 2014 include the following achievements: Signing an MOU with the Ministry of Science, ICT and Future Planning, and Korea Venture Business Association for the joint effort to discover and cultivate venture businesses; and securing government subsidy for operation costs (R&D, marketing costs) for companies we invested in through the Idea Marketplace, because we were nominated as the Startup Planning Company by the Small and Medium Business Administration.

Beginning from 2015, we are uncovering venture companies that are related to POSCO and POSCO Family's new businesses that will help venture companies and enhance our capabilities at the same time. Executives from POSCO Family companies attend the Idea Marketplace to enhance strategic investment in new venture companies with high potential or excellent technology, with the aim to achieve both business value and society value through these efforts.

Starting from the New Business Idea Contest held in June 2011, the first Idea Marketplace was held on October 27th 2011; the main event took place in three sessions in 2012, two sessions in 2013, and three sessions in 2014. As of 2014, a total of 90 companies received mentoring support through the Idea Marketplace and POSCO invested a total amount of KRW 6.52 billion in 39 of those companies. External secondary investment and R&D support amount to approximately KRW 20 billion.

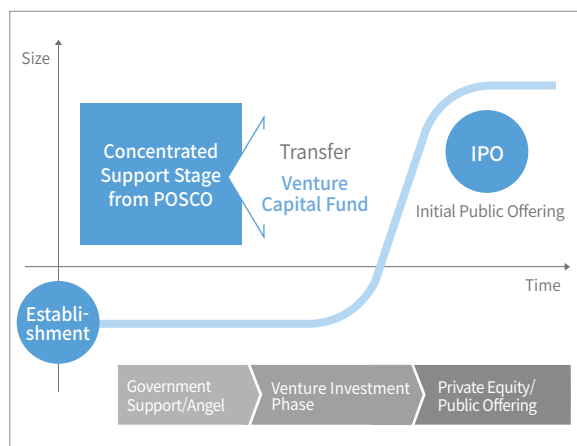
### Implementation Background



### 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 |

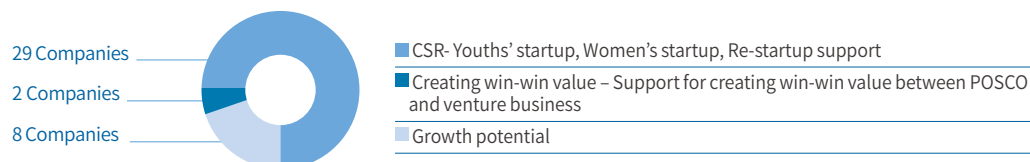
| Category | Date       | Venue           | Participating Companies | Remarks  |
|----------|------------|-----------------|-------------------------|--|
| Term 5   | 2013.09.24 | Songdo Tri-bowl | 14                      | Joint coordination with Incheon City, joint coordination with Real Startup League  |
| 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 |

## Companies in which POSCO Made Investments through the Idea Marketplace

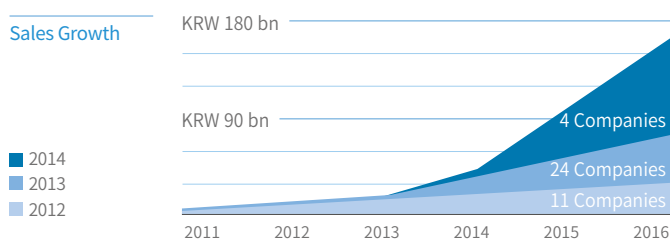
Invested KRW 6.52 billion in 39 companies during four years since 2011, in equity investment

| Subject | By year  | By industry sector                                       | By startup sector   |
|---------|--|--|---|
|         | 2012 – 11 companies, KRW 3.15 billion<br>2013 – 24 companies, KRW 3.12 billion<br>2014 – 4 companies KRW 250 million | 17 in manufacture,<br>18 in ICT,<br>4 in medical/biotech | 23 Youths' startup, 8 Women's startup<br>4 Re-startup, 4 Others |

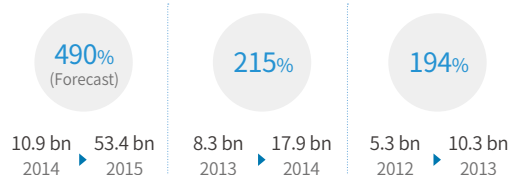
## By Support Type



## Sales Growth



## Sales Growth Rate



# SUPPLY CHAIN CSR COMPETITIVENESS

We believe mutual cooperation between large companies and SMEs should actively take place in the CSR sector as well. As it is realistically difficult for SMEs to pursue CSR in a systematic and consistent manner, if large companies spread their CSR capabilities to suppliers and outsourcing partners and actively support their activities, the corporate ecosystem will become much healthier.

POSCO strives to build a corporate environment where we can contribute to society and grow healthily together with our partner companies. In order to foster healthy growth of the whole supply chain, we established the Supplier Code of Conduct, which outlines the basic principles that suppliers trading with POSCO should abide by. We also have a supplier evaluation system to enhance POSCO supply chain's competitiveness. Through this system we spread POSCO's CSR competitiveness throughout the supply chain to enhance suppliers' competitiveness, while preventing potential CSR risks that may occur along 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 is comprised of 21 clauses in 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 that all companies that want to have transactions with the POSCO Group have to abide by. Suppliers must sign with 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.

### 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                  |
| Safety and health                               | Working environment, Industrial safety   |
| 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 |

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

## Introduction of SRM Evaluation Index

POSCO tied its purchased goods into "sourcing groups" according to the supplying market, goods' characteristics and convenience of contracts. We also evaluate the basic elements required by a supplier company to manufacture the products that we require by evaluating their basic financial state and facility size, before they are registered in the sourcing group and given the qualification to participate in bids or negotiations. The suppliers' trading history are analyzed and evaluated quarterly and published as a report.

POSCO Group's SRM (Supplier Relationship Management) is comprised of credit, price, quality, delivery time, cooperation, and safety/environment, as well as other elements for plus/minus points. CSR is one of those elements, which covers economic, social and environmental aspects.

In the social contribution sector, companies that allocate more than 50 hours per quarter in social volunteering activities get 100 points. Donations and awards received for social contribution are also converted to volunteering hours, so that companies that communicate with the local communities will get high scores in their performance evaluation process. 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 reflect financial support provided to tier 2 and tier 3 companies in the "plus" point criteria for evaluating the performance of tier 1 companies in order to maximize the synergy within POSCO Family's value chain and build a healthy corporate ecosystem. Safety and health are also included in the supplier evaluation process. In the safety category, the number of certificates of safety and health management system such as KOSHA 18001 will add points.

|  |  |
|--|--|
| Protection of trade secret and intellectual property | Management and protection of confidential information, Protection of intellectual property |
| Quality management                                   | Quality management, Change management, Quality management between suppliers                |
| Win-win growth and social contribution               | Win-win growth, Social contribution  |

On the other hand, safety accidents and violation of regulations within the steel mills are elements for point deduction. In the environment sector, the ISO 14001 certificate, green purchasing amount, suggesting eco-friendly products and carbon emission control are reflected in the supplier evaluation criteria to build an environmentally friendly supply chain.

We publish quarterly, annual reports of our supplier evaluation and analysis, and distribute them to our suppliers to induce their independent improvement effort. The evaluation in the reports provided to the suppliers is divided into excellent, good, or poor. Suppliers who get a “poor” rating for a long period are eventually penalized, such as by being prohibited from participating in a bid. If a supplier receives poor rating at the annual report, they will no longer trade with POSCO for a year and their registration in the sourcing group will be cancelled. In order to be registered in the sourcing group again, the supplier has to register and go through evaluation again. Meanwhile, suppliers who receive “excellent” in their rating are eligible to be selected as a POSCO Honored Partner, with which many benefits follow, such as primary negotiating rights when contracting for major materials and waiver of various security deposits.

By evaluating suppliers and giving them a feedback on their strong and weak points, POSCO forms an environment where suppliers can improve themselves. The evaluation results are also used as criteria for supporting or weeding out suppliers, which leads to a healthy corporate ecosystem.

Not only that, the supplier evaluation system established the standard of social and moral responsibility and duty that suppliers should meet, so that companies who did socially irresponsible things or provoked complaints are deterred from doing business with POSCO. When they break POSCO’s ethical code, provoke complaints, or create environmental damages, POSCO imposes strict penalties on them (for severe cases, impose a permanent sanction), so that socially unhealthy companies won’t be able to do business with POSCO. Unethical practices of suppliers are monitored on a regular basis, and in the case a company was penalized by a POSCO Group company for unethical behavior, that company will be deducted 15 points at each quarterly evaluation for two years.

#### Evaluation Criteria for POSCO Family’s SRM

| Evaluation Criteria | Description   |
|---------------------|---|
| Credit              | Credit rating   |
| Price               | Bidding price, Quote reliability, Appropriate bidding rate  |
| Quality             | PosQC rating, Defect rate, Defect amount, Fault rate, Fault amount  |
| Delivery time       | Amount of delivered amount  |
| Cooperation         | Volunteering performance, Number of benefit sharing projects, Financial performance of benefit sharing project, Tier 2~tier 4 supplier payment date, Win-win growth agreements, Satisfaction level of the department using the delivered materials  |
| Environment         | Eco-friendly products delivered, Eco-friendly label certification, ISO 14001 certification  |
| Plus Points         | Financial support (tier 2~tier 4):<br>0.25 points/case, maximum 2 points<br>Emergency unexpected support:<br>0.25 points/case, maximum 2 points<br>Design plan suggestion:<br>0.25 points/case, maximum 2 points<br>Participation rate for payment monitoring:<br>paid through WinC within 60 days (over 50%/perfect score: 3 points) *Annual evaluation<br>Safety and health management system certification:<br>2 points<br>CP implementation: 0.25 points *Annual evaluation<br>Enhancing external reputation: maximum 1 point |
| Minus Points        | Caution from Audit Office: 2 points/case<br>Safety accident<br>(major accident: 3 points/case, general accident:<br>1 point/case, safety violation: 0.25 points/case)<br>CSR breach: 3 points/case<br>POSCO Family unethical supplier:<br>15 points/2 years for each quarter  |

# ENVIRONMENT

## ENVIRONMENTAL MANAGEMENT

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

### Global POSCO Family's Environmental Management

Since our declaration of the "POSCO Family Global Environmental Management Directive" in December, 2010, we are establishing visions, strategies and execution plans with subsidiaries including overseas branches, 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.

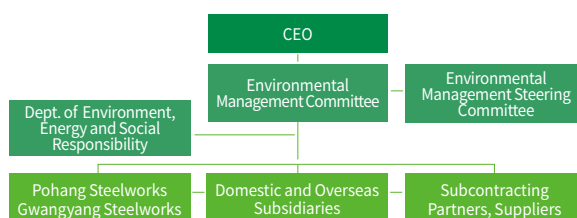
### POSCO Family Environmental Management Vision and Strategy



### Environmental Organization

Chaired by the CEO, POSCO operates the Environmental Management Committee, consisting 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 performances) and holds regular annual meetings to analyze domestic and international environmental trends, while additionally discussing issues to establish medium-to-long term environmental and energy strategies at the POSCO Family level. The medium-to-long term plans discussed at the Committee are evaluated and decided upon together with medium-to-long term business strategy at the Management Committee (expert committee under the Board of Directors). Then, the plans are 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 both domestically and overseas, and develop environment/energy related technologies.

### Organization of the Environmental Management Committee



### Regular Environmental Management Committee Meeting

| Category  | Environmental Management Committee                    | Environmental Management Steering Committee  |
|-----------|---|--|
| Frequency | Once/Year   | Twice/Year   |
| Structure | Chair: CEO<br>Members: CEOs of POSCO Family companies | Chair: Dept. of Environment, Energy and Social Responsibility<br>Members: Executives in charge of environmental management at Family companies |

### POSCO Family Environmental Management Directive

Recognizing the environment as the core element of our management strategy, we set the environmental management directive to spearhead low carbon green growth, assuring 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.

## Key Environmental Management Programs

**Environmental Education** POSCO provides various programs to enhance POSCO and POSCO Family company executives' and employees' understanding and awareness on the environment. Environmental management training is provided online and is open to the outsourcing partners and suppliers as well, while also encouraging all related personnel to actively participate in environmental improvement activities. Training on ISO internal auditing is provided each year to environment-related personnel at POSCO as well as outsourcing partners. We plan to conduct environmental management evaluation by providing ISO 14001 auditor programs for environment-related personnel at POSCO Family companies.

**Environmental Information Exchange** As part of realizing POSCO's environmental management vision, an environmental technical meeting is held each year targeting environment-related executives and personnel at POSCO and POSCO Family companies, where they can share POSCO Family's environmental issues. The meeting is a place for communication and exchange to enhance the capabilities of environment personnel through discussions and invitation lectures. In addition, POSCO operates an online environmental management community to enable personnel in charge of environment at POSCO Family companies to exchange information with each other.

**Environmental Management Awards** In order to enhance our competitiveness in environmental management, we hold the "Environmental Management Awards" to award Family companies that achieve outstanding environmental performance. The Family companies are evaluated on the following: their environmental management systems and performance, innovativeness, usability and efforts put in their environment and energy related activities. Family companies with outstanding results are awarded by the CEO. The evaluating panel is chaired by the head of Finance & Investment Division, and consists of executives from the Office of Environment & Social Contribution, Office of Steel Planning, POSRI and RIST.

## Environmental Risk Management

POSCO systematically analyzes and manages risks elements in order 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. We analyze their effect on our business and reflect them in our medium and long-term business strategies and investment decisions. With close cooperation between the investment coordinating department and environmental management supervising department, we evaluate and diagnose environmental risks at three stages: investment review, design & construction, and operation. In 2014, we introduced an investment rule that mandates the environment department's verification in the business planning, investment and construction stages in order to minimize environmental risks entailing new businesses. In addition, in order to respond to policy and/or economic risks, such as regulations on greenhouse gases & energy usage or pollution prevention, POSCO continuously monitors regulations and policies to identify potential business risks and actively participates in related discussions to contribute to developing reasonable policies.

**Diagnosis of POSCO Family's Business Sites** POSCO established measures to lower environmental risks at the POSCO Family level and strengthened its chemicals management process. We strengthened the environmental diagnosis system for POSCO Family business sites, conducting themed inspections tailored to the characteristics of the business site on key issues such as hazardous substances and certain water and/or air pollutants. We will further enhance our internal inspections to fit the environmental impact and risks of each business. Inspection results are reported to the Environmental Management Committee, and are also used to modify environmental strategies and goals to maintain a more efficient environmental management system.

**Greening the Supply Chain Management** Based on voluntary participation of small and medium-sized Family companies, POSCO actively supports environmental management and environmental improvement activities of outsourcing companies and suppliers. In particular, POSCO applied the Green-PCP program, a POSCO-style environmental certification program targeting small and medium-sized POSCO Family companies. By 2014, a total of 13 outsourcing partners and suppliers had acquired the certification. Through the Green-PCP program, we expanded environmental management to the supply chain level, and we are building an integrated environmental management system of the POSCO Family.

### Environmental Risk Management Process



## ENVIRONMENTAL PERFORMANCE

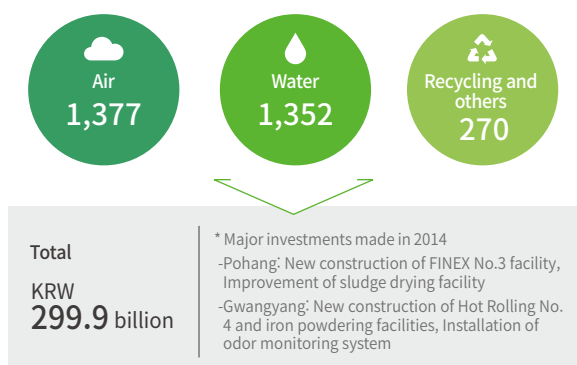
POSCO systematically manages its environmental performance in order to effectively operate its environmental management system, thereby minimizing the impact of business activities on the environment.

### Environmental Management System

Taking one step forward from POEMS (POSCO Environment Management System), an ERP-based environmental management system, we built a web and mobile-based integrated environmental performance management system named New POEMS. New POEMS consists of seven processes: air – water – byproducts – soil and groundwater – chemical substances – executive summary information – and environmental accounting. This enabled a more systematic management of the enterprise-wide environmental data.

Meanwhile, all environmental data such as air and water quality measured at Pohang and Gwangyang Works is transmitted real-time to the provincial government and the Ministry of Environment via the TMS (Tele Monitoring System), and key environmental indices are disclosed to the local residents through an electric sign located outdoors. Since acquiring the ISO 14001 certification in 1996, POSCO receives annual suitability evaluation from an external institution, and also performs internal verification twice or more each year under the supervision of the environment department. Verification results are reported to the top management level and are used to modify environmental strategies and targets to maintain an efficient environmental management system.

### Major Investments in Environmental Facilities in 2014 (Unit: KRW 100 million)



### Environmental Costs in 2014

(Unit: KRW 1 billion)

|   | 2012  | 2013  | 2014  |
|---|-------|-------|-------|
| Operation cost of environmental facilities / Turning to resources costs | 921   | 986   | 924   |
| Depreciation  | 146   | 150   | 158   |
| General management expenses   | 35    | 35    | 36    |
| R&D on environment  | 13    | 17    | 12    |
| Energy recovery cost  | 34    | 33    | 46    |
| Total   | 1,149 | 1,221 | 1,176 |

### Water Management

Recognizing shortage of water resources as a risk factor on a global scale, POSCO aims to reduce the risk of water shortages by recycling water and securing replacement water.

Pohang Works is implementing measures to improve its water management system, process and to find ways to increase water recycling with the goal of optimizing water management and increasing water recycling. To prepare for the medium to long-term increase in water demand, we are identifying and preventing potential water-related risks by improving the water purification system and diversifying sources of water supply. In 2014, we started retreatment of the treated water at Pohang City's sewage treatment plant using U/F and R/O methods and began using them as a new source of water for 80,000 tons daily, while decreasing that same volume of water from the 170 thousand tons per day water supply contract so that the local residents may have access to the dam water, responding to the risk of water shortage and contributing to alleviating the water shortage problem in the region. The low-pollution rainwater, discharge and effluents are treated appropriately to be reused for spraying roads and in the production process.

At Gwangyang Works we are conducting water conservation activities to prepare in advance for the rapid increase of water usage due to medium and long-term expansion of our facilities, increased production volume, and the future nationwide water shortage problem. We operate the seawater desalination facility to strictly maintain water quality that is necessary to improve product quality. We reduced water usage by using 6,000 tons of recycled water daily, and we continue activities to minimize discharge into the Gwangyang Bay in order to minimize impacting the area. Meanwhile, we are finding new usage for recycled water for each plant, such as washing water for the cokes plant's belt conveyor. We plan to continue our efforts in discovering new ways to use recycled water, based on forecasts for the increased water needs that are expected with plant expansions.

The final discharge concentration of major pollutants such as COD and T-N are maintained at 20%~80% of regulations, and each steelworks is enhancing water awareness of employees and executives by discovering and implementing water conservation ideas. We participated in the Water Management Project (2007~2011) conducted by World Steel Association and we continue to improve our water management program using the WBCSD (World Business Council for Sustainable Development) Water Tool, which is a water management guideline for the supply chain. We have been disclosing our water management information to our stakeholders since 2010 by participating in the CDP Water Disclosure program.



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

|             | 2012 | 2013 | 2014 |
|-------------|------|------|------|
| Water usage | 3.58 | 3.71 | 3.67 |
| Effluents   | 1.69 | 1.61 | 1.62 |

**Final COD Concentration in Effluents**

(Unit: mg/ℓ)

|                         | 2012 | 2013 | 2014 |
|-------------------------|------|------|------|
| Discharge concentration | 8    | 9    | 9    |
| Legal limit (Gwangyang) | 70   | 70   | 70   |
| Legal limit (Pohang)    | 90   | 70   | 90   |

**Final T-N Concentration in Effluents**

(Unit: mg/ℓ)

|                         | 2012 | 2013 | 2014 |
|-------------------------|------|------|------|
| Discharge concentration | 15   | 15   | 15   |
| Legal limit             | 60   | 60   | 60   |

**Air Management**

POSCO is pursuing various environmental activities to improve the air quality near the steel works and surrounding areas. With the goal of maintaining air pollution lower than legal standards, we operate an air quality measurement facility at the perimeter of the mill site, as well as the outdoors and indoors dust measuring devices. We are also discussing a voluntary environmental agreement between the municipal government and our business locations.

Following the first Voluntary Agreement for Air Pollution Reduction in the Gwangyang Bay Region\* (2006~2010), Gwangyang Works joined hands with the Ministry of Environment, the municipal government of the Gwangyang Bay region, and 17 other business sites located within the area, to sign the Second Voluntary Agreement (2012~2016) that aims to reduce 20 thousand tons of dust, NOx, SOx and VOCs, which corresponds to 13% of the total discharge volume in 2008 (154,000 tons). In order to reduce the total emission of air pollutants, we have set target densities for each facility to manage pollutant emissions on a real-time basis, and we are currently maintaining a stable total emissions level through the sintering plant flue gas cleaning facility which is the major pollutant reducing facility. In addition, in response to Gwangyang City's "Blue Sky Green City" campaign we established the "Dust Reduction Master Plan" that involves implementing activities to reduce dust in the course of unloading, open storage, transfer and transportation of goods and products. Some of these activities include changing aged water sprinkler pipes, expanding windbreaks and sealing of new transferring facilities.

\*Under the First Voluntary Agreement for Air Pollution Reduction, air pollutants discharge was 70,610 tons (average during 2006~2010), a reduction by 20,829 tons (22.8%) compared to the total discharge volume of 91,439 tons in 2003.

**Air Pollutant Emission Intensity**

(Unit: kg/t-S)

|      | 2012 | 2013 | 2014 |
|------|------|------|------|
| Dust | 0.11 | 0.10 | 0.10 |
| SOx  | 0.58 | 0.64 | 0.56 |
| NOx  | 0.88 | 0.91 | 0.89 |

Pohang Works installed the automatic measuring devices for air quality, fine dust, and odorous substances for optimal facilities maintenance. The measurement results are shared between the environment departments and shop-floor departments via wireless transmission and smartphones. To block the fugitive dusts from the raw materials yard from spreading we installed the sub-materials linear yard (95 kilotons) and a silo (180 kilotons) for coal storage, and built greeneries surrounding the steelmaking area to prevent fugitive dusts at the root, building an "Eco-friendly Steel Mill in the Forest."

**CASE STUDY****Soil Remediation at the Magnesium Refining Plant**

POSCO has swiftly implemented measures for the soil contamination accident that happened in June 2013 at the Gangneung Magnesium Refining Plant. After the accident, we installed the emergency containment walls, pumped an average of 300~400 tons of contaminated underground water daily, and commissioned a specialized treatment facility to prevent the spreading of pollutants. We completed a detailed survey of the contaminated ground water according to relevant law, and we monitor the water level and water quality of the contaminated area and the surrounding area.

In April 2015, the water treatment facility equipped with soil cleaning facility and advanced treatment process began full operation. Thus, we plan to greatly increase the treatment of polluted ground water to 2,000 tons daily, and the severely contaminated soil will be dug out, cleaned with chemicals, and inspected before being restored.

**Byproducts to Resources**

**Byproduct Management** Substances generated in the course of steelmaking are called byproducts. POSCO pursues various activities to effectively make use of byproducts that contain various elements and to minimize waste output. The total volume of byproducts produced at Pohang and Gwangyang Works in 2014 was 24.11 million tons. Among these byproducts 49% was blast furnace slag, 28% was steelmaking slag, 15% was dust and sludge, and 8% was other byproducts. Among the byproducts produced, 98.4% is reused as resources. In particular, all blast furnace slag and steelmaking slag are used as cement material, aggregate substitute and raw materials for silicate fertilizer.

In order to enhance the value of blast furnace slag, POSCO built a granulated blast furnace slag production facility and turns 79% of the blast furnace slag to granulated blast furnace slag. The granulated blast furnace slag is used as cement material and has more added value than aggregate substitute material. Steelmaking slag is used as aggregate substitute in civil works and sea forests to restore marine ecology, and we are discovering new uses for these materials. Sludge, dust and other byproducts are reused in the steelmaking process, while byproducts, for which we have not yet found a way to reuse, are disposed of safely through incineration or landfill.

**Eco-friendly Slag Cement** The molten slag, which is produced together with molten iron at the blast furnace, is cooled rapidly by spraying water and ground into sand-like form and is used in producing cement because of their similar chemical composition. Cement producers mix granulated blast furnace slag within five percent of the weight when producing cement because when used as substitute for cement clinker, it helps conserve natural resources such as limestone and contributes to reducing CO<sub>2</sub> emission and energy consumption. In addition, adding fine-ground slag to this cement has merits such as superior seawater resistance and reducing hydration heat, making them suitable as marine concrete and mass concrete. In 2014, POSCO used 9.01 million tons of granulated blast furnace slag as cement substitute or as slag cement material, resulting in a reduction of approximately 7.07 million tons of CO<sub>2</sub> in the social effect.

POSCO did not stop at just supplying cement material. With the joint efforts with POSCO Family companies such as RIST, POSCO E&C and POSFINE, we developed an eco-friendly, high-function cement named PosMent, and we are applying it actively to the construction sites. Compared to the existing slag cement, PosMent has higher slag content but demonstrates improved physical properties. In cooperation with cement companies, it can be applied to large structures and marine structures that are prone to crack. In 2014, 1,370 thousand tons of PosMent was used in construction, and we will continue to increase the usage volume.

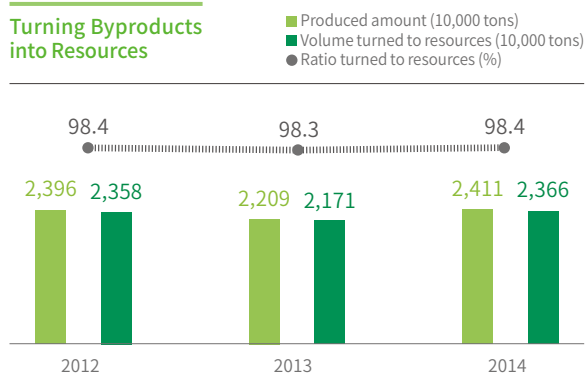
### Export of Granulated Blast Furnace Slag and Slag Power

Since the first export of granulated blast furnace slag under an annual contract in 2011, we expanded the market to four Southeast Asian countries in 2012, exporting a total of 460 thousand tons in 2014. We exported 160 thousand tons of slag powder through our Family company POSFINE, which specializes in slag powder production. Thus, we were able to set up an export network for both the raw material and product. We prepare exporting granulated blast furnace slag for increased slag generation, as well as contributing to overseas environment-friendly activities such as energy conservation, CO<sub>2</sub> reduction and preservation of natural resources.

### Developing Technologies for Byproduct Utilization

The volume and types of byproducts generated at POSCO are large and varied, requiring efforts to find good use for them. POSCO recognizes these byproducts as green resources and has been conducting the byproduct profitability improvement project since 2007 to maximize their added value. We are continuing activities such as R&D to increase byproduct value, cooperation with relevant institutions and building a byproduct utilization model to enhance synergy with POSCO Family companies. We will not stop at just using byproducts at POSCO and POSCO Family companies. We will expand our activities to other industries in order to continue to broaden the recirculation of byproduct resources.

### Turning Byproducts into Resources



### Utilization of Byproducts in 2014

(Unit: 10,000 tons)

|                    |                       |     |                  |                              |     |                  |              |     |
|--------------------|-----------------------|-----|------------------|------------------------------|-----|------------------|--------------|-----|
| Blast Furnace Slag | Cement                | 902 | Steelmaking Slag | Roads and civil works        | 425 | Dust / Sludge    | In-house use | 220 |
|                    | Roads and civil works | 242 |                  | Raw material for steelmaking | 181 |                  | External use | 108 |
|                    | Fertilizer            | 35  |                  | Bricks, Aggregates           | 11  |                  |              |     |
|                    | Others                | 1   |                  | Cement, Others               | 48  | Other byproducts |              | 193 |

## Energy Management

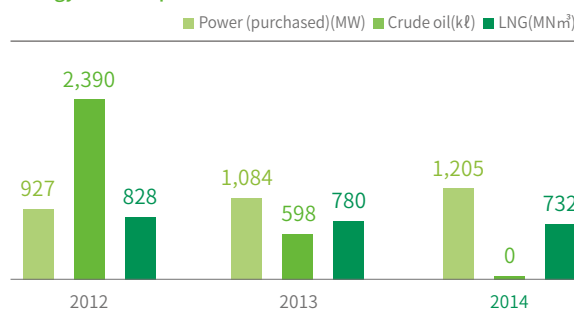
**Improving Energy Usage** As a business that consumes a high level of energy, POSCO recognizes the significance of climate change and energy policies and pursues various efforts to reduce energy consumption to strengthen our steel competitiveness. We are helping maintain balance in the national power usage and saving our energy costs by adjusting rolling process schedules so that mills may use the night-time electricity that comes with lower rates as much as possible. We are implementing energy conservation activities with the participation of all employees and management at the steelworks to uncover energy waste elements and by spreading successful projects; we are improving energy usage and energy efficiency. In tandem with the government's paradigm shift in its energy policy in the Second Master Plan for National Energy that shifts focus from energy supply to demand control, we are currently pilot operating a 1.5MW ESS (Energy Storage System) to be completed by 2015.

**Implementing the Government's Electricity Policy** During the summertime of 2013 when there was the worst electricity shortage yet, as per the request of the government, the two steelworks and POSCO Specialty Steel took on extreme power usage control such as halting and/or adjusting the operation schedule of the electric furnaces, and conducted the "Save 100W" campaign. Through these activities, we saved approximately 390,000 kW of electricity, about half of the normal power consumption, and which corresponds to a month's power consumption in 100,000 homes. In light of distributed generation and expansion of renewable energy policy under the Mast Plan for National Energy, POSCO already maintains an independent generation rate of 60% in 2014, which is unequaled in Korea, and we plan to further expand independent generation and the implementation of renewable energy and distributed energy systems.

**Developing Energy Saving Process and Technology** In 2012, POSCO became the first steelmaker in Asia to acquire the ISO 50001 certification. Based on that same process we established the energy consumption reduction management system in 2013, which supports a systematic PDCA (plan-do-check-act) management of energy conservation activities. In collaboration with RIST and POSCO ICT, Gwangyang Works is looking into ways to expand the Smart Industry\*, which was applied to the oxygen plant, to other processes as well. In addition, through the joint research with RIST for maximum recovery of the waste heat produced during steelmaking process, we are currently conducting demonstration project of the low-to-medium temperature waste heat recovery technology in the steelmaking, iron-making, and hot rolling processes.

\*Smart Industry: A system which manages all the flow and usage status of energy including electricity, gas and heat consumed at an industrial facility in order to reduce energy consumption and CO<sub>2</sub> emission.

## Energy Consumption



\*Owing to our movement to use zero heavy oil, there was no heavy oil used in 2014

## Hazardous Chemicals Control

**Enhanced Chemicals Operations Process** Aware of the impact of chemicals on the environment and safety of the community, POSCO strengthened the hazardous chemicals operations process at the company level to respond to potential dangers involving chemicals. In order to fundamentally minimize risk elements accompanying the use of chemicals, we are developing technologies that can replace hazardous substances with low-hazard chemicals, or reduce the amount used. We increased the number of hazardous chemicals control personnel in shop-floor departments to prepare for accidents and put together an emergency response team. We also installed chemical leak detectors. After verifying their effectiveness, we will expand their installation by steps throughout the steelworks.

## Chemicals Release

|           | (Unit: tons) |      |      |      |
|-----------|--------------|------|------|------|
|           | 2004         | 2012 | 2013 | 2014 |
| Pohang    | 140          | 32   | 32   | 41   |
| Gwangyang | 80           | 41   | 37   | 51   |

**REACH** Restrictions on chemicals contained in products is becoming more rigorous worldwide. 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 of our materials being sold, in POSCO's electronic commerce system ([www.steel-n.com](http://www.steel-n.com)), where the information is open to everyone.

- 1) SVHC (Substances of Very High Concern): If more than 1 ton of a product are manufactured/imported and the product contains more than 0.1% by weight the substances listed as SVHC, the manufacturer/importer must report to ECHA (European Chemicals Agency).
- 2) MSDS (Material Safety Data Sheets): is a safety and health information cataloging system for substances
- 3) REACH (Registration, Evaluation and Authorization and Restriction of Chemicals): is EU's new chemicals regulation.
- 4) RoHS (Restriction of Hazardous Substances): is a set of directives initiated by the EU, restricting the use of certain harmful substances
- 5) PFOS (Perfluorooctane Sulfonate): is a fluorosurfactant containing persistent organic pollutants

## BIODIVERSITY POLICY & 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, Practice Guidelines

##### 5. Protection of Environment and Preservation of Eco-system

###### 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/kor3/html/company/ethics/s91a3000070c.jsp>

### Preserving Biodiversity

**Preserving Marine Ecology** POSCO spearheads the activities to restore the 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 resources such as seaweeds, fish and shellfish. Steel slag, the main material for Triton, has high content in minerals such as calcium and iron that are beneficial to the marine ecology, which speed up the growth and photosynthesis of seaweeds, purifies polluted sediments and water quality. A sea forest made with Triton can 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 establishing measures against marine climate change, POSCO signed another MOU in 2010 for building sea forests and marine resources. Under this agreement, we are continuing the project for building sea forests in cooperation with FIRA (Fisher-

ies Resources Agency) and RIST. We will enhance cooperative activities with the government, civilians (fishing villages), and academia to build new sea forest models, and for the management of existing marine forests and surveying their effectiveness.

#### Sea Forests Built with Triton

|      |   |
|------|---|
| 2010 | Yeosu Expo sea forest   |
| 2011 | Tongyeong Gyeongsangnam-do Province, and Euljin Gyeongsangbuk-do Province |
| 2012 | Samcheok Gangwon Province, and Guryongpo Gyeongsangbuk-do Province        |
| 2013 | Guman-ri in Pohang City, Gyeongsangbuk-do Province                        |
| 2014 | Yeongdeok-gun sea forest  |

\*Triton: 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 for Biodiversity** Recognizing the importance of biodiversity, POSCO undertakes various activities both domestically and abroad in cooperation with governments, NGOs and local residents. In Japan, we built a "Forest We Want to Walk In" by forest maintenance and clearing of weeds. Under agreement with the Chinese government, we built POSCO Hill in Phoenix Island (Xuejia Dao), a tourist location in Qingdao, offering a green space to citizens and tourists. In California, we undertook the flowerbed restoration to preserve the unique tree species of the region. Meanwhile, CSP of Brazil saved 90 species of wild animals and plants and undertook afforestation project to preserve biodiversity of the area. In Mexico, endangered species found in the vicinity of the POSCO plant were relocated to a more suitable environment. POSCO strives to protect fauna and flora in various locations of the world.

**Publication on Biodiversity** In collaboration with Korean Federation For Environmental Movement (NGO), POSCO publishes books on endangered species to preserve biodiversity. The aim is to raise awareness on species that are in danger of going extinct and to protect them. For the first book that was published in 2014, we chose the eagle-owl as the subject.



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

The book introduces experiences and episodes from personages from various fields, and provides readers with an opportunity to think about living species and the environment. POSCO will continue biodiversity preservation activities together with environmental NGO.

## COMMUNICATION ON ENVIRONMENT

### Stakeholder Communication

**Environment Dialogue** With higher interest for and stricter regulation on the environment both in and outside Korea, POSCO is holding the “Environment Dialogue” to effectively respond to global environmental issues and domestic environmental policies. We invite opinion leaders from the government, corporations, academia and environmental organizations to ask for advice on POSCO’s projects and business directions as well as the government policies and the role of corporations. In 2013, under the theme of “Environmental Welfare and the Role of Corporations,” we discussed the meaning of “environmental welfare,” the expectations of various sectors and the role of corporations. The contents discussed at the environment dialogue are shared with internal and external stakeholders through the POSCO News and website.

**Carbon Neutral Program** POSCO initiated the Carbon Neutral Program to encourage voluntary participation of the citizens in the move toward carbon neutrality and to spread awareness to all parts of society, contributing to building a low-carbon, green society where corporations and society come together. In 2009, POSCO launched a program that supports greenhouse gas reduction activities for K-12 students, clubs, civic groups and housewives, which was a first among domestic and foreign companies. Since 2010, the program changed the target to college students. Each year, we hold an idea contest for carbon neutrality, among which we select college students with the most creative and executable ideas, provide support needed to execute them and share knowledge and opinions through our blog and facebook page.

Official blog: <http://blog.naver.com/carbonzero>  
Facebook: <https://www.facebook.com/PoscoCarbonzero>

**Green Walk** The Green Walk is POSCO’s best-known green campaign that was started in 2011, where POSCO Family employees and their families can participate to reduce greenhouse gas emissions. The campaign fosters voluntary participation in green action: “walk, turn off, reduce, and collect”. We share various contents such as news, expert columns, Green Photos, and Green Essays through our homepage. This campaign is operated in cooperation with a civic group, and in 2014, we expanded the scope to outside the company and the Green Coins gathered through the participants’ activities were donated to charity.

### Domestic and International Cooperation Activities

POSCO actively participates in domestic and overseas activities that support sustainable development. Not only do we participate in exchanges within the steel industry, but we also participate in cooperative activities in various areas such as preserving biodiversity, playing a vital role as a leading global green growth company.

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

### 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. As stakeholders’ interest in climate change increased, we began publishing the Carbon Report in 2010. In recognition of our continued efforts for environmental management, we were included as one of the leading companies in the RobecoSAM-DJSI (a global sustainability index) for 10 consecutive years and one of the Global 100, recording the highest score in the steel industry’s environment performance for the second consecutive year.



## CLIMATE CHANGE

## CARBON MANAGEMENT

### Carbon Risk & Opportunity Management

**Perspectives and Approaches** Climate change is a megatrend that is changing the paradigm in all corners of society and many global companies are looking to enhance their competitive edge by actively responding to the climate change issue. We recognize that responding to the climate change issue and conducting carbon management activities pose both risks and opportunities for our business. We are focusing on establishing a strategy that will minimize the business risks and turn climate change into a positive opportunity.

**System and Process** POSCO has built an internal system for identifying, assessing and analyzing the risk and opportunity factors associated with climate change. The risks and opportunities identified are organically linked with our enterprise-wide risk management system in accordance with our risk management rules. The risks and opportunities thus identified are analyzed in various perspectives. The results of such analyses are reflected in POSCO's medium and long-term strategies. It is stated in POSCO's investment management rules that if a business plan could result in environmental risk, such as increased GHG emissions, personnel must consult with a relevant department specializing in the area. The results of such climate change response activities are reported through the annual POSCO Family Environmental Management Committee meeting chaired by the CEO. The enterprise-wide CO<sub>2</sub> and energy indices are shared through the monthly Management Meeting. Information about POSCO's efforts in carbon-related risk and opportunity management are transparently disclosed to the public through a third-party-verified Sustainability Report, business reports and public notices.

**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 foreign carbon regulations and other factors such as corporate reputation.

Recently, there are frequent reports of damage caused by extreme weather such as deluge, heat waves, heavy snowfalls and freeze. POSCO is no exception to these damages throughout all its business activities including direct damages caused to facilities and equipment, problems in procuring raw materials, difficulty in securing power and water and increase in logistics costs. Thus, POSCO's Pohang and Gwangyang Works' storm and flood damage control room continues monitoring to preemptively respond to physical risks posed by climate change, cooperating closely with related institutions and organizations through a close-knit network. Additionally, in order to respond to risks systematically, POSCO established an enterprise-wide risk management process and system through the disaster management manual and natural disaster management guideline and continues to modify and improve this process and system.

International organizations including IPCC (Intergovernmental Panel on Climate Change) report that climate change is closely linked to the greenhouse gases emitted in the course of industrial activities. Under the UN Framework Convention on Climate Change, a global carbon regulation policy will be implemented by 2020 in which the whole world will participate. In Korea, the Framework Act on Low Carbon, Green Growth was enacted in 2010, after which the Greenhouse Gas and Energy Target Management Scheme was implemented in full force in 2011. In tandem with the enactments in 2012 of the Act on the Allocation and Trading of Greenhouse Gas Emissions Allowances and the Enforcement Decree of the same Act, greenhouse gas emissions trading will begin in 2015. POSCO observed the Greenhouse Gas and Energy Target Management Scheme's regulations until 2014. Since January 2015, POSCO must perform greenhouse gas reduction and emission permit submission obligations under the greenhouse gas emission permits trading system. Beginning from 2015, direct financial burden will be charged for emissions that exceed permitted caps, which leads to the concern 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 greatly affects companies' competitiveness. As the foreign trend is also leaning toward stricter carbon regulations, we are aggressively reviewing policy risks pertaining to overseas expansion of POSCO Family companies.

In order to respond to these policy risks related to carbon regulation, POSCO continues to monitor regulations and policies, identifying potential business risks and actively participating in related discussions to contribute to developing reasonable policies. The risk management process supports effective response to policies and decision making of the management level; enhancing energy efficiency is a means to reduce greenhouse gas emissions in the short term; while the development of innova-



tive low-carbon technology and high-performance steel products contributes to reducing greenhouse gases as well as indirect emissions in the medium and long term.

As physical and policy risks related to climate change intensify, the call for social responsibility on the part of large emitters has become more demanding as well. If such calls are dealt with improperly, the risk of losing reputation is another risk. POSCO meets stakeholders' demand for social responsibility by participating in climate change response and carbon management performance evaluation by external evaluation institutes such as CDP and SAM-DJSI and by transparently disclosing information through the Sustainability Report.

**Major Opportunities Related to Climate Change** Opportunities associated with climate change and carbon management activities also fall mainly into physical factors and policy factors due to domestic and foreign carbon regulations.

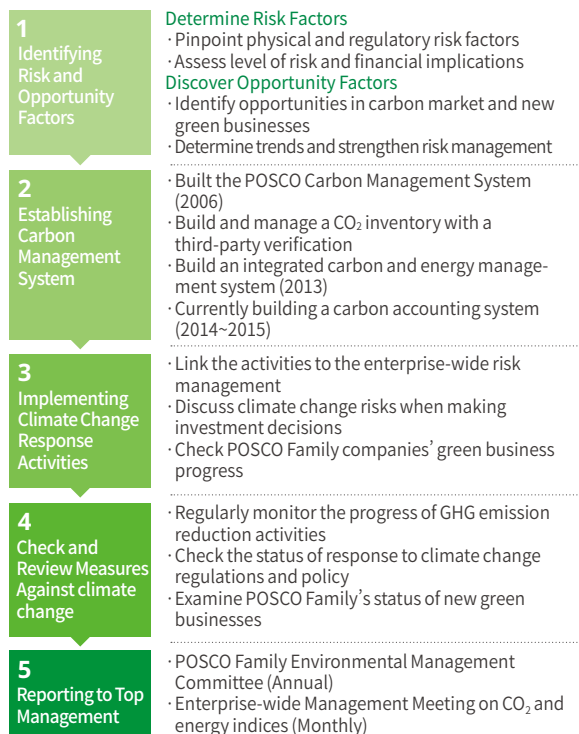
Increased energy use due to changing natural environment and severe weather such as heat waves and freeze can also lead to new business opportunities. POSCO is undertaking the sea forest restoration project using Triton<sup>1)</sup>, a product made from steel slag, to restore coastal areas affected by 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. Also, we are planning to spread the POSCO Green Building, which em-

plays more than a hundred eco-friendly technologies, as a model for energy conservation building.

Meanwhile, low carbon technologies and efforts to reduce indirect greenhouse gas emissions also pose opportunities for creating profit. High-strength steel sheets that save weight of vehicles, and blast furnace slag that replaces eco-friendly cement material have already become POSCO's new sources of income. In addition, owing to stricter environmental regulations in China, some steelmaking companies purchased FINEX, POSCO's unique eco-friendly technology and are preparing for construction. Meanwhile, other companies continue to benchmark POSCO's environmental management activities, and we expect there will be demand for environmental and energy conservation technology in the future. 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, fuel cells and solar power business, ESS<sup>3)</sup> and Microgrid<sup>4)</sup> business.

- 1) Triton: 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.
- 2) Smart Industry: The goal of Smart Industry is to increase energy efficiency, reduce production cost and stabilize facilities by combining various energy sources at the steel mill with advanced information technology.
- 3) ESS (Energy Storage System): An ESS stores surplus energy produced at the power plant to be supplied during temporary power outages.
- 4) Microgrid: An independent power grid that enables a small area to be self sufficient. It is a next-generation electrical system that fuses and combines renewable energy and ESS.

### Risk & Opportunity Management Process for Carbon Management



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

| RISK        |  |
|-------------|--|
| <b>S</b>    | Damages to equipment and facilities, difficulties in securing raw materials and water, increased logistics costs caused by heavy snowfalls, deluge or droughts |
| <b>S</b>    | Increased carbon costs with the implementation of domestic emissions trading scheme, and consequential decrease in price competitiveness                       |
| <b>S B</b>  | Stronger carbon regulations when POSCO tries to expand overseas  |
| <b>S P</b>  | Diminished competitiveness of the upstream and downstream industries when greenhouse gas emissions are restricted  |
| <b>S</b>    | The call for social responsibility on large greenhouse gas emitting companies  |
| OPPORTUNITY |  |
| <b>S B</b>  | POSCO can create new sources of income by selling high energy efficiency steel products, and exploiting new markets in green buildings and slag sea forests    |
| <b>B</b>    | Participating in new businesses such as renewable energy, energy storage and carbon market.  |
| <b>S</b>    | Corporate competitiveness can be enhanced with innovative low-carbon technologies  |
| <b>L P</b>  | Stakeholder awareness can be heightened through external reviews and transparent data disclosure   |

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

### Climate Change Response System

POSCO has built a sustainability management system to enable timely decision-making regarding climate change issues by the shareholders, board of directors and CEO. POSCO systematically implements sustainability management activities. Based on the opinions collected by the sustainability management working-level teams and the issue discussions and direction presented by the sustainability management committees, the decision-making body decides the enterprise-wide vision as well as the goals and direction for POSCO's sustainability management. Meetings chaired by the CEO to discuss major issues including climate change are the Management Meeting (monthly) and the executives' meeting (held either each month or as often as needed).

The Climate & Energy Group of the Environment & Social Contribution Office under the directorship of the Finance & Investment Division is responsible for climate change and energy issues, while the Environment & Resources Group is responsible for issues related to the environment and turning byproducts into resources. The Environment & Social Contribution Office establishes management strategies related to the environment and energy, establishes and implements enterprise-wide climate change response measures and the carbon/energy management system and builds strategies to make efficient use of resources and byproducts, while making profits in the process. In addition, the Environment & 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 & energy regulations that are becoming stricter both domestically and abroad.

\* The organizations mentioned are based on the organizational restructuring undertaken in February, 2015.

At Pohang and Gwangyang Works, there are the Energy Department and Environment & Resources Department that are responsible for CO<sub>2</sub> reduction, improvement of energy efficiency and issues pertaining to the environment and health. These departments cooperate closely with the head office's Climate & Energy Group and Environment & Social Contribution Group in order to effectively reflect and implement the enterprise-wide carbon/energy management system to fit the situation of the Pohang and Gwangyang Works.

POSCO annually holds the POSCO Family Environmental Management Committee meeting chaired by the CEO, where presidents of the POSCO Family companies participate to discuss

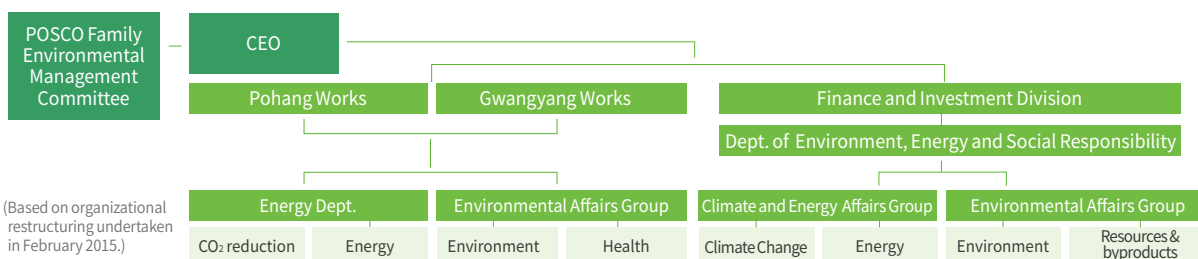
agendas such as mitigating climate change, low-carbon green growth, and environmental management. The Environment & Energy Committee chaired by the director of the Environment and Energy Office was changed in 2011 to the Environmental Management Committee which is since chaired by the CEO. POSCO's overseas branches and Family companies participate in the meeting. In 2013, the Green Growth Committee, which was formerly in charge of reviewing green growth strategies, was integrated into the Environment Management Committee. In November 2014, the CEO and presidents of major POSCO Family companies came together to look back on POSCO's environmental management activities for the year and to share the direction of next year's activities. In particular, each business site's environmental risks were quantitatively analyzed based on their use of chemicals, and a consensus was reached on the emergency response system to be activated in case of a crisis. In addition, it was decided that related departments will cooperate closely at the reviewing phase of new businesses for a more fine-tuned environmental risk management.

### 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 those three principles above. These agendas are: strengthening the fundamental competitiveness of the steel industry, selection and focus of new growth businesses, groundbreaking improvement of the financial structure, and renewing management infrastructure. POSCO will build the basis for achieving the vision "POSCO the Great" through its management principles and core agendas, in order to become the company loved by the people and respected by the global citizens by increasing corporate value, recovering its credit rating, and securing a mega engine for growth.

It is our intention that POSCO Family's low-carbon green growth also contributes to achieving the vision "POSCO the Great." Based on four implementation areas – Green Steel, Green Business, Green Life and Green Partnership – the goal is to become the "Global Green Growth Leader." Based on innovative low-carbon technology such as conservation and improved efficiency of energy and steelmaking processes with reduced CO<sub>2</sub> emissions, we are developing and supplying high-efficiency steel products, thereby strengthening the foundation for Green Steel and ultimately contributing to the enhancement of the fundamental

### Governance to Respond to Climate Change



competitiveness of the steel industry. In addition, along with the renewable energy businesses (solar power, fuel cells for generating electricity and energy storage), we are discovering new growth engines in the Green Business area such as the smart grid and developing lithium materials for batteries. Moreover, we are expanding the area of Green Life through the Green Walk campaign where employees of POSCO Family companies and their family members practice green living, and the carbon neutrality program that supports the greenhouse gas reductions in society. We are also cooperating with domestic and overseas carbon policies to secure a leadership role and strengthening our corporate activities for a low-carbon society to realize Green Partnership.

**POSCO's Voluntary Reduction Target by 2020** With the coming into effect of the Korea's GHG Emissions Trading Scheme trading in 2015, POSCO changed its carbon target and performance calculation method from the "POSCO Greenhouse Gas Emission Calculation Methodology" to one that conforms to government guidelines to prevent confusion. The changed emission calculation standards mainly differ in off-gas emission factor from POSCO's method, resulting in different emission volumes.

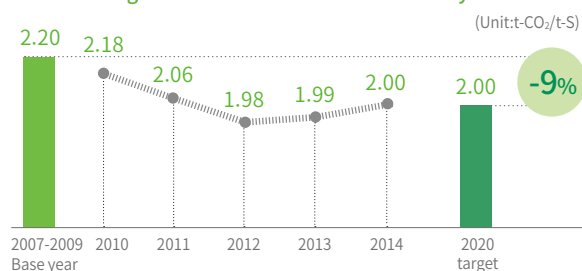
POSCO announced its greenhouse gas reduction target to be reached by 2020 at the Seventh Green Growth Committee meeting chaired by the President of the Republic of Korea in February, 2010. The target was to reduce the CO<sub>2</sub> emission intensity per ton of steel produced in 2020 by 9% of the average emission intensity between 2007~2009. With the changed calculation criteria, the average between 2007~2009 which was 2.18 t-CO<sub>2</sub>/t-S and the 2020 goal of 1.98 t-CO<sub>2</sub>/t-S changed to 2.20 and 2.00 respectively. In addition, the past CO<sub>2</sub> intensity (t-CO<sub>2</sub>/t-S) performances 2.13 of 2010, 2.10 of 2011, 2.03 of 2012 and 2.05 of 2013 were recalculated to 2.18, 2.06, 1.98 and 1.99, respectively.

In order to reach this voluntary reduction target, POSCO takes measures to reduce coal usage and enhance energy efficiency, while also putting efforts into developing innovative CO<sub>2</sub> reduction technologies. Aside from reduction efforts at the business sites, we are putting much effort into reducing greenhouse gases in society as well, by developing and supplying high-strength automotive steel, electrical steel that increases energy efficiency of motors and transformers and blast furnace slag that can be used as an eco-friendly substitute for cement.

**GHG & Energy Target Management Scheme** The GHG & Energy Target Management Scheme was launched in 2012 under the decree of the Framework Act on Low Carbon Green Growth. It sets targets for greenhouse gas reduction and energy conservation for large greenhouse gas emitting companies and business sites, and monitors their compliance. Companies subject to the scheme in 2014 were 827. Within POSCO, thirteen business sites including Pohang and Gwangyang Works submits statements describing greenhouse gas emissions and energy consumption to the government after verification by a government-authorized independent third party. Owing to our

efforts to reduce emissions, we expect to be able to reach the 2014 target without issue. Now that POSCO became a subject company in 2015 for the Greenhouse Gas Permit Trading System introduced by the government, it will conduct reduction activities in accordance to this system.

### POSCO's Target to Reduce CO<sub>2</sub> Emission Intensity



\* With the coming into effect of the Korean carbon permits trading system, POSCO changed the emission calculation standard from "POSCO Greenhouse Gas Emission Calculation Methodology" to the "Administrative Guideline for the Greenhouse Gas Target Management System" that was announced in March 2011. We have recalculated all emission intensity performances including reduction targets according to the government guidelines.

\* Although the scope of calculation is the same, the difference in off-gas emission factor mainly results in different calculation outcome.

- The off-gas emission factor was changed from calories to chemical carbon content.

- The figures disclosed in this Report are from Pohang and Gwangyang Works only, and may not exactly coincide with the statement submitted to the government, which includes all business sites including Pohang and Gwangyang Works.

\* Note: POSCO's calculation criteria until 2013

- Scope: Pohang Works and Gwangyang Works

- POSCO's greenhouse gas emissions criteria were developed referring to IPCC Guideline for National Greenhouse Gas Inventories, WBCSD/WRI Greenhouse Gas Protocol, World Steel Association Guidelines, ISO TC 17/SC Calculation method of CO<sub>2</sub> emissions intensity from Iron and Steel production (2010. 8. 27), and data was calculated and disclosed until 2013 according to said guideline.

## CASE STUDY

### Implementation of the Emissions Trading Scheme

The "Act on the Allocation and Trading of Greenhouse Gas Emissions Allowances" was enacted in January 2015, signaling the commencement of emissions trading.<sup>1)</sup>

POSCO was designated as a company subject to emission permits allocation in October 2014 and was allocated emissions permits for the first commitment period (2015~2017) in November. The company submitted the emission-monitoring (measurement) plan for greenhouse gases according to the law. The excess or shortage of emissions permits will be reflected as financial revenue or costs. The company revamped its policies and systems to manage the MRV (Monitoring, Reporting and Verification) related risks.

The greenhouse gas emission management system that was launched in 2007 was improved, and we are building the carbon accounting management system that supports the supply and demand forecast for emission permits and reflection on production costs, with the target to start operation by the second half of 2015.

1) The emissions trading scheme is a system where the government allocates total amount of allowable greenhouse gas emissions for each company, and the companies emit greenhouse gases within that limit, and can trade their excess or lacking permits. Companies who emit an average annual greenhouse gas volume of 125 thousand tons, or a business site that emits over 25 thousand tons are subject to the regulation, and 525 companies are subject to the emissions trading scheme as of 2014.

## Carbon Management System

**Integrated GHG & Energy Information System** To manage greenhouse gas emissions at the steelworks, POSCO has developed its own methodology for calculating greenhouse gas volumes in 2006, based on the internationally-used IPCC<sup>1)</sup>, WBCSD<sup>2)</sup>/WRI<sup>3)</sup>, and World Steel Association ISO 14404<sup>4)</sup>. POSCO calculates monthly greenhouse gas emissions based on this methodology. The calculation includes thirteen business sites including Pohang and Gwangyang Works, POSCO Center and Global R&D Center in Songdo, Incheon. Carbon emissions are calculated based on the carbon emission factor for major materials containing carbon including raw materials (coal, limestone and natural gas), purchased electricity, production volumes and byproduct sales volumes. 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). Meanwhile, we are preparing for the domestic emissions trading scheme that is to come into effect in 2015 by the following: developing an information management system that meets global standards for the integrated management of greenhouse gas and energy that is compatible with domestic and foreign climate change policies, improving the working process to enable low-cost production and systematizing the management process for implementing greenhouse gas reduction targets.

1) IPCC: Intergovernmental Panel on Climate Change

2) WBCSD: World Business Council for Sustainable Development

3) WRI: World Resources Institute

4) ISO 14404: Calculation method of carbon dioxide emission intensity from iron and steel production

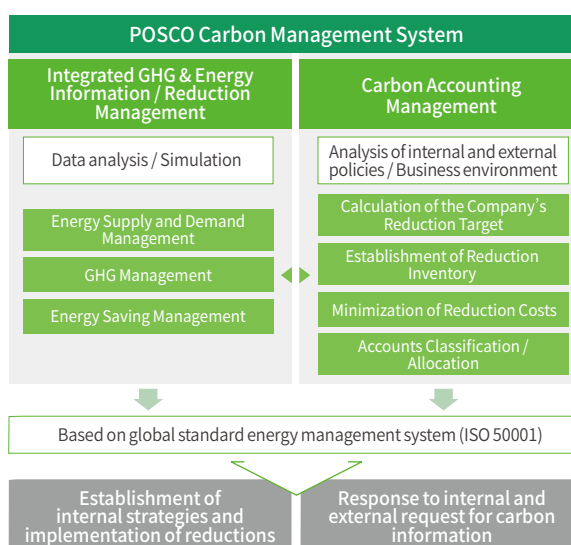
**Carbon Accounting System** Carbon accounting is a series of processes analyzing carbon management activities in all work processes in the financial aspect, providing relevant information to internal and external stakeholders. The purpose of carbon accounting is to establish internal strategies and meet the outside demand for information disclosure by identifying and analyzing the means to reduce carbon emissions, taking into account market conditions, government regulations, and volume and cost of carbon reduction, thereby helping with strategic decision-making and enhancing POSCO's sustainable carbon competitiveness. In 2011, POSCO developed a real-time self-management system that links amount of fuel and raw materials, CO<sub>2</sub> emissions, and emissions trading to enhance the shop-floor's understanding and interest in greenhouse gas emissions. An incentive system for improving energy efficiency and reducing greenhouse gas emissions was implemented at the steel mill production departments. In 2013, we have expanded the incentive system to other business sites besides the steel mills,

allocated greenhouse gas reduction targets from the smallest production unit through to the business division unit and operate a target management system that evaluates their performance.

In 2012, in preparation for the emissions trading scheme to be implemented domestically, POSCO identified reduction means that consider market conditions, government regulations and greenhouse gas reduction volumes and costs, and developed related analysis tools in cooperation with POSCO Research Institute. This was further advanced in 2015 into the carbon accounting system, which will start operation in the second half of 2015. As costs incur, a shortage in emissions allowances will reflect the production cost for each plant, which we expect to help reduce greenhouse gas emissions.

**ISO 50001 Certification** Our business environment is changing as various stakeholders' demand for carbon & energy reduction increases; domestic and international regulations come into full effect; and energy efficiency requirements are sometimes used as trade barriers. In response to these changes, POSCO established the energy management system and is achieving actual results in energy conservation. 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 the certification by re-evaluation of the certificate.

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



## Greenhouse Gas Management System

### Phase 1

#### Inventory Management 2006~

Calculate CO<sub>2</sub> emissions and energy use at all operation sites, analyze CO<sub>2</sub> performance

### Phase 2

#### Project Management 2011~

Assess the reduction performance based on the inventory per emission reduction project and shop-floor department and reward accordingly

### Phase 3

#### Strategy Management 2015~

Make decisions on emission reduction considering the company's estimated GHG emissions, the potential of each reduction project and their economic benefit



## Carbon Performance

**GHG Emissions from Production Processes** Carbon dioxide constitutes most of the greenhouse gas emissions generated at the POSCO Pohang Works and Gwangyang Works. CO<sub>2</sub> emission volume in 2014 was 75.24 million tons, an increase by 3.9 percent compared to 72.39 million tons in 2013. Steel production in 2014 reached 37.65 million tons, increasing by 3.3 percent compared to 36.42 million tons in 2013. Thus, the CO<sub>2</sub> emission intensity per ton of steel produced increased from 1.99 t-CO<sub>2</sub>/t-S in 2013 to 2.00 t-CO<sub>2</sub>/t-S in 2014, which is an increase by approximately 0.5 percent. The emissions intensity increased slightly due to the influence of initial operations of the newly expanded FINEX and steelmaking processes in 2014.

However, owing to POSCO's continued efforts to reduce energy consumption, emission intensity is being maintained at a low level at 1.99 t-CO<sub>2</sub>/t-S in 2013 and 2.00 t-CO<sub>2</sub>/t-S in 2014 (compared to the average 2.20 t-CO<sub>2</sub>/t-S of the base years 2007~2009). We expect to be able to exceed the voluntary reduction target through additional greenhouse gas reduction activities. For your reference, since we switched to the government's calculation method, direct emissions (scope 1) decreased from 1.94 in 2012 and 1.94 in 2013 to 1.88 in 2012 and 1.87 in 2013. Indirect emissions (scope 2) increased from 0.09 in 2012 and 0.11 in 2013 to 0.10 in 2012 and 0.12 in 2013. Thus, the total emissions using the new calculation method was recalculated, changing from 2.03 in 2012 and 2.05 in 2013 to 1.98 in 2012 and 1.99 in 2013.

### CO<sub>2</sub> Emission Intensity

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

| Category                   | 2012 | 2013 | 2014 |
|----------------------------|------|------|------|
| Direct emission(scope 1)   | 1.88 | 1.87 | 1.87 |
| Indirect emission(scope 2) | 0.10 | 0.12 | 0.13 |
| Total emission intensity   | 1.98 | 1.99 | 2.00 |

\*The emission intensity is based on the government's "Guideline on the Operation of Greenhouse Gas Target Management," which was reflected since 2014. 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-efficiency" steel products, such as high-strength steel that makes vehicles lighter thus improving fuel efficiency and low-core-loss electrical steel that can increase energy efficiency of electric motors and transformers, have contributed to reducing CO<sub>2</sub> emissions in the greater society by 5.69 million tons in 2014. Blast furnace slag, which is one of the byproducts from steelmaking, was used as an environmentally friendly substitute for cement, lowering CO<sub>2</sub> emissions in society by an additional 7.08 million tons in 2014.

### GHG Reduction Effect in Society

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

| Category  | 2012   | 2013   | 2014   |
|---|--------|--------|--------|
| High-strength steel sheet for automobiles <sup>1)</sup> | 2,538  | 2,669  | 2,940  |
| Low-core-loss electrical steel <sup>2)</sup>            | 2,510  | 2,415  | 2,752  |
| Granulated blast furnace slag <sup>3)</sup>             | 6,290  | 6,704  | 7,075  |
| Total   | 11,338 | 11,788 | 12,767 |

1) 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) 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 calorific value (31.0 MJ/L, Energy Act Enforcement Regulation) ÷ 1,000)

2) 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.

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))

3) The CO<sub>2</sub> reduction 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.

**Other Greenhouse Gas Emissions** CO<sub>2</sub> emissions from transportation of raw materials, employees' commuting to and from work and taking business trips inside and outside Korea in 2014 are as follows (see table).

### Other CO<sub>2</sub> Emissions<sup>4)</sup> (Scope 3)

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

| Category   | 2012  | 2013   | 2014   |
|--|-------|--------|--------|
| Transport of Purchased Raw Materials <sup>5)</sup> | 1,022 | 948    | 1,036  |
| Employee Commuting <sup>6)</sup>                   | 6     | 6      | 6      |
| Employee Business travel <sup>7)</sup>             | 1     | 2      | 2      |
| Purchased Goods and Services <sup>8)</sup>         | -     | 3,214  | 2,928  |
| Downstream Leased Assets <sup>9)</sup>             | -     | 1,994  | 1,986  |
| Investments <sup>10)</sup>                         | -     | 12,353 | 13,113 |

4) Calculated in reference to the WBCSD/WRI Greenhouse Gas Protocol

5) The total weight of purchased raw materials is 93.27 million ton (raw materials are: coal, iron ore and limestone, which take up the majority of purchased raw materials). As we adopted the government's greenhouse gas calculation criteria in 2014, the in-company logistics and upstream leased assets were included in the calculation of Scope 1 emissions.

6) Although the number of employees is 17,877 as of end of 2014, calculations were made based on those falling into Scope 1 and 2 (Pohang and Gwangyang Works), which is 13,843.

7) In addition to the calculation scope that covers Scope 1 and 2, broad calculations were made that include employees working at the POSCO Center (Seoul).

8) GHG emissions calculated on the suppliers of major raw materials among all products and services purchased.

9) GHG emissions calculated on the GHG emission of lime calcinations plant leased to POSCO Chemtech among all downstream leased assets.

10) POSCO's subsidiaries subject to the GHG and Energy Target Management Scheme are calculated, in consideration of scope 1 and scope 2 emission volumes against POSCO's share ratio of that company.

**Investments in GHG Reduction Facilities and R&D** Total investments in new energy-saving facilities and equipment that were completed in 2014 amounted to KRW 40.1 billion. Among that amount, KRW 18.4 billion was allocated to new energy saving facilities and installations such as the STS plant's continuous annealing furnace and high-efficiency inverter installations at the sintering plant and four other locations. Also, KRW 8 billion went to installing heat efficiency improvement facilities and supplementing and replacing production facilities, and KRW 13.7 billion was spent on process improvements. Meanwhile, the total amount of investments initiated in 2014 for the research and development projects to reduce CO<sub>2</sub> emissions such as recovering sensible heat at the production processes and capturing CO<sub>2</sub> from off-gas was KRW 77 billion.

## POSCO Carbon Flow




**GHG Emissions from Steelworks** GHG emissions generated from steelmaking are mostly CO<sub>2</sub> attributable to the coal used directly and indirectly in blast furnaces. CO<sub>2</sub> that is emitted when reducing iron comprises the largest part among the CO<sub>2</sub> emitted throughout the steelmaking processes. POSCO is assessing not only the CO<sub>2</sub> volume emitted from production at the Pohang and Gwangyang Works but also the indirect emissions within the value chain such as the transport of raw materials to and within the steelworks, employee commuting and business travels and upstream/downstream leased assets. In addition, in consideration of the CO<sub>2</sub> generated during usage of products, we also calculate

the CO<sub>2</sub> emissions that can be reduced in society if POSCO's energy-efficient products were to be used compared to using existing products. The POSCO Carbon Flow demonstrates the flow of CO<sub>2</sub> throughout the production process and activities, and shows the major low-carbon, high energy efficiency technologies and facilities that are employed in our steelmaking process.



\* Below is a simplified diagram that illustrates the plant boundaries of Pohang and Gwangyang Works, production processes, major mass balance, CO<sub>2</sub> emissions, and CO<sub>2</sub> emissions and their reduction amount at the stages of raw materials transportation and usage of products and byproducts in 2014. While CO<sub>2</sub> emission volumes follow the government's Guidelines for GHG & Energy Target Management Scheme, each process's emission ratio shown in the diagram follow the company reporting guidelines.

### Input

#### Raw Materials

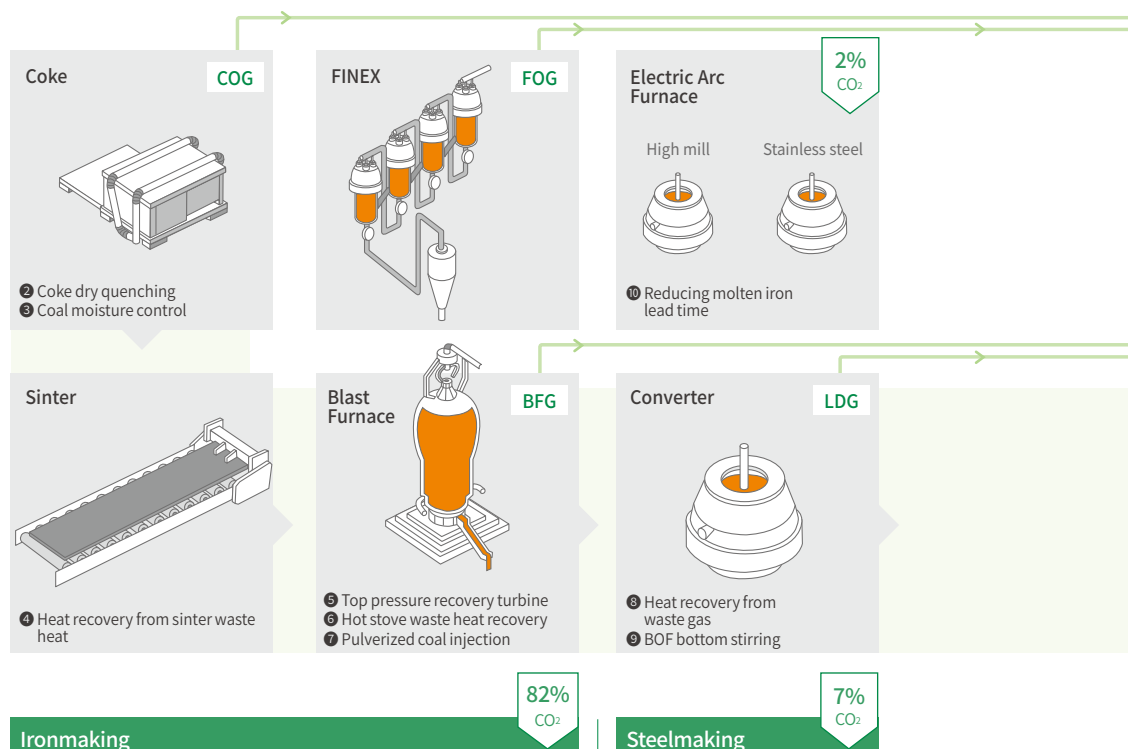
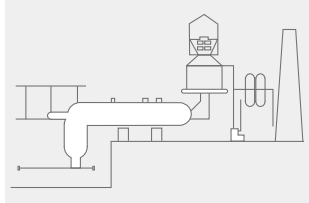
|   |           |                 |
|---|-----------|-----------------|
|  | Iron ore  | 54 million tons |
|  | Coal      | 26 million tons |
|  | Limestone | 7 million tons  |

#### Energy

|   |             |                      |
|---|-------------|----------------------|
|  | Electricity | 1,205 MW             |
|  | LNG         | 791 MNm <sup>3</sup> |

Energy Calorie Intensity\* 5,094Mcal/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)

#### Lime Kiln



#### 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 iron to produce molten iron



#### Eliminating impurities from molten iron to make steel

Molten iron produced at the blast furnace contains impurities such as carbon, phosphorus and sulfur. These are removed by blowing oxygen through the molten metal.



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

### Technology description

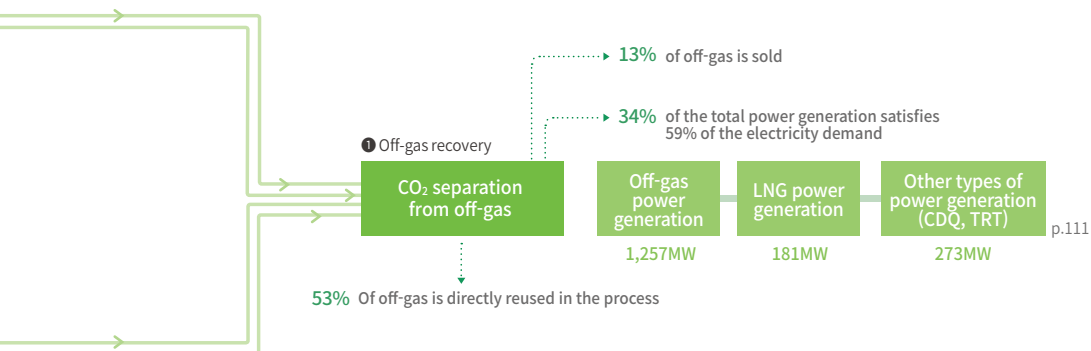
| Technology description   | Energy recovery |       |           |       |
|--|-----------------|-------|-----------|-------|
|  | Electricity     | Steam | Hot Water | Other |
| ❶ Blast furnace, FINEX, cokes oven, electric furnace off-gases are captured, purified and reused as fuel                                     |                 |       |           | ●     |
| ❷ Sensible heat is retrieved through heat exchange between red hot cokes and cooling gas   | ●               | ●     |           |       |
| ❸ Moisture of 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  |                 |       |           | ●     |

● CO<sub>2</sub> innovation technologies currently under development p.112

**Scope 1:**  
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

### Production of Crude Steel

**38 million tons**

### CO<sub>2</sub> Emissions (Scope1, Scope2)

**75 million tons**

### CO<sub>2</sub> Emission Reduction

**High-strength steel sheet for automobiles**

Fuel efficiency increased through automobile weight saving

**2,940 thousand tons**

**Low core-loss electrical steel sheet**

Increased efficiency of motors and transformers

**2,752 thousand tons**

**Blast furnace and FINEX slag**

Supplied as cement substitute

**7,075 thousand tons**

### Other CO<sub>2</sub> Emissions

Indirect CO<sub>2</sub> emissions such as transportation of purchased raw materials, etc. (Scope 3)

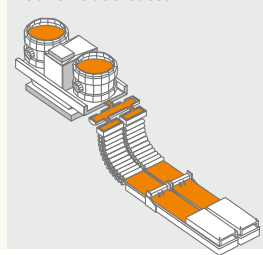
**19 million tons**

### Supply of Recovered Steam

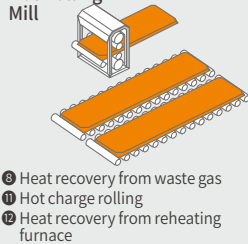
Used for local heating and related industries

**175 thousand tons**

### Continuous Caster

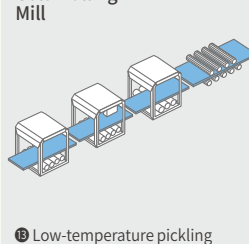


### Hot Rolling Mill



❸ Heat recovery from waste gas  
⓫ Hot charge rolling  
⓬ Heat recovery from reheating furnace

### Cold Rolling Mill



⓭ Low-temperature pickling

### Casting



### Solidifying the molten metal

Once the impurities have been removed, the molten metal is conveyed to the continuous casters, which turn it into intermediate materials such as slabs, blooms or billets.

### Hot Rolling



### Producing steel sheet or wires

The slabs, blooms and billets pass through rollers to be flattened or elongated. The rolling processes are mainly divided into hot or cold rolling

### Cold Rolling

6% CO<sub>2</sub>

2% CO<sub>2</sub>

## CLIMATE CHANGE RESPONSE ACTIVITIES

### Energy Efficiency Improvement Roadmap and Performance

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

POSCO signed an agreement with the government to improve energy efficiency, implemented in two phases from 1999 to 2008. A total of KRW 1.43 trillion was invested in energy-related facilities and 2,100 projects were carried out. These included 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. As a result, installation of waste heat recovery facilities is now 97% complete, conserving a total of 2.91 million tons oil equivalent (TOE). In addition, we built an integrated energy data system that accumulates our energy-saving operation technologies. The system disseminates energy saving ideas and energy diagnosis method and shares the results.

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

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 heat recovery steam generator (HRSG) in our new No.3 Steel making plant at the Gwangyang Works in 2010. CDQ (coke dry quenching) facilities and HRSGs were constructed inside Coke Plant No.5 and Sinter Plant No.5 at Gwangyang in 2011. Meanwhile, two combined-cycle power plants have been completed with investment from the operator, POSCO Energy, and began operation since December, 2010. These plants recover the surplus blast furnace gas generated since the production capacity expansion at the Gwangyang Works. Small and medium-sized projects are also being carried out to raise energy efficiency of our production facilities. Starting in 2009, investments are being made in stages for the inverter technology to be applied to all the high-voltage motors used on our premises.

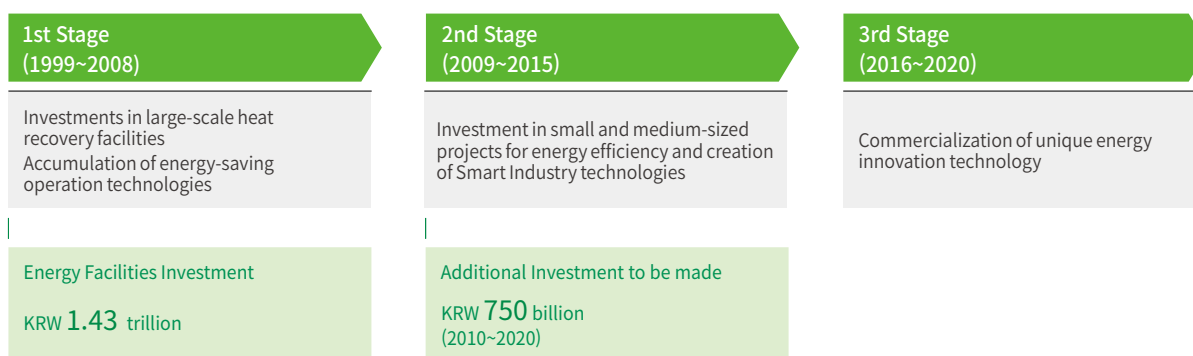
All the plants within Gwangyang Works participated in the task-force team activities to save energy and share information, resulting in 330,000 TOE saved during the year 2014. A “smart industry” pilot project, which integrates information technologies with steelmaking technologies, was launched at the Gwangyang Works oxygen plant in 2010 and is planned to be expanded throughout the steelworks in the medium to long-term timeline. With the execution of the Greenhouse Gas & Energy Target Management Scheme in 2011, we acquired ISO 50001 EMS (Energy Management System) certification in September 2012, and are putting efforts to make sure they are implemented effectively.

As the government's energy policy shifted from supply management to demand control in the Second Master Plan for National Energy, POSCO built 1.5 MW grade ESS (Energy Storage Systems) in the plants and building, and is conducting pilot operations with the target to complete implementation within 2015.

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

We recognize that applying currently available technologies will have limited results in making further improvements to energy efficiency. Thus, the need arises to step up the development of medium to long-term innovative technologies. Based on the Kalina generation, Vacuum engines, and thermoelectric generation technologies that we have been researching, we will build a roadmap for energy efficiency improvement to decide the direction for waste heat recovery and energy efficiency improvement technology development with the goal to commercialize POSCO's unique energy technology by 2020.

### POSCO's Energy Efficiency Improvement Roadmap



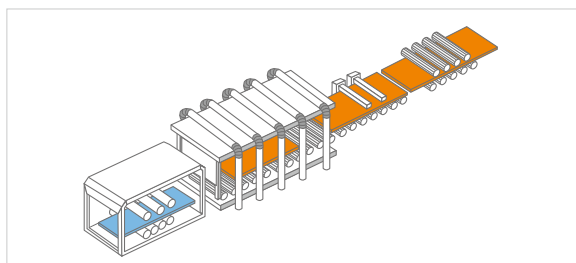
## Energy Saving Activities

**Using Off-gases** Most of the 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 (Coke Dry Quenching) and TRT (Top Gas Pressure Recovery Turbines) and LNG combined-cycle power plants cover approximately 60 percent of electricity usage in Pohang and Gwangyang Works.

**Off-gas in Combined Cycle Power Generation** In order to recover surplus off-gas, two combined cycle power plants were built in Gwangyang Works in August and December 2012, respectively, with the investment from power plant operator POSCO Energy. The power plants in Pohang were completed in September 2013 and March 2014, respectively, and are currently in operation. While combined cycle generation boasts higher energy efficiency, meeting its fuel requirements is difficult. In order 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 high calorific value as auxiliary fuel to solve this problem.

### Improvement of Combustion Efficiency of Reheating Furnace

In 2011, the Pohang and Gwangyang Works each formed a taskforce dedicated to enhancing the combustion efficiency of all reheating furnaces, which consume the most energy. In 2012, the team was upgraded to an official unit. Their activities include: standardizing the management process after unclogging and cleaning pipes; minimizing heat dissipation; developing the charging platform curtain to improve processing control; installing combined refining facility to effectively block impurities in off-gases; and developing pure oxygen lancing technology. As of 2014, the team is undertaking the reheating furnace combustion efficiency improvement project, concentrating on activities such as furnace diagnosis, optimizing combustion, and enhancing heat exchanger efficiency.



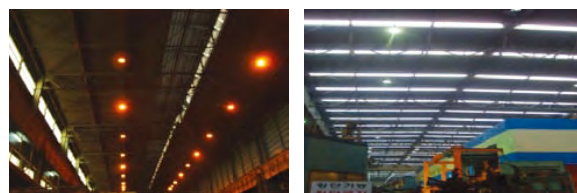
Reheating furnace

**Smart Industry** Smart grid is a next-generation, intelligent electricity grid that combines existing electricity grid with information technology, making two-way communication between utilities and consumers possible, thereby optimizing energy efficiency through real-time information exchange. In 2010, POSCO launched the "Smart Industry Demonstration Project" in the oxygen plant in Gwangyang Works. The project is customized to

the industry and combines various sources of energy of the steel-works with cutting-edge information technology to improve energy efficiency, reduce costs and stabilize facilities. Through the demonstration project we built the analyzer infrastructure to measure energy efficiency, and developed a system for analyzing the efficiency of each facility unit and optimal guidance, subsequently reducing the plant's electricity consumption by 2 percent in 2011 compared to 2010. During 2012 and 2013, we reviewed the roadmap for expanding the project throughout the company, and by 2015, we plan to complete the demonstration project at the Pohang Works hot-rolling plant that was started in December 2013.

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

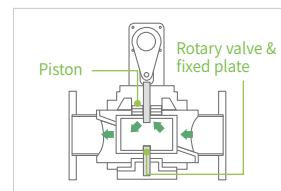
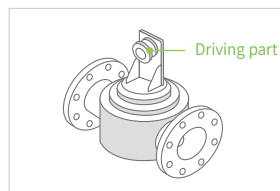
We installed control systems using remote timers for those locations that have installed natural lighting windows and related lighting circuit systems, used as an alternative to artificial lighting. The remote timer that automatically turns on the lighting only when necessary enabled us to save more than KRW 900 million at Pohang and Gwangyang Works' wire plants. In addition to using natural lighting, existing incandescent and fluorescent lamps have been replaced with high-efficiency, longer-lasting LED light bulbs since 2011. As of 2014, 95,000 lights in Pohang and Gwangyang Works and offices were changed to LED lights. We plan to add 50,000 more lighting fixtures in 2015.



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

### Pulsating Combustion Technology for Burner with Direct Heating Mode

In 2012, POSCO began development of pulsating combustion technology to reduce the amount of NOx generated at the combustion facilities and improve combustion efficiency. This technology increases heat transfer and efficiency by feeding fuel to the intake duct at a steady pulse and oscillation. With this technology, we expect a 3 percent decrease in fuel consumption and over 30 percent decrease in NOx generation. In addition, an application test in steel and iron-making plants was completed in 2014 and will be applied to the iron-making reheating furnace in 2015.

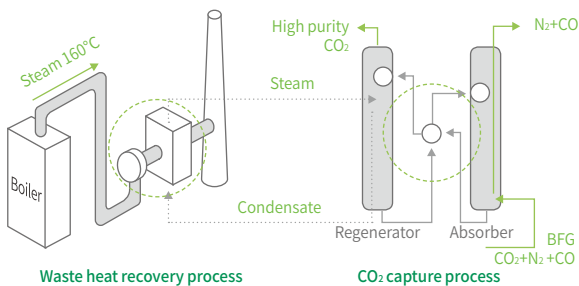


Pulsation control valve

### Breakthrough Technology Development

**Capture of CO<sub>2</sub> from Off-gas Using Ammonia Solution** POSCO is currently developing technology that uses ammonia solution to absorb and separate CO<sub>2</sub> from the blast furnace gas (BFG). Medium and low-temperature waste heat generated at the steelworks serve as the energy source needed to recycle the CO<sub>2</sub>, making it possible to separate carbon dioxide at low costs. An R&D project on this new technology was launched in 2006, and the first pilot plant with a processing capacity of 50 Nm<sup>3</sup>/h started up in December, 2008. It has attained a 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 the liquefaction facility that stores the recovered CO<sub>2</sub>. We are working on process optimization and commercial facility design, aiming to commercialize the technology by 2015. When the commercial facility is installed, these systems are expected to capture approximately 300 thousand tons of CO<sub>2</sub> annually.

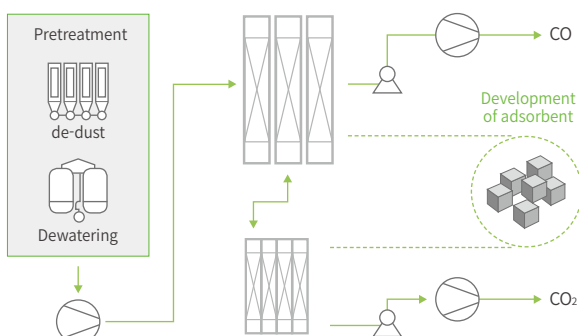
#### Capture of CO<sub>2</sub> from off-gas using ammonia-based solution



**Technology for Separating CO and CO<sub>2</sub> from Off-gas Using the PSA\* Method** In order for the steel industry to respond to climate change, it is necessary to develop low-CO<sub>2</sub> iron-making processes and ways to utilize off-gases. In 2011, POSCO began developing an optimal process and adsorbent for CO and CO<sub>2</sub> sequestration from off-gases using the PSA\* method. We attained over 99 percent capture purity of CO by building the first stage Lab with 1 Nm<sup>3</sup>/hr capacity. In 2014, we are conducted research for pilot application.

\*PSA: Pressure Swing Adsorption

#### Optimization of the gas sequestration PSA process for off-gas from steelmaking



**Turning CO<sub>2</sub> to Resources Using Off-gas** Using the technology of CO<sub>2</sub> sequestration from off-gases generated during iron-making and steelmaking, we are developing a technology that will turn the CO<sub>2</sub> collected into resources directly within the processes. This technology involves producing hydrogen and carbon monoxide by inducing reaction of methane contained in the coke oven gas (COG) with CO<sub>2</sub> and steam. The gas produced can be used as reducing agent at the fluidized reduction furnace or blast furnace, reducing production costs. We began technology development in 2009 and a pilot test of 50 Nm<sup>3</sup>/hr scale in 2012. By 2014, we reached CO<sub>2</sub> conversion ratio of over 90 percent, and a H<sub>2</sub>/CO ratio of 2.0 of the gas produced. In particular, we developed the world's first COG combined reforming catalyst, completing the pilot demonstration of CO<sub>2</sub> treatment of 45 tons a year. Currently we are conducting process optimization and basic design, which we will further verify. In the case of CCS\* technology that considers geological storage, the costs are expected to reach up to USD 230 per ton of CO<sub>2</sub> treated. Thus, we expect the technology of turning CO<sub>2</sub> into resources using off-gases will have competitiveness compared to the CCS technology.

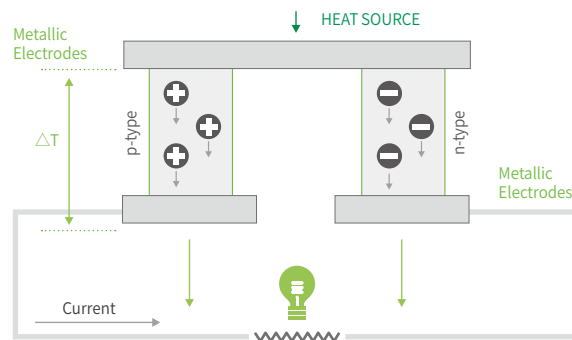
\*CCS: Carbon Capture & Sequestration

#### Thermoelectric Power Generation through Waste Heat Recovery

The heat generated by reheating furnaces contains abundant energy, but recovering the medium-/low-temperature heat streams is difficult for technical and economic reasons. POSCO is currently developing a power generation technology that directly transforms waste heat energy to electricity using the Seebeck effect\*. This technology boasts no noise, long life, and no maintenance costs, and can be applied to various types of heat sources. We completed a 5kW system in 2014 and plan to complete field testing at the hot-rolling reheating furnace in 2015.

\*Seebeck Effect: A phenomenon in which a temperature difference ( $\Delta T$ ) between two dissimilar metals or semiconductors produces an electromotive force at the junctions in proportion to the temperature difference.

#### Principle of the Seebeck Effect



## Reducing GHG in Society

**Automotive High-strength Steel Sheet** Reducing the weight of an automobile 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 will typically cut CO<sub>2</sub> emissions by 5-8 percent. When applied to automobiles, high-strength steel sheet<sup>1)</sup> can be made thinner than mild-grade sheet, reducing the overall weight without compromising strength. The energy efficiency of the automobile is improved as a result. Assuming a vehicle made of high-strength steel sheet travels 19 thousand km<sup>2)</sup> a year, each vehicle is estimated to have the effect of reducing 1.8 tons of indirect CO<sub>2</sub> emission over a period of ten years. As concern about fuel economy grows stronger, automakers use more high-strength steel sheet to make their products lighter. In 2014, the sales of HSS reached 3.65 million tons, up by 10 percent from the previous year, which is a twofold increase from the 5 percent increase during 2012~2013. POSCO continues investments to produce high value-added products such as the high-strength steel, and works with automakers to develop vehicles that are environmentally, economically and socially more efficient.

1) Automotive high-strength steel refers to High-Strength Steel (HSS) and Advanced High-Strength Steel (AHSS) with a tensile strength of at least 340MPa. As the standard for high strength steel was reset in 2014, the numbers of the past five years have been recalculated.

2) Distance traveled in one year by a passenger vehicle (Korea Transportation Safety Research Institute, 2006)

**High-grade Electrical Steel** The demand for electrical steel used in generators, power transformers and electric motors is expanding. There are two main types of electrical steel: grain-oriented and non-oriented. Grain-oriented electrical steel is a soft magnetic material in which, after undergoing special processing, the material's magnetic domains are aligned in the rolling direction, which greatly enhances its magnetic properties.<sup>3)</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. It is used in the iron core of a wide range of rotating machines such as large-scale generators and small precision motors, and it also has good qualities for application in small-scale transformers.

High-grade electrical steel has a higher orientation to the rolling direction giving its low-core-loss and high magnetic induction properties, thereby increasing the energy efficiency of the end product. POSCO supplied 470 thousand tons of high-grade electrical steel in 2014, an increase by 13 percent, also a big jump compared to the 4 percent increase during 2012~2013.

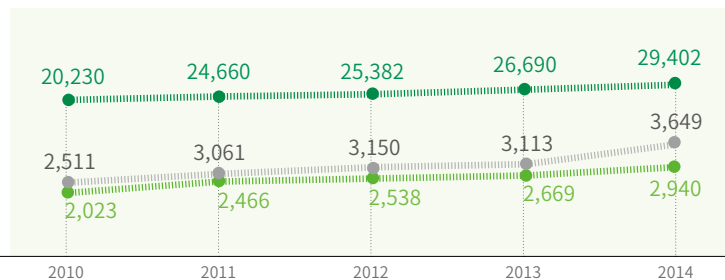
3) Similar to the concept of "resistance" in electricity, core loss occurs during magnetization and lower core loss means higher energy efficiency.

### Reduction of CO<sub>2</sub> Emissions in Society from Automotive High-strength Steel<sup>4)</sup>

- CO<sub>2</sub> reduction throughout a product's lifecycle (thousand t-CO<sub>2</sub>)<sup>5)</sup>
- CO<sub>2</sub> reduction per annum (thousand t-CO<sub>2</sub>)
- Sales volume (thousand tons)

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

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

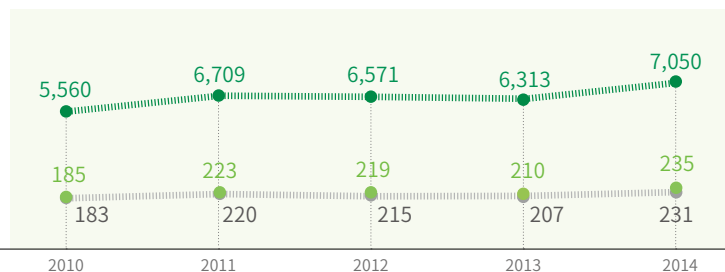


### CO<sub>2</sub> Reduction Effect from Using High-grade Grain-oriented Electrical Steel<sup>6)</sup>

- CO<sub>2</sub> reduction throughout a product's lifecycle<sup>7)</sup> (thousand t-CO<sub>2</sub>)
- CO<sub>2</sub> reduction per annum (thousand t-CO<sub>2</sub>)
- Sales volume (thousand tons)

6) High-grade grain-oriented electrical steel refers to products having core loss of 1.05 W/kg or less.

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

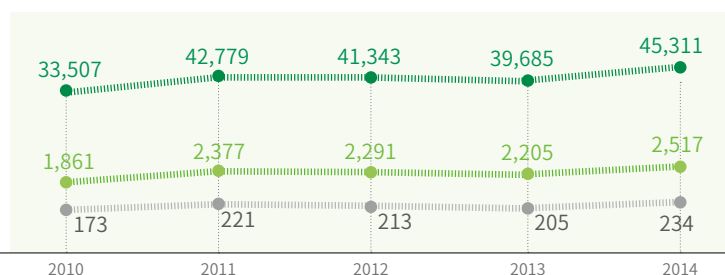


### CO<sub>2</sub> Reduction Effect from Using High-grade Non-oriented Electrical Steel<sup>8)</sup>

- CO<sub>2</sub> reduction throughout a product's lifecycle<sup>9)</sup> (thousand t-CO<sub>2</sub>)
- CO<sub>2</sub> reduction per annum (thousand t-CO<sub>2</sub>)
- Sales volume (thousand tons)

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

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





**POSCO's Lighter Steel Body Frame for EV** The automotive industry is focused on developing advanced drivetrains (such as electric vehicles) and ultra-light automotive bodies to reduce GHG emissions. POSCO and 17 other steelmakers participated in the Future Steel Vehicle (FSV) project of the World Steel Association's automotive group (WorldAutoSteel) aiming to develop a lighter body for electric vehicles and unveiled the outcome in 2011.

Meanwhile, POSCO independently developed a lighter steel body for the EV, dubbed POSCO Body Concept-Electric Vehicle (PBC-EV), completing the prototype in December, 2011. The PBC-EV uses over 40 percent of ultra high-strength steel and employs cutting-edge processing expertise such as hot press forming and PosRollForm (flexible roll forming), which make the body 26 percent lighter compared to existing automotive bodies. (If hot press forming is applied further, the body can be up to 30 percent lighter.) A life cycle assessment (LCA) indicates PBC-EV will reduce CO<sub>2</sub> emissions by almost 50 percent compared to existing vehicles.

### Eco-friendly Slag Cement

Slag is a byproduct generated by iron-making processes. There is blast furnace slag that is made while producing pig iron, and steel furnace slag that is made during the 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 it is cooled rapidly 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>1)</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. Therefore, cement producers mix granulated blast furnace slag within 5 percent of the weight when producing cement. Adding fine-ground slag to this cement

has merits such as superior seawater resistance and reducing hydration heat making them suitable as marine concrete and mass concrete. In 2014, POSCO used 9.01 million tons of granulated blast furnace slag as cement substitute or as slag cement material, resulting in a reduction of 7.07 million tons of CO<sub>2</sub> in society.

1) Clinker is made by sintering cement material such as limestone at high temperature. When finely ground it becomes cement.

**Development of PosMent** Together with RIST and POSCO E&C, POSCO has developed PosMent, a cement material that is environmentally friendly, economical, and high-performing, and is presently seeking wider application. PosMent has relatively high slag content while its physical properties such as compressive strength have been improved and can reduce CO<sub>2</sub> emissions by up to 60 percent. PosMent has been tested many times on large onshore and offshore structures that are prone to cracking and has demonstrated successful results. In 2014, 1.37 million tons of PosMent was used in construction and will continue to increase its use.

### Export of Granulated Blast Furnace Slag and Slag Powder

POSCO began exporting granulated blast furnace slag in 2011 under an annual contract. In 2012, we expanded our sales to four Southeast Asian markets and in 2014, exported a total of 460 thousand tons of granulated blast furnace slag. In particular, we exported 160 thousand tons of value-added slag powder a year with POSFINE, a specialized cement manufacturer, setting up an overseas sales network encompassing both raw materials and products. Through export of granulated slag, we will be prepared for an increase in domestically generated granulated blast furnace slag, while contributing to eco-friendly activities by saving energy on a global level, reducing CO<sub>2</sub> emissions and preserving natural resources.

### Development Project for POSCO's Light-weight Body for Electric Vehicle

| Project           | WorldAutoSteel FSV          | POSCO Body Concept - Electric Vehicle |
|-------------------|-----------------------------|---------------------------------------|
| Vehicle Weight    | Down 35% for small vehicles | Down 26% for semi-sedans              |
| GHG Emissions     | 70% down                    | 50% down                              |
| Development Stage | Concept                     | Prototype                             |

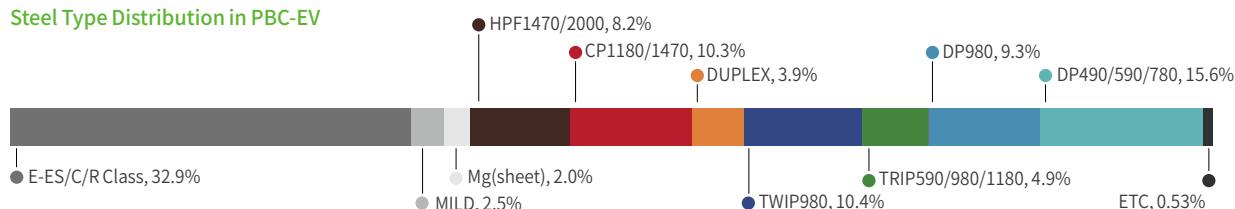


Image of vehicle employing PBC-EV (imaginary)



PBC-EV vehicle

### Steel Type Distribution in PBC-EV





## Carbon Market

**GHG Registry** POSCO has actively 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 have acquired GHG registry credits amounting to 3.58 million tons by implementing 14 projects such as increasing energy production through enhancing energy efficiency, and reducing greenhouse gas emissions through renewable energy business.

### Government-certified GHG Reduction Performance

| Project   | CO <sub>2</sub> Reduction<br>(thousands tons) |
|---|---|
| Construction of a new combined-cycle power generation facility using FINEX off-gas  | 486.0   |
| Construction of a new cogeneration plant fueled by unused off-gas generated at the steelworks   | 1,501.9                                       |
| Power generation project using waste heat from red-hot coke through the installation of a coke dry quenching (CDQ) facility at Pohang Works   | 207.8   |
| Installation of an energy-saving device at the ventilator of the power generation boiler  | 41.1  |
| GHG (CO <sub>2</sub> ) reduction through installation of 1 MW solar power system in Gwangyang Works   | 2.9   |
| GHG (CO <sub>2</sub> ) reduction through installation of 1 MW solar power system in Pohang Works  | 2.1   |
| Installation of waste gas heat recovery & fuel preheating device at Pohang Hyeongsan power generation facility No. 11, which increased power generation and reduced GHG (CO <sub>2</sub> ) emission | 18.1  |
| Installation of waste gas heat recovery & fuel preheating device at Pohang Hyeongsan power generation facility No. 12, which increased power generation and reduced GHG (CO <sub>2</sub> ) emission | 8.0   |
| Reduction of fuel consumption through installation of boilers using waste gas from electric furnace   | 36.5  |
| Electricity production through additional recovery of waste energy from blast furnace top gas recovery turbines (TRTs)  | 93.2  |
| Electricity production using waste heat generated from coke cooling at the CDQ facilities (Unit 3 & 4)  | 1,169.1                                       |
| Reduction of power consumption through installation of pumps employing hydraulic coupling in the hot rolling mill descaling system  | 0.5   |
| CO <sub>2</sub> reduction by switching auxiliary fuel for steam power generation boilers from Bunker C fuel oil to LNG  | 14.7  |
| Reduction of power consumption through installation of hydraulic coupling in the cooling water pump at Gwangyang Works' hot rolling mill No.2 and No.3  | 0.5   |
| Total   | 3,582.4                                       |

## Carbon Fund and CDM (Clean Development Mechanism)

Since 2009, POSCO has participated in the Future Carbon Fund, which is operated by the Asian Development Bank to buy carbon credits generated through new and renewable energy development projects. POSCO is a member of the Carbon Emission Fund led by the Korean Ministry of Trade, Industry and Energy since 2007. Meanwhile, the small hydroelectric power plant at the 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 thousand tons of carbon credits (CERs) over the next decade. We are currently continuing to monitor the project. Beginning from 2015, we plan to link the carbon credits earned through the Carbon Fund and CDM with the Korea's Emissions Trading Scheme and use them.

## Green Business

**Solar Power Plant** In August 2014, POSCO Energy completed construction of the third solar power plant of 7.5 MW output in the deactivated saltern site in Sinan-gun, Jeollanam-do. With the opening of the third power plant, a total 14.5 MW solar park that includes the first 2 MW plant completed in 2012 and 5 MW plant completed in July 2013, has been built in an area of 230,000 m<sup>2</sup>. The Sinan solar park will produce 20,000 MWh each year, for 20 years. Approximately 5,000 households will use this electricity. 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. In addition, since an abandoned saltern site was used, no environmental damage was done. Thanks to abundant sunshine, one of the strengths of a saltern site, the use rate (solar electric conversion rate) reached 16.2 percent, higher than Korea's average of 15 percent.

**ESS and Microgrid** In February 2014, POSCO ICT began supplying energy storage systems to the Sinan solar park. Linking the ESS with solar power generation, POSCO ICT is also participating in the project of building a microgrid. The ESS is of 1 MW capacity, which can supply electricity to all the 330 households on Palgeumdo Island. In addition, POSCO ICT completed construction of a test center in December, dedicated to ESS in Pohang's head office within a lot of 2,215 m<sup>2</sup>. At the test center, not only are tests conducted for ESS before installing them at the field, but it is also furnished with facilities and equipment to build large-scale ESS using unit components that are brought in by modules. The center can build and test an ESS of 144 MW a year, making it the largest in scale within the country.

POSCO ICT developed a 2 MW ESS through the Jeju Smart Grid Demonstration Project that was launched in December 2009. The company also implemented energy storage systems in LG Chem's Ochang plant and the POSCO Center. POSCO ICT plans to expand the microgrid business that can be applied to islands, cities and industrial complexes.

**Fuel Cells** POSCO Energy shipped a total of seven 2.8 MW fuel cell units between June and September 2014 to Seoul's Godeok Rolling Stock Management Office, and began operation of the fuel cell power plant with a capacity of nearly 20 MW since October, 2014. The fuel cell produces 160,000 MWh a year, which can power 40,000 households for a year. In addition to electricity, the heat generated is supplied for heating to 9,000 households. POSCO Energy will also participate in the 20 MW fuel cell power plant project to be located in Noeul Park, Mapo-gu, Seoul. In May 2014, POSCO Energy signed the Shareholders' Agreement for the power plant project which is implemented by the Seoul Metropolitan government. In particular, in July, POSCO Energy signed an MOU with Gyeonggi-do (Gyeonggi Province) and others for the construction of 360 MW fuel cell power plant, which is to be completed by 2018 in Pyeongtaek, Gyeonggi-do. Following the 60 MW plant in Hwaseong that began operation in 2014, POSCO Energy has truly become a market leader by securing the deal to build the world's largest fuel cell power plant.

In June, 2014, POSCO Energy held a fuel cell business presentation in Tokyo, Japan to explore the possibility of expanding to the Japanese market. At the end of 2012, POSCO Energy began construction of a production plant for cells, which is the core technology in the fuel cell business. The cell production plant with an annual cell production capacity of 70 MW, which is near completion, is located within the fuel cell complex in Pohang. Currently, over 120 MW fuel cells supplied by POSCO Energy are in operation in the country and when the cell production plant is completed in 2015, POSCO Energy will be the first company to achieve full domestic production of fuel cells.

**High-speed Lithium Extraction Technology** In December 2014, POSCO completed a large-scale pilot plant for lithium extraction near the Cauchari salar, Argentina. With formal inauguration of the 200 ton/year pilot plant, POSCO will complete final verification of the independent lithium extraction technology. Whereas existing evaporation method of brine took at least 12 months to produce lithium, the novel technology developed by POSCO shortens this process to just one month at the longest, and may even be as short as 8 hours. In particular, this technology allows lithium to be extracted through chemical reactions, independent from climate conditions, leading to high efficiency. The lithium recovery rate, which is the biggest single factor in overall production costs, rose from 50 percent to over 80 percent, making the process much more economical. Also, with existing methods, magnesium and calcium found in sea water remained as impurities, becoming a hindrance to lithium

extraction processes. With POSCO's new technology, however, other elements besides lithium can be separated and extracted, converting them to resources. POSCO continues to strengthen its technological competitiveness, having submitted more than 30 patent applications regarding major lithium extraction technologies, both in Korea and overseas in order to secure its intellectual property rights.

**Triton Sea Forest** POSCO signed an MOU with the Korean Ministry of Oceans and Fisheries to respond to changes in the 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 Research Institute of Industrial Science & 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 in Geomundo Island off the shores of Yeosu Expo Park in 2011, POSCO entered into a joint project to build a sea forest in Saryangdo Island and Uljin-gun, Gyeongsangbuk-do province in 2012. In 2013, POSCO designed and built a sea forest near Guman-ri village in Pohang, while also surveying their effectiveness and conducting maintenance work such as rescuing marine species, sponge removal and transplanting seaweeds. In particular, in May 2014, three types of Triton products (A type, T type and steel-combined type) were authorized by the Ministry of Oceans and Fisheries to be used in the fish reef projects. We expect to be able to officially use Triton in future sea forest and sea farm projects 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 strengthen cooperation with related institutions for the restoration of the coastal ecosystem and reforestation of the sea.

\* Triton: 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.



Bird's eye view of POSCO Energy's 3rd solar power plant (7.5MW) in Sinan-gun solar park



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



MOU signing ceremony for Pyeongtaek fuel cell power plant (POSCO Energy)



POSCO Argentina lithium extraction pilot plant (200 tons a year)

## CLIMATE CHANGE PARTNERSHIPS

### POSCO Carbon-neutral Program

The POSCO Carbon-neutral Program is a participatory program that selects college students who are passionate about climate change and environment issues, and provides support to help them execute their ideas in everyday life to reduce greenhouse gases, even if it is just 1 g.

Launched in 2009, the program calls for the participation from various groups including K-12 students, hobby clubs, civic organizations and housewives, signaling the beginning of the first corporative program that supports GHG emissions reduction both within and outside of Korea. Since 2010, the program emphasizes college students, who are the most passionate and willing participants. Students submit ideas to offset carbon emissions, competing for program sponsorship. We select ideas that are creative and doable and provide financial assistance for their carbon-neutral activities over a set period of time. This program was designed to encourage people to adopt a carbon-neutral lifestyle and raise public awareness, bringing corporations and all citizens together to build a green society.

In 2014, the Sixth Carbon-neutral Program opened. This time we invited individuals to submit fresh ideas about carbon neutrality that will create a buzz. And then, where 30 selected students were divided into six teams, five students in each team. College students selected from around the country teamed up for three different projects: Carbon-neutral Bicycle Expedition, Eco Green Tour, and Carbon Zero Shop. They were then able to spread the message by carrying out their own creative ideas. Student reporters selected among the participants write about carbon neutrality from diverse perspectives and then share their observations. To learn more about the activities of the Carbon-neutral Program, please visit the official blog (<http://blog.naver.com/carbonzero>) and Facebook page ([www.facebook.com/PoscoCarbonzero](http://www.facebook.com/PoscoCarbonzero)), where anyone can share his/her opinions and knowledge about carbon-neutrality.



Poster inviting participation in the Sixth Carbon-neutral Program

## Major Activities of the Sixth Carbon-neutral Program

### First Project

### Carbon-neutral Bicycle Expedition



The first project of the Sixth Carbon-neutral Program consisted of riding the bicycle around the Han River bank, promoting the benefits of reducing carbon generation and spreading awareness on carbon-neutrality. At Tancheon, the starting point of the expedition, team members ran a booth where people could activate a mixer by pedaling a bicycle. They toured around the riverbank and held True or False quizzes with the citizens, as well as a quick quiz on how to save the Earth. Participating citizens also learned information useful in everyday life such as how to sort waste properly and making carbon-neutral treasures such as the hand fan, which helps get through summer without electric fans or air conditioners. Making eco-friendly soap was also one of the activities to promote environment protection.

\* It is generally known that travelling one hour (80 km) by car generates 14 kg of carbon dioxide. When one hundred citizens use the bicycle, it has the same effect as planting five hundred pine trees.



- |     |  |
|-----|--|
| 1   | 1. Experiencing the bicycle generator                                      |
| 2 3 | 2. Learning to sort waste properly 3. Carbon neutrality True or False Quiz |



## Second Project

## Eco Green Tour



The second project of the Sixth Carbon-neutral Program took place at Eco Island on Yeondae Island, Gyeongsangnam-do. The visitors' center, which had been built as a passive house on Yeondae Island, was the site for the "Carbon Zero Island" project. The participating students visited the island, learned some of the activities they can do to practice carbon neutrality, learned about some of the facilities and also did volunteer work for the residents doing laundry with eco-friendly soap. They also conducted promotion activities that they planned themselves for the tourists and residents of Tongyeong. They played games such as True or False and Yes or No with the citizens to get a grasp of the general citizens' awareness on carbon neutrality and explain the concept. They also played a game guessing the amount of stand-by power to explain about some the ways to practice carbon neutrality in everyday life and how to calculate carbon footprint. They also carried out promotion activities on six major practices for carbon neutrality including using a tumbler and public transportation.



- |   |   |
|---|---|
| 1 | 1. Eco-friendly laundry volunteering      |
| 2 | 2. Carbon-neutrality promotion activities |

## Third Project

## Carbon Zero Shop (Experiencing environmental friendliness, Carbon neutrality)



The Carbon Zero Shop was the last of the missions carried out by the participants of the Sixth Carbon Neutral Program that they had planned themselves. Its purpose was to spread the concept of carbon neutrality and prevent the waste of resources in the Hongdae area, a very busy street in Seoul.

"Paper Crafting" using discarded paper (printing paper or shopping bags) to make wallets and dolls, the "Takeout Garden," making flower pots using disposable cups (113,925 paper cups are used each year), and "Bag to the Nature," making eco-bags using clothes that are thrown away due to the fast-changing fashion trends were the names of the programs that took place. The clothes that are tossed each year amount to KRW 100 billion a year. The Bag to the Nature program involved crafting fashionable eco-bag using these discarded garments. All the activities were designed to make use of resources that are often carelessly thrown away, up-cycling them by making useful items with the citizens.

Other activities included the Sing Sing Noraebang (karaoke) where one can sing only by running the self-generator, an event called Lucky Box, filled with donated items. All these activities were easily accessible for the young and old alike.



- |   |                    |                         |
|---|--------------------|-------------------------|
| 1 | 1. Making Eco Bags | 3. Self-powered karaoke |
| 2 | 2. Paper crafting  |                         |

## Climate Change Partnership

**Carbon Disclosure** POSCO discloses its activities to reduce its CO<sub>2</sub> emission and measures to mitigate climate change through the annual Sustainability Report and Carbon Report. We have participated in the SAM-Dow Jones Sustainability Indexes (SAM-DJSI) and the Carbon Disclosure Project (CDP) since 2003, having our climate change response activities 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, evaluate about 2,500 global companies and announce the list of the top 10 percent for each industry; they analyze and evaluate financial profitability, environmental soundness, and social responsibility among others. POSCO has been listed on the indexes for 10 consecutive years, 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 proportional improvement.

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 in 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 since 2009, six years in a row.

**Climate Action by the World Steel Association** POSCO is participating in the climate change mitigation actions supervised by the World Steel Association (Worldsteel). POSCO has participated in the “Worldsteel CO<sub>2</sub> Breakthrough Programme” since its launch in 2003 to develop breakthrough technologies to reduce CO<sub>2</sub> emissions in the steel industry, and successfully developed the greenhouse gas emissions calculation methodology. POSCO has also participated in “Worldsteel Climate Change Policy Group” and “Worldsteel CO<sub>2</sub> Data Collection Project” ever since their inception in 2007 and 2009, respectively.



2014-2015  
Climate Action Logo

Through these activities, POSCO also participated in the process where the International Organization for Standardization (ISO) set the relevant standard<sup>1)</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 consecutive years since the first year (2008~2009).

1) 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)

**Global Partnership on Energy Efficiency** At the Clean Energy Ministerial (CEM) meeting in July 2010, government and corporate leaders announced the Global Superior Energy Performance Partnership (GSEP). The purpose of this initiative is to enhance energy security by reducing energy consumption at industrial facilities and commercial buildings, thereby reducing GHG emissions. Within GSEP, there are six Working Groups<sup>2)</sup> including power and cement, and POSCO is participating in the Steel Working Group.

2) Six Working Groups are: Power; Steel; Cement; Combined Heat and Power (CHP) and Efficient District Heating and Cooling (DHC); Cool Roofs and Pavements; and Energy Management Working Groups

### Goals of the GSEP Steel Working Group

- ▶ Develop and implement energy management system for steelworks
- ▶ Develop and implement methodology to use, improve, and verify performance indices
- ▶ Identify and disseminate breakthrough technologies and technologies that can be commercialized for reducing CO<sub>2</sub> emissions from iron and steel making through energy saving
- ▶ Disseminate information on the steelmaking industry's burden on the environment and on the facilitation of resource recycling
- ▶ Exchange information about financial support for carbon policy and technology dissemination of the steelmaking industry

**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 to build networks between steelmaking companies. In February 2014, POSCO exchanged major current agendas related to expanding the use of steel slag with NSSMC of Japan. In June and September, Taiwan-based CSC and Baosteel from China visited Pohang Works respectively, to see our environmental energy management status, exchange technological information on energy conservation and resource circulation, and discuss cooperation methods. In addition, with heightened interest of Chinese steelmakers on environment protection and energy conservation triggered by China's 12th Five-Year Plan, we provided support and cooperation for Shagang Group and Anshan Iron & Steel to benchmark POSCO's environmental management activities.



## SOCIAL RESPONSIBILITY

Since its establishment, POSCO identified its corporate mission as to contribute to the nation's development and has carried out various social contribution activities. Based on the efforts and achievements until today, we now aim "for a better world" together with the POSCO Family.

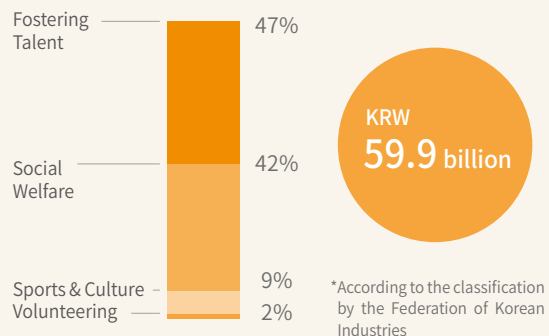
### Strategy Direction and Focused Areas

We have set three strategies and five focused areas for building a better world in order to implement strategic and systematic social responsibility activities.

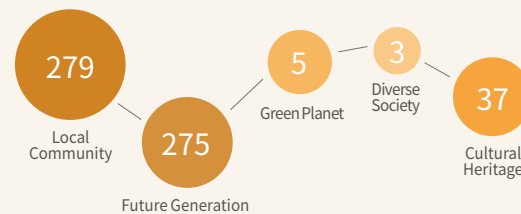


### Social Responsibility Performance in 2014

Total Social Responsibility Expenditures in 2014 (Unit: %)



Social Responsibility Expenditure in Five Focused Areas (Unit: KRW 100 million)



#### Donation to Community Chest of Korea

(Aggregate amount KRW 105.95 billion)

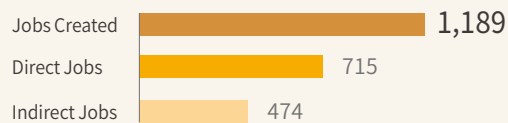
— KRW 10 billion

#### Employee Volunteer Activities

— Annual average volunteer hours per person **29.5 hours**

— Villages with sisterhood ties **211**

### Social Enterprise Employment



\*Direct jobs: Individuals hired by the social enterprises operated by POSCO

\*Indirect jobs: Job creation by the social enterprises supported by POSCO (monetary support is converted to human resources and added in the calculation)

## LOCAL COMMUNITY

The local community is the most important stakeholder for POSCO who has grown based on steel manufacturing, along with the local residents and employees. Since its establishment, POSCO has strived to grow together with the local community.

### Domestic Activities

Since its establishment, POSCO has been conducting social responsibility activities centering on Pohang and Gwangyang areas by vitalizing the local economy and supporting sports, culture and education, in order to grow with neighboring communities. Through this basis, POSCO takes the initiative in creating jobs and solving regional problems, and strives to fulfill its role as a responsible corporation.

### Social Contribution in Connection with the Local Community: Sisterhood Ties

Starting with Hagwang Village, Gwangyang in 1988, we have continued our “1 Department – 1 Village” activities. We carry out various programs for the 211 villages, schools and organizations in Pohang and Gwangyang.



Mural drawing at a local welfare facility



Environmental cleanup volunteering at a sister village

### Villages with Sisterhood Ties

(As of December 2014)

| Category  | Village | School | Organization | Total |
|-----------|---------|--------|--------------|-------|
| Pohang    | 121     | -      | 6            | 127   |
| Gwangyang | 71      | 3      | 10           | 84    |
| Total     | 192     | 3      | 16           | 211   |

Population of Pohang: 519,368 Gwangyang: 152,097 (as of end of 2014)

### Local Volunteering Activity “Sharing Saturday”

On a Saturday of each month, POSCO holds the “Sharing Saturday” in connection with the local community. Employees and their families participate in volunteer activities that are needed in the community.

### Donating Lecture Fees

POSCO has conducted the “Donating Lecture Fees” campaign since 2007, where employees donate fees received for external lectures back to the society. The donation is used for education, medical support, charity, vaccines for developing countries, and supporting children of Africa.

### Donation amount

(Unit: KRW 1 million)

| 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | Total |
|------|------|------|------|------|------|------|------|-------|
| 120  | 66   | 46   | 44   | 36   | 53   | 55   | 97   | 517   |

### Creating Jobs through Social Enterprises

POSCO has established social enterprises to care for marginalized groups and provide stable jobs. Starting with POSWITH, a standard company for the disabled, POSCO established POS-Eco Housing in December 2008 in Pohang, POSPLATE in Gwangyang, and Songdo SE in Incheon. In January 2013 POSWITH and POS-Eco Housing were merged and POSCO HUMANS was inaugurated. The “POSCO style” social enterprises that inherited POSCO’s competitiveness and technical prowess takes the initiative in employing vulnerable groups and also boasts high self-reliance. In addition, the “1 Company – 1 Social Enterprise Support” program is a campaign to support social enterprises at the POSCO Group level by giving priority when purchasing goods and services. Moreover, we hire caregivers in Pohang and Gwangyang areas to help seniors living alone, contributing to creating jobs for the local women.

| POSCO HUMANS <a href="http://www.poscohumans.com">www.poscohumans.com</a>  | POSPLATE <a href="http://www.posplate.com">www.posplate.com</a>   | Songdo SE <a href="http://www.songdose.co.kr">www.songdose.co.kr</a>  |
|--|---|---|
| <b>Date of Establishment</b> 2013. 01. 04<br>(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 Area</b><br>Administrative support, laundry service, IT service, construction of eco-friendly steel houses, materials production                                 | <b>Business Area</b><br>Specimen processing for Gwangyang Works’ steel plate factory, product warehouse management, subcontracting work for POS HiMetal | <b>Business Area</b><br>Cleaning and parking management at POSCO, E&C’s new company building and POSCO Global R&D Center    |
| WITHPLUS Division (former POSWITH)<br><b>Employees</b> Total 367 / 195 With disabilities (53.1%)<br><b>Certified as Standard Workplace for Disabled Persons</b> 2008. 04. 24 | <b>Employees</b><br>Total 173 / 86 Socially Vulnerable Group (49.7%)<br><b>Certified as Social Enterprise</b> 2011. 05. 27                              | <b>Employees</b><br>Total 126 / 91 socially vulnerable groups (72.2%)<br><b>Certified as Social Enterprise</b> 2010. 12. 21 |
| Steel House Division<br><b>Employees</b> Total 65 / 31 Socially Vulnerable Group (47.7%)<br><b>Certified as Social Enterprise</b> 2010. 10. 19                               |   |   |

### Caregivers for Seniors Living Alone

|                           |   |
|---------------------------|---|
| Support for Caregivers    | Period: 1 year (1 year extension possible)  |
|                           | Method: Public recruit by area and interview  |
| Support for beneficiaries | Wage: 10 hours weekly / KRW 40,000 daily (about KRW 1 million a month), 4 social insurances and severance pay                                   |
|                           | Selection: Recommendation and review by local government and relevant institutions  |
|                           | Support: 1 team of caregivers (2 persons) once a week per household / 4 hours of care and housekeeping service, 3-month basis (maximum 2 years) |

### Number of Beneficiaries of the Caregiver Program (Unit: persons)

| Category      | 2006-2009 | 2010 | 2011 | 2012 | 2013 | 2014 | Total |
|---------------|-----------|------|------|------|------|------|-------|
| Beneficiaries | 3,684     | 663  | 657  | 590  | 534  | 538  | 6,666 |

### Volunteer Group Operation: Expanded to talent donation in 2014

In 2014, POSCO expanded the Volunteer Group that was in operation since 2004 to the Talent Volunteer Group that taps into employees' competencies and expert knowledge. We plan to continue to foster talent donation to enhance employees' satisfaction and to provide a higher quality of volunteer service that the beneficiaries need. We newly established the POSCO Family Sharing Awards in 2014, with a view to promoting talent sharing of POSCO and POSCO Group employees and to express gratitude to all members who participated in the 1% Sharing campaign.

For details, please refer to POSCO News. <http://www.posco.co.kr/homepage/docs/kor3/jsp/news/posco/s91fnews003v.jsp?menuCatId=0911&idx=281407>

### POSCO Code of Ethics Practice Guidelines "Contribution to the Country and Society"

(Includes creating stable jobs and honest and timely payment of taxes)

POSCO revised the Code of Ethics in June 2014. The Practice Guideline covering contribution to the country and society describes the corporate citizen's role and mindset, and the efforts the corporation should put forth in order to contribute to the country and society. In particular, it stipulates that a corporation must fulfill its duty to create and maintain stable jobs and pay taxes in an honest and timely manner, to contribute to the local community.

#### 6. Contribution to the Country and Society

##### 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 a happy life.

Code of Ethics link <http://www.posco.co.kr/homepage/docs/kor3/html/company/ethics/s91a3000040c.jsp>

### POSCO Talent Volunteer Group

| Volunteer Group                                    | Volunteer activities   | Area       |
|--|--|------------|
| Clean Ocean Volunteer Group                        | Contributes to preserving the marine ecosystem by retrieving wastes and starfish at the sea where the POSCO Family's business is located.  | Nationwide |
| English Volunteer Group                            | Employees who are gifted in English visit the nearby welfare centers to teach English to elementary students once a week.  | Seoul      |
| Cultural Assets Preservation Volunteer Group       | Cultivating cultural heritage commentators with a mix of expert education on cultural assets to preserve that cultural heritage of the Seoul area.   | Seoul      |
| TRIZ Creativity Volunteer Group                    | Developing communication programs for youths using the TRIZ method and teaching at 6 middle schools nationwide.  | Seoul      |
| Dream Volunteer Group                              | Mentoring for middle school students by employees using their various majors and work experience.  | Seoul      |
| Protectors of Children's Happiness Volunteer Group | Tutoring elementary and middle school students on weak subjects, career guidance support, cultural experience, one-to-one ties between mentor and mentee, to prevent child abuse and provide growth support.   | Pohang     |
| Reform Volunteer Group                             | Improving living conditions for seniors living alone by volunteer activities for their old homes, such as putting up new wallpaper, window and door repair, painting, and lighting.  | Pohang     |
| Serving Volunteer Group                            | Being a friend to talk to for seniors living alone and doing their house chores twice a week or more, to prevent lonely death and help emotional stability.  | Pohang     |
| Friend Volunteer Group                             | Joint wedding for multicultural families, helping hand for farming villages, Korean culture education, invitation of parents of the foreign spouse of multicultural families. A volunteer group that specializes in multicultural support activities 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  |
| Agricultural Machinery Repair Volunteer Group      | 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  |
| Wallpapering Volunteer Group                       | Employees who completed the wallpaper certified technician course replace wallpapers and flooring for seniors living alone or grandparents raising grandchildren alone.  | Gwangyang  |

## Overseas Activities

POSCO's overseas social responsibility activities continue at its overseas business locations and emerging countries as well. We aim to implement activities where employees can participate personally and meet the demand of the region.

### Supporting Self-reliance of the Local Community

POSCO is building a firm basis for self-reliance of the local communities by providing differentiated programs that reflect the needs of the local residents at the emerging economies.

**Mozambique Agricultural Training Institute** The Nova Villa Agricultural Training Institute in Mozambique offers a 1-year program to learn Saemaul spirit, acquire practical training with agricultural equipment, and operate poultry farm and study theories in related field. The program cultivates 30 agricultural leaders each year (15 men and women each).

**Building a Saemaul Village in Ethiopia** POSCO sends a group of volunteers, retirees from POSCO Group and employees' children, to Handode, Debeso, and Adulala villages in Ethiopia. The volunteering group and members of the local community seek together to build self-reliant livelihoods.

**Agricultural leaders in Mongolia** In Mongolia, POSCO provides advanced agricultural training and practice for local farmers, and support income generating projects with the people who have completed the training program, which brings actual changes to the villages and enhancing farmers' competence.

**POSCO Child Development Center in Zimbabwe, Reed School in Mozambique** POSCO and POSCO Group companies' 676 employees send monthly contributions to help with the operation of the POSCO Child Development Center in Zimbabwe and the Reed School in Mozambique. At the Zimbabwe POSCO Child Development Center, 90 children between the ages of three to five receive basic education, while 400 students in first to sixth grade receive support for stationery and lunch at the Mozambique Reed School.



1. Cultivating agricultural leaders in Mongolia 2. Building a Saemaul Village in Ethiopia 3. POSCO Child Development Center in Zimbabwe

### Providing Housing for Low Income Families in Vietnam: Building "POSCO Village"

POSCO has been building POSCO Village since 2011 in Ba Ria-Vung Tau province where POSCO Vietnam is located to ameliorate housing problems. The village is equipped with a community center and IT training center. As of 2013, 36 houses have been provided to the local residents. In 2014, POSCO built a new CSV (Creating Shared Value) model through the POSCO Village project with the government of Vung Tau province. The POSCO Village design that reflects POSCO Group companies' characteristics such as POSCO A&C and POSCO ICT, architectural design, and the IT education center contribute to alleviating the housing problem of the local community as well providing education that will create income for the residents.

POSCO will complete 85 houses by the end of 2015 with the goal of building a new CSV model that solves the housing issue of vulnerable groups and creates demand for steel.

#### POSCO Village, Built 85 houses in Ba Ria-Vung Tau Province, Vietnam



|                                    |  |
|------------------------------------|--|
| Project Cost                       | Total KRW 700 million<br>(KRW 350 million in 2014 and 2015 each)   |
| Project Partner                    | Habitat  |
| Construction Period                | September 2014 ~ February 2016 (18 months)   |
| Site Clearance                     | Tan Thanh District built the infrastructure and provided the site  |
| House Design                       | POSCO A&C participated as talent donation  |
| Construction Volunteer (Feb. 2015) | POSCO Group's employees in Vietnam, POSCO University Student Volunteer Group (120), Group company employees (10) |

#### Occupant Comment



**Le Thi Naoc Huong** At my old house, I could hardly sleep at night because I was going through so much hardship and pain. Now, thanks to you, I can live without worries in the new house. I think this may be a dream. I send my gratitude to you and your parents.



**Nguyen Thi Diem** Korean people are so kind and warm. We had been together for only a short time, but now that you are leaving, I feel so sad. As I can't speak, I regret that I didn't express my gratitude enough. I hope you will all do well when you go back to Korea. Thank you for coming here to volunteer!



## FUTURE GENERATION

POSCO believes cultivating human talents is an important investment for the future. POSCO engages in various activities such as establishing schools, operating the University Student Volunteer Group and scholarship support.

### POSCO Youth Volunteer Group, “Beyond”

In 2007, POSCO launched a university students' volunteer group called 'Beyond', to provide an opportunity to experience and share the world of coexistence for tomorrow's leaders. Every year, 100 students are selected to carry out various volunteer activities such as building houses, fundraising and cultural exchange, through which they learn the true value of sharing. In particular, in 2014, the Second Beyond group composed of 20 Vietnamese university students conducted joint volunteer activities together with Korean university students, practicing volunteerism across borders.

#### Overseas Activities of the POSCO Youth Volunteer, Beyond

|      |  |
|------|--|
| 2008 | Delhi, India<br>Building 10 houses in the impoverished village of Bawana   |
| 2009 | Chonburi, Thailand<br>Employees at Thailand participated in the volunteering, and visited POSCO-TBPC   |
| 2010 | Bandung, Indonesia<br>Building 10 houses to help restore earthquake damage   |
| 2011 | Bogor, Indonesia<br>Employees of Krakatau Indonesia participated in the house-building volunteer work  |
| 2012 | Tien Giang Province, Vung Tau Province of Vietnam<br>House-building volunteering in connection with POSCO Vietnam, started the POSCO Village project based on this volunteering activity |
| 2013 | Delhi, India<br>Second project of building 10 houses in Bawana. Visited TMU, a prestigious private university.   |
| 2014 | Vung Tau Province, India<br>Built 10 houses in Tan Thanh district, inaugurated the first Beyond composed of Vietnamese students, joint volunteering activities.                          |



### School Violence Prevention Program: “Chin Chin Wi-Fi Zone”

The “Chin Chin Wi-Fi Zone” program was launched in 2012 with Korea YWCA to build a healthy school environment and prevent school violence. It creates a school environment where students can communicate freely and happily at school, similar to a Wi-Fi zone where everyone has equal access to the internet. In connection to this program, we launched the TRIZ Creativity Volunteer Group, Space Transforming Volunteer Group and the Dream Volunteer Group, who visit schools and give lectures tapping into employees' talents.

#### Chin Chin Wi-Fi Zone Activities in 2014

|                        |  |
|------------------------|--|
| Main Programs          | Workshop for teachers, Lectures for parents, Empathy program, Changing school environment, Dream mentoring, TRIZ creativity class  |
| Number of Participants | 2,285 Students, 195 Teachers, 24 Parents   |
| Participating Schools  | Seoul (Daeshin Middle School), Daejeon (Daesung Girls' Middle School), Paju (Munsan Buk Middle School), Chungju (Jungwon Middle School), Pohang (Songdo Middle School), Gwangyang (Gwangyoung Middle School) |
| Awards                 | POSCO-YWCA nominated best project at the School Violation Prevention Program contest, and won the Minister of Education Award (4 July 2014)  |



|   |                                       |                          |
|---|---------------------------------------|--------------------------|
| 1 | 1. Space Transforming Volunteer Group | 3. Dream Volunteer Group |
| 2 | 2. TRIZ Creativity Volunteer Group    |                          |

### Supporting Youths' Dreams: Chin Chin Rainbow Project

This is a project to help youths with various backgrounds and stories just like a rainbow, be it multicultural family or North Korean defector. The project aims to become their friend and help them realize their dreams. For students who want to continue their studies, we provide teaching assistance for taking the qualification exam. For youths who want to learn skills such as entertainment/sports, nail art, hair styling, or car maintenance we provide technical training, to help them realize their dreams. In particular, the project is operated with the contributions from POSCO employees, adding to the warmth factor in bringing change.



## POSCO Educational Foundation, 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 and has built and runs 13 kindergartens, elementary, middle and high schools in Pohang and Gwangyang. The Foundation recruits outstanding teachers and provides curricular education as well as special aptitude education, to cultivate future talents through whole person education.

**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, in order to encourage high-performing students in Korea and other countries in Asia.

## POSCO Educational Foundation's Activities



### School Operation\_ 13 Schools

2 Kindergartens, 5 Elementary schools, 2 Middle schools,  
1 Technical school, 3 Autonomous private high schools



### Donation for Education\_ KRW 931.4 billion (1976~2014)

|   |                   |
|---|-------------------|
| Education expenses and facilities maintenance | KRW 858.2 billion |
| Fund raised from revenue-making business      | KRW 68.8 billion  |
| Labor welfare fund                            | KRW 4.4 billion   |



POSCO Educational Foundation

## 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 26 winners during 8 years.

Awardees of 2014 (The 8th POSCO TJ Park Prize Presentation Ceremony held on 26 March 2014)

- Science Prize\_ Kim, Bum-sig (Korea Institute for Advanced Study, School of Mathematics)
- Education Prize\_ Canaan Farmers School (Hanam, Wonju)
- Community Development and Philanthropy Prize\_ Rainbow Community EMMASU Welfare Center (CEO Fr Cheon Noel)

### 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 2~3 years. The scholarship aims to help scientists, including graduates in doctoral studies, post-doctoral researchers and young assistant professors, develop as world-renowned scientists.

- Awarded to 181 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 – Selected 268 individuals from 28 countries since 2005 (including 4 students from Africa)
- Fostering specialists on Asian regional studies – Selected 78 individuals from 20 countries since 2006
- Research grant program for humanities and social science an Asian region – Awarded to 211 projects from 14 countries since 2005 (151 domestic projects, 60 overseas projects)
- Scholarship for students in leading Asian universities – Fellowship support for 3,219 students at 39 universities in 13 countries since 2005
- Quarterly literary journal, "ASIA" – First published in May 2005, the quarterly journal has reached its 35th 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. (595 students were selected 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 society of sharing. (288 students selected since 2006)

## 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.

### Clean Ocean Volunteer Group

The Clean Ocean Volunteer Group started in 2009 as a scuba diving club to help improve marine environment. Over 700 members from our business sites in Pohang, Gwangyang, Seoul, Incheon and Changwon actively carry out various activities such as cleaning marine debris and collecting starfish.



### Green Workplace

**POSCO Family Green Walk Campaign** The Green Walk campaign is a program in which POSCO employees and their families participate voluntarily to practice Green Life and means "Green footsteps for the Earth." It is a company-wide campaign to practice green living such as saving energy and reducing greenhouse gas emissions. The campaign promotes voluntary participation in "green action": walk, turn off, reduce, and collect. Those activities are shared at the Green Walk website where participants can put up Green Photos and Green Essays. In addition, the portal provides a variety of content including news, expert columns and events to encourage active and continuous participation of various generations.

Employees and their families who joined the website receive mileage according to their activities. This has been linked with the Sharing the Bright Light project, which donates eco-friendly LED lamps to the groups who are vulnerable to climate change. The lamps are purchased using the donation reserves that was transferred from the mileage that the participants had accrued through their Green Walk activities. This campaign is being operated jointly with a civic group and was started in earnest in January 2011. As of 31 December 2014, 13,429 families are participating in the campaign. We will further expand social contribution activities linked with the Green Walk campaign in 2015.

### Clean Ocean Volunteer Group's Activities

|                        | Volunteers (persons) | Excursions | Number of participants | Retrieved volume (ton) |
|------------------------|----------------------|------------|------------------------|------------------------|
| Pohang                 | 470                  | 214        | 10,977                 | 495                    |
| POSCO Gwangyang        | 124                  | 62         | 3,188                  | 469                    |
| Seoul                  | 71                   | 27         | 787                    | 45                     |
| Subtotal               | 665                  | 303        | 14,952                 | 1,009                  |
| Gyeonggi-ICT do        | 24                   | 10         | 66                     | 3                      |
| POSCO Group Companies  | E&C                  | 35         |                        |                        |
|                        | Energy               | 19         |                        |                        |
|                        | Incheon Engineering  | 16         | 16                     | 645                    |
|                        | AST                  | 8          |                        |                        |
| Changwon Special Steel | 22                   | 9          | 565                    | 15                     |
| Subtotal               | 124                  | 35         | 1,276                  | 51                     |
| Total                  | 789                  | 338        | 16,228                 | 1,060                  |



#### Logo

The logo is in the shape of a green road and leaves, symbolizing the hope that POSCO's green footsteps, will become a movement that protects the Earth's beautiful environment.

#### Slogan

Environmental movements that were a one-time event or executed at the individual level are implemented at the POSCO Group level, embodying POSCO's commitment toward Earth, our only habitat. It conveys the message that although we started as a representative corporation of the country that symbolized development and growth, now we will walk together with nature and the people, as a member of the Earth's community.

### Green Action 4 of the Green Walk Campaign

|          | CO <sub>2</sub> Reduced  |
|----------|--|
| Walk     | Use stairs for less than 4 floors ..... 13g                              |
|          | Walk or ride bicycle when moving short distances ..... 2.3kg             |
|          | Use public transportation for 30 minutes ..... 7kg                       |
|          | Car-pool ..... 7kg   |
| Turn off | Turn off lights during lunch time or when going outside ..... 54g        |
|          | Turn off car engine when stopping for more than three minutes ..... 126g |
|          | Turn off the multi-tab when going out for more than one hour ..... 15g   |
|          | Turn off the light by the window ..... 13g                               |
| Reduce   | Reduce using tap water by one minute ..... 19g                           |
|          | Reduce using disposable cups and paper towels ..... 7g                   |
|          | Don't leave food ..... 17g   |
|          | Reduce air conditioning / heating by 1 degree ..... 260g                 |
| Collect  | Reuse second side of printer paper ..... 3g                              |
|          | Collect old clothes ..... 10kg   |
|          | Collect green ideas ..... -  |
|          | Sort waste before disposal (paper, plastic etc.) ..... -                 |

**Sharing the Bright Light Project** POSCO conducted a social responsibility activity using the green donations collected through the Green Walk campaign to purchase eco-friendly LED products and donating them to 1,000 low-income families and traditional markets in Seoul. The green donations are the green mileage contributions made by the Green Walk members of the POSCO Group. It has significance in that the employees participated personally from the collecting of donations to replacing the LED lamps. Furthermore, Sharing the Bright Light project has even more meaning because it helped the energy poor (low-income group) to save energy costs, while also contributing to reducing energy consumption and greenhouse gas emission on the national level.

In 2015, we will expand the Sharing the Bright Light activity to the “Green Home” activity, which is an energy efficiency enhancing project for the homes of low-income groups and a social contribution activity where POSCO Group’s employees and executives all participate.



Employees volunteering in home repair and LED replacement



Volunteering for LED replacement at a traditional market

### Forest Experience Camp

POSCO held the Forest Experience Camp in Gangneun for youths from marginalized groups and multicultural families. The camp’s programs included environment experiencing programs such as making eco-friendly handkerchiefs with grasses and flower petals, a bowling game using materials found in the forest, making toys with wood pieces and an ecosystem play such as untying knots together with team members.

Through this program, youngsters were reminded of the preciousness of the forest and nature. They also were able to grow their social skills and sense of independence and share hope. It was more meaningful because they spent time with friendly with different appearances.



Wood bowling at the Forest Experience Camp

## DIVERSE SOCIETY

In a rapidly changing global era, multiculturalism has become an important issue for the Korean society in order to realize unity of the country. POSCO supports multicultural families through creating jobs and changing perception, in order to help the families settle and grow as a member of society.

### Multicultural café “Oasia”

POSCO and the Social Enterprise Support Network (SESNET) established Café Oasia jointly. It is the first social cooperative endorsed by the Ministry of Employment and Labor. It is a social franchise brand created by a cooperative of small-scale cafes. Café Oasia hires migrant wives to help 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 social cooperative “Café Oasia”

- First social cooperative endorsed by the Ministry of Employment and Labor : 2013. 1. 15
- As of December 2014, 65 individuals from vulnerable groups (including migrant wives) are working at 27 branches.

### Startup Support for Women from Multicultural Families

With the aim to support women from multicultural families to secure stable income and their independence, POSCO has been providing startup and training and consulting every year together with SESNET, since 2011. The startup training, which underwent a pilot project in 2010 hosted by the Ministry of Gender Equality and Family, provided consulting to a total of 40 teams, and 34 teams succeeded in building their own startup. The startup teams that bridged their talents with the needs of the society such as making foreign traditional dolls, language training, multicultural restaurants, multicultural education and tourism interpretation, are becoming a stable business role model in their respective fields.



## CULTURAL HERITAGE

We strive to fulfill our role as a national corporation to inherit the traditional culture and spearhead globalization by protecting cultural assets and the cultural heritage. In addition, we carry out various mecenat activities such as music concerts in order to share culture and art with more people.

### 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. During 12 years, a total of 142 concerts had been held and functioned as a venue for people to communicate with other audiences at the heart of the 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 2014, four concerts were held each quarter, where 2,550 people came to share the beautiful occasion.

### Cultural Assets Preservation Volunteer Group

POSCO participates in Korean culture protection activities through cultural asset protection volunteer group called "Cultural properties Gakkumi" which promotes the beauty of the Korean culture and protects cultural assets. The group's activities include cultural assets monitoring, environmental cleanup, repair and maintenance, providing information, as well as translating brochures. In 2014, 217 volunteers offered help in Seonjeongneung (Royal tombs), Bosingak (Bell pavilion), Unhyeongung (Palace), and Seongkyunkwan (Education institution).



Changing door paper

## CASE STUDY

### The Hope Temperature Goes Up Through 1% Sharing: The POSCO 1% Sharing Foundation

The sharing spirit of POSCO employees is spreading to the world through POSCO 1% Foundation. The 1% sharing campaign was first started in 2011 when executives and junior executives of the POSCO Family companies donated 1% of their salaries. Now the campaign has spread to general staff and even to outsourcing partners and has become a large-scale "sharing movement" with over 20,000 participants. POSCO launched POSCO 1% Foundation in November 2013 in order to respond to the philanthropic urge of the members of POSCO who shared 1% of their salary every month and to use the money in more meaningful ways.

In 2014, employees of POSCO Group and outsourcing partners contributed KRW 5.1 billion to the 1% Sharing Foundation and POSCO added KRW 3.5 billion in matching grant, donating a total of KRW 8.6 billion. The A total of 33 POSCO Group companies and 105 outsourcing partners are participating in POSCO 1% Sharing Foundation.

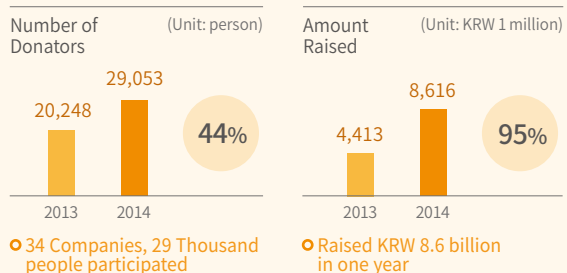
With the vision of "Sharing 1% for a Better World," the Foundation shared love with the neighbors by kindling the POSCO DNA for sharing and public good. The Foundation shared the love of 1% by undertaking projects such as providing a warm home through the Steel House project and Chin Chin Rainbow project that encourages multi-cultural youths' hopes and dreams.

The Foundation also assisted the POSCO Village project for the low-income group in Vietnam, establishing a social enterprise in Indonesia, and dispatching POSCO Family Volunteer Group to Ethiopia with the aim of enhancing the competence of the local community, as part of POSCO Group's efforts to fulfill its social responsibility at the global business locations where the Group is present. Channeling our identity as a national corporation and the nature of our business, we supported non-tangible cultural assets in metals and new artists in traditional Korean music ("gugak") as part of our project to "protect and inherit our cultural heritage." The 1% Sharing Fund is donat-

ed to social responsibility projects in connection with POSCO Group employees' capacities and work, to assist the local community near their business location. In 2014, 8 Group companies including POSCO E&C carried out 33 independent sharing activities using the 1% Fund. In addition, 12 programs selected through the social contribution public contest that links seven talent volunteer groups and employees' volunteering sites were carried out as well.

#### Amount of Raised Fund

- Donators: 20,248 persons (2013) → 29,053 persons (2014) - increased by 8,805 persons
- Increased employees participation by promoting the Foundation's activities, spread the movement that was centered to Group company executives to general employees.
- Raised amount: KRW 4,413 million (2013) → KRW 8,616 million (2014) - increased by KRW 4,203 million
- Number of donators increased, number of subsidiaries that donate matching grants increased (18 companies, KRW 3.5 billion). (the figure for 2013 represents amount raised during only nine months)



More details are available at the POSCO 1% Sharing Foundation website ([www.poscofoundation.org](http://www.poscofoundation.org)).



# 04

## Financial Statements

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## INDEPENDENT AUDITORS' REPORT

### The Board of Directors and Shareholders POSCO:

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, 2014 and 2013, 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, 2014 and 2013, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with Korean International Financial Reporting Standards.

### Other Matters

The accompanying consolidated statement of financial position of the Company as of December 31, 2013, and the related statements of comprehensive income, changes in equity and cash flows for the year then ended, were audited by us in accordance with the previous auditing standards generally accepted in the Republic of Korea.

The procedures and practices utilized in the Republic of Korea to audit such consolidated financial statements may differ from those generally accepted and applied in other countries.

Seoul, Korea  
February 25, 2015

Samjong KPMG

## POSCO and Subsidiaries

**CONSOLIDATED STATEMENTS OF FINANCIAL POSITION**As of December 31, 2014 and 2013  
(in millions of Won)

|  | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| <b>Assets</b>  |                   |                   |
| Cash and cash equivalents  | 3,811,202         | 4,208,562         |
| Trade accounts and notes receivable, net                               | 11,786,055        | 11,492,601        |
| Other receivables, net   | 1,956,216         | 1,890,423         |
| Other short-term financial assets                                      | 1,462,920         | 2,970,665         |
| Inventories  | 10,471,330        | 9,798,381         |
| Current income tax assets  | 36,147            | 32,417            |
| Assets held for sale   | 2,127,087         | 2,494             |
| Other current assets   | 976,425           | 1,270,668         |
| <b>Total current assets</b>  | <b>32,627,382</b> | <b>31,666,211</b> |
| Long-term trade accounts and notes receivable, net                     | 79,336            | 97,000            |
| Other receivables, net   | 1,144,160         | 797,455           |
| Other long-term financial assets                                       | 2,455,900         | 4,465,730         |
| Investments in associates and joint ventures                           | 4,060,507         | 3,808,693         |
| Investment property, net   | 1,055,592         | 425,229           |
| Property, plant and equipment, net                                     | 35,241,195        | 35,760,119        |
| Intangible assets, net   | 6,884,989         | 5,929,840         |
| Deferred tax assets  | 1,195,563         | 1,139,932         |
| Other long-term assets   | 507,549           | 365,198           |
| <b>Total non-current assets</b>  | <b>52,624,791</b> | <b>52,789,196</b> |
| <b>Total assets</b>  | <b>85,252,173</b> | <b>84,455,407</b> |
| <b>liabilities</b>   |                   |                   |
| Trade accounts and notes payable                                       | 3,950,786         | 4,231,322         |
| Short-term borrowings and current installments of long-term borrowings | 12,195,484        | 10,713,646        |
| Other payables   | 2,194,713         | 2,128,854         |
| Other short-term financial liabilities                                 | 111,637           | 135,904           |
| Current income tax liabilities   | 453,613           | 358,930           |
| Liabilities of disposal group held for sale                            | 590,982           | -                 |
| Provisions   | 150,030           | 107,329           |
| Other current liabilities  | 2,229,764         | 2,565,174         |
| <b>Total current liabilities</b>                                       | <b>21,877,009</b> | <b>20,241,159</b> |
| Long-term trade accounts and notes payable                             | 88,469            | 559               |
| Long-term borrowings, excluding current installments                   | 15,232,773        | 15,532,959        |
| Other payables   | 169,986           | 206,634           |
| Other long-term financial liabilities                                  | 91,095            | 260,021           |
| Defined benefit liabilities, net                                       | 290,325           | 273,160           |
| Deferred tax liabilities   | 1,832,260         | 1,711,762         |
| Long-term provisions   | 223,239           | 146,272           |
| Other long-term liabilities  | 155,653           | 260,851           |
| <b>Total non-current liabilities</b>                                   | <b>18,083,800</b> | <b>18,392,218</b> |
| <b>Total liabilities</b>   | <b>39,960,809</b> | <b>38,633,377</b> |
| <b>Equity</b>  |                   |                   |
| Share capital  | 482,403           | 482,403           |
| Capital surplus  | 1,083,718         | 1,078,266         |
| Hybrid bonds   | 996,919           | 996,919           |
| Reserves   | (408,773)         | (23,076)          |
| Treasury shares  | (1,534,457)       | (1,579,124)       |
| Retained earnings  | 40,967,558        | 41,090,649        |
| <b>Equity attributable to owners of the controlling company</b>        | <b>41,587,368</b> | <b>42,046,037</b> |
| <b>Non-controlling interests</b>                                       | <b>3,703,996</b>  | <b>3,775,993</b>  |
| <b>Total equity</b>  | <b>45,291,364</b> | <b>45,822,030</b> |
| <b>Total liabilities and equity</b>                                    | <b>85,252,173</b> | <b>84,455,407</b> |

## POSCO and Subsidiaries

## CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

For the years ended December 31, 2014 and 2013  
(in millions of Won, except per share information)

|  | 2014         | 2013         |
|--|--------------|--------------|
| Revenue  | 65,098,445   | 61,864,650   |
| Cost of sales  | (57,815,041) | (55,004,591) |
| Gross profit   | 7,283,404    | 6,860,059    |
| Selling and administrative expenses  |              |              |
| Administrative expenses  | (2,309,756)  | (2,231,805)  |
| Selling expenses   | (1,760,118)  | (1,632,120)  |
| Operating profit   | 3,213,530    | 2,996,134    |
| Share of loss of equity-accounted investees, net                           | (299,893)    | (179,809)    |
| Finance income and costs   |              |              |
| Finance income   | 2,396,762    | 2,380,838    |
| Finance costs  | (3,221,987)  | (2,829,253)  |
| Other non-operating income and expenses                                    |              |              |
| Other non-operating income   | 269,406      | 229,073      |
| Other non-operating expenses   | (979,674)    | (650,806)    |
| Profit before income tax   | 1,378,144    | 1,946,177    |
| Income tax expense   | (821,485)    | (590,997)    |
| Profit   | 556,659      | 1,355,180    |
| Other comprehensive income (loss)  |              |              |
| Items that will never be reclassified subsequently to profit or loss :     |              |              |
| Remeasurements of defined benefit pension plans                            | (75,101)     | 6,224        |
| Items that are or may be reclassified subsequently to profit or loss :     |              |              |
| Capital adjustment arising from investments in equity-method investees     | (45,754)     | (183,836)    |
| Net changes in the unrealized fair value of available-for-sale investments | (333,891)    | 412,346      |
| Foreign currency translation differences                                   | (836)        | (220,464)    |
| Other comprehensive income (loss), net of tax                              | (455,582)    | 14,270       |
| Total comprehensive income   | 101,077      | 1,369,450    |
| Profit (loss) attributable to :  |              |              |
| Owners of the controlling company  | 626,099      | 1,376,396    |
| Non-controlling interests  | (69,440)     | (21,216)     |
| Profit   | 556,659      | 1,355,180    |
| Total comprehensive income (loss) attributable to :                        |              |              |
| Owners of the controlling company  | 174,918      | 1,444,262    |
| Non-controlling interests  | (73,841)     | (74,812)     |
| Total comprehensive income   | 101,077      | 1,369,450    |
| Basic and diluted earnings per share (in Won)                              | 7,432        | 17,409       |

## POSCO and Subsidiaries

## CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

For the years ended December 31, 2014 and 2013  
(in millions of Won)

|  | Attributable to owners of the controlling company |                  |                |                  |                    |                   |                   | Non-controlling interests | Total             |
|--|---|------------------|----------------|------------------|--------------------|-------------------|-------------------|---------------------------|-------------------|
|  | Share capital                                     | Capital surplus  | Hybrid bonds   | Reserves         | Treasury shares    | Retained earnings | Sub total         |                           |                   |
| <b>Balance as of January 1, 2013</b>   | <b>482,403</b>                                    | <b>1,104,814</b> | <b>-</b>       | <b>(88,150)</b>  | <b>(2,391,406)</b> | <b>40,346,481</b> | <b>39,454,142</b> | <b>2,975,276</b>          | <b>42,429,418</b> |
| <b>Comprehensive income:</b>   |   |                  |                |                  |                    |                   |                   |                           |                   |
| Profit   | -   | -                | -              | -                | -                  | 1,376,396         | 1,376,396         | (21,216)                  | 1,355,180         |
| Other comprehensive income   |   |                  |                |                  |                    |                   |                   |                           |                   |
| Net changes in accumulated comprehensive income of investments in associates, net of tax   | -   | -                | -              | (166,787)        | -                  | -                 | (166,787)         | (17,049)                  | (183,836)         |
| Net changes in the unrealized fair value of available-for-sale investments, net of tax     | -   | -                | -              | 412,453          | -                  | -                 | 412,453           | (107)                     | 412,346           |
| Foreign currency translation differences, net of tax                                       | -   | -                | -              | (180,839)        | -                  | -                 | (180,839)         | (39,625)                  | (220,464)         |
| Remeasurements of defined benefit pension plans, net of tax                                | -   | -                | -              | -                | -                  | 3,039             | 3,039             | 3,185                     | 6,224             |
| <b>Total comprehensive income</b>  |   |                  |                | <b>64,827</b>    |                    | <b>1,379,435</b>  | <b>1,444,262</b>  | <b>(74,812)</b>           | <b>1,369,450</b>  |
| <b>Transactions with owners of the controlling company, Recognized directly in equity:</b> |   |                  |                |                  |                    |                   |                   |                           |                   |
| Year-end dividends   | -   | -                | -              | -                | -                  | (463,467)         | (463,467)         | (30,544)                  | (494,011)         |
| Interim dividends  | -   | -                | -              | -                | -                  | (154,490)         | (154,490)         | -                         | (154,490)         |
| Changes in subsidiaries  | -   | -                | -              | -                | -                  | -                 | -                 | 40,506                    | 40,506            |
| Changes in ownership interests in subsidiaries   | -   | (31,417)         | -              | -                | -                  | -                 | (31,417)          | 373,963                   | 342,546           |
| Issue of hybrid bonds  | -   | -                | 996,919        | -                | -                  | -                 | 996,919           | 498,468                   | 1,495,387         |
| Interest of hybrid bonds   | -   | -                | -              | -                | -                  | (24,161)          | (24,161)          | (6,228)                   | (30,389)          |
| Disposal of treasury shares  | -   | 5,348            | -              | -                | 812,282            | -                 | 817,630           | -                         | 817,630           |
| Others   | -   | (479)            | -              | 247              | -                  | 6,851             | 6,619             | (636)                     | 5,983             |
| <b>Total transactions with owners of the controlling company</b>                           | <b>-</b>  | <b>(26,548)</b>  | <b>996,919</b> | <b>247</b>       | <b>812,282</b>     | <b>(635,267)</b>  | <b>1,147,633</b>  | <b>875,529</b>            | <b>2,023,162</b>  |
| <b>Balance as of December 31, 2013</b>   | <b>482,403</b>                                    | <b>1,078,266</b> | <b>996,919</b> | <b>(23,076)</b>  | <b>(1,579,124)</b> | <b>41,090,649</b> | <b>42,046,037</b> | <b>3,775,993</b>          | <b>45,822,030</b> |
| <b>Balance as of January 1, 2014</b>   | <b>482,403</b>                                    | <b>1,078,266</b> | <b>996,919</b> | <b>(23,076)</b>  | <b>(1,579,124)</b> | <b>41,090,649</b> | <b>42,046,037</b> | <b>3,775,993</b>          | <b>45,822,030</b> |
| <b>Comprehensive income:</b>   |   |                  |                |                  |                    |                   |                   |                           |                   |
| Profit   | -   | -                | -              | -                | -                  | 626,099           | 626,099           | (69,440)                  | 556,659           |
| Other comprehensive income   | -   | -                | -              | -                | -                  | -                 | -                 | -                         | -                 |
| Net changes in accumulated comprehensive income of investments in associates, 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)             |
| Remeasurements of defined benefit pension plans, net of tax                                | -   | -                | -              | -                | -                  | (65,152)          | (65,152)          | (9,949)                   | (75,101)          |
| <b>Total comprehensive income</b>  | <b>-</b>  | <b>-</b>         | <b>-</b>       | <b>(386,029)</b> | <b>-</b>           | <b>560,947</b>    | <b>174,918</b>    | <b>(73,841)</b>           | <b>101,077</b>    |
| <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>                           | <b>-</b>  | <b>5,452</b>     | <b>-</b>       | <b>332</b>       | <b>44,667</b>      | <b>(684,038)</b>  | <b>(633,587)</b>  | <b>1,844</b>              | <b>(631,743)</b>  |
| <b>Balance as of December 31, 2014</b>   | <b>482,403</b>                                    | <b>1,083,718</b> | <b>996,919</b> | <b>(408,773)</b> | <b>(1,534,457)</b> | <b>40,967,558</b> | <b>41,587,368</b> | <b>3,703,996</b>          | <b>45,291,364</b> |

## POSCO and Subsidiaries

## CONSOLIDATED STATEMENTS OF CASH FLOWS

For the years ended December 31, 2014 and 2013  
(in millions of Won)

|  | 2014             | 2013             |
|--|------------------|------------------|
| <b>Cash flows from operating activities</b>                                |                  |                  |
| Profit   | 556,659          | 1,355,180        |
| Adjustments for:   |                  |                  |
| Depreciation   | 2,894,609        | 2,505,536        |
| Amortization   | 343,940          | 180,014          |
| Finance income   | (1,046,718)      | (1,012,281)      |
| Finance costs  | 1,801,015        | 1,585,778        |
| Income tax expense   | 821,485          | 590,997          |
| Gain on disposal of property, plant and equipment                          | (15,039)         | (14,177)         |
| Loss on disposal of property, plant and equipment                          | 50,006           | 121,133          |
| Impairment loss on property, plant and equipment                           | 64,833           | 9,742            |
| Share of loss of equity-accounted investees                                | 299,893          | 179,809          |
| Costs for defined benefit plans  | 237,886          | 247,748          |
| Provision expense  | 245,470          | 111,364          |
| Bad debt expenses  | 205,306          | 201,185          |
| Loss on valuation of inventories   | 41,713           | 49,172           |
| Impairment loss on goodwill and intangible assets                          | 55,220           | 125,316          |
| Gain on disposals of assets held for sale                                  | (48,232)         | (101,611)        |
| Impairment loss on assets held for sale                                    | 17,205           | 1,814            |
| Others, net  | 126,816          | 31,079           |
|  | 6,095,408        | 4,812,618        |
| Changes in operating assets and liabilities                                | (1,913,972)      | (116,432)        |
| Interest received  | 238,817          | 227,989          |
| Interest paid  | (882,183)        | (797,316)        |
| Dividends received   | 114,694          | 193,008          |
| Income taxes paid  | (797,324)        | (816,912)        |
| Net cash provided by operating activities                                  | 3,412,099        | 4,858,135        |
| <b>Cash flows from investing activities</b>                                |                  |                  |
| Acquisitions of short-term financial instruments                           | (3,096,602)      | (4,449,312)      |
| Proceeds from disposal of short-term financial instruments                 | 4,635,120        | 3,901,527        |
| Increase in loans  | (361,671)        | (575,343)        |
| Collection of loans  | 76,717           | 417,971          |
| Acquisitions of available-for-sale investments                             | (75,582)         | (309,469)        |
| Proceeds from disposal of available-for-sale investments                   | 252,056          | 269,363          |
| Acquisitions of investments of equity-accounted investees                  | (702,989)        | (1,076,763)      |
| Proceeds from disposal of investments of equity-accounted investees        | 21,359           | 89,533           |
| Acquisitions of property, plant and equipment                              | (3,505,549)      | (6,569,613)      |
| Proceeds from disposal of property, plant and equipment                    | 62,829           | 82,153           |
| Acquisitions of investment property  | (406,603)        | (20,945)         |
| Proceeds from disposal of investment property                              | 43,167           | 8,464            |
| Acquisitions of intangible assets  | (343,804)        | (543,666)        |
| Proceeds from disposal of intangible assets                                | 9,043            | 5,429            |
| Cash received from (paid in) acquisition of business, net of cash acquired | (388,578)        | 5,729            |
| Cash received from disposal of business, net of cash transferred           | 48,949           | 5,962            |
| Other, net   | (13,044)         | 7,310            |
| Net cash used in investing activities                                      | (3,745,182)      | (8,751,670)      |
| <b>Cash flows from financing activities</b>                                |                  |                  |
| Proceeds from borrowings   | 2,522,495        | 5,098,702        |
| Repayment of borrowings  | (2,802,150)      | (2,845,957)      |
| Proceeds from short-term borrowings, net                                   | 1,037,912        | 86,475           |
| Payment of cash dividends  | (677,000)        | (648,580)        |
| Proceeds from issuance of hybrid bonds                                     | -                | 1,495,387        |
| Payment of interest of hybrid bonds  | (69,713)         | (26,088)         |
| Increase in non-controlling interests                                      | 54,066           | 363,044          |
| Proceeds from disposal of treasury shares                                  | 43,188           | 14,019           |
| Other, net   | 26,314           | (4,666)          |
| Net cash provided by financing activities                                  | 135,112          | 3,532,336        |
| Effect of exchange rate fluctuation on cash held                           | 11,545           | (110,765)        |
| <b>Net decrease in cash and cash equipment</b>                             | <b>(186,426)</b> | <b>(471,964)</b> |
| <b>Cash and cash equivalents at beginning of the period</b>                | <b>4,208,562</b> | <b>4,680,526</b> |
| <b>Cash and cash equivalents</b>   |                  |                  |
| classified as assets held for sale   | (210,934)        | -                |
| <b>Cash and cash equivalents at end of the period</b>                      | <b>3,811,202</b> | <b>4,208,562</b> |



# 05

## Assurance Report

|  |     |
|--|-----|
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| Assurance Report for POSCO Carbon Report | 138 |



## 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 2014 (the “Report”).

### Scope and subject matter

The information for the year ended December 31, 2014 (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 (the “Sustainability Data”), stated in “Integrated Sustainability Performance Index” (page 11) and “PERFORMANCE HIGHLIGHTS (POSCO ONLY)” on the pages 19 through 20 which is based on the Company’s internal reporting principles set out on GRI (Global Reporting Initiative) G4 guideline, the International Integrated Reporting Framework issued by the International Integrated Reporting Council (IIRC), ISO 26000 and Principles of the UN Global Compact

We read the other information included in the Report and considered whether it is 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 Guidance for AA1000AS(2008).

Our work involved the following activities:

1. Interviews with the personnel responsible for internal reporting and data collection to discuss their approach to stakeholder inclusivity, materiality and responsiveness
2. Visits to the Company’s headquarter in Pohang, Pohang Works, Seoul office and 8 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’ 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.

1) International Standard on Assurance Engagements 3000 – ‘Assurance Engagements other than Audits or Reviews of Historical Financial Information’ issued by International Auditing and Assurance Standards Board

2) AA1000 Assurance Standard(2008), issued by AccountAbility

In particular:

- We did not attend any stakeholder engagement activities. Therefore our conclusions are based on our discussions with management and staff of the Company and our review of selected documents provided to us by the Company.
- The scope of our work was restricted to 2014 performance only, as set out in the scope and subject matter section above. Information relating to the year ended December 31, 2013 and earlier periods have not been subject to assurance by us.

### 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, Investors, Communities and Employees.
- Nothing has come to our attention to suggest that material stakeholder groups were excluded in 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 Sustainability Data for the year ended December 31, 2014 is not fairly stated, in all material respects, in accordance with the Company's internal reporting principles set out on GRI (Global Reporting Initiative) G4 guideline, the International Integrated Reporting Framework issued by the International Integrated Reporting Council (IIRC), ISO 26000 and Principles of the UN Global Compact.

### Recommendations

As a result of our work, we have provided the following recommendations to the management.

- It is necessary to improve key performance indicators and targets how the economic, social and environmental performances are aligned with business model and value creating activity of the Company.
- In response to requests from external stakeholders such as investors for sustainability information, it is necessary to keep consistency of communication channel and to provide enough information.
- In order to settle the report as reliable communication tool for the sustainability management, it is recommended to actively expand negative information disclosure and the Company's position and response.

April 17, 2015  
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 Carbon Reporting of POSCO REPORT 2014 (the “Report”) on the pages 102 through 119.

### Scope and subject matter

The information for the year ended December 31, 2014 (hereinafter, collectively referred to as the subject matters) on which we provide 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, 2014 as described in table on page 107 (“the subject matters of reasonable assurance”)
- GHG Reduction Effect in Society data, Other CO<sub>2</sub> Emissions (Scope 3) data for the year ended December 31, 2014 as described in table, and the amount of investments in new energy-saving facilities and equipment that were completed in 2014 and investments initiated in 2014 for the research and development projects to reduce CO<sub>2</sub> emissions on page 107 (“the subject matters of limited assurance”)

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 reasonable assurance, our work included examination, on a test basis, of evidence relevant to the subject matters. It also included an assessment of the significant estimates and judgments made by management in the preparation of the subject matters. We planned and performed our work so as to obtain all the information and explanations that we considered necessary in order to provide us with sufficient evidence on which to base our opinion.

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 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, 2014 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, Other CO<sub>2</sub> Emissions (Scope 3) data for the year ended December 31, 2014, and the amount of investments in new energy-saving facilities and equipment that were completed in 2014 and investments initiated in 2014 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.

April 17, 2015  
Samil PricewaterhouseCoopers  
Seoul, Korea  
Seiyoun Jung, Partner

# 06

## Appendix

|                           |     |
|---------------------------|-----|
| GRI Index                 | 140 |
| UN Global Compact Index   | 143 |
| POSCO Code of Conduct     | 144 |
| Articles of Incorporation | 148 |



## GRI INDEX

| GRI G4                                     | No.    | Index Name  | ISO 26000                       | Reporting Level | Page  |
|--|--------|---|---------------------------------|-----------------|---|
| 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 | •               | 11  |
|  | G4-4   | Report the primary brands, products, and services.  |                                 | •               | 12-18, 38   |
|  | G4-5   | Report the location of the organization's headquarters.   |                                 | •               | 11  |
|  | 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.   |                                 | •               | 12-18   |
|  | G4-7   | Report the nature of ownership and legal form.  |                                 | •               | 11  |
|  | G4-8   | Report the markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries).   |                                 | •               | 12-18   |
|  | G4-9   | Scale of the organization (total number of employees, net sales, total capitalization, quantity of products or services provided)   |                                 | •               | 11  |
|  | 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.   |                                 | •               | 59  |
|  | G4-11  | Report the percentage of total employees covered by collective bargaining agreements.   |                                 | •               | All employees are subject to the results of collective bargaining |
|  | G4-12  | Describe the organization's supply chain.   |                                 | •               | 81-93   |
|  | G4-13  | Report any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain.  |                                 | •               | 9 ~ 10  |
|  | G4-14  | Report whether and how the precautionary approach or principle is addressed by the organization.  |                                 | •               | 50-51   |
| Identified Material Aspects and Boundaries | G4-15  | List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.  | 5.2, 7.3.2-7.3.4                | •               | 24, 101   |
|  | G4-16  | List memberships of associations and national or international advocacy organizations.  |                                 | •               | 101   |
|  | 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.   |                                 | •               | Please refer to Annual Report                                     |
|  | 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.   |                                 | •               | About This Report   |
|  | G4-19  | List all the material Aspects identified in the process for defining report content.  |                                 | •               | 26~27   |
|  | G4-20  | For each material Aspect, report the Aspect Boundary within the organization.   |                                 | •               | About This Report   |
|  | G4-21  | For each material Aspect, report the Aspect Boundary outside the organization.  |                                 | •               | About This Report   |
| Stakeholder Engagement                     | G4-22  | Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements.   | 5.3                             | •               | About This Report   |
|  | G4-23  | Report significant changes from previous reporting periods in the Scope and Aspect Boundaries.  |                                 | •               | NA  |
|  | G4-24  | Provide a list of stakeholder groups engaged by the organization.   |                                 | •               |   |
|  | G4-25  | Report the basis for identification and selection of stakeholders with whom to engage.  |                                 | •               |   |
|  | 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.   |                                 | •               | 28~35   |
| Report Profile                             | 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.   | 7.5.3, 7.6.2                    | •               |   |
|  | G4-28  | Reporting period for information provided.  |                                 | •               | About This Report   |
|  | G4-29  | Date of most recent previous report.  |                                 | •               | About This Report   |
|  | G4-30  | Reporting cycle.  |                                 | •               | About This Report   |
|  | G4-31  | Provide the contact point for questions regarding the report or its contents.   |                                 | •               | About This Report   |
|  | G4-32  | Report the 'in accordance' option the organization has chosen (chosen option, GRI Content Index, External Assurance Report)   |                                 | •               | About This Report   |
| Governance                                 | 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. | -                               | •               | About This Report   |
|  | 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                      | •               | 6~8   |
| 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               | •               |   |
| 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.   | 6, 7.3.1, 7.4.3, 7.7.3, 7.7.5   | •               | 26~27   |

| GRI G4                            | No.     | Index Name   | ISO 26000   | Reporting Level | Page   |
|-----------------------------------|---------|--|---|-----------------|--|
| Economic Performance              | G4-DMA  | Disclosures on Management Approach   | 5.3   | •               | 22~23  |
|                                   | G4-EC1  | Direct economic value generated and distributed  |   | •               | 12   |
|                                   | G4-EC2  | Financial implications and other risks and opportunities for the organization's activities due to climate change   |   | •               | 102~103  |
|                                   | G4-EC3  | Coverage of the organization's defined benefit plan obligations  |   | •               | 20, 57   |
| Market Presence                   | G4-DMA  | Disclosures on Management Approach   | 6.3.7, 6.3.10<br>6.4.3<br>6.4.46.8.1-6.8.2                  | •               | 22~23  |
|                                   | G4-EC5  | Ratios of standard entry level wage compared to local minimum wage at significant locations of operation   |   | •               | All business locations pay more than minimum wages, but the wages of new employees are not disclosed as per internal policy. |
| Indirect Economic Impacts         | 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                            | •               | 121~123  |
|                                   | 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 | •               |  |
| Materials                         | G4-EN1  | Materials used by weight or volume   | 6.5.4   | •               | 108  |
|                                   | G4-EN2  | Percentage of materials used that are recycled input materials   |   | •               | 97~98  |
| Energy                            | G4-DMA  | Disclosures on Management Approach   | 6.5.4   | •               | 99   |
|                                   | G4-EN3  | Energy consumption within the organization   |   | •               | 107  |
|                                   | G4-EN4  | Energy consumption outside of the organization   |   | •               | 20, 99   |
|                                   | G4-EN5  | Energy intensity   |   | •               | 99   |
|                                   | G4-EN6  | Reduction of energy consumption  |   | •               | 39, 107  |
|                                   | G4-EN7  | Reductions in energy requirements of products and services   |   | •               | 20, 97   |
|                                   | G4-EN8  | Total water withdrawal by source   |   | •               | 96   |
| Water                             | G4-EN9  | Water sources significantly affected by withdrawal of water  | 6.5.4   | •               | 100  |
|                                   | G4-EN10 | Percentage and total volume of water recycled and reused   |   | •               |  |
|                                   | G4-EN11 | Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas  |   | •               |  |
| Biodiversity                      | 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   | •               | 102~105  |
|                                   | G4-EN13 | Habitats protected or restored   |   | •               |  |
|                                   | G4-EN14 | Disclosures on Management Approach   |   | •               |  |
| Emissions                         | G4-DMA  | Disclosures on Management Approach   | 6.5.5   | •               | 20, 107  |
|                                   | G4-EN15 | Direct greenhouse gas (GHG) emissions (scope 1)  |   | •               | 107  |
|                                   | G4-EN16 | Energy indirect greenhouse gas (GHG) emissions (scope 2)   |   | •               | 20, 107  |
|                                   | G4-EN17 | Other indirect greenhouse gas (GHG) emissions (scope 3)  |   | •               | 107  |
|                                   | G4-EN18 | Greenhouse gas (GHG) emissions intensity   |   | •               | 107  |
|                                   | G4-EN19 | Reduction of greenhouse gas (GHG) emissions  |   | •               | 97   |
|                                   | G4-EN20 | Emissions of ozone-depleting substances (ODS)  |   | •               | 97   |
|                                   | G4-EN21 | NOx, SOx, and other significant air emissions  |   | •               | 97   |
| Effluents and Waste               | G4-EN22 | Total water discharge by quality and destination   | 6.5.3-4   | •               | 11   |
|                                   | G4-EN23 | Total weight of waste by type and disposal method  | 6.5.3   | •               | 96   |
|                                   | 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        |   | •               | 39   |
| Products and Services             | G4-EN27 | Extent of impact mitigation of environmental impacts of products and services  | 6.5.3, 5.4, 6.5.5, 6.7.5                                    | •               | 107  |
|                                   | G4-EN28 | Percentage of products sold and their packaging materials that are reclaimed by category   | 6.5.3, 6.5.4, 6.7.5   | •               |  |
| 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  | •               | 107  |
| Overall                           | G4-EN31 | Total environmental protection expenditures and investments by type  | 6.5.1-6.5.2   | •               | 107  |
| Supplier Environmental Assessment | G4-EN32 | Percentage of new suppliers that were screened using environmental criteria  | 6.3.5, 6.6.6, 7.3.1   | •               | 11   |
|                                   | G4-EN33 | Significant actual and potential negative environmental impacts in the supply chain and actions taken  |   | •               | 93   |
| Employment                        | G4-DMA  | Disclosures on Management Approach   | 6.4.3   | •               | 53   |
|                                   | G4-LA1  | Total number and rates of new employee hires and employee turnover by age group  |   | •               | 19   |
|                                   | G4-LA2  | Benefits provided to full-time employees   |   | •               | 57   |
|                                   | G4-LA3  | Return to work and retention rates after parental leave  |   | •               | 11, 59   |
| Occupational Health and Safety    | G4-DMA  | Disclosures on Management Approach   | 6.4.6   | •               | 72   |
|                                   | 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 |   | •               | 54   |
|                                   | 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                      |   | •               | 11, 20, 72   |
|                                   | G4-LA7  | Workers with high incidence or high risk of diseases related to their occupation   |   | •               | 54   |

| GRI G4   | No.     | Index Name  | ISO 26000  | Reporting Level | Page       |
|--|---------|---|--|-----------------|------------|
| Training and Education                           | G4-LA9  | Average hours of training per year per employee by gender, and by employee category   | 6.4.7  | •               | 11, 20, 64 |
|  | 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                                     | •               | 64         |
|  | G4-LA11 | Percentage of employees receiving regular performance and career development reviews, by gender and by employee category  | 6.4.7  | •               | 57         |
| Diversity and Equal Opportunity                  | G4-DMA  | Disclosures on Management Approach  | 6.2.3, 6.3.7, 6.3.10, 6.4.3                      | •               | 69~70      |
|  | 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  |  | •               | 59         |
| Equal Remuneration                               | 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                      | •               | 57         |
| Supplier Assessment for Labor Practices          | G4-LA14 | Percentage of new suppliers that were screened using labor practices criteria   |  | •               | 11         |
|  | 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                       | •               | 93         |
| Investment                                       | G4-DMA  | Disclosures on Management Approach  | 6.3.3, 6.3.5, 6.6.6                              | •               | 69~70      |
|  | 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  | •               | 11, 66     |
| Non-discrimination                               | G4-DMA  | Disclosures on Management Approach  | 6.3.6, 6.3.7, 6.3.10, 6.4.3                      | •               | 69~70      |
| Freedom of Association and Collective Bargaining | G4-DMA  | Disclosures on Management Approach  | 6.3.3, 6.3.4, 6.3.5, 6.3.8, 6.3.10, 6.4.5, 6.6.6 | •               | 69~70      |
|  | 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                                    |  | •               |            |
| Child Labor                                      | G4-DMA  | Disclosures on Management Approach  | 6.3.3, 6.3.4, 6.3.5, 6.3.7, 6.3.10, 6.6.6, 6.8.4 | •               | 69~70      |
|  | 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   |  | •               | 70         |
| Forced or Compulsory Labor                       | G4-DMA  | Disclosures on Management Approach  |  | •               | 69~70      |
|  | 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               | •               | 70         |
| Indigenous Rights                                | G4-DMA  | Disclosures on Management Approach  |  | •               | 69~70      |
|  | 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  |  | •               | 69~70      |
|  | 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                              | •               |            |
| Supplier Human Rights Assessment                 | G4-DMA  | Disclosures on Management Approach  |  | •               | 69~70      |
|  | G4-HR10 | Percentage of new suppliers that were screened using human rights criteria  | 6.3.3-6.3.6                                      | •               | 11         |
|  | G4-HR11 | Significant actual and potential negative human rights impacts in the supply chain and actions taken  |  | •               | 70         |
| Human Rights Grievance Mechanisms                | G4-DMA  | Disclosures on Management Approach  |  | •               | 69~70      |
|  | G4-HR12 | Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms  | 6.3.6  | •               |            |
| Local Communities                                | G4-SO1  | Percentage of operations with implemented local community engagement, impact assessments, and development programs  | 6.3.9, 6.5.1-6.5.3, 6.8                          | •               | 121        |
| Anti-corruption                                  | G4-DMA  | Disclosures on Management Approach  | 6.6.1-6.6.3                                      | •               | 66         |
|  | G4-SO4  | Communication and training on anti-corruption policies and procedures   | 6.6.1-6.6.3, 6.6.6                               | •               |            |
|  | G4-SO5  | Confirmed incidents of corruption and actions taken   | 6.6.1-6.6.3                                      | •               |            |
| Supplier Assessment for Impacts on Society       | 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    | •               | 11         |
| Customer Health and Safety                       | 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                  | •               | 39         |
| Product and Service Labeling                     | 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                               | •               | 39         |
|  | G4-PR5  | Results of surveys measuring customer satisfaction  | 3.7.1-6.7.2, 6.7.6                               | •               | 19, 37     |
| Customer Privacy                                 | 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                               | •               | 37         |

## UN GLOBAL COMPACT INDEX

| Category        | Principles  | Related content in the Report | Page    |
|-----------------|---|-------------------------------|---------|
| Human Rights    | Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and                     | Sustainable Management        | 24      |
|                 | Principle 2: make sure that they are not complicit in human rights abuses.  | Business Ethics               | 66      |
|                 |   | Human Rights Management       | 69      |
| Labour          |   | POSCO Code of Conduct         | 144     |
|                 | Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; | Human Rights Management       | 69      |
|                 | Principle 4: the elimination of all forms of forced and compulsory labour;  | Supply Chain Management       | 81      |
|                 | Principle 5: the effective abolition of child labour; and   | Supply Chain                  | 92      |
| Environment     | Principle 6: the elimination of discrimination in respect of employment and occupation.   | CSR Competitiveness           |         |
|                 |   | POSCO Code of Conduct         | 144     |
|                 | Principle 7: Businesses should support a precautionary approach to environmental challenges;  | Environment                   | 94-101  |
| Anti-Corruption | Principle 8: undertake initiatives to promote greater environmental responsibility; and   | Climate Change                | 102-117 |
|                 | Principle 9: encourage the development and diffusion of environmentally friendly technologies.  |                               |         |
| Anti-Corruption | Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.                            | Business Ethics               | 66      |
|                 |   | POSCO Code of Conduct         | 144     |

## REGIONAL CONSOLIDATED STATEMENTS OF FINANCIAL STATUS

| Country/Region        | 2014   | 2013        | 2012        |
|-----------------------|--|-------------|-------------|
| Korea                 | External revenues                                | 45,805,167  | 45,953,826  |
|                       | Total revenue                                    | 71,065,893  | 70,607,949  |
|                       | Internal revenue including inter segment revenue | -25,260,726 | -24,654,123 |
|                       | Operating profit (loss)                          | 3,175,318   | 2,925,926   |
|                       | Income tax expense                               | 790,584     | 557,867     |
| Japan                 | Assets   | 64,000,252  | 65,344,119  |
|                       | External revenues                                | 2,047,686   | 1,920,253   |
|                       | Total revenue                                    | 2,710,336   | 2,476,493   |
|                       | Internal revenue including inter segment revenue | -662,650    | -556,240    |
|                       | Operating profit (loss)                          | 11,467      | 20,312      |
| China                 | Income tax expense                               | 6,965       | 10,353      |
|                       | Assets   | 899,313     | 985,012     |
|                       | External revenues                                | 6,319,101   | 6,493,119   |
|                       | Total revenue                                    | 11,110,443  | 9,997,909   |
|                       | Internal revenue including inter segment revenue | -4,791,342  | -3,504,790  |
| Other Asian countries | Operating profit (loss)                          | 54,200      | 14,420      |
|                       | Income tax expense                               | 16,685      | 17,848      |
|                       | Assets   | 4,931,596   | 4,572,967   |
|                       | External revenues                                | 5,055,373   | 3,011,980   |
|                       | Total revenue                                    | 6,054,727   | 3,988,693   |
| North America         | Internal revenue including inter segment revenue | -999,354    | -976,713    |
|                       | Operating profit (loss)                          | -123,017    | -14,596     |
|                       | Income tax expense                               | 17,910      | 19,355      |
|                       | Assets   | 7,778,814   | 6,910,001   |
|                       | External revenues                                | 2,199,418   | 1,720,895   |
| Other regions         | Total revenue                                    | 2,626,163   | 2,094,638   |
|                       | Internal revenue including inter segment revenue | -426,745    | -373,743    |
|                       | Operating profit (loss)                          | 59,840      | 81,351      |
|                       | Income tax expense                               | 22,480      | 25,676      |
|                       | Assets   | 1,627,366   | 1,294,404   |
|                       | External revenues                                | 3,671,700   | 2,764,577   |
|                       | Total revenue                                    | 4,660,356   | 3,443,778   |
|                       | Internal revenue including inter segment revenue | -988,656    | -679,201    |
|                       | Operating profit (loss)                          | 35,722      | -31,279     |
|                       | Income tax expense                               | 17,555      | 24,237      |
|                       | Assets   | 6,014,832   | 5,348,904   |
|                       |  |             | 5,460,333   |

\*Source: 2014 POSCO Annual Report (Financial Supervisory Service's DART)

## POSCO CODE OF CONDUCT

### I. Fundamental Principles

#### 1. Respect for Customers

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.

#### 2. Protection of Investors

We will maximize investors' values by realizing legitimate profits through transparent decision making and effective management activities.

#### 3. Happy Workplace

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.

#### 4. Win-Win Management

We will establish fair trade system based on mutual trust and build a corporate eco-system where interested parties co-exist and grow together.

#### 5. Environmental Management

We will establish an environmental management system, strengthen our ability to deal with environmental risks and implement environment-friendly management through open communication.

#### 6. Corporate Citizenship

We will contribute to the growth of the country and society by fulfilling our responsibilities and duties as a global corporate citizen.

#### 7. Human Rights Management

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.

#### 8. Ethics Management

As a global enterprise, we will nurture ethical corporate culture by performing management activities faithful to basic principles and complying with laws and ethics.

### II. Standard of Conduct

#### 1. Respect for Customers

- ① We will maximize customer satisfaction by respecting and being considerate of customers.
- ② We will create customer value through continuous innovations on our goods and services.
- ③ We will build customer trust by providing accurate information and protecting customer information.

#### 2. Protection of Investors

- ① We will increase corporate value by implementing continuous management innovation and growth strategies.
- ② We will respect shareholders' and investors' rights and the investment profits and timely provide necessary information.
- ③ We will respect shareholder's rights, legitimate demand and opinion.

#### 3. Happy Workplace

- ① We will provide a working environment where creativity is respected and one can fulfill one's potential.
- ② We will implement fair and equitable evaluation system and provide appropriate rewards for performance.
- ③ We will build a corporate culture of mutual respect through trust and open communication among the company, executives and employees.
- ④ We will provide employment terms corresponding to the international standards and the local regulations such that the employee and his family can maintain a happy life.

#### 4. Win-Win Management

- ① We will respect our business partners on equal footing and engage in fair dealings with them.
- ② We will grow together with our business partners by pursuing mutual interest and mutual development.
- ③ We will build a corporate eco-system with virtuous circle of win-win cooperation by providing proactive support to our business partners.

#### 5. Environmental Management

- ① We will establish an environmental management system based on international standards.
- ② We will observe environmental regulations and continue to improve environment taking into consideration the overall process including injection of raw materials, use of products and disposal of the same.
- ③ We will minimize discharge of pollutants by introducing clean production process and applying proper pollution prevention technology.
- ④ We will improve efficiency of eco-system by building resource-circulating society with effective use of natural resources and by-products.
- ⑤ We will reduce discharge of greenhouse gas by using clean energy and applying green technology.
- ⑥ We will pursue sustainability by disclosing the results of environmental management and maintaining transparency in management.

#### 6. Corporate Citizenship

- ① We will contribute to the mutual prosperity and development by fulfilling our responsibilities and duties in the community.
- ② We will pursue harmony by respecting the laws, culture and the values of the community.
- ③ We will launch diverse non-profit activities for the development of the community and actively participate in social service activities, such as volunteer works and disaster relief work.

#### 7. Human Rights Management

- ① We will respect human rights as fundamental rights of mankind, and support internationally recognized human rights standards.
- ② We will conduct due diligence to enable implementation of management system that respects human rights.
- ③ We will respect basic rights of employees guaranteed by international standards and local laws.
- ④ We will make a good faith effort to timely discuss and resolve human rights related complaints and problems raised against us.

#### 8. Ethics Management

- ① We will comply with international standards and the local laws concerning human rights, labor, environment, culture, and economy.
- ② We will not engage in any illegal activities with interested parties in connection with business.
- ③ Executives and employees should not obtain personal profits through the use of corporate assets or information.
- ④ We will pursue fair competition with competitors and honor fair transaction order.
- ⑤ We may limit transactions with companies engaged in illegal activities such as tax evasion, accounting fraud and pollution.



- ⑥ Executives and employees will not engage in any activities that might bring profits to specific political parties or social organizations via their positions or nature of the work in the company.
- ⑦ Executives and employees will not engage in any activities that may harm the reputation of the company.
- ⑧ We will continue to operate ?Foreign Corrupt Practices Act Guideline' to effectively comply with laws concerning the international anti-corruption laws, the details of which are set out separately.

### III. Practice Guidelines

#### 1. Creation of Customer Value and Building Trust

- 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.

#### 2. Duty of Good Faith and Fair Dealings Toward Investors

- 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.

#### 3. Employees and Executives' Work Life Balance

- 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.

#### 4. Building Win-Win Relations with Business Partners

##### 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.

#### 5. Protection of Environment and Preservation of Eco-system

##### 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.

## 6. Contribution to the Country and Society

### 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 and Respect for Human Rights

### 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, dis-

ability, 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.

## 8. Practice of Ethics and Compliance with Law

### 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.
- No one should demand or receive any money and other valuables from any interested parties<sup>1</sup> for whatever reason, except for a gift marked with a logo of the interested parties, or a gift generally provided to the participants in an event held by the interested parties.
- 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.
- Entertainment exceeding customary level should not be provided nor received. In the event that entertainment exceeding customary level was received or provided unavoidably, such activity should be reported to the compliance department. Nonetheless, entertainment at a venue where adult entertainment is offered is prohibited.
- Provision of entertainment exceeding customary level at the expense of the company or participation in the event where entertainment exceeding customary level is included will require prior approval of the head of the department.

### 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.
- The congratulatory or condolatory<sup>2)</sup> money to be provided to the employees shall not exceed KRW 50,000, which is considered customary level in the Korean society.
- In no event employees may receive any congratulatory or condolatory money from an interested party. In the event that any congrat-

ulatory 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 Request of Special Consideration for Job Related Matters
- One should not have his internal or external friends/acquaintances make special request for his promotion, appointment, or overseas working opportunities.
  - One should not make any job related request for his relatives or friends such as hiring, promotion and assignment of work.
- 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.
- 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.
  - One should legitimately obtain and use other company information including competitor's information.

## <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<sup>3)</sup> 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 contributed for accomplishing the objective of this Code.
- Company will sanction executives and employees who violated this Code in accordance with the relevant regulations.
- Company may restrict access of former executives and employees to the company whose employment was terminated due to violation of this Code.

#### ⑤ Operation of Ethics Management Committee

- Company may establish and operate an Ethics Management Committee for reporting, examination and resolution of important ethics matter. The guidelines therefor will be separately established.

#### ⑥ Interpretation

- If any of the family members, relatives, or acquaintances of executives or employees violates this Code while acting under the name of the executives or employees, such violation will be deemed violation of the executives and employees.
- Any questions regarding interpretation of this Code or matters not specifically set out herein will be directed to the compliance department for guideline.

#### ⑦ Amendment

- Compliance department may amend this Code as it deems necessary, provided that the amendment the head of the compliance department deems significant will require signature of the representative director.

1) Interested parties: Individuals, such as executives and employees, buyer, business partners, subsidiaries, outsourced partners, domestic and overseas public officials and other organizations whose rights or profits can be directly affected by employee's discharge of his or her duty.

2) Congratulatory or condolatory Money: The standard for appropriate amount of condolatory or congratulatory money may vary depending on the local community the business is located in and may be reasonably adjusted.

3) Relevant departments responsible: The department responsible for management, reporting and evaluation of the risks (categorized by 8 sectors) involved in effecting this Code.

## 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 Voluntary Employment

Every work shall be voluntary and employees can retire freely if there is a reasonable notification. Supplier can not 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 Prohibition of 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 Office Hours

Except for an urgent situation, suppliers shall follow office 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 Industrial 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 Toxic 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 Control 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 offend 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 mediation 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.

<2010. 5. 31, Established by the Bureau of Win-Win Growth>



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**Design** Reddot Branding

**Photographer** Ahn, Jong-Ik, Kim, Joong-Ho

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