Sustainability Report

# **About this Report**

The 2013 Sustainability Report (the Report) is the eleventh report that describes POSCO's efforts and accomplishments to be an admired company that grows together with the stakeholders.

With POSCO's business status and medium-to-long-term strategies, we report our achievements and activities related to our six major stakeholders – society, partners, investors, customers, employees and environment in an integrated manner. The Report based on this basic principle has the following features:

First, the Report includes both financial and non-financial data. POSCO and listed subsidiaries within the POSCO Family, or those having more than KRW 1 trillion is sales are included in the consolidated ESG data, which was verified by Samil PricewaterhouseCoopers.

Second, we report 'Key Issues' which have high ranks in the materiality test. The report also includes specific information on the issues selected from the materiality test in order to include detailed information that the stakeholders want to know.

Third, we gathered the opinions of internal and external stakeholders and reflected them in the materiality test before publishing this Report. Previously, there were some difficulties in reflecting stakeholders' opinions because they were gathered in the course of preparing the Report. For this Report, however, we listened to stakeholders' opinions from the planning stage and linked them to the materiality analysis process.

Fourth, we reported the cases of CSV (Creating Shared Value).'a management principle that seeks opportunity for business in solving social problems' We marked CSV cases separately within the contents describing POSCO's management activities.

POSCO Family means our unique management organization that shares the vision, brand, and corporate culture, which includes domestic and overseas subsidiaries

# **Reporting approach**

The 2013 Report is based on the GRI (Global Reporting Initiatives) G4 guideline, ISO 26000, UN Global Compact, and POSCO's unique report publishing process. The financial information reporting standards and definitions are based on the K-IFRS (Korean International Financial Reporting Standards

# Period of reporting

POSCO publishes the report annually. This Report contains information from January 1st, 2013 to December 31st, 2013. In some instances information up to April 2014 were included. The corporate governance section is based on the decisions made by the Board of Directors at the meeting held on March 14, 2014.

### Scope of reporting

The Report contains the sustainability activities and performances of Pohang Steelworks, Gwangyang Steelworks, Pohang headquarters and the Seoul office. The ESG data covers POSCO and nine POSCO subsidiaries that are listed in the stock exchange or have more than KRW 1 trillion in sales. Information on shareholders, investors, and new green growth businesses cover the whole POSCO subsidiary

# Independent assurance

Assurance on this Report was conducted by Samil PwC, an independent assurance institution, in order to assure stakeholders on the credibility of the major data and publishing process of the Report. Assurance was conducted in accordance with ISAE3000 and AA1000AS Type II. Results of the verification can be found in the Assurance Report.

# Feedback

This Report is published in Korean and English. We receive feedback from the stakeholders through various channels including the Internet, phone, and mail.

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Characteristics of the Reports> 2003 First report to have third-party verification / 2004 Introduced the GRI G2 Guideline / 2005 Performance of 4 subsidiaries were included / 2006 Introduced the GRI G3 Guideline / 2007 Introduced the materiality test, operated the review panel / 2008 Structured contents according to our management philosophy, reported performance of overseas branches / 2009 Established the sustainability management system / 2010 Included external expert's opinion, developed the mobile web / 2011 Published the financial and non-financial integrated report, applied the SPICEE principle / 2012 Achieved performance reporting online / 2013 Reported consolidated non-financial performance, reported CSV (Creating Shared Value) cases





















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# **MESSAGE FROM THE CEO**



We will grow together with all our stakeholders to be reborn as "POSCO the Great" that is loved by the people and admired by the world.

### Dear stakeholders,

POSCO has strived to become a company loved by the people and admired by the world, fulfilling our duties and obligations as a corporate citizen. The 2013 Report is a testimony of our economic, environmental and social efforts and achievements in creating value and growing together with the stakeholders. It also presents our future direction and goal.

POSCO has pursued meaningful activities in social contribution, shared growth programs, corporate value enhancement, value competition & quality management, human resources management, and environmental management. Our performances in 2013 are as follows.

With a view to playing our role as a responsible corporate citizen, we restructured our social contribution activities, putting emphasis on global talents, local community, environment, multicultural society, and cultural heritage. POSCO 1% Foundation was established to spread the culture of sharing throughout the POSCO Family. The Foundation will use the funds raised through the donations our executives and employees and the matching grants contributed by the company to actively carry out philanthropic projects.

In order to reinforce fair trade practice within our business, we have launched the WinC System to enhance inclusive growth among tier 1 and tier 2 partner companies, as well as operating thirty-seven shared growth programs including the Benefit Sharing Program, spearheading the move toward building a sound corporate ecosystem.

The company devotes to strengthening the value of share-holders and investors. Despite difficult business circumstances under a prolonged global recession and persistent slow growth in domestic economy, we pursued various activities including value competition, cost reduction, new businesses cultivation for future growth, and innovation of the business management system. As a result, our non-consolidated sales reached KRW 30.5 trillion with an operating profit of KRW 2.2 trillion, while our consolidated sales was KTW 61.9 trillion with an operating profit of KRW 3 trillion. To ensure our customer's

value competitiveness and capability to respond to the mar ket more effectively, we provide support for cost reduction, optimization of manufacturing process, and export assistance programs. In addition, we conduct a quality evaluation on the POSCO Family quality management, and operate the POSCO Supplier Quality Certification (POSQC) system for suppliers and subcontracting partners.

Based on the principle of respect for humanity, we provide support to employees to lead a happy and fulfilling life, and grow with the company. We built a global safety and health management system that the POSCO Family all over the world uses together, and we operate a healing coaching program to foster communication within the organization.

Meanwhile, we established a strategy to mitigate environmental risks, which involves strengthening our environmental risks management system and chemical substances control system. Moreover, in order to prevent environmental risks in the course of pursuing new businesses, we revised our investment regulation, compelling a mandatory review at the stage of planning, investnetment and construction by the environment department.

In recognition of our various efforts, we were named the world's most competitive steelmaker by the World Steel Dynamics (WSD) for four consecutive years, and were also chosen as one of the leaders in the Sustainable Asset Management-Dow Jones Sustainability Index (SAM-DJSI), a global sustainability index, for nine years.

We will continue to be committed to responding to our shareholders and investors with high corporate value for their trust in us; our customers, suppliers and partner companies with inclusive growth for their support; local community and citizens with honor for their encouragement. We ask for your continued support and interest in our efforts to become a company that is loved by the people and admired by the world.

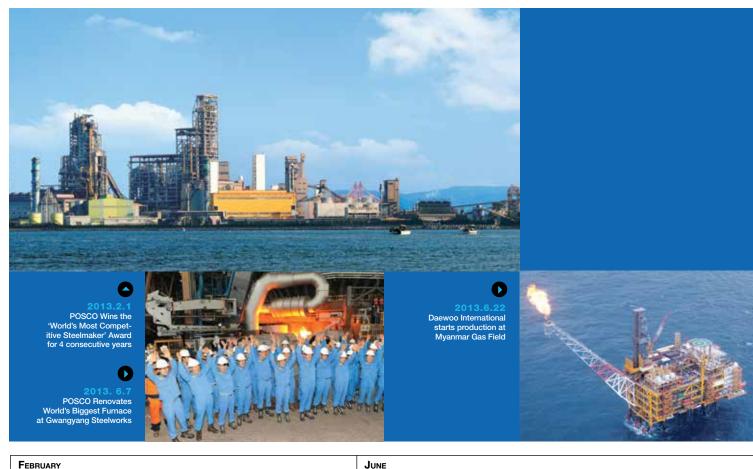
Thank you.

May 2014

CEO Kwon, Oh-joon

Olifon Kwon

# **POSCO 2013 HIGHLIGHTS**



FEBRUARY



# POSCO WINS THE 'WORLD'S MOST **COMPETITIVE STEELMAKER' AWARD FOR 4 CONSECUTIVE YEARS**

On February 1, POSCO was named "The World's Most Competitive Steelmaker" for the fourth time in a row. This was the result of the evaluation conducted by WSD (World Steel Dynamics) on 34 of the world's steelmakers in 23 categories including production capacity, profitability, and technology innovation. POSCO had held the top position from 2002 through 2004, then was surpassed by Russian and Indian steelmakers, but regained top spot again in 2010 after 6 years, and has hence remained no.1 for 4 consecutive years.



# **POSCO RENOVATES WORLD'S BIGGEST FURNACE AT GWANGYANG STEELWORKS**

On June 7, after 108 days of repair works, POSCO held the blow-in ceremony for Gwangyang Steelworks' No.1 blast furnace that was renovated as the world's largest blast furnace. After its third enhancement made in 2013, Furnace 1's volume now reaches 6,000, bigger than the previously world's largest furnace (5,800) built by Shagang Group in China. The Gwangyang blast furnace applies a new cooling system, a production technology involving oxygen enrichment, and reduces fuel consumption by using high-temperature reducing gas efficiently, achieving a cost effective and environmentally friendly process.



# **DAEWOO INTERNATIONAL** STARTS PRODUCTION AT **MYANMAR GAS FIELD**

On June 22, Daewoo International successfully began production at the Mya gas field, located in the northeastern sea of Myanmar. The Myanmar gas field project came in full swing when Daewoo International signed a PSC with the Myanmar Government. The gas produced was passed through the subsea pipeline, subsea production facility, and the production platform to check the gas production and treatment facility, and began selling to CNPC, a Chinese state-owned petroleum company from the gas selling location in Kyauk Phyu, west of Myanmar, since July 2013.



# **DECLARATION OF THE NEW ETHICAL MANAGEMENT PRINCIPLES**

Celebrating the 10th anniversary of the proclamation of POSCO's Code of Conducts, POSCO held a declaration ceremony for the New Ethical Management principle. The new principle, dubbed "Happiness Management" presents the vision "Let's Come Together to Build a Better World!" and its 3 core values future, common good, and win-win. In order to substantiate Happiness Management, POSCO declared that it will actively pursue overseas social contribution in collaboration with international cooperative groups and industry-academy cooperative institutions.









2013. 6.24
Pledging ceremony for ethics practice



2013.12.23 Integrated steel plant in Indonesia





SEPTEMBER

November

DECEMBER



# POSCO INCLUDED IN THE SUSTAIN-ABILITY INDEX FOR NINE CONSECU-TIVE YEARS

For the first time in the steel industry, POS-CO was included in the Sustainability Index by SAM-Dow Jones as a leading company for 9 consecutive years. Sam-Dow Jones selects 2,500 companies based on highest sales, who are evaluated and analyzed based on the three categories of economic profitability, environmental soundness, and social responsibility. The top 10% in each industry are selected and announced. In the 2013 evaluation, 31 steelmakers were evaluated, and POSCO received 77 points — 3 points higher than the previous year — and was selected as an outstanding company for the 9th consecutive year.



# FIRST EXPORT OF FINEX TECHNOLOGY

On September 22, POSCO signed an MOA with state-owned Chongqing Iron and Steel Company, to construct a FINEX integrated steel plant. POSCO and Chongqing will each invest 50% in the joint project to build the FINEX integrated steel plant with an annual capacity of 3 million tons. When the Chinese government ratifies the deal and Korean government approves the transfer of technology, we will start working on the formal contract.



# SHARING MOVEMENT SPREADS TO GENERAL EMPLOYEES / 1% FOUNDATION INAUGURATED

POSCO's 1% Foundation was officially inaugurated on November 18. The 1% Foundation was first started in October 2011, where executives and management-level personnel donated 1% of their salaries. POSCO and 26 POSCO Family companies participate in the campaign. The Foundation will implement sharing campaigns using the KRW 4 billion's worth fund raised through donations during 2013 and the company's matching grant.



# INTEGRATED STEEL PLANT IN INDONESIA BEGINS OPERATION

On December 23, POSCO held the blowing-in ceremony for the 3 million tons/year blast furnace in Cilegon, Indonesia.

Krakatau POSCO is a joint venture between POSCO and Indonesia's biggest steel maker PT Krakatau Steel, each investing a ratio of 7 to 3, respectively. The steel plant has iron, steel and thick plate production facilities. It is expected to produce 1.8 million tons of slab and 1.2 million tons of thick plates annually. Krakatau POSCO will secure the domestic sales network which can fetch higher prices than exporting the products, and plans to sell 1.5 million tons of slab and 600 thousand tons of thick plates in the Indonesian market during 2014.

# **POSCO KPI**

# **KEY PERFORMANCE DATA** (CONSOLIDATED)

# COMMUNICATION **CHANNEL**

### SOCIETY

- CSR Committee
- · Social contribution activities
- Pohang / Gwangyang Cooperation Team
- · Discussing regional issues
- POSCO News
- Corporate image survey
- NGO Day
- · Interview with sustainability management expert

# **P**ARTNER

- Suppliers
- Supplier Relationship Management (SRM)
- · Shared Growth Conference
- · Information Exchange Conference for SMEs
- · Subcontracting partners
- Department discussion meetings

# INVESTOR

- CEO Forum (annual)
- · Business briefing (quarterly)
- · Public announcement (website)
- · Face to face meeting (unscheduled)
- · Credit rating regular consultation

# **C**USTOMER

- Customer Relationship Management (CRM)
- · Customer satisfaction survey
- Joint research
  - (EVI: Early Vendor Involvement)
- · Exchange gatherings (unscheduled)

# **E**MPLOYEE

- · Labor-Management Council
- Young Board, Junior Board
- · PIRI (POSCO's in-house twitter)
- POSCO& (in-house blog)
- Employee Satisfaction Survey: Happiness index
- · Operation meeting

# ENVIRONMENT

- · Digital Environment Watch System
- Environmental Improvement Council (Gwangyang)
- Environmental Information System
- Iron & Steel Conference
- · Green School with POSCO
- Carbon Report



# 1. SOCIETY

The local community where POSCO's business is located is the base for growth, and win-win cooperation with the local community is essential for sustainable growth.

 Utilizing human and material resources of the local community

# 4. Customer

Customers are most important for POSCO's growth. When customers grow sustainably with POSCO's efforts for value creation, POSCO will grow sustainably too.

· Securing stable sales network, creating profits

# 2. PARTNER

The corporate ecosystem will become strong only when partners (suppliers and subcontractors) are healthy, and they always plays an important role in the long-term competitiveness of the

Securing stable source of supply, improvement of quality

# 5. EMPLOYEE

POSCO, which was founded in a country with scarce natural resources, considers human resources as the most precious resource and the fountain of competitiveness.

· Securing human resources, fostering employees' capabilities

# 3. Investor

Shareholders and investors are the owners of POSCO, providers of capital, and long-term partners.

Stable governance, increasing corporate value

# 6. Environment

Materials industry including the steel industry is an energy-intensive industry. Without consideration for the environment, sustainable growth would be impossible.

Securing competitiveness by identifying promising businesses in the environmental sector, reducing compliance costs

# Financial Performance<sup>1</sup>

KPI	Unit	2011	2012	2013
Crude Steel Production (consolidated)	1,000 tons	39,074	39,702	38,261
Sales	KRW 1 billion	68,939	63,604	61,865
Operating profit	KRW 1 billion	5,468	3,653	2,996
Operating margin	%	7.9	5.7	4.8
Assets	KRW 1 billion	78,409	79,266	84,455
Liabilities	KRW 1 billion	37,679	36,837	38,633
Liabilities-to-equity ratio	%	92.5	86.8	84.3
Equity	KRW 1 billion	40,730	42,429	45,822
ROE	%	9.4	5.7	3.1

<sup>1</sup> Financial data is reported on a consolidated basis

SOCIETY

- <sup>2</sup> Scope of non-financial data; total of 10 companies, that is, POSCO and 9 POSCO Family companies (listed companies & those with more than KRW 1 trillion in sales -Daewoo International, POSCO E&C, POSCO Specialty Steel, POSCO Energy, POSCO ICT, POSCO C&C, POSCO CHEMTECH, POSCO PLANTEC, POSCO M-TECH)
- $^{\rm 3}\,\text{Total}$  numbers of employees is the aggregate of the business reports of the 10 companies. There were 31,170 employees in 2011, 32,031 employees in 2012, and 32,207 employees in 2013.
- $^{\rm 4}$  Data from POSCO E&C excluded: in the construction sector the index is converted injury ratio instead of lost-time injury frequency rates, and related data can be found in POSCO E&C's Sustainability Report.

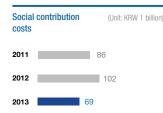
(http://www.poscoenc.com/service/sustain\_report.asp)

<sup>5</sup> Reporting scope for environmental data (energy usage, net waste volume, greenhouse gas emission volume, water usage): Daewoo International's data was gathered based on domestic operations

# Non-Financial Performance<sup>2</sup>









### Voluntary employee participation in volunteering activities

- Improved financial performance (enhanced productivity: better organizational culture, enhanced focus in work)
- · Decreased quit rate, increased happiness index (improved organizational culture)

### Social contribution and investment in local community

- Improved financial performance (social license: more favorable reception by local community)
- Improved financial performance (secured social infrastructure: secured human and material resources needed to proceed with the project)
- Increased employee happiness (improved corporate image)

# Research and development

- · Improved financial performance (secured potential profitability: identifying engine for growth, securing new markets)
- Improved financial performance (cost reduction: improvement in production and work process)

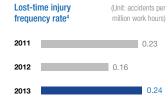












# Creating a happy workplace

- · Improved financial performance (improved productivity: enhanced drive and focus in work)
- Decreased quit rate (improved organizational culture and employee satisfaction)
- · Attraction of outstanding human talents

# Investment in education and training

- · Increased employee happiness, decreased guit rate (sense of belonging, self-improvement)
- Improved financial performance (improved productivity: improved employee capability, attracting and retaining of human talent)

# Decreased Turnover rate

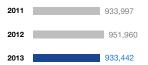
2013

- · Improved financial performance (improved productivity: enhanced ability to attract and retain human talent)
- Improved financial performance (cost reduction: costs required to recruit and cultivate new human resources)

### Reducing accidents and promoting safety behaviors

- Improved financial performance (improved productivity: protection of human resources)
- Improved financial performance (cost reduction: reduced legal (compliance) risks)
- Increased employee happiness
- (building a safe workplace)

### **Energy consumption** (Unit: TJ)



### Net waste volume (Unit: 1,000 tons) (Waste volume - recycled volume)



### Greenhouse gas (Unit: 1,000 tons CO<sub>2</sub>)



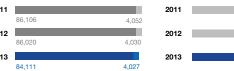
# Water consumption



147,437

146.814

146,747



# Reducing energy consumption

Improved financial performance (cost reduction: reduced energy costs)

# Reducing net waste volume

- Improved financial performance (increased profit: added-value creation through waste recycling)
- Improved financial performance (cost reduction reduced waste treatment costs)

# Reducing greenhouse gas emissions

Improved financial performance (cost reduction: responding to greenhouse gas emissions trading law)

# Reducing water consumption

Improved financial performance (cost reduction: reduced water costs and treatment costs)

# **ESG DATA**

# (POSCO ONLY)

Category		Unit	2011	2012	2013
Society					
Social contribution expenses <sup>1</sup>	Total	KRW 1 bn	69.7	91.9	49.9
	Donation	KRW 1 bn			9.5
	Investment in local community <sup>2</sup>	KRW 1 bn			36.
	Other (Commercial initiative) <sup>3</sup>	KRW 1 bn			4
Donation to charity <sup>4</sup>		KRW 1 bn	8	8	1
Smile Microcredit expenses	Raised amount (aggregate)	KRW 1 bn	10	15	20
	Loan amount	KRW 1 bn	6.7	7.3	6.9
Volunteering hours per person		hours	35	36	3
POSWITH – disadvantaged groups / number employed		persons	173/330	283/4665	191/369
POS Eco-housing – disadvantaged groups / number employed		persons	83/110		28/60
POSPLATE – disadvantaged groups / number employed		persons	99/189	106/190	97/184
Songdo SE – disadvantaged groups / number employed		persons	151/164	246/272	124/138
Sisterhood ties		Number	249	240	245
Corporate tax expenses		KRW 1 bn	877	623	400
Partner					
Subsidiaries' implementation of Compliance Program <sup>6</sup>		No. of companies	21(19)	25(22)	34(30
Compensation under Benefit Sharing in purchasing cooperation		KRW 100 M	826	1,328	536
Private-public joint R&D fund		Cases	6	15	15
Techno Partnership technology consultation		Times	1,096	1,057	595
POSCO Certified Partners		Number	42	39	4
Purchasing cost	Raw materials	KRW 1 bn	25,393	22,176	17,578
	Materials	KRW 1 bn	1,944	1,914	1,800
	Subcontracting fees	KRW 1 bn	1,944	1,997	2,079
	(Ratio to sales)	%	74.8	76.7	70.0
Investor <sup>7</sup>					
Crude steel production		1,000 tons	37,325	37,986	36,416
Sales		KRW 1 bn	39,172	35,665	30,544
Operating profit		KRW 1 bn	4,330	2,790	2,215
Net profit		KRW 1 bn	3,189	2,500	1,583
Operating margin		%	11.1	7.8	7.3
ROE		%	8.9	6.5	3.9
Assets		KRW 1 bn	52,728	52,320	54,242
Equity		KRW 1 bn	37,598	39,165	42,31
Liabilities-to-equity ratio		%	40.2	33.6	28.2
Total cash dividends paid		KRW 1 bn	772	618	633
Cash dividends per share		KRW	10,000	8,000	8,000
	(Interim dividend per share)	KRW	(2,500)	(2,000)	(2,000
Earnings per share		KRW	41,279	32,359	20,052
Payout ratio		%	24.2	24.7	40.0
Customer					
Customer satisfaction (domestic)		%	91	88	88
Customer satisfaction (overseas)		%	81	81	79
Number of eco-friendly products developed		Number	19	37	30
Sales volume by products	Hot-rolled steel	Tons	18,661	18,757	17,516
	Cold-rolled steel	Tons	14,041	14,479	14,643
	Stainless steel	Tons	1,791	1,812	1,770

Category		Unit	2011	2012	2013
Employee					
Happiness index		Points	79	82	82
Number of employees		Persons	17,553	17,623	17,823
Number of new hires		Persons	992	818	873
Retired employees		Persons	496	1,029	520
Retired employees who reached retirement age		Persons	1	654	0
Turnover		%	2.94	5.85	2.91
Continuous service		Years	18.5	18	18.5
Female employees		Persons	625	702	778
Female employees in manager position or higher		Persons	105	146	166
Employees with disabilities (POSCO)		Persons	253	254	255
Employees with disability (POS With)		Persons	192	220	230
Employees who used maternity leave		Persons	15	56	55
Return rate after maternity leave		%	100	100	100
Employees who used parental leave		Persons	22	61	77
Return rate after parental leave		%	100	100	100
Number of employees trained		Persons	530,086	432,859	523,184
Training hours per capita		Hours	252	234	205
Training costs per capita		KRW 10 thousand	145	101	80
Trainee satisfaction		Points	4.47	4.48	4.62
Number of accidents (POSCO)		Cases	12	3	10
Number of fatalities (POSCO)		Persons	0	1	1
Number of accidents outsourcing		Cases	6	4	4
Number of fatalities outsourcing		Persons	0	1	1
Lost-time injury frequency rate (POSCO)	Accider	nts per million work hours	0.33	0.08	0.26
Lost-time injury frequency rate outsourcing	Accider	nts per million work hours	0.15	0.1	0.1
(Total lost-time injury frequency rate)	Accider	nts per million work hours	0.23	0.09	0.18
Cost of labor	Payroll	KRW 1 bn	1,277	1,367	1,401
	Provisions for retirement benefits	KRW 1 bn	144	120	135
	Legal welfare expense	KRW 1 bn	100	104	90
Pension subsidies	National pension (paid by company)	KRW 1 bn	33.3	35.1	36.5
	Personal pension subsidy	KRW 1 bn	9.1	9.1	9.7
	Number of pension beneficiaries	Persons	13,970	14,317	14,736
Intra-company labor welfare fund		KRW 1 bn	62	59	58
Contribution total		KRW 1 bn	757.2	816.3	873.9
Environment <sup>8</sup>					
Byproduct recycling rate		%	98.4	98.4	98.3
Recycled byproduct		10 K tons	2,666	2,358	2,171
Water intake for operations		m³/t-s	3.63	3.56	3.71
Effluents		m³/t-s	1.60	1.69	1.61
Energy usage			805,355	798,111	776,115
CO <sub>2</sub> emissions per tons of steel produced (direct)		t-CO <sub>2</sub> / t-s	2	1.94	1.94
CO <sub>2</sub> emissions per tons of steel produced (indirect)		t-CO <sub>2</sub> / t-s	0.10	0.09	0.11
	Air	KRW 1 bn	395	480	139
Environmental lability investment	Water	KRW 1 bn	53	102	65
	Recycling and others	KRW 1 bn	35	53	90
Environmental costs	Environmental facilities operation cost	KRW 1 bn	285	361	394
2 S.infontai oodd	Recycling cost	KRW 1 bil	225	240	230
	Depreciation	KRW 1 bil	117	146	150
	Administrative cost	KRW 1 bil	31	35	35
	Administrative cost Environmental R&D cost	KRW 1 bn	12	13	17
			31		33
	Energy recovery cost	KRW 1 bn		34	
	Total	KRW 1 bn	701	829	859

<sup>&</sup>lt;sup>1</sup> The social contribution expenses are categorized into social welfare, human talent cultivation, and volunteering, according to the standard suggested by the Federation of Korean Industries (http://www.fki. or.kr). Since 2013, donation, investment in local community, and other (commercial initiative) have been added to the categories.

 $<sup>^{\</sup>rm 2}$  Investment in local community is different from the local community concept of our 5 major social contribution areas.

contribution areas.

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

<sup>-</sup> Local community in the 5 major areas: Expenses for the implementation of social contribution programs under "Local Community," which is one of the 5 areas of social contribution

<sup>&</sup>lt;sup>3</sup> Commercial initiative: Social contribution expenses for advertisements

 $<sup>^{\</sup>rm 4}$  Applies to POSCO only. Charity donation of the POSCO Family as a whole amounts to KRW 10 billion. Past figures have been revised.

 $<sup>^{\</sup>rm 6}$  POSWITH and POS Eco-housing have been merged to POSCO HUMANS. The decreased number reflects the merger.

<sup>&</sup>lt;sup>6</sup> Figures within parentheses are the decreased number due to the merger.

<sup>&</sup>lt;sup>7</sup> Financial data for POSCO only

<sup>8</sup> Environmental Data for POSCO only

# **BOARD OF DIRECTOR**

# **Outside Directors**















# Lee, Chang-hee (Chair)

- · Professor of Law at Seoul National University
- · Vice Chairman at the Tax Law Association Seoul National University School of Law, Harvard International Law School/LL.M.,

# Kim, II-Sup

- President of Seoul School of Integrated Sciences & Technologies
- Former President of Deloitte Anjin LLC
- Former Vice President of Samil PricewaterhouseCoopers

Seoul National University Business School/B.A., Master, PhD

# 2 James B.Bemowski

6 Sunwoo, Young

Senior Partner at

Former Director of Seoul

Eastern District Prosecutor's

Former Director of Cheongju

District Prosecutor's Office

Seoul National University School of Law

Rhi & Partners

- Vice Chairman, Doosan Co., Ltd.
- Former Sr. Vice President of Southern Bank Berhad, Malaysia Former Country Head of
- McKinsey & Company Korea B.A. in Economics at McKenna College,

MBA at Harvard Business School

- Former CEO and President of LG CNS
- · Former Chairman of Logos Systems

3 Shin, Chae-Chol

 Former CEO of IBM Korea B.A. in Electrical Engineering at Seoul National University

# 7 Ahn, Dong-Hyun

- professor at Seoul National University,
- Former Head of Scotland
- Former professor at North Carolina State University Korea University Business School,

- Department of Economics
- Quant Strategy, Royal Bank of
- NYU Business/PhD

# 4 Lee, Myung-Woo

- · CEO and President of Dongwon Industries
- Special Duty Professor of Business Administration at Hanyang University
- · Former CEO of SONY Korea

B.A. in Philosophy at Seoul National University, MBA at University of Pennsylvania OVERVIEW INVESTOR CUSTOMER ENVIRONMENT PARTNER EMPLOYEE CSR MANAGEMENT SOCIETY

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 BOD consists of directo inside directors and seven independent outside 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 absentee voting 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 In 2006 the CEO position was separated from the Board's chairmanship in order to secure the independence of the BOD and its audit function. 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 BOD and Expert Committee Activity Evaluation System was introduced to enhance external credibility, and announced the Outside Director Code of Ethics to ensure responsible and transparent activities of outside directors. In 2011, the operating rules of the Director Candidate Recommendation Committee were established for transparent operation, 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.

# **Inside Directors**











# 1 Kwon, Oh-Joon

- CEO of POSCO
- · Former President of POSCO
- Former CEO of Research Institute of Industrial Science & Technology (RIST) Seoul National University Metal Engineering, University of Windsor Materials Engineering/Master University of

Pittsburgh Materials Science and Engineering/PhD

# 2 Kim, Jin-II

- President of POSCO (Head of Steel Production Division)
- Former CEO of POSCO CHEMTECH Seoul National University Metal Engineering

# 3 Jang, In-Hwan

- Senior Executive Vice President of POSCO (Head of Steel Business Division)
- · Former CEO of POSCO P&S Korea University Metal Engineering

# 4 Yoon, Dong-Jun

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

# 5 Lee, Young-Hoon

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

# **O** INTERVIEW

+ President KIM, JIN-IL (Head of Steel Production Division)

POSCO's quality management goes beyond customer satisfaction, and strives to identify and develop our customers' needs. We are taking one step further from product sales to providing a total solution. In addition, we provide innovation and safety training to subcontracting companies that operate production facilities, enhancing the overall level of quality, innovation, and safety. We will put our efforts into fostering the growth not only of POSCO, but also the corporate ecosystem as a whole.

Senior Executive Vice President YOON, DONG-JUN (Head of Management Infrastructure Division)

With a view to achieving POSCO's new vision, our plan is to focus on providing timely and quick support to those divisions directly related to profit-making such as production, sales and investment, by strengthening human capabilities, processes and systems. More specifically, we will directly contribute to maximizing profitability by enhancing the competitiveness of labor, purchasing, and IT infrastructure Moreover, we will maintain the culture of labor-management harmony and build a cheerful and motivating organizational culture Externally, we will further strengthen our image as an admired and loved company through active PR.

Senior Executive Vice President JANG, IN-HWAN (Head of Steel Business Division)

In dire business conditions where many of our customers are facing difficulties due to a prolonged recession in the steel industry, we believe that it is important to foster shared growth within the steel industry, based on the image as a premium steelmaker by securing premium in products, solutions and people. In order to achieve this goal, we are concentrating promotion activities on our strategic products that target the 7 most profitable businesses. We also try to strengthen to build a healthier steel industry ecosystem by utilizing POSCO's technology, network, and capabilities to foster shared growth.

Senior Executive Vice President LEE, YOUNG-HOON (Head of Finance and Investment Division)

As POSCO Family's overseas business continues to expand, we are deeply contemplating on how to be a company that is loved overseas. The important factor is earning the trust of the local community where we are operating. Through continuous communication, POSCO strives to build a lasting relationship of trust instead of short-term profits. In addition, while the climate change issue is a major risk factor for the steel industry, we recognize it can also present strategic opportunities to enhance our competitiveness. We established shortand-long-term strategies to minimize management risks and redirect them into a positive opportunity.

19 2013 POSCO REPORT

# CORPORATE GOVERNANCE

# **Board Composition**

Executive director candidates recommended by the company are screened by the Director Candidate Recommendation Committee, which recommends the final candidates to the general shareholders' meeting for appointment decision. In Board nomination process, the Outside Director Candidate Recommendation Advisory Group are comprised of 5 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 general shareholders' meeting where the final decision is made on whether to appoint them.

At the 46<sup>th</sup> general shareholders' meeting on Mar. 14, 2014, Kim, Il-Sup, president of Seoul School of Integrated Sciences & Technologies, Sunwoo, Young, representative Lawyer, Rhi & Partners, and Ahn, Dong-Hyun, professor of economics at Seoul National University were elected as new outside directors. As for inside directors, President Kim, Jin-II, Senior Executive Vice President Yoon, Dong-Jun, and Senior Executive Vice President Lee, Young-Hoon were newly appointed. Outside Director Lee, Chang-Hee was elected as chair at the BOD meeting that followed suit. During 2013, the POSCO BOD meeting was held 8 times, and the attendance was 100% for inside directors and 98% for outside directors. Major

MAJOR ROLES AND COMPOSITION OF EXPERT COMMITTEES

# Director Candidate Recommendation Committee

(3 outside directors, 1 inside director, chairman Lee, Myoung-Woo)

Meetings held in 2013: 4 times
Major reviews/decisions: Screen inside director
candidates, appoint members of the expert committee,
appoint title of inside directors

# Finance and Management Committee

(3 outside directors, 2 inside directors, chairman Shin, Chae-Chol)

Meetings held in 2013: 6 times
Major reviews/decisions: Investment plans for securing
aluminum-ferrosilicon (FeSiAI) in central Asia, capital
increase for Roy Hill project and stock collateral plans

# Internal Transactions Committee

(3 outside directors, chairman Kim, II-Sup)

Meetings held in 2013: 5 times Major reviews/decisions: Contribution to POSCO Educational Foundation, participation in the capital increase by POSCO Plantec

# Evaluation and Compensation Committee

(4 outside directors, chairman Shin, Chae-Chol)

Meetings held in 2013: once Major reviews/decisions: Assessment of 2012 business performance, improving long-term incentive system

# Audit Committee

(3 outside directors, chairman Kim, II-Sup)

Meetings held in 2013: 7 times
Major reviews/decisions: Operation status of internal
transaction management system in 2012, review of the
45th account audit results

# Management Committee

(5 inside directors, chairman Kwon, Oh-Joon

Meetings held in 2013: 13 times
Major reviews/decisions: Selling of treasury stocks
linked to awards, plans for joint establishment of STS
processing center in Europe, increasing investment
amount for POSPIA.3.0 project

The members and chairs of the expert committees are as of March 14, 2014.

agendas decided at the 2013 meeting were: 2014 management plans, merger plan between Sungjin Geotec and POSCO PLANTEC, establishment of the POSCO 1% Foundation and raising the funds for matching grant end-of-year charity donations.

# **Expert Committees**

There are 6 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 5 expert committees are chaired by outside directors. The Audit Committee, Evaluation & Compensation Committee, and Internal Transactions Committee are comprised solely of outside directors to ensure independent decision-making.

# **DIRECTORS' REMUNERATION**

(Unit: KRW 1 billion)

Remuneration limit

7

Total amount paid

6.2

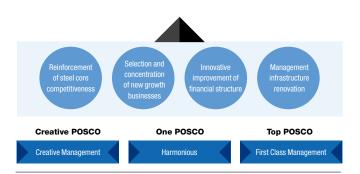
# BOD KEY AGENDAS

Feb. 7	Approval of the 45th Business Report and financial statements, gathering of the general shareholders' meeting
	Plans for selling treasury stocks linked to awards (draft)
Feb. 28	Candidate recommendation for inside directors, etc.
	Bringing up agendas for the 45th general shareholders' meeting
Mar. 22	Appointment of the chair of the Board of Directors
	Appointment of expert committee members
	Appointment of the CEO and designation of the inside director title
May 10	Sungjin Geotec and POSCO PLANTEC merger plan (draft)
	Change of business structure of the Gwangyang SNG project (draft)
	SME financial stability support fund investment (draft)
	Financing plan for second quarter of 2013
	Extension of contract term of treasury stocks money trust
	Changing DR (Depository Receipt) custodian (draft)
	Contribution to POSCO Education Foundation
Aug. 8	Capital increase of PT Krakatau Indonesia and payment guarantee plan
	Financing plan for second half-year of 2013
	Interim dividend payment plan for fiscal year 2013 (draft)
	Establishment of 1% Foundation, contribution to matching grant fund
Nov. 8	Financing and payment guarantee for the construction of CGL
	(continuous galvanizing line) facility in Thailand
	Mutual equity investment with Yodogawa Steel Works for a strategic partnership
Nov. 25	Installation and operation of the Succession Council (draft)
Dec. 20	Management plans for 2014
	Participation of POSCO PLANTEC's capital increase (draft)
	Contribution to the in-company welfare fund
	Contribution to the end-of-year charity donation

# **VISION**

# **POSCO the Great**

# The Most Respected & Beloved Company Globally



When the boom originating from China in the 2000s ended, the world's steel industry has been faced with rapidly shrinking demand and oversupply, resulting in slowed growth of the whole industry. POSCO has overcome these difficulties by undertaking various strategies. As a result, we received positive reviews from global institutions. POSCO was named the most competitive steelmaker for 4 consecutive years, was the most respected metals company chosen by Fortune, one of the leading companies in the SAM-Dow Jones Sustainability Index for 9 consecutive years, and one of the top 100 groups in the World Economic Forum. However, internally, various indices were going down. Our profit rates were decreasing, our market value went down, and our stock prices shrunk as well.

In this point in time we declared the vision "POSCO the Great" as a means to enhance the positive achievements and overcome crises, in order to recreate the great POSCO. The 3 basic management principles that is the foundation of the vision "POSCO the Great" are Creative POSCO, One POSCO, and Top POSCO.

First, Creative POSCO means we will create new value through a new way of thinking, where creative ideas that break the existing box of ordinary thinking become very important. Based on such creative thinking we will provide service that is one step ahead to satisfy our customers' needs. This is POSCO's creative management. One POSCO emphasizes sharing value, striving for the company's advancement based on a startup spirit, and shares growth among customers, suppliers, the country, and society. The spirit of One POSCO will bring all constituents together with a common goal and a consensus on the direction of change; it will help us

recognize each other as colleagues to achieve the set goals; and all organizations and their constituents will unite to move toward the goal. The vision of Top POSCO means where in the past our goal and task was to follow the advanced technologies, now it is time to develop products and technologies before anyone else, and secure core competence that surpasses our competitors. Pursuing customers' success based on the best capability and confidence is what is meant by Top POSCO.

In order to realize this vision we must implement 4 innovation agendas in the "Innovation POSCO 1.0" that is founded upon the 3 management principles mentioned above. The 4 agendas are: reinforcement of our core business of steelmaking, selection and concentration of new growth businesses, innovative improvement of financial structure, and renovation of management infrastructure.

Reinforcement of our core business of steelmaking means we will innovate the process of value creation, innovate cost and quality, and innovate the industry structure and global operations. Specially, we will strengthen marketing for our technology-based solutions to differentiate ourselves and provide the products that our customers need. Second, we will reorganize the existing new businesses to select and concentrate our resources. We will reevaluate to see if the market is attractive and we have technological competitiveness, whether there is a barrier for entry, and whether they can bring out POSCO's unique strengths such as materials and energy.

Furthermore, innovative improvement of our financial structure is closely related to securing profitability by enhancing competitiveness of our steel business. In terms of financial structure, we will decrease debts from our equity holdings by expanding non-debt financing and increasing subsidiaries' capital, and enhance efficiency of the group's management system. Last but not least, we will innovate the management structure to renew the work process and establish a consensus for the current situation. We will create results centering on projects and experts, and project team leaders will have more responsibility and say in the course of executing the projects. Above all, we will motivate the creation of new ideas by providing big rewards for the results achieved through a project.

Through our management ideology and core agendas we will build the foundation for realizing our vision. We will increase our corporate value, recover our credit rating and secure the engine for mega-growth, becoming "POSCO the Great" that is loved and respected by the citizens both inside and outside of our borders.

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# **PERFORMANCES**

# PERFORMANCES IN 2013 PLANS FOR 2014

The global economic recession continues due to China's slower growth rate, the U.S. QE tapering and lagging investments in emerging countries. The Korean economy continues its sluggish trend due to slower growth in exports and decreased consumer buying power caused by increased household debts.

Despite these circumstances POSCO undertook various activities in value competition, cost reduction, nurturing future growth businesses, and innovation of the management system. As a result, POSCO's non-consolidated revenue recorded KRW 30,544 billion with operating profit of KRW 2,215 billion. On a consolidated basis, revenue recorded KRW 61,865 billion and operating profit of KRW 2,996 billion.

The assets on a consolidated basis is KRW 84,455 billion, and liabilities recorded KRW 38,633 billion due to increased borrowings for the full-swing project of the integrated steel mill in Indonesia.

# STEEL SECTOR

**POSCO** produces hot rolled steel, cold rolled steel, and other types of steel at the Pohang Steelworks and Gwangyang Steelworks(the world's largest single establishment). POSCO Specialty Steel produces and sells stainless steel,wire rods and bars, while POSCO C&C specializes in coated steel. We also own Zhangjiagang Stainless Steel in China and overseas processing centers as affiliates.

The consolidated crude steel production in 2013 was 38.26 million tons. POSCO(non-consolidated) produced KRW 36.42 million tons, a decreased by 1.57 million tons due to revamping of Gwangyang No.1 blast furnace. POSCO Specialty Steel produced 740 thousand tons, and Zhangjiagang Stainless Steel 1.1 million tons. POSCO's non-consolidated product sales volume decreased by 1.12 million tons at 33.93 million tons due to a downturn in the steel market, and the export ratio was 42.8%. POSCO's key performances in 2013 are as follows.

# POSCO GROUP'S CONSOLIDATED FINANCIAL STRUCTURE



# ESTABLISHED OVERSEAS PRODUCTION AND SALES NETWORK



Service Center
-------------------

Region		Dundwation Connector	
negion		Production Capacity	
Southeast Asia Indonesia		Plate and slab	3,000
Malaysia		Galvanized steel	180
-	Vietnam	Cold rolled etc.	1,400
South Asia	India	Automotive and electrical steel	750
Northeast Asia	China	Automotive and cold rolled steel	780
The Americas	Mexico	Automotive steel	900
total			7,010

Based on carbon steel

**Production Capacity** 

Integrated steel mill (3,000)

Region	Production Plant
China	15
Japan	6
Southeast Asia	11
India	6
Europe	2
The Americas	6
12 countries	46 plants

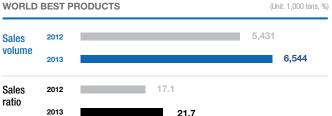
First, we nurtured and reorganized our future growth businesses toward our goal to become a "steel and comprehensive materials company."

POSCO renewed the Gwangyang No.1 blast furnace to the world's largest (inner volume of 6,000m³) with our own independent technology, and Pohang No.3 FINEX plant and No. 4 wire rod plant were completed, setting the cornerstone for future growth. We completed construction of the integrated steel mill in Indonesia, the first in Southeast Asia, with an annual production capacity of 3 million tons. We proceeded with close-contact investments within the regions expected to have high growth rates, such as the automotive steel plants in China; the electrical steel sheet and automotive steel sheet plants in India; and the stainless steel cold rolling plant in Turkey.

Second, we improved our financial structure through value competition, cost reduction and non-debt financing.

POSCO improved the logistics process to reduce costs for the customer companies, suggested new product development, and provided services to increase exports of small and medium-sized customers. We increased the sales ratio of our "World First" and "World Best" products, for which we own proprietary competiveness, to 21.7%. In addition, although selling prices continued to drop, we reduced cash costs amounting to KRW 700 billion through extreme cost reduction efforts.

SALES VOLUME AND RATIO OF WORLD FIRST,



Third, we made great efforts in innovating management system for global control, and cultivating POSCO-style human talent.

In order to react towards uncertain business circumstances, we made changes to the way we work by implementing POSPIA 3.0, software innovation and convergent advanced system.

Fourth, we strive to be "POSCO Family" that brings hope and vitality to our stakeholders through open communication and sharing.

POSCO declared the new ethical management comprised of "future, common good, and win-win" as our vision for "Happiness Management." We are continuing the Benefit Sharing program that supports partner companies to enhance their technological capabilities and creates the opportunity for benefit compensation. In addition, we expanded the 1% Sharing movement to 26 companies within the POSCO Family to fulfill our social responsibilities.

In recognition of these efforts, WSD (World Steel Dynamics) named POSCO the world's most competitive steelmaker, included as one of the leading corporations in the SAM-DJSI for 9 years in a row, consolidating our reputation as a leading global steel company.

Major subsidiaries' performances for 2013 are as follows.

**POSCO Specialty Steel** completed the 2<sup>nd</sup> phase of rationalization project in May 2013, and is now preparing for a second takeoff by operating its new facilities. Moreover, the Vietnamese local subsidiary POSCO SS-VINA started constructing an electric arc furnace with an annual capacity of 1 million tons, which is to be completed by 2H 2014. It seeks to meet rising construction demand in Vietnam by producing steel bars and long products for an early market dominance.

In 2013 POSCO Specialty Steel organized an emergency management taskforce to implement intensive activities to secure marketing competitiveness. We expanded exports to leap forward as the global maker, strengthened the supply chain to develop new demand, and put our efforts into substituting imported materials to increase our market share. In addition, we established a direct relationship with key customer companies who purchase automotive steel bars and energy steel. We improved our sales mix and identified 60 projects for intensive cost reduction, quality improvement and steel product development. As a result, we sold 618 thousand tons of steel products, and recorded KRW 1,316.8 billion in sales and KRW 44.5 billion in operating profit.

**POSCO C&C** is putting efforts to enhance the competitiveness of our core business in making galvanized steel sheet, aluminized steel sheet, and color steel plate used in automobiles, home appliances and construction material. Moreover, it is raising its market share at home and abroad by enhancing the product mix to focus more on high value-added non carbon steel surface treatment business including aluminum, stainless material, such as AL-STS, which is developed with our original technology, and thick aluminum steel plate as well as the world's finest aluminized steel sheet. Revenue in 2013 recorded KRW 821.2 billion, with an operating profit of KRW 2.6 billion.

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# **PERFOMANCES**

# PERFORMANCES IN 2013 PLANS FOR 2014

# TRADE SECTOR

Daewoo International Corporation, POSCO's major trading company, consists of 3 divisions; trade division that deals with import and export transactions of steel/metal, chemical/petro-leum products, machinery/transportation equipment, agricultural/ livestock products and also overseas projects such as building overseas plants and infrastructure; resource development division that develops energy/minerals and food resources; and the domestic and international manufacturing and distribution division. Among the businesses, trade accounts for a substantial proportion of sales/profit, but the resources development division is increasing its proportion as resources development projects are beginning to show results. The company has recorded revenue of KRW 16,601.4 billion and operating profit of KRW 139 billion in 2013.

Exports (including cross trade) accounted for 94.9% of Daewoo International's revenue in 2013. Asia accounted for 61.2% of that export (including 21.4% to China), and 8.5% to North America and 30.3% to other regions. Export portion by product was: steel/non-ferrous metals 58.2%, chemicals/commodities 26.7%, automotive components 13.0%, minerals/energy 0.7%, and electronics/other 1.4%. We successfully developed the Myanmar gas field and began production since June 2013, and acquired equity in the tight oil acreage in Canada, making a leap toward specializing in resource development company.

# MYANMAR GAS FIELD PROJECT

- Daily average production and sales volume: 200 million ft<sup>3</sup> (as of end of 2013)
- Accumulated gas sales volume: 16.4 billion ft³ (as of Feb. 2014)
- Gas sales: KRW 47.1 billion (Nov. ~ Dec. 2013)



# CONSTRUCTION SECTOR

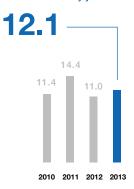
POSCO's top construction company **POSCO E&C** is expanding its horizons in civil engineering, construction, energy, and urban development, based on its prior experience in building POSCO's steel mills. At the same time, POSCO E&C is expanding to low carbon green growth businesses through its renewable energy and urban regeneration projects.

In 2013, the accumulated domestic orders received amounted to KRW 6.2 trillion, and that of overseas orders KRW 5.9 trillion, amounting to a total of KRW 12.1 trillion. Domestic construction's performance remained low until the third quarter, but new orders were won in the fourth quarter - KRW 400 billion in the public sector and KRW 500 billion in own projects – which amounts to KRW 2.8 trillion. In overseas construction, we won orders for a CSS rolling plant in Brazil and a cement plant in East Timor which sums up to KRW 5.9 trillion. As overseas market conditions are worsening due to heightened competition and decreased profitability, we are refraining from imprudent order receipt and aiming for stable growth by conducting thorough profitability review.

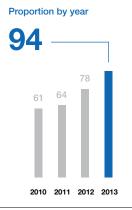
Despite a downturn in the domestic construction industry, we actively expanded to overseas markets such as Vietnam, Mongolia and Australia, increasing our non-POSCO group order proportion to 94%. We achieved more than our target for external orders, securing our position as the third largest domestic order receiver and largest for domestic civil engineering and environmental turnkey projects.

# NON-POSCO GROUP ORDER PROPORTION

(Unit: KRW 1 trillion, %)



Orders received by year



OVERVIEW CSR MANAGEMENT INVESTOR CUSTOMER ENVIRONMENT PARTNER EMPLOYEE SOCIETY

# **ENERGY SECTOR**

POSCO ENERGY started out in 1969 as Kyung-In Energy, the first independent power company in Korea, and provided a stable supply of electricity to the public. In 2005, it became part of the POSCO Family. In 2011, POSCO Energy completed the construction of the Incheon LNG Combined Cycle Power generator No. 5 and No. 6 and successfully operated the Gwangyang Off-Gas Power Plant, thereby becoming the largest private power company in Korea. Since 2007, POSCO Energy has been spearheading the production and supply of fuel cell that is an eco-friendly, and pursued renewable energy businesses, such as off-gas power generation, solar and wind power generation in both domestic and overseas markets. In February 2012, the company name was changed to POSCO Energy, and is preparing to take a leap forward to become a global energy provider.

In 2013, POSCO Energy commenced commercial operation of the Pohang Off-gas Combined Power generator No. 1, picked up speed in the fuel cell sales, and completed the Shinan Solar (Photovoltaic) Power Complex and Busan Waste Treatment and Power Generation Facility. This enhanced profitability owing to high-efficiency power generation and secured POSCO Energy's position as an eco-friendly energy provider.

# **EXPANSION OF POWER GENERATION FACILITIES**

As of end of 2013

Project Name	Capacity (MW)	Construction Process *	Commercial Operation
Pohang Off-gas			
Unit No. 1	145	- 96.9%	2013.9
Unit No. 2	145	90.970	2014.2
Incheon LNG Combined Cycle			
Unit No. 7	420		2014.7
Unit No. 8	420	79.1%	2014.11
Unit No. 9	420		2015.1
Indonesia Off-gas			
Unit No. 1	100	00.00/	2014.2
Unit No. 2	100	99.9%	2014.4

# ICT SECTOR

POSCO ICT has secured self-engineering capacity in all EIC (Electronic Instrument Compute) sectors by integrating IT and engineering technology and actively supported overseas POSCO steel mill construction projects while creating synergy business by establishing cooperative ties with subsidiaries. POSCO ICT is also developing solution business platforms in cooperation with global companies and strengthening its foothold through various attempts in sectors like nuclear energy, cloud computing, and green and renewable energy.

Despite low-growth business conditions due to market uncertainties and economic recession, POSCO ICT achieved the highest performance since its establishment, recording revenue of KRW 1,050.7 billion and operating profit of KRW 71.6 billion. POSCO ICT also further strengthened the foundation for future growth through capital increase.

# MATERIALS SECTOR

POSCO CHEMTECH is a comprehensive materials company with an integrated system from refractory production through to construction, growing rapidly to become not only domestic but also the global leader. POSCO ChemTech is diversifying its business areas by establishing joint ventures PosCalcium (December 2009) and PosGreen (July 2010), and jumping into the chemical industry such as needle coke and isotropic graphite blocks, while establishing an overseas subsidiary in tandem with the construction of the POSCO steel mill in Indonesia. In 2013, POSCO ChemTech recorded revenue of KRW 1,280.6 billion with an operating profit of KRW 76.8 billion.

**POSCO M-TECH** specializes in the supply of steel supplementary materials (aluminum deoxidizer, molybdenum) and the packing of steel products. Tapping into our accumulated technological capabilities, we are looking to enter the materials business sector such as non-ferrous metal smelting and ferroalloys to heighten synergy with the steel industry.

# **MATERIAL ISSUES**

POSCO identifies material concerns of the stakeholders and their business impact, which are reflected in the Sustainability Report. 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.

IDENTIFYING MATERIAL ISSUES
IMPROVEMENTS COMPARED TO THE PREVIOUS YEAR



### Reflected the global guideline

Applied the GRI G4 Guideline published in 2013 in the materiality test.



# Efforts to gather opinions of the stakeholders

In order to collect the opinions from various stakeholders we reflected opinions beginning from the report planning stage from internal stakeholders as well as external stakeholders such as investors, NPOs, and foreign investment institutions.



### Material issues were arranged separately

Issues that ranked high in the 2013 materiality test process were arranged separately under the heading "Key Issue" to convey to the stakeholders the opportunity and risk element that the issue poses, and the company's key business principles and activities regarding that issue.

# MATERIALITY TEST PROCESS

4



# IDENTIFYING INTERNAL AND EXTERNAL ISSUES

# Social issues

- · Analyze media/SNS
- Analyze peer group's KF
- Sustainability management evaluations: SAM-DJSI, Global 100 etc.
- Sustainability management quidelines: GRI, ISO 26000
- · CSR trends, WBCSD vision
- Suggestions from verification agency of 2013

# **Business Issues**

- · Agendas at management meetings
- Agenuas at BOD II
- Enterprise\_wide KE
- · Company policies and guidelines
- Employee survey

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# CREATING MATERIALITY MATRIX

We created the matrix according to stakeholders' interest and impact on business in order to identify major issues.

3



# 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.

# Internal stakeholders

 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.

# External stakeholders

- Please refer to the stakeholders'

# Content formation

 We report on stakeholders issues of interest through Key Issues for each sector. 4



# ASSURANCE REPORT

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 management activities.

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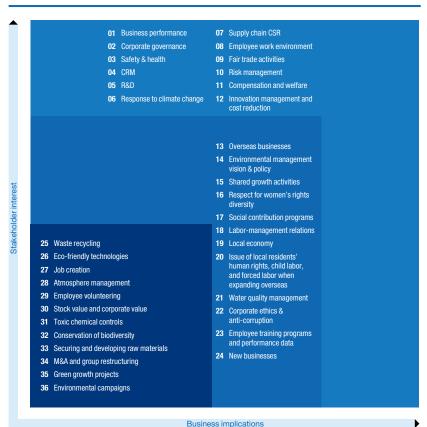
# READJUST THE REPORT PUBLISHING PROCESS

After a year of the report publishing process and the opinions gathered through the assurance process, we readjust the report publishing process for the following year, and prepare for identifying internal and external issues and for listening to stakeholders' opinions

# TOP 10 ISSUES IDENTIFIED THROUGH THE MATERIALITY TEST

Rank	Issue Pool	Rank Change	Classification	Stakeholder
1	Business performance (financial performance such as sales and operating profit)	-	Economy	Shareholders
2	Corporate governance (appointment of CEO etc.)	+7	Economy	Shareholders
3	Safety & health (accidents, lost-time injury frequency rate, etc.)	+9	Society	Employee
4	Customer relationship management (customer satisfaction, quality management)	-1	Economy	Customer
5	R&D (R&D expenditure, achievements, new technology development)	-3	Economy	Shareholders
6	Response to climate change	+1	Environment	Environment
7	Supply chain CSR	+20	Society	Partner
8	Employee work environment (work-life balance, non-discrimination principle	e) -4	Society	Employee
9	Fair trade activities	+13	Society	Partner
10	Risk management (Economical, Environmental and Social risks)	+5	Economy Environment	Shareholders

# MATERIALITY MATRIX



# **KEY ISSUE**

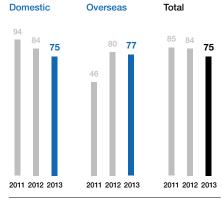
Issues that ranked high in the materiality test were included within the main context and under the heading "Key Issues."

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# POSITIVITY TREND CHANGES

(Unit: %)



Positivity: is the ratio of positive reports out of total news reports

# Positive reports

- Social contribution programs
- (supporting multicultural families, construction of steel houses)
- New businesses (materials other than steel, entry into energy sector)
- Innovation management and cost reduction
- Job creation (employment, social enterprise, venture support, recruiting high school graduates)

# Negative reports

- Issue of local residents' human rights, child labor, and forced labor when expanding overseas
- M&A and Group's restructuring
- Safety & health (accidents, lost-time injury frequency rate)
- Toxic chemicals control

# **CSR MANAGEMENT**

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We have developed our sustainable management through stakeholder engagement. We listen carefully to the valuable opinions of the stakeholders and reflect them thoroughly in our business activities in order to contribute to the harmonious economic, environmental and social development.

We will fulfill our duties as a global corporation by abiding by corporate ethics and practicing human rights management, and continue to grow with all our stake-holders through systematic risk management and efficient response to changing conditions.





The steel industry that uses large amounts of resources and energy has a large impact on the economy, society and environment. Like the steel industry, the large-scale process industry has a large effect on the local community as well. We have been well aware of this nature of the steel industry and have persistently strived to incorporate environmental and human integrity into our management philosophy since our inception.

In 2003, we announced our sustainability commitment that integrates economic viability, environmental soundness, and social responsibility into our overall management activities, and set up the CSM (Corporate Sustainability Management) Team for a more systematic and responsible approach to corporate management. In 2011, inheriting the principle of respecting the integrity of the environment and human rights we established POSCO's unique stakeholder structure. According to this structure, CSR (Corporate Social Responsibility) activities and communication were run by the Bureau for Firm of Endearment, which, since March 2014, Department of Environment, Energy, and Social Responsibility under the Finance and Investment Division has been tasked with the overall supervision, in order to implement sustainability management that integrates the economic, environmental and social aspects. Based on the understanding that POSCO's management activities starts from the stakeholders, we categorized our stakeholders into society, partners, shareholders & investors, customers, employees, and the environment, and we are continuously communicating with them. Based on this categorization we announced the Charter of Firm of Endearment1, which is our pledge to each of our stakeholders. In addition, we published the White Paper on Firm of Endearment2 that compiles stakeholder communication that is carried out at various departments; published the Economic, Environmental, Social Integrated Report3 that transparently reports information on the company; and we also operate the sustainability expert panel. Moreover, we developed the "Strategic Stakeholder Management Execution Manual" to ensure a more systematic and strategic stakeholder management, which was distributed to stakeholder-related departments.

Meanwhile, the Department of Environment, Energy, and Social Responsibility also monitors stakeholder-related activities and sustainability management issues, while conducting diagnosis and consultation to subsidiaries on their CSR capabilities. Results of the monitoring and consultation are reported regularly to the CEO once a year through the Group CEOs' meeting or the operations meeting,

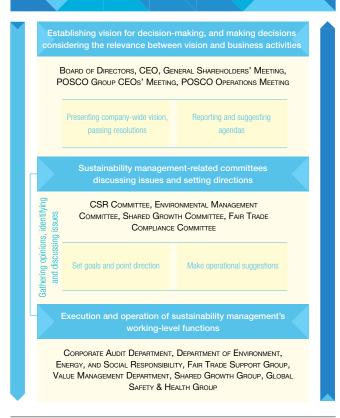
and if issues arise they are reported through the CEOs' meeting, operations meeting and executives' meeting.

# SUSTAINABILITY MANAGEMENT RELATED COMMITTEES

	Meeting interval	Chairperson	Participants	Activities
Environmental Management Committee	Once/year	CEO	CEOs of POSCO Family companies	Establish medium-term environment and energy strategy at the POSCO Family level
Shared Growth Conference	Twice/year	CEO, representative of SMEs	POSCO executives, CEOs of subsidiaries, presidents of SMEs	Establish strategies for shared growth activities, review and share POSCO Family's performances
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 executives, 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 (marking, purchasing, etc.)	Report CP (Compliance Program) activities and establish plans

### SUSTAINABILITY MANAGEMENT GOVERNANCE

# POSCO the GREAT



Charter of Firm of Endearment

http://www.posco.co.kr/homepage/docs/eng3/html/sustain/able/able\_01.jsp

White Papers on Firm of Endearment

http://www.posco.co.kr/homepage/docs/kor3/html/popup/pop\_2012/pop\_120319.html

<sup>&</sup>lt;sup>3</sup> Economic, Environmental, Social Integrated Report http://www.posco.co.kr/homepage/docs/eng3/html/sustain/report/report 02.isp

# Stakeholder Opinion

POSCO always listens to the stakeholders' opinion. We specially listen to the sustainability experts to seek advice in setting the direction for POSCO's sustainability management.



From January 14 to February 12, 2014, POSCO conducted face-to-face and email interviews with domestic and foreign sustainability management experts. The whole content of the interviews was reflected during the materiality test process. The Stakeholders' Opinion section was arranged in the form of a roundtable discussion with questions and answers to facilitate readers' understanding.

# HISTORY

2013

POSCO'S STAKEHOLDER ENGAGEMENT

2003 ~ Survey on stakeholders both domestically and abroad

2010 ~ Stakeholder interviews who are experts in sustainability management Held "Stakeholder Discussions" targeting college students who are the leaders of tomorrow

2012 Interview by each group: society, partners, investors, customers, employees, environment (SPICEE)

Face-to-face and email interviews with domestic and foreign sustainability management experts.

Last year POSCO published the 10th report. We have tried to implement many changes during those ten years. What do you think of last year's report?

Lim, Hong-jae It is commendable that POSCO publishes a sustainability report each year. Publishing a report in itself can be a chance for the company to look back. It is also useful because it clearly describes POSCO's strategy and operation of sustainability management.

Ryu, Yeong-jae Sustainability management should be a virtuous cycle where a company informs stakeholders of its policies, activities and plans in a transparent manner, and collects opinions from the stakeholders to reflect them in their management activities.

In this respect, I think it is good that POS-CO arranges the report according to the stakeholder groups. But when activities are described based on stakeholders, it may become hard to draw a 3-dimensional picture of the whole company.

Park, Ju-won Investors not only look at the issue itself, but also at the risks and opportunities involved. The materiality test should also be able to express the risks and opportunities. Also, the reporting is mainly focused on policies and plans. I think it would be good to divide the goals into short, medium and long-term and to report POSCO's performance in comparison with those goals.

Last year, we tried to show that we are managing financial performances and non-financial performances together, by integrating the annual report, which is a financial performance report, and the sustainability management report, which



CEO, Global Competitiveness Empowerment Forum Angela Joo-Hyun Kang



CEO, Sustinvest, Co., Ltc Ryu, Yeong-jae



Park, Yoo-Kyung



Executive Director,
KOREA CSR Research Service



Secretary General, Global Compact Korea Networ Im, Hong-jae



Director, BSI Group Korea **Jun, Min-gu** 



Mike Mansfield

is a non-financial performance report, into one report.

Angela Joo-Hyun Kang As for non-financial elements, if they are not designed from the very beginning with financial performances in mind, it becomes difficult to quantify them later on. The way to get the best output and outcome with limited resources is by defining the quantitative/non-quantitative, and direct/indirect performance goals from the planning stage before designing and implementing any activities.

Ryu, Yeong-jae I don't think we can fairly say that POSCO's report is an integrated report. It just contains financial data and non-financial data. For someone in the responsible investment sector, it just lists what POSCO did well in the ESG' data, and they might ask, "So what about it?"

'ESG (Environment, Society, Governance) are the 3 axes of sustainability management.

Park, Yoo-Kyung It is a nice attempt at an integrated report, but has become like a department store. I think it would be much more interesting if there were some dynamics just like in music, when describing that particular year's issues and the company's efforts.

Mike Mansfield According to the IIRC (International Integrated Reporting Committee) an integrated report should explain how the company, using the resources it possesses, will create value in the short, medium, and long term, according to their particular business model. But in POSCO' report, what IIRC is looking for is not readily visible.

Although it has been 10 years since we implemented sustainability management in full swing, we still feel we have many shortcomings.

Im, Hong-jae In respect of human rights, there are not so many issues domestically. But there are many problems in the overseas supply chain, and I suggest that POSCO look at how other multinational corporations deal with human rights issues to prepare and respond to such situations.

**Park**, **Joo-won** If we look at the company tree, large corporations in Korea experience more problems in their supply chain than in their direct operations. External stakeholders will ask POSCO for answers on the issue rather than each supplier. This is why

in the sustainability management aspect we should expand the company tree.

**Jun, Min-gu** As for affiliated companies where POSCO does not have management rights, it is hard to know how they manage and support sustainability. Therefore, it is necessary to supplement the non-financial risk management mechanism for those companies.

In relation to our sustainability management, we are asked about events that take place overseas, such as the Odisha project in India and Daewoo International's cotton operation in Uzbekistan. What do you think of our reporting on these issues?

Angela Joo-Hyun Kang I liked that the report describes human rights management in one section and describes the Odisha project in detail separately. But for a stakeholder that pays much attention to human rights in the corporate-human rights dynamics, it may be disappointing that the human rights issue isn't considered as part of management risk. If POSCO were to report on environmental and social impacts as well as human rights impact in risk management, it will further enhance stakeholders' trust.

Ryu, Yeong-jae Reading about the Odisha project in the report, I got the impression that POSCO feels it is being unfairly accused and that POSCO didn't do anything wrong. But because that is not how outsiders see it, writing about what POSCO did wrong from the stakeholders' point of view and what POSCO's plans are to solve and improve on that issue, would help gain more trust.

Jun, Min-gu As there are different perspectives from various stakeholders, it would be good to approach the subject objectively. POSCO should explain the issue focusing on facts, and POSCO's response to solve the problem. If not careful, it will convey only a vague impression that POSCO is merely doing business in the Odisha region.

During the 10 years that POSCO has walked through, there have been many changes in the sustainability management trend. What are some of the trends that POSCO should pay attention to and reflect in sustainability management?

Park, Yoo-Kyung It is my concern that multinationals entering new emerging markets are exposed to various risks of the locality. It is the same with POSCO. It is necessary to assess the risks for each country, such as China, Indonesia and India.

**Park**, **Joo-won** The trend to pay attention to is water. It is important because the steel industry uses a lot of water.

**Mike Mansfield** The recent topics of interest are circular economy, biodiversity, and tax evasion. Also, for POSCO, human rights and supply chain management are very important, and the part about low carbon should be fleshed out as well.

\*Circular economy: Unlike the linear "take, make, dispose" industrial process, circular economy focuses on sustainable development through recirculation of resources.

Jun, Min-gu A mechanism that enables stakeholders' opinions to reach the top decision is needed. I believe it was undertaken by the Firms of Endearment Study Forum but has not yet been formalized. POSCO should establish a stakeholder feedback system that is linked to the company's decision-making.

Im, Hong-jae I recommend selecting issues and finding solutions based on John Ruggie's framework, which is the internationally endorsed framework for business and human rights.

Lastly, please give us your advice or requests that you would like share.

Park, Yoo-Kyung POSCO's shareholder composition has a high ratio of long-term shareholders despite the fact that it is in an economy-sensitive industry. I believe introducing the sustainability report to the long-term shareholders is the responsibility of the company and the management level.

Jun, Min-gu The biggest issue in the recent changes in ISO regulations is that all standards are regrouping centering on stakeholder risks. Stakeholder-oriented management is all the more important because all ISO standards require companies to identify stakeholders' demands.

Im, Hong-jae POSCO's vision and goals should internalize UNGC's\* ten principles, and this should be well established in the sustainability report, and continuing to publish the report is important as well. Also, the

UNGC provides various tools and guidelines for sustainability management that corporations can utilize. If POSCO's subsidiaries and partner companies actively make use of those tools, it will significantly help their sustainability management activities.

"UNGC (UN Global Compact): The UNGC is a United Nations initiative to encourage businesses to cooperate with the UN in achieving sustainable development and to improve ethics and environment of the international community.

Ryu, Yeong-jae The report should include an explanation that ESG is a corporate risk element in order for the reader to understand the company's risk management level and the incorporation level of sustainability management. In this respect, POSCO should put more effort into internalizing sustainability management into corporate management.

Park, Joo-won I recommend clearly defining the data management scope. As I mentioned earlier, problems arise more at affiliates and the supply chain than at the direct operations. The broader the data coverage of the related companies is, the more they are regarded as responsible corporations. It is necessary to incrementally expand the data management target companies and try to manage them at the POSCO Family level.

**Mike Mansfield** Investors want to know exactly about the risks and opportunities laid before a company. It is necessary to help them understand the challenges that the company is facing.

Angela Joo-Hyun Kang The process of preparing the report and publishing the report itself are important, but I think the actions taken by the company after the report is published are even more important. Using the information contained in the report as a medium for strategic communication, it will be useful to link that to "customized" stakeholder activities.



# "We changed the 2013 Report<sup>1</sup> in response to your valuable opinions."



POSCO always listens to stakeholders' opinions. We are looking for the direction for advancing our sustainability development.

# STAKEHOLDER OPINION

I can't see how the KPI is connected to the company's vision and goals. The integration of financial and non-financial reporting is not complete.

I don't understand key terms such as "Firms of Endearment" and "SPICEE" because I don't see how these are relevant to the company's vision.

I would like to hear about the Odisha (the issue of relocating local residents and the environmental impact entailing the construction of the steel plant) and Daewoo International's cotton business (the issue of child labor that is used to produce the cotton that Daewoo purchases).

I don't see the system and coverage that manages the POSCO Group and the whole value chain<sup>2</sup>

I would like to know the position and role of the departments in charge of sustainability management.

I understand that POSCO also has CSV cases. I would like to see CSV cases which is the recent

We explained that the KPI is c

How IT WAS BEELECTED

we explained that the KFT is connected to our vision, and used infographics to explain how non-financial activities can have a long-term effect on the corporate value.

"Firms of Endearment" is a declarative term used in the aspect of stakeholder management rather than a management system. In order to avoid confusion, we will use "stakeholder engagement & management" to explain the company's activities.

We explained in detail the issues involving the integrated mill in Odisha and the cotton business in Uzbekistan based on a Q&A format.

We attempted an integrated POSCO Family data management in order to spread sustainability management. We included performances of 10 Family companies including POSCO, and we will steadily increase the number of companies included in the integrated management.

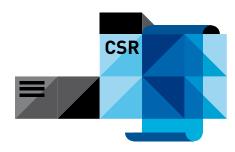
The sustainability management department plays the role of a control tower for sustainability management. We provided a more detailed explanation about the departments in charge of sustainability management in the "CSR Management System" section.

We marked the CSV cases in the Report. We also stated what kind of social and business value that



- <sup>1</sup> We could not reflect all the stakeholder opinions in the 2013 Report. For areas that require changes at the corporate management level, we will strive to make steady improvements based on the valuable opinions of the stakeholders.
- $^{\rm 2}$  The marked opinion is not the opinion of all the stakeholders whom we interviewed, but only a part of them.

# POSCO Subsidiary CSR Assessment



Since 2011, POSCO has been collaborating with POSRI (POSCO Research Institute) for the assessment of POSCO subsidiary's CSR capabilities to enhance the subsidiary's 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 subsidiary company. It is upgraded every year to reflect the CSR trends and changes in the subsidiary companies' business status. It is now undergoing its third revision.

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 is used for each company's improvement activities. The assessment results are reported at the CEOs' meeting.

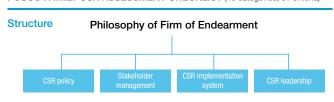
The assessment companies are prioritized according to the company's size, nature of the industry, and whether they have overseas operations. The scope is expanded each year, and our final goal is to expand them to 19 companies.

The 2013 assessment showed that the average score of the 8 companies that were already participating has continued to go up, and that improvement activities have narrowed the gap among the participating companies, resulting is an overall higher average. However, the 4 companies that were newly included in 2013 scored lower than the existing 8 companies in all criteria, which helped raise awareness of the management level on the importance of CSR, and we are also providing expert training to working-level

personnel to enhance their CSR capabilities.

In addition, we are providing CSR training to subsidiaries that were newly included in 2014 in order to heighten their awareness even before conducting the assessment. In 2014, we will reflect POS-CO's CSV (Creating Shared Value) policies and global CSR trends in the assessment checklist to continuously improve POSCO subsidiary's CSR capability.

POSCO FAMILY CSR ASSESSMENT CHECKLIST (10 categories, 61 criteria)



# Activities



# POSCO FAMILY CSR ASSESSMENT PROCESS (2013)



# POSCO SUBSIDIARY CSR ASSESSMENT SCORE

Year	Target companies	Score (out of 100)	
2011	8	65points	
2012	8	71 points	
2013	12	76points	
2014(plan)	15 <sup>*</sup>	79points (target)	

Target companies: Daewoo International, POSCO E&C, POSCO Specialty Steel, POSCO ENERGY, POSCO ICT, POSCO C&C, POSCO CHEMTECH, SNNC, POSCO P&S, POSCO Plantec, POSCO AST, POSCO M-TECH, POSCO TMC, POSCO A&C, POSCO Engineering

# O FOCUS

# Overseas CSR checklist: Social Impact Assessment

POSCO developed the CSR checklist for overseas operations in October 2013, to identify their CSR issues and establish a management system. The checklist is comprised of 63 criteria in 6 categories (labor, human rights, safety & health, environment, fair trade, and local community). We conducted pilot diagnoses in 4 overseas operations including China and Uzbekistan. In 2014, we will revise the checklist and apply them to overseas branches and major affiliates.





Along with excellent equipment 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. In June 2, 2003, POSCO took another step forward toward becoming a trusted and respected global company by announcing the Code of Conduct that pledges a global ethics practice.

After declaring the Code of Conduct, 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.

In order to integrate corporate ethics as part of our corporate culture which can be achieved when all employees internalize ethical thinking and practice, we are combining the operation of various regimes with practice activities with a focus on education, so that the basic spirit of corporate ethics can interact effectively with the 3Ps (people, practice, and process).

In 2013, which was the 10th anniversary of the declaration of the Code of Conduct, we were honored with the grand prize at the 10th Korea Ethical Management Award, and we were also presented as a model case for ethical management by the Federation of Korean Industries.

# 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. "Ethical leadership training" for the leader group, "special training for those exposed to ethical risks" such as those in charge of production operation, purchasing and subcontracting who are at the point of contact with stakeholders, and the "ethics training with executives" in which

executives give lectures on corporate ethics to their staff are also conducted every year.

In addition, training is held for new employees and newly promoted employees whenever necessary, as well as mandatory e-learning courses for all executives and employees on business ethics. As for campaign and promotion activities, the business ethics monthly webzine "Olbareumi" is published for all the POSCO Family employees to see including subcontracting partners, and we utilize the in-company news and broadcast to promote ethics, in order to heighten their interest in ethical practices in their daily activities. POSCO Family employees worldwide sign an oath that they will abide by the ethical guidelines on the first work-day of the year as way of renewing their commitment for practicing ethics. In addition, at the beginning of every year the CEO's message on ethical management is released. On June 2, the day of declaring POSCO's Code of Conduct, the CEO sends out a message in order to let employees be aware of the CEO's will for ethical management. Moreover, at the back of the employees ID card are 5 criteria for self-inspection so that they can ask themselves in ethically difficult situations before making a decision.

Since 2012, we have been appointing an "ombudsperson" at the department and office level as the team leader who supervises the overall ethics practice within that department including inspection and improvement related to ethical risks. Meanwhile, the name "corporate ethics practice leaders" who were appointed as the messengers for ethical practices at each department and office since 2003 was changed to "ethics helper" in 2012. Ethics helper assists the head of the department in running the voluntary corporate ethics program, while being in charge of ethics consultation, spreading related information and notices, and education.

# **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 to the executives, 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 or seeking ethics consulting is available not only to executives and employees but also to the general public through phone, fax, mail, the internet and also a smartphone application called "POSCO Shinmungo (whistle blowing)."

POSCO operates the Gift Return Center as part of the campaign against giving or taking gifts, congratulatory wreaths are auctioned, excessive amounts given for congratulations or condolences, and lecture fees are donated to charity, contributing to building an ethical corporate culture.

OVERVIEW CSR MANAGEMENT INVESTOR CUSTOMER ENVIRONMENT PARTNER EMPLOYEE SOCIETY

# ETHICAL PRACTICES PERFORMANCE

Gift Return Center



Gifts submitted to the Center (Accumulated cases between 2003~2013)

**2,626** (cases)

Charity fund raised through sharing campaign, auctioning congratulatory wreaths, and donation of external lecture fees (2013)

# ×

### Online auction

(Accumulated amount KRW 47.4 million)

Items that are difficult to return after the Seol (lunar New Year) and Chuseok (thanksgiving) holidays are auctioned online.

684
(million won)



### Wreaths congratulating promotion

(Accumulated amount KRW 30.4 million)

367



External lecture fees given to donation

(Accumulated amount KRW 318.8 million)

4,333 (million won)

# MAJOR ACTIVITIES BY STAGE



# 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, subcontracting partners and suppliers.

The "Corporate Ethics Voluntary Practice Program" is a movement that all employees participate in under the lead of the head of the department. This is an infrastructure that focuses on identifying ethical risks and executing improvement measures. In 2013, POSCO and 25 companies (20 major subsidiaries and 5 overseas branches) participated in this program. After the program is completed the performances are evaluated and companies with excellent results

are awarded, and the results are reflected in the evaluation of the department heads. Results of the program and details about ethical risks that departments are facing are inspected during the Ethics Week. During the Ethics Week the executives review in person the voluntary ethical practices of the departments, and give lectures on the performance and issues of the year, and various ethics-related cases. The Audit Office holds education programs and workshops for ethics helpers and ombudspersons each year, to enhance their ethical practice mind and encourage their roles at their respective departments.

We also hold briefing sessions for subcontracting partners and suppliers. In 2013, we held a briefing session for 2 partner companies to explain POSCO's commitment to ethical management and the direction of the new ethical management system. In addition, when signing contracts with all the companies doing business with POSCO, we attach the special clause on ethical practice with their prior consent, and when unethical actions such as bribery are discovered in the course of transactions, appropriate measures are taken to address that problem.

# Preventing ethical risks in global business management

Ethical management is an essential element in becoming a true global company, and POSCO has been putting efforts in 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 2013, we visited POSCO Family branches in China and Mexico 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 Conduct, and included them in the Employees' Pledge to Honor the Code of Conduct. We operate an exclusive FCPA line, and the POSCO Family FCPA Compliance Committee convenes each month.

# Human Rights Management



Social problems such as wealth gap and discrimination are occurring across the world, and the role of companies is becoming increasingly important. Especially with companies making headway into countries with poor human rights conditions, protecting human rights is being emphasized as another role for corporations. Our goals are to create a working environment where no employees are discriminated against and to grow with all communities we belong to.

# **Human rights management based on the Code of Conduct**

As a member of the UN Global Compact, POSCO fully respects the UN Global Compact's principles on human rights and labor. In addition, POSCO abides by the global human rights standards including the UN Policy Framework and the Guiding Principles. In 2012, in response to the global trend putting more emphasis on human rights of corporations, we included human rights provisions in POSCO's Code of Conduct to build a strong foundation for the systematic management of human rights. POSCO is committed to creating a corporate culture that does not discriminate on the basis of race, nationality, gender, age, education, religion, birthplace, disability, marriage, or sexual identity, and which respects diversity.

HUMAN RIGHTS PROVISIONS IN THE CODE OF CONDUCT

# 4. Our commitment to our employees

- We will respect the basic human rights such as individual dignity and personal life.
- We will respect the creativity of each individual and provide equal work opportunities to create an environment where they can achieve their full potential.
- We will not discriminate on the basis of alma mater, birthplace, gender, age, religion, or any other criteria unrelated to job qualifications.
- We will foster a win-win corporate culture built on mutual trust and understanding.
- We will comply with the Code and internal regulations to create a healthy and sound working environment.

# 5. Our commitment to local, national and global communities

- We will abide by all national laws and regulations as a socially responsible corporate citizen.
- We will respect the traditions and culture of local communities as we work to prosper and grow with them.
- We will comply with international conventions on human rights, the environment, culture, and trade as well as local laws and accounting standards in every country we operate in.

In 2013 we began the revision process of our Code of Conduct with consultation from outside experts, concentrating on protecting and respecting human rights, which officially announced in June 2014. (Please refer to POSCO's website).

# Protecting human rights through ethical practices

POSCO respects human's dignity through ethical practices. The keywords related to such practices are consideration, co-prosperity and trust, which are reflected in the Code of Conduct. To prevent it from being a mere ideological declaration, POSCO implements the philosophy of respecting human rights through practical systems and campaigns in order to have it embedded in daily activities. The Ethics Counseling Center receives cases where human rights were violated and takes appropriate measures. In 2009, the Ethical Dilemma Casebook was published, and in 2011 the Business Ethics Handbook was released to help employees to practice ethics at work.

POSCO is also actively involved in preventing sexual harassment. The fifth clause of the Code of Conduct states, "we do not conduct any kind of verbal, physical, and visual actions that may cause discomfort to another person, including all acts of sexual harassment that infringe on human rights." POSCO also provides an e-learning education course and operates a Sexual Harassment Helpline. POSCO abides by the Standards of Child and Forced Labor and Discrimination Convention of ILO in all its business activities. Freedom of association is guaranteed at all workplaces. In order to promote the employment of the disabled and members of social minority 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

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 written 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.

# ▶ Shinmungo (grievance mechanism)

http://www.posco.co.kr/homepage/docs/kor3/html/common/support/s91i0000081m.jsp (Korean) http://www.posco.co.kr/homepage/docs/eng3/jsp/support/qa/s91i1010010l.jsp (English)

OVERVIEW CSR MANAGEMENT INVESTOR CUSTOMER ENVIRONMENT PARTNER EMPLOYEE SOCIETY

# 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. The human rights category was included in the "Diagnosis of POSCO Family's CSR Capabilities" process that was started in 2011, in order to foster awareness and understanding on international regulations and issues throughout the POSCO Family.

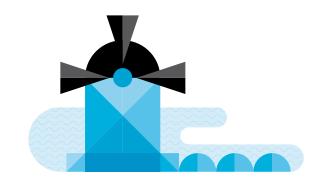
The diagnosis tool that was developed according to international regulations includes indices such as the human rights guideline, status check, human rights management of partner companies, and cases of human rights violations. We will incorporate human rights management throughout the whole POSCO Family by designing and implementing an index which will be based on the virtuous cycle of: establishing human rights principles  $\rightarrow$  identifying human rights issues  $\rightarrow$  establishing and implementing human rights improvement measures  $\rightarrow$  monitoring. We provide support for each participating company by presenting improvements to be made and introducing model cases so that the POSCO Family's CSR capabilities will be enhanced.

In 2013, we developed the CSR checklist based on ISO 26000, UN Global Compact, and UN Policy Framework. The checklist includes human rights and labor criteria so that we may minimize human rights risks that might occur at overseas business locations.

# **Human rights and security**

POSCO places security personnel to maintain a safe workplace and protect the company's assets. We utilize security personnel in accordance with related international regulations and domestic laws, and conduct training to ensure the security personnel abide by the basic rules of human rights and ethics. In addition to the regular training conducted twice a year, we provide training whenever there are issues and the need arises to make sure the rights of the local residents are protected.

# **Risk Management**



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 and taking preventive measures. These efforts will enable POSCO to respond to risks in a timely manner to prevent them in advance, and maintain a amicable relationship with stakeholders, thus securing the basis for sustainable growth.

# **Enterprise risk management System**

Beginning from the first half of 2010, POSCO strengthened the risk management process for growth-business investments, which was the starting point of securing the operational foundation for the enterprise risk management system, including establishing risk management policy and protocol and restructuring the risk management organization. With global risks becoming more widespread and complex, POSCO established the early warning indicator in order to respond proactively and effectively to changes in the business environment. Risks are detected through the early warning indicator and issue monitoring activities, and the analysis of abnormal signals and the changes that are anticipated are disseminated promptly, in order to support on-site departments to take preemptive measures. These activities are reported regularly to the company management level, and the feedback is reflected in the ERM system, building a virtuous cycle.

In 2014, we will further strengthen risk management at the Group level, and constantly monitor factors that hinder the Group from achieving its goals, thereby implementing risk management activities that will enhance our corporate value.

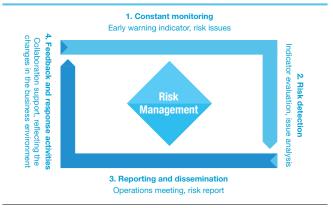
▶ Risk management policy

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/s91d5000010c.jsp.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000010c.jsp.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000010c.jsp.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000010c.jsp.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000010c.jsp.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000010c.jsp.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000010c.jsp.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000010c.jsp.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000010c.jsp.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000010c.jsp.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000010c.jsp.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000010c.jsp.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000010c.jsp.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000010c.jsp.co.kr/homepage/docs/kor3/html/sustain/riskcontrol/s91d5000010c.jsp.co.kr/homepage/docs/kor3/html/sp.co.kr/homepage/docs/kor3/homepage/docs/kor3/homepage/docs/kor3/homepage/docs/kor3/homepage/docs/kor3/homepage/docs/kor3/homepage/docs/kor3/homepage/docs/kor3/homepage/docs/kor3/homepage/docs/kor3/h

### **ERM PROCESS**



# Proactive response to core risks and information sharing

Early warning indicator management system Considering that the steel industry is sensitive to external environments, POSCO's early warning system consists of 6 indicators: General Steel Risk Indicator that reflects the steel economy, General Financial Risk Indicator that measures risks in the global financial market, Emerging Economy Risk Indicator that assesses the risk level of the emerging economies where POSCO is expanding, and Marketing/Finance/Raw material Risk Indicator that deals with the internal core work processes. POSCO detects symptoms by analyzing 120 detailed indicators within the 6 categories.

STRUCTURE OF THE RISK EARLY WARNING INDICATOR MANAGEMENT SYSTEM



Policy/Others (qualitative analysis area)

Sharing core risks at the company level The monitoring results gathered from the early warning indicators are reported monthly to the operations meeting, so that all employees and executives may share information on the risks involving the company. Since 2013, weekly analyses on qualitative risks are reported to the management level to assist their decision-making. During 2013, there were 31 "ERM weekly risk issues" reported, whereby 117 risk factors were analyzed and reported. In the future we will switch to a non-scheduled reporting system in order to detect and proactively

respond to potential risks. We will heighten the level of risk management activities by collaborating with internal and external experts, and strengthen our capabilities to immediately respond to risks.

Operating the ERM system To enhance the efficiency and effectiveness of our risk management activities, we have been operating the "Enterprise Risk Management System" since 2013, which enables the integrated management of early warning indicators and qualitative risks. We plan to integrate the risk management indicators that are currently managed separately at the on-site departments to provide them with systematic support, and establish an infrastructure that will allow relevant departments to share the information, strengthening the ERM system's role as the "Risk Hub."

# Spreading Risk Management Culture at the POSCO Group Level

Risk management communication We are invigorating the "ERM information sharing meeting," which is a collaborative network where departments in charge of risk management at each subsidiary participate. The ERM information sharing meeting will be the medium for supporting subsidiaries' risk management activities, sharing risk issues, and devising joint response measures, which we expect will contribute to enhancing POSCO Group's risk management level.

# Change management to spread risk management culture

POSCO has been operating ERM e-learning courses and other offline educational programs since the second half of 2012 to help employees understand the importance of risk management. In 2013, a total of 5,130 employees took the e-learning program to learn of the basic concept of risk management, and global corporations' risk management case study and techniques. We will continue to conduct promotions to incorporate risk management as part of POSCO's corporate culture.

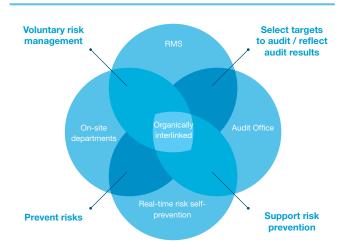
# Risk self-prevention system

In 2004, POSCO built the RMS, a company-wide risk management system for an efficient management of risks in all the processes. The system classifies the work processes into finance, strategy & planning, investment management, administration, human resources, technology development, plant operation, and facilities maintenance. Individual risks are selected and managed according to their grade. In order to ensure RMS operation that is effective and which reflects changes in the business environment, we linked risk management to internal auditing, and feedback from the on-site departments are gathered and reflected in the system. In addition, we are building a risk management system that organically links the on-site departments and the auditing department, so that on-site departments can always search and check what risks are relevant. From 2013, we further improved the RMS, linking it to the ERP (Enterprise Resource Planning) system, which gathers and feeds real-time data to the RMS. The data from the ERP system is used for risk assessment, and issues that require confirmation are sent to the on-site departments immediately. Thus, the real-time risk self-prevention system has been established.

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Risks are selected based on the failed cases identified through the internal audit process and the major risks that are being managed at the on-site departments. This method has been viewed to heighten the interest and participation of the executives and to be effective in managing risk elements. In addition, the audit department supports on-site departments through risk selection and evaluation, risk control through auditing activities, and risk monitoring. Model cases are promoted so that the risk self-prevention system will be internalized and operated stably.

### ORGANIZATION CHART OF RISK MANAGEMENT



# ERM system



Enterprise risk management e-learning course



# **Internal Control of Financial Report**

As POSCO is listed in both Korea Exchange and New York Stock Exchange, we established the CEO/CFO approval procedure on public announcement and internal control, and a system to evaluate internal control of the financial reporting process such as operating the Public Announcement Committee, in December 2003. We have been conducting self-evaluation of internal control since 2004. According to the SOX Act1, 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 our financial reports and public announcements through external audits since 2006. Through an external consulting group, POSCO has set up and is using a financial and internal control system that uses the Standard Control Activity Framework recommended by COSO2 and the US SEC to document major processes for 10 areas.

The evaluation of the efficacy of the internal control must be conducted by an auditor of an independent department who understands the current work process. 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.

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

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

# INTERNAL CONTROL PROCESS FOR FINANCIAL REPORTING

# INTERNAL CONTROL PROCESS

# 1. Test of Design

The company evaluates whether the evaluation system is well designed

(whether the internal control covers all major processes of the entire company).

# 2. Test of Design Audit

An audit firm audits the self-evaluation of the design.

# 3. Test of Control

The company evaluates whether the control activities operate as they were designed

(ex: proof of operation, whether it is valid or not is provided through screen captures).

# 4. Test of Control Audit

Audit firm audits test of control conducted by the company.

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# KEY ISSUE \_ 01

# Responding to human rights issue at overseas operations I

As corporations actively expand to overseas markets, the national borders are coming down and the role of multinationals is becoming more important. With investments focusing on newly industrialized countries whose institutional and cultural bases are comparatively vulnerable, the role of corporations is being even more emphasized.

Prior to starting an overseas business, POSCO tries to identify the environmental, social and economic impacts, and devotes itself to communicating with the local community and municipal government to resolve any issues.

# The Odisha integrated mill project in India

POSCO signed an MOU with the Odisha state government for the construction of a 12 million ton integrated steel mill on 4,004 acres of land in 2005. The MOU was not only an agreement for the business of the company, but also a promise by the Korean government to actively invest in India as a foundation to promote trade and investment between the two countries. However, in the process of implementing the project civil groups and some local residents are opposing the project saying their livelihood and the surrounding environment will be destroyed. We would like to convey the facts on some of the concerns presented by the civil groups and

▶ POSCO India Project FAQ (English) http://posco-india.com/website/press-room/ faqs.htm

# **POSCO-INDIA R&R PACKAGE**

- Compensation for families being displaced from private property. (Land owners who have record of rights in their name): compensation, direct employment, vocational training, subsistence allowance will be provided.
- Families losing all land: the same compeansation as the R&R policy by the Odisha government, priority in employment, vocational training will be provided.
- 3 Families losing part of their land: although there is no provision in the Odisha government's R&R policy, POSCO will provide vocational training.
- 4 Families being displaced from stateowned land (unlawful occupants in state-owned land): although there is no provision in the Odisha government's R&R policy, POSCO will provide a house or cash compensation for each family.
- 5 Illegal occupants who are farmers or fishermen: compensation for betel vines will be provided in double the price in Odisha; laborers, prawn ponds, farmland, and state-owned fruit-bearing trees not mentioned in the Odisha R&R policy will be compensated.

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

India is an ideal destination for investment as it has abundant resources and high growth potential. POSCO hopes to build a competitive steel plant using POSCO's unique technologies such as FINEX. Through the construction of the steel plant we believe that India will be able to replace high-end imported steel products, increase the utilization of low grade iron ore, and vitalize the local economy. Based on our investment philosophy to grow together with the local community, we signed an MOU with the Odisha state government, and will implement a phased investment amounting to USD 12 billion. The scope of investment includes the construction of the steel mill, mine development, and infrastructure development such as ports.

# What is the progress status of the mine development?

The MOU provides that POSCO will be furnished with a captive mine. The Odisha government made a recommendation to the central government to grant POSCO a prospecting license in Khandadhar. However, the local corporation filed a suit against the state government and the high court set aside the recommendation to grant the approval of POSCO in 2010. In May 2013, the Indian Supreme Court ordered to nullify judgment of the Orissa High Court and the central government to decide whether to grant exploration rights. The central government has reinitiated the approval procedures for right to explore in Khandadhar.

# What is the progress on the environmental approval?

In 2008 the Indian Suprement Court granted the transformation of the forest land with respect to the construction of the steelworks and entailing infrastructure. In 2010 the Indian central government appointed Saxena Committee and Meena Gupta Committee to reinvestigate the transformation of forest land, and in 2011 the central government issued the approval. However, in 2014, the National Green Tribunal ruled that the final

approval procedure by the state government still remained, according to which the state government is in the process of finalizing the authorization procedure. In regards to the environmental clearance, the National Green Tribunal had ordered a reassessment in 2012 by an expert committee on the conditions added by the government in 2011. The central government, after proceeding simultaneously with the extension of the environmental clearance which had expired in 2012 and reevaluation of the added conditions, approved the renewal of the clearance along with the added condition in January, 2014. Currently the materials are being prepared regarding the renewal of environmental clearance for the captive port.

\* Documents regarding environmental approval, National Green Tribunal decision (http://posco-india.com/website/sustainability/commitment.htm)

# Was the capacity reduced from 12million tons to 8 million tons?

It is not that we have reduced the capacity of the steel mill. POSCO is aiming for the construction of a steel mill with the final capacity of 12 million tons per annum. However, there have been delays in securing the 4,004 acres of land needed to build a 12 million-ton plant and we plan to start construction when we acquire the 2,700 acres needed for the first phase of the project. Within the 2,700 acres we will construct the first 4 million ton plant and second phase of another 4 million ton plant, totaling 8 million tons. After we acquire the 1,300 acres with the voluntary agreement with the local residents, we will proceed with the construction of the last 4 million ton steel plant.

# What is the progress on securing land?

During the 7 years after signing the MOU, the Odisha state government has been trying to provide POSCO with the 4,004 acres of allotted land. Among the 4,004 acres where POSCO planned to build the steel plant, 89%, or 3,566 acres is owned by the Odisha state government, and the remaining 11%, or 438 acres are privately owned land. The process of the Odisha government's acquisition of the land in question was peaceful. POSCO also promised to proceed with the project

in a fair and transparent manner. The compensation for relocating the local residents was prepared after ample discussions with the residents. The R&R package\* proposed by POSCO was approved in 2010 by the RPDAC (Rehabilitation and Peripheral Development and Advisory Committee), which is comprised of NGOs, local representatives, and government officials.

# How is POSCO communicating with the residents affected by the project, and what inspections were undertaken to verify and assess the impact the project will have on the local community?

POSCO is looking to invest in Odisha, one of the regions in India with the highest growth potential, which will contribute to the development of the local community. We held several briefing sessions to resolve the vague uncertainties of the residents. We also endeavored to resolve the residents' anxieties by proceeding with the land acquisition transparently. In 2006 and 2010, we held the RPDAC meeting comprised of NGOs, local representatives and government officials and finalized the R&R package\* with the approval of the RPDAC. In addition, we listened to the residents' demands and explained about the project throughout the 188 public meetings and 1,399 individual meetings. Also, POSCO conducted the social cost benefit analysis and environmental impact assessment through India's renowned research institutions. POSCO requested the NCAER (National Council for Applied Economic Research) in 2006, and the XIMB (Xavier Institute of Management) in 2008 to conduct socio-economic impact studies for the project. From 2006 to 2007 the environmental impact assessment was conducted for the port and steel plant, and issues mentioned at the public hearings during the assessment were also evaluated.

R&R package: Rehabilitation and Resettlement package for compensating dislocation of the local residents.

# It is said 22,000 people will be displaced and that thousands face a destruction of their livelihoods.

POSCO has revised the layout of the project several times to sandy coastal areas which are scarcely inhabited, in order to minimize the number of people that have to relocate. Among the 4,004 acres allotted for the project, the number of unlawful occupants in the state-owned 3.566 acres is very small, and there are a few villages in the 438 acres owned privately. If we base the calculation on the 3 Gram Panchayat (village council), there are 4,044 households and 18,296 people in the area. According to the socio-economic impact assessment by XIMB in 2008, 2,229 persons in 466 households are to be required to relocate. When POSCO leases the state-owned 2,700 acres of land for the construction of the 1st phase steel plant with 4 million tons in annual capacity, only 65 households will be relocated.

The compensation package policy was also prepared after sufficient discussions with the local residents and stakeholders. The R&R package that was approved by the RPDCA offers higher level of

compensation compared to that announced by the Odisha state government. We have even included houses and allowance for those living in state-owned land, who are not mentioned in the Odishas government's R&R package.

There is also a provision for providing fishers will jetty and motorboats. There is also the Effective Grievance Redressal Mechanism to resolve grievances. The claim that human rights are being violated in the process of the project's implementation because of forced dislocation and threats by the local police and that the people are banned from going in and out of the area, thus preventing them from living their ordinary lives is not true. The human rights council under the Supreme Court performed several investigations in the area but did not present any opinions for punishment or recommendations. POSCO also requested the protection of the people's human rights and livelihood to the Odisha government, and not to use any illegal force.

# It is said that POSCO provided transit camps for 52 families but that their living conditions are poor.

The people living in transit camps are not eligible for the R&R package. They are the people who were forced out of the villages due to conflicts that arose among villagers and for whom, at the request from the Odisha government, POSCO built a temporary shelter in a humane endeavor, where we have been providing living space, electricity, and some allowance since 2008. We have also provided maintenance support for broken roofs and toilets. However, with the acquisition process of stateowned land drawing to a close in July 2013, the state government is taking steps to return the people to their villages.

# There was news that there were 3 fatalities in the bomb explosion that occurred in the project area on March 2, 2013.

According to the state police, the activists against the project were making home-made bombs in the Patna village, and in that process the accident occurred, leaving 3 dead and 1 injured. However, these were individuals who were directly involved in fabricating bombs for the purpose of curbing the state government's land acquisition process. Abhay Sahoo, the leader of PPSS, a group opposing the POSCO project, had been arrested and detained as having a hand in this accident.

### HISTORY

**DEVELOPMENTS IN THE ODISHA PROJECT** 

- 2004. 10 On the visit of President Roh Moo-hyun to India, the Odisha project was selected as the "Key bilateral cooperation project."
- 2005. 06 Signed MOU with the Odisha state government (steel mill with 12 million ton capacity, port construction, iron ore development)
- 2006. 02 TISS (Tata Institute of Social Sciences) was engaged to conduct a "POSCO R&R Package and Social Impact Assessment" 73% of the study was completed until the residents blocked further investigation by blocking entry into the area.
- 2006. 11 NCAER (National Council for Applied Economic Research) conducted social cost benefit analysis of the POSCO Steel project in Odisha
- 2007. 05 Ministry of Environment and Forests gave environmental approval for minor captive port, lifted the coastal protection area
- 2007. 07 Ministry of Environment and Forests gave environmental approval for the construction of the steel mill.
- 2008. 08 Ministry of Environment and Forests approved 1st stage construction of steel mill under Supreme Court order
- 2009. 12 Ministry of Environment and Forests approved lifting of the forest for 2<sup>nd</sup> phase construction
- 2010. 07 RPDAC (Rehabilitation and Peripheral Development and Advisory Committee) approved the R&R package for the Odisha residents
- 2010. 07 The Odisha government started compensation and acquisition of land
- 2007. 10~ Odisha government leased 548 acres that is not a forest area to POSCO (located in coastal area)
- 2010. 08 Ministry of Environment and Forests gave stop order for land acquisition by the Odisha qovernment
- 2011. 01 Ministry of Environment and Forests added new conditions after review of the approval and announced the effectiveness of the previous approval
- 2011. 05 Ministry of Environment and Forests finalized the diversion of the forest land to the Odisha government for the forest area (confirmed that there were no Scheduled Tribes and Other Traditional Forest Dwellers in the forest area)
- 2011. 05 Odisha government resumed the acquisition process of the state-owned land
- **2011. 12** Built an office for construction preparation and communication with the residents.
- 2012. 03 NGT (National Green Tribunal) ruled the existing environmental clearance is valid, and ordered review of the conditions added \
  as of January 2011
- 2013. 02 Odisha government resumed land acquisition (illegal crops within the 2,700 acres were removed in July, 2013)
- 2013. 05 Indian Supreme Court gave final ruling on the mine prospecting license
- **2013. 10** The SRI institution confirmed the Odisha project site.
- 2014. 01 Odisha government recommended granting prospecting license to POSCO, once again

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# Responding to human rights issue at overseas operations II

# Daewoo International's Cotton Business in Uzbekistan

POSCO's subsidiary Daewoo International operates 2 cotton textile branches in Uzbekistan, one of the world's largest cotton producing countries, and has invested 35% in a cotton pulp production branch. The Uzbek government controls the production and sales of cotton products through 3 state-owned corporations (Uzmarkazimpex, Uzprommashimpex, and Uzinterimpex). The cotton textile branches purchase raw cotton from these companies, process them to be sold within Uzbekistan or exported.

After BBC (British Broadcasting Corporation) reported on the forced child labor during the harvest season (Sep.-Nov.) in Uzbekistan in October 2011, NGOs such as the Cotton Campaign, which is an international coalition of NGOs have been boycotting Uzbek cotton and continuously raising the issue. Thus, the government of Uzbekistan, as part of becoming a party to the ILO Minimum Age Convention, ratified the ILO Convention on the Worst Forms of Child Labor in 2008. Soon after that, it enacted the Law on the Guarantees of the Rights of the Child (2009), Law on the Prevention of Child Neglect and Juvenile Delinquency (2010), adopted the Decree on Additional Measures for the harvest season of 2012-13 (2011), and enacted the Law on Prohibiting Forced Child Labor (2012). These laws and decrees have eradicated forced child labor in the country. In 2013, the Uzbek government allowed ILO's investigation, upon which the ILO sent a monitoring mission to the country from September to October 2013, which is the harvesting season. In October 2013, the prime minister of Uzbekistan officially announced the country's plans for mechanization of the cotton industry at the International Uzbek Cotton and Textile Fair. In December, Korea's LS Mtron signed a contract with ASI (Agromash Sanoat Invest), a state-owned agricultural machinery company, for the supply of tractors worth USD 500 million per annum. The contract includes product localization and the development of cotton harvesting tractors.

Daewoo International is also continuously requesting the Uzbek government to solve the issue of child labor. In 2013, Daewoo established the CSR Council 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 meetings or whenever an issue arises in order to solve the problem. Daewoo will do everything in its power as a foreign company to address the issue of child labor, as well as conducting social contribution activities such as after-school lessons at the children's center and eye disease treatment support, to foster win-win in the local community.

POSCO supports CSR capability enhancement for Daewoo International through the POSCO Family CSR Diagnosis System. Daewoo International has been participating in the system since 2012, and the diagnosis will help lower the risks that may arise in the course of overseas operations. In particular, we are disseminating the POSCO Group Supplier Code of Conduct and overseas CSR checklist in order to reduce the potential risks in the overseas supply chain. POSCO will develop a new guideline and checklist to prevent human rights issues that may arise in the POSCO Group's supply chain.

### HISTORY

DEVELOPMENTS IN THE HUMAN RIGHTS
ISSUE IN UZBEKISTAN

2007	The report by BBC News on forced child labor heightened the interest of NGOs and the media
2008	Uzbekistan ratified the ILO Convention on the Worst Forms of Child Labor
2009	The Cotton Campaign began a coalition to boycott cotton produced through child labor, Uzbekistan enacted the Law on the Guarantees of the Rights of the Child
2011	Uzbek government adopted the Decree on Additional Measures for the harvest season of 2012-13
2012	Enacted the Law on Prohibiting Forced Child Labor
2013	ILO's monitoring mission was sent to Uzbekistan (Sep. ~ Oct.)
2014	Results were published in the ILO Mission Report On Uzbekistan

# Daewoo International's social contribution activities

# Contribution to the Youth's Development Fund

Made contributions to the Uzbek government's youth's development fund

Ministry of Foreign Economic Relations of Uzbekistan Fergana State

# Scholarship support

5-6 students are selected among students

recommended by the dean

Fergana State University, Fergana Polythechnic Institute, Tashkent University of Information

# Visits to orphanage

Visits orphanages each year

# Volunteering for seniors living alone

Volunteer activities for seniors living alone near the company

# Local children's center (plan)

After-school classrooms for regions marginalized from education

-Siongo Children's Education Center (Ahmad Yassaviy) -Mirobod IT Training Center (Mirobod District, Tashkent)

# Medical Camp Support (plan)

Free outpatient ophthalmology treatment and support for cataract, pediatric ophthalmology and surgeries.

In January 2014 the ILO announced that "The ILO-Uzbek monitoring took place from 11 September until 31 October 2013 by monitoring units composed of 10 international experts and 40 monitors. The mission made 806 documented visits and conducted 1,592 documented interviews, where some children were found picking cotton voluntarily to help their families, but it would appear that forced child labor was not used on a systematic basis in Uzbekistan to harvest cotton in 2013." The ILO mission submitted these findings to the ILO Committee of Experts, which will be included in the 2014 ILO report on child labor.

### KEY ISSUE \_ 02

## Our Leap Toward a New Ethical Management Happiness Management

In commemoration of the 10th anniversary of proclaiming the Code of Conduct, POSCO held a declaration ceremony for the New Ethical Management Proclamation on June 24th, 2013, presenting a new model of ethical management that companies must strive for. POSCO gathered opinions from experts and stakeholders through Executives' Ethics Practice Resolution and the New Ethical Management Conference, in order to set the direction for the new ethical management principle.

### Why POSCO Happiness Management is Necessary

With the dawn of a new era of capitalism, the corporate management paradigm is shifting. Thus, the need has risen for a management based on communication to grow and coexist with various stakeholders. In addition, as a responsible economic actor, POSCO has the obligation to contribute to the realization of economic democracy where all economic actors grow in harmony, and respond to the country's mission to build a society that cares for the socially vulnerable and pursues the people's happiness. Moreover, POSCO needed a stronger and more systematic execution framework of global top level in order to meet the global trend that emphasizes human rights and the environment. Most of all, as POSCO was nurtured by the country, we needed to practice management activities that meet the people's expectations and conform to public good, and Happiness Management is the stepping stone for achieving that vision.

### Vision of Happiness Management and its 3 core values

The vision of POSCO's Happiness Management is "Let's Come Together to Build a Better World!" It means contributing to creating a better world where the whole corporate ecosystem becomes happier when all the constituents enter the virtuous cycle through happiness management, and this cycle spreads to other areas.

The vision of POSCO's Happiness Management consists of 3 core values: Future, public good, and win-win.

Future (Better Tomorrow) stands for the future-oriented value of looking forward, pursuing happiness that is better than today, and building a better tomorrow. It symbolizes the hopes and dreams for the future, and that we will pursue a more prosperous and abundant future.

Public good (Fair Interests) means, although the profit of a company is important, we should emphasize pursuing the benefit of the whole as well. By pursuing the good of the whole and happiness of the society, profits may shrink for a while, but in the end it will benefit the whole ecosystem, which in turn will increase the benefit of the individual company, and the corporate value will be enhanced.

Win-win (Mutual Success) stands for our commitment to grow together with all the stakeholders – customers, subcontractors, suppliers, shareholders, investors, local community, the country and the international community. If all the stakeholders don't grow together through win-win, no company will be able to grow in the new era of capitalism.

POSCO'S HAPPINESS MANAGEMENT DECLARATION

### VISION

## Let's come together to build a better world!

### **CORE VALUE**

#### **FUTURE**

## Management that brings a better tomorrow, a happier world

We will communicate and cooperate at the global level to build a healthy and bright world and contribute to creating a happy future.

### **PUBLIC GOOD**

### Management that is committed to the public good and happiness of society

We will contribute to building a happy society by emphasizing the good of the whole ecosystem rather than the profit of an individual company.

### WIN-WIN

## Management that enables all the stakeholders to grow together

We will build a happy workplace, growing together with all our stakeholders.

### Implementation method for the efficient achievement of our vision

### Implementation plan for the core value of 'Future'

Reestablishment of the Code of Conduct, reflecting FCPA, human rights, environment, and diversity /implementation of social contribution activities in collaboration with international cooperative institutions and industry-academic cooperation / health care for a healthy society

### Implementation plan for the core value of 'Public Good'

Provide innovation support to SMEs and participate in the Industry Innovation Movement 3.0 / expand the "Selection criteria for trading partner" to all POSCO Family companies/ spread 1% sharing campaign and volunteerism, spread the custom of small weddings

### Implementation plan for the core value of 'Win-win'

Raise KRW 210 billion in three years for performance compensation / raise SME support fund and drastically enhance Techno Partnership / create good jobs, allow flexible work hours, and daycare support to enhance work-life balance

## **INVESTOR**

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Responding flexibly to a prolonged downturn in the global economy, POSCO made meaningful financial and non-financial achievements, further enhancing our status as a global steelmaker.

We will establish a unique POSCO way of doing business, and concentrate on securing the world's best technologies, putting our efforts into creating greater value for all of our stakeholders.



# Investor Information



In the rapidly changing business environment, we continuously communicate with our stakeholders in our business activities. POSCO annually reports the financial and non-financial performance for stakeholders through the Sustainability Report and other various IR activities.

We not only report our performances and business activities through the quarterly earnings announcements, CEO Forum and Investors Forum held at the beginning of the year, but also providediverse opportunities for investors to hear from our top management. Apart from the regular result announcements, we occasionally hold Non-Deal Roadshows, global conferences, face-to-face meetings and conference calls as well as field trips to steel mills, in order to meet the investors through various channels and give them an update on the current business status.

### **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 peers.

### PROGRESS OF THE CREDIT RATING

	2009	2010	2011	2012	2013
S&P	A	A	A-	BBB+	BBB+
	(Stable)	(Stable)	(Negative)	(Stable)	(Negative)
Moody's	A1	A2	A3	Baa1	Baa2
	(Negative)	(Negative)	(Negative)	(Negative)	(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 3 years, it has recorded dividend payout ratio over 20%, and dividend yield over 2%. Especially, POSCO

launched 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, and pay them their due dividends.

Classification	2011	2012	2013
Cash dividends per share (in KRW)	10,000	8,000	8,000
Interim dividends per share (in KRW)	2,500	2,000	2,000
Total dividends paid (in billion KRW)	772	618	633
Dividend payout ratio (%)	24.2	24.7	40.0
Dividend yield (%)	2.6	2.3	2.5

<sup>\*</sup> For POSCO only

### **Corporate Value and External Evaluation**

In 2013, POSCO responded swiftly to worsening business conditions through emergency management measures such as reducing production costs. However global recession has worsened our business performance. POSCO's non-consolidated sales was KRW 30,543.5 billion and operating profit was KRW 2,215.1 billion, decreasing by 14.4% and 20.6% respectively. Worsened performance affected the stock price as well. The stock price that was KRW 349,000 as end of 2012 was brought down to KRW 326,500 on December 30th, 2013.

However, POSCO lowered the production cost by reducing raw material blending cost and optimizing facilities, as well as strengthening development and sales of high value-added products. As a result, POSCO was able to record a non-consolidated operating margin of 7.3%, the highest among global steelmakers. In addition, we improved the financial soundness of the company by paying back debts, issuance of hybrid bonds, and sales of treasury shares.

In spite of unstable conditions in the global economy, POSCO has maintained outstanding competitiveness and sustainability performance. POSCO was selected as No.1 World's Most Competitive Steel Maker by World Steel Dynamics (WSD) for four consecutive years. In the evaluation that covers technological competence, profitability, cost saving, financial soundness, and raw materials procurement, POSCO received 7.78 points in February and 7.73 points in June, 2013. POSCO received high points for level of workmanship, labor productivity, innovative technology such as FINEX, and cost competitiveness. POSCO also got high points for expanding production of high value-added goods, reduction of production costs, profitability, and expansion into new markets.

In September 2013, POSCO was included in the SAM-DJSI as a leading company, for the ninth consecutive year since 2005. POSCO is the first steelmaker to be included in the DJSI for nine consecutive years, especially considering the fact that the steel industry faces higher environmental risks. In particular, POSCO received 90 points in the environment sector, the highest among steelmakers, which is recognition of our management philosophy to be an environmentally friendly steelmaking company.

2013 POSCO REPORT

### WSD'S MOST COMPETITIVE STEELMAKER

Rank	2012	Feb. 2013	Jun. 2013
1	POSCO (Korea)	POSCO (Korea)	POSCO (Korea)
2	NLMK (Russia)	NLMK (Russia)	Severstal (Russia)
3	CSN (Brazil)	Severstal (Russia)	Nucor Corporation (U.S.A)
4	Severstal (Russia)	JSW Steel (India)	NLMK (Russia)
5	Baoshan Iron and Steel (China)	Nippon Steel & Sumitomo Metal (Japan)	JSW Steel (India)

#### RESULTS OF THE SAM-DJSI ASSESSMENT

(Unit: points)

Classification	Economy	Environment	Society	Total Score
POSCO's score	67	90	69	77
Percentile score*	82	100	82	97
Highest score in the industry	82	90	81	79
Average score in the industry	53	38	44	44

Percentile score: The percentile rank of POSCO in the steel industry, 100 points for rank 1

### POSCO'S TOTAL SCORE FROM SAM-DJSI DURING PAST THREE YEARS

(Unit: points)





### **AWARDS RECEIVED IN 2013**

132 13.2 13.5 '13.6

No. 1 Most Competitive Steelmaker (World Steel Dynamics) 200 Biggest Companies 184th place - entered the 200 list for six consecutive vears (Forbes) Steelmaker of the Year (AIST – Association for Iron & Steel Technology) No. 1 Most Competitive Steelmaker – 6 consecutive times, 4 consecutive years (World Steel Dynamics) 13.7 Ranked 167 in Global 500-3 consecutive years to be included within the top  $200\,$ (Fortune) '13.9 Carbon Disclosure Leadership Index '13 **9** Named among leading companies in the Dow Jones Sustainability Index (RobecoSAM, Dow Jones) 13.11 Included in 2013 East Asia 30 list (Hankyoreh Economic Research Institute, Asia CSR Expert Committee)

Presidential Citation, "Proud and Able - New Age of High School Graduates Award" 13.1 (Ministry of Education) **'13.2** Named 2<sup>nd</sup> Most Respected Company (Korea Management Association)

**'13.2** Won Grand Prize at Korea Ethical Management Grand Prix (New Industry Management Academy, Ministry of Trade, Industry & Energy) Designated as Model Case for Domestic CSR (Sisa Press, Good Company

Conference) **'13.6** 1st prize at Transparent Accounting Awards (Korean Accounting Association,

'13.6 2<sup>nd</sup> Most Respected Korean Company (Fortune Korea) '13.8 Won grand prize in the Korean SNS Awards (Herald Business and the Korean

'13.9 Won 1st place in steel sector in the Best Company to Work For Awards (Korea Management Association)

13.11 2013 Awards for Spreading the Coaching Culture - 6 consecutive years (Korea Coach Association)

'13.12 ARTISTREE Awards (Arts Council Korea)

'13.12 Best Sustainability Management Award (Sustinvest)

Association for Social Content Development)

14 1 Outstanding Operation of CHAMP (Consortium for HRD Ability Magnified Program) - POSCO e-Campus (Human Resources Development Service of Korea)

### **O** FOCUS

### Dow Jones Sustainability Index (DJSI)

Dow Jones Sustainability Indices In Collaboration with RobecoSAM 40

Dow Jones Sustainability Index is a set of indices monitored by Dow Jones, the financial information organization, to provide information on changes in corporate values of those enterprises with outstanding sustainability performance. The DJSI is set and managed through transparent evaluation by the Switzerland-based SAM's Corporate Sustainability Assessment on 2,500 or so companies that are included in the Dow Jones Global Indices. These indices not only consider the financial performance of the companies but also non-financial performances, thereby displaying the current performances and future potentials. RobecoSAM constantly monitors member corporations and replaces 10~15% of the members through yearly assessments. The member companies included are recommended as the preferred investment to the Social Responsibility Investing Fund, and are expected to attract stable and long-term investment.

OVERVIEW CSR MANAGEMENT SYSTEM INVESTOR CUSTOMER ENVIRONMENT PARTNER EMPLOYEE SOCIETY

## **Task Innovation**



Innovation has become an indispensable factor for corporate growth in a global market. A company that innovates survives, while others do not. Especially for POSCO which faces a severe economic slump in the steel industry, innovative capacity is critical. POSCO lays the foundation for a new progress with its own innovation model called the Pi innovation ( $\varpi$  innovation).

The Pi innovation ( $\varpi$  innovation) is based on the concept of pursuing continuous improvement and creating values like the infinite number, pi. It is also based on the "logic of pie", where, if the pie, the source of distribution, gets bigger with improved productivity, then individual performance improves as well. POSCO Family will not be able to grow in a sustainable manner only with the previous innovation that focused on heightened execution and problem-solving. POSCO's Pi innovation is a model that enables new value creation and efficient management to keep pace with the expansion into the global market, developing new businesses, and POSCO Family's synergy. Pi innovation consists of BI (Breakthrough Innovation), CI

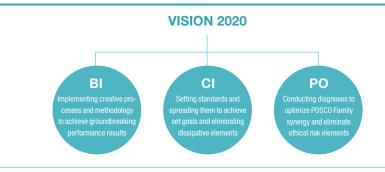
(Continuous Improvement) and PO (Process Optimization). BI (Breakthrough Innovation) literally means innovative activities that can bring about a breakthrough for growth. Its objective is to generate groundbreaking profit and identify future business through the Big Thinking process that realizes creative ideas. All members of the management participate in sharing ideas on developing new businesses and innovative cost reduction. After the ideas are pooled they go through the CDAM process, namely, they are combined, deleted if not adequate, added to other ideas, and modified to fit the work-site operations before they are finally selected as a BI project. In 2013, 23 projects were approved by the CEO, of which 17 were implemented.

CI (Continuous Improvement) is an innovation activity aimed for Family-management by expanding POSCO's successful innovation models throughout the POSCO Family. The existing innovation activities such as QSS¹, TRIZ², Mega-Y³ and Big-Y are standardized to be expanded and internalized to other members of the POSCO Family. In 2013, 4,265 QSS projects were adopted, which is a 30% increase from 3,004 projects in the previous year. Moreover, in 2013, our innovation model was spread to SMEs that do not have transactions with us, providing support for 197 QSS activities tailored to SMEs' needs.

As for Mega-Y, which is a company-wide cooperation activity to pursue innovation, we executed 10 projects in increasing by-product profitability, reducing safety accidents to zero, and developing innovative products. As a result, we generated KRW 1.1 trillion worth of profit. With the Big-Y, which is carried out within each division, a total of 159 projects were identified in areas such as solving persistent problems, quality improvement, and generating profits. As a result, KRW 348.4 billion worth of financial benefits were achieved.

- <sup>1</sup> QSS (Quick Six Sigma): An innovative method designed for the easy application of the Six Sigma model.
- <sup>2</sup> TRIZ: A theory for creative problem-solving that solves problems by finding fundamental inconsistencies.
- <sup>3</sup> Mega-Y: A task force-based activity to achieve company-wide strategic objectives with cooperation among multiple sectors under the supervision of an executive officer.

### $\pi$ INNOVATION



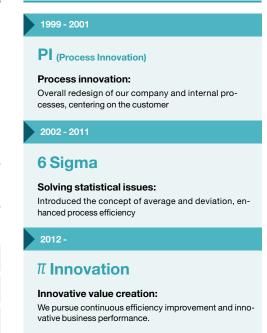
### Smart Workplace (POSPIA 3.0)

\*Details of Smart Workplace (POSPIA 3.0) are described on page 00

### THROUGH $\pi$ INNOVATION

Breakthrough Innovation	Actively share and improve ideas together to create new value,
Continuous	Continuously improve my work by learning new information and knowledge,
Improvement	3
Process	And antimine the condensation of the University of the Condition of the Co
Optimization	And optimize the work process to a global level through continuous monitoring and eliminating dissipation.

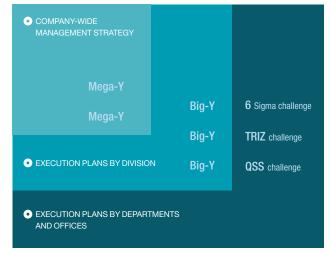
### POSCO'S INNOVATION ACTIVITIES



PO (Process Optimization) diagnoses ethical risks and inefficiencies and removes dissipative elements to ensure management transparency and business performance. The process of PO diagnosis consists of the following steps: improvement opportunities are identified in the order of Customer, Output, Process, Input, and Supplier. Using a systemized diagnosis method, we interview the person who is in charge of processes and suppliers to identify issues that undermine customers' needs. In 2013 diagnosis of our sales and logistics process enabled us to reduce KRW 28.9 billion by removing dissipative elements and inefficiencies between processes, contributing significantly to POSCO Family's profitability.

In 2014, we will further advance innovative management and focus on innovation that will bring profits. We will develop "Innovation Themes" tailored to external conditions as well as the field; continue to implement innovation activities with everyone's participation; while securing competitiveness through PODICI, a space for focused innovative thinking. In addition, we will devote ourselves to internalizing the way of working based on the process and data through POSPIA 3.0, Smart Workplace (SWP), and big data.

#### POSCO'S UNIQUE INNOVATION ACTIVITIES'



Big-Y: An innovation activity that brings out improvement through cooperation among departments within divisions, unlike the Mega-Y

#### $\pi$ INNOVATION FLOW CHART

#### **Breakthrough Innovation** A big thinking process that turns creative ideas into results Strategies and Finalize BI projects Execute BI project Ideas from inside and outside the company · Pursue new business Secure new markets · Develop innovative operation methods **CONTINUOUS IMPROVEMENT** A system of continuous improvement to Settle an atmosphere of learning and enhance operational efficiency improving everyday D+ provement Work Diet dization Resource Apply Break down Establish and Arrange planning methodology VP method spread QSS adstandard models to fit the problem according to vancement model Utilize VE type, such as 6 characteristics of appropriate Fliminate dissipa-Sigma or TRIZ the work innovation activity - i.e experience the QSS, VP **PROCESS OPTIMIZATION** Build optimized process without dissipa-Realize optimal process (POSPIA 3.0) tive elements & ethical risks

Draw out

Rolling of execution

project to achieve

the Big Picture

Bia Picture

project owner for

each Big Picture

category

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### PODICI, the cradle of POSCO's Value Innovation

POSCO opened PODICI, a place for focusing on innovations to increase profitability through real-time management and paradox management at both Pohang (June, 2013) and Gwangyang (November, 2013). PODICI is a combination of the two words POSCO and Medici. One of the main reasons that enabled the renaissance of the arts was the space and opportunity provided by the House of Medici for artists to pursue their work. Catching on this philosophy of the Medici, POSCO created its own space for value innovation.

Target

POSCO,

Subsidiaries

subsidiaries

Diagnosis

Quarterly

diagnostics

rationality

Process

PODICI provides a space for creativity and collaboration, where experts in innovative methodology, mechanical engineering, and metallography provide support, and cross-functional teams from various departments come together to work on their projects. This is where the three mottos of immersion, collaboration and creation is realized, where projects that have big managerial impact and require collaboration are executed.



### Steel Sector

POSCO has been establishing and executing strategies and development plans to secure the world's no. 1 technological competitiveness. We developed unique products which lead to new demand for steel products, while greatly improving the profitability by reducing production costs. In addition, we developed and commercialized POSCO's unique and innovative steelmaking process, while the shop floor process technology was improved for enhanced productivity, better quality, and cost reduction. Moreover, the development of new steel fusion technology and low carbon, green growth technology has greatly reduced the carbon emissions intensity. We have also established an efficient system to speed up the accumulation if independent technology through innovation activities such as the "Open Innovation (collaborative innovation)", whereby plans are established to acquire technology.

### **Major Achievements in Technological Development**

# IRON MAKING

- Developed the design and operation technology for the world's largest blast furnace with a useful volume of 6,000 m³ (Gwangyang Steelworks).
- Designed and built the world's largest blast furnace based on our unique know-how on blast furnace operation and design.
- An early regular operation was started after blowing-in.
- Secured high-efficiency and high-volume production technology.
- Developed technology of using cheap sources of iron from the iron making process to achieve the world's no.1 cost competitiveness.
- Secured technology for using large amounts of low grade iron ore¹ and ferrous byproducts² using the sintering process.
- By developing 2.0Mt Slim FINEX, we enhanced the economic feasibility of investing in FINEX as well as operation competitiveness.
- Compared to the 1.5Mt FINEX process, the same amount of investment will bring higher productivity.
- In response to the gradually deteriorating quality of coal, we are developing an economic coke processing technology using large amounts of cheap coal<sup>3</sup>.
- Secured technology to stabilize and maintain coke quality even when using large amounts of low rank coal.
- Low grade iron ore: Ores with low Fe content and high impurities
- <sup>2</sup> Ferrous by-products : These by-products are usually discarded because of small size and high content of water, Zn, and alkali.
- <sup>3</sup> Cheap coal: Low grade coal with such low caking properties that they cannot become coke by themselves.
- Details of the FINEX process are described on page 00.

### STEEL MAKING



- Increased automation rate of operation control of the steel making process and developed low-cost production technology.
- With the development of the converter operation model, quality deviation owing to human elements has been reduced
- Secured cost reducing technology by procuring ferroalloy and optimizing its input pattern.
- Secured high product quality through usage of low grade raw materials and shortening refining lead time.
- Secured mass production capacity for energy steel by improving production technology of thick plate slab products.
- Enhanced the quality of thick steel plate with the development of PosHARP, and 400mmt slab production technology.
- Secured cost competitiveness with the development of continuous caster LICC¹ for thick plate slab.
- Upgraded CEM production technology
- Secured technology for producing premium thin foil by upgrading CEM's high productivity, high quality thin plate production technology.
- Developed low carbon, high carbon, and high strength steel endless rolling technology<sup>2</sup>, expanding 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.
- <sup>1</sup> LICC (Large Ingot Continuous Casting): this continuous casting process substitutes the existing ingot production process, whereby rectangular slabs for thick plates are produced.
- <sup>2</sup> 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.

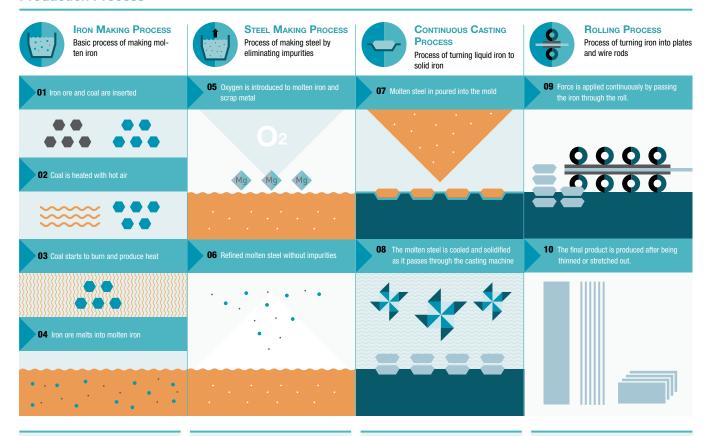
### **ROLLING**



- Improving production technology for high performance hot rolled steel products → Quality differentiation from competitors
- Improved platform technology by applying our unique endless rolling technology, while enhancing mass-flow stability and width control.
- With the completion of the wire rod plant No. 4, our wire rod production capacity has increased to 2.8 million tons.
- Owing to cutting-edge equipment that goes beyond the limits of the existing plants, our wire rod production capacity has increased from 2 million tons to 2.8 million tons
- We have established the supply infrastructure for high-end materials such as automobile components (both domestic and abroad), and construction materials for buildings and bridges.
- Developed production technology for highfunctional cold rolled material
- Developed production technology for next-generation smart steel sheet, inkjet printing technology, and high corrosion resistance EG/GI products guaranteeing SST 300 hours.
- Secured market leading technology by developing innovative process technology and high-functional coated steel products.
- Developed technology for high quality, environmentally friendly production of stainless steel.
- With the development of high quality, environmentally friendly production technology, we built the production infrastructure for 750,000 tons of cold rolled stainless steel.
- We built the production process for 400 series stainless steel using molten iron.
- We expanded the environmentally friendly high-speed pickling process that does not use nitric acid.

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### **Production Process**



### **IRON MAKING PROCESS**

**FINEX** | FINEX is a simplified iron making process that reduces air pollution and coal usage, and enables the use of cheap raw materials and fuel.

**BLAST FURNACE** I Iron ore and coke are put in from the top, then hot air at a temperature of 1,200 is blasted into the furnace reducing the iron ore and producing molten iron.

### **STEEL MAKING PROCESS**

The molten iron made at the blast furnace contains impurities such as carbon, phosphorus, and sulfur. Blasting oxygen eliminates these impurities, refining the molten iron.

## CONTINUOUS CASTING PROCESS

The refined product is then continuously casted into interim material such as slab, bloom or billets.

### **ROLLING PROCESS**

The slab, bloom or billets pass through rotating rollers to be stretched or thinned out. Rolling is divided into hot rolling and cold rolling.

### **New Growth Technology Sector**

In the new growth technology sector in 2013, we focused on developing pilot technology aimed at verifying the competitiveness and economic feasibility of our independent technology and linking them to actual businesses, in order to achieve early results and secure growth momentum. Seven technologies including extracting lithium directly from saltwater, amorphous fiber fabrication using molten metal, and non-catalytic transesterification completed their pilot phase and moved on to the next R&D phase. Meanwhile, the nickel hydrometallurgic refining; fabrication process for anode and cathode materials for secondary batteries; and fuel cell systems for buildings (SOFC) are in their pilot R&D phase with the goal of achieving World First & Best. At the same time, new product development and empirical study linked with revenue generation including industrial LED lighting systems are under way.

We built and applied systems for R&D project profiling and risk management to enhance R&D productivity through risk manage-

ment; expanded joint development cooperation between customer companies and POSCO Family companies to secure customers and for pre-marketing; while operating forums for research professors and outside experts to acquire new technologies and enhance our technological competence.

We selected "Securing innovative technological competitiveness and reducing risk" as our medium and long-term goal. In 2014, we will actively pursue technology development strategies including: enhancement of competitiveness and profitability through focused development of our unique technologies; expansion of business-centered R&D so that it will translate into early sales; enhancement of R&D productivity by establishing and operating the risk management system. Based on these strategies, we will complete pilot verification of 6 unique new growth technologies and transfer them to the business implementation stage, while optimizing mass production technology for new products to strengthen POSCO Family's technological competence and contribute to sales.

OVERVIEW CSR MANAGEMENT SYSTEM INVESTOR CUSTOMER ENVIRONMENT PARTNER EMPLOYEE SOCIETY

## 43

### **Major Achievements in Technological Development**

Nickel hydrometallurgic refining Nickel is a popular material for secondary batteries and stainless steel and has been extracted from high grade sulfide ores, but due to the depletion of sulfide ore deposits and difficulty in securing new mines, it has become difficult to produce nickel economically. POSCO developed a new nickel refining technology through the development and pilot research for a unique method of hydrogen reduction and leaching using low grade oxidized ore, which is relatively abundant. We have also developed technology to recover valuable metals from the dump leaching liquor and residue, which we expect will contribute to producing rare metals and reducing wastes. Currently a pilot research is under way to stabilize the process, and we expect over 90% nickel recovery rate from low grade oxidized nickel ores when we reach commercialization stage, which will contribute to domestic self-sufficiency of nickel.

Amorphous fiber fabrication using molten metal Amorphous fiber is a high-priced material for concrete used in civil engineering and construction. POSCO has developed the world's first mass production technology for amorphous fiber using molten metal from our mills. In the quality aspect, the amorphous fiber reached 1.44 GPa in tensile strength, superior to existing competing materials that were used as concrete material, and 12 on-site application projects have been completed to open up new markets. We will conduct pre-marketing to expand market application, improve its materials property, as well as focusing on developing mass production technology.

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 LMO process to secure price competitiveness, and the LCO anode material with the highest level of capacity and longevity is in its completion stage as well. We are also developing the concentration gradient type NMC, which is a next-generation anode material with high capacity and high stability. We are expanding the customer base by improving the performance of the previous natural graphite anodes, while also conducting research on commercializing artificial graphite and Silicon-Graphite composite anode material.

**Fuel Cell Systems for Buildings** A Solid Oxide Fuel Cell (SOFC) is a highly efficient and eco-friendly power generation technology, expected to be used for 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 top technology in high-performance, large-area cell manufacturing, which is a core technology of the SOFC. We developed Korea's first 10kW-grade SOFC system and successfully completed a grid-connected operation and system evaluation. We plan to apply this technology to renewable energy projects in the future.

Industrial LED lighting system POSCO has succeeded in developing the world's first LED lighting equipment tailored to industrial needs, and now offers 13 diverse types of products. Industrial LED lights have high durability against high temperature, humidity and

dust, which are common in industrial environments. They are also lighter and have a longer lifespan, employing POSCO's original technology for heat radiation and regular automatic dust removal using the Smart Fan. The outstanding quality of our products has been widely recognized both domestically and internationally. Moreover, we are currently working on producing a differentiated product that pushes the LED lighting from being just a lighting product, but by combining it to an IT convergence infrastructure, making a package of a smart automatic lighting control system.

Non-catalytic transesterification Biodiesel (used in transport), which can replace the limited petroleum resource is made from vegetable oil or animal fat through a chemical reaction called transesterification. It is gaining wide attention as an environmentally friendly technology because it can contribute to the virtuous cycle of resources by recycling wastes. POSCO has secured a new non-catalytic transesterification technology that is one hundred times faster than the conventional method of using acids or base catalysts. Currently, we are undergoing phased expansion and technology development to secure engineering capacity.

### **O** FOCUS

### Lithium Extraction Technology

Lithium is the key material of the future that is used in batteries for mobile devices such as cell phones and tablet PCs, as well as electric vehicles. Lithium resources are categorized into minerals, brine (liquid mineral containing lithium), and seawater. Currently, the most cost competitive type is brine, accounting for 70% of all lithium compounds produced throughout the world.

In our steps towards becoming a general materials supplier, we at POSCO have developed a technology that extracts lithium directly from brine. In July 2011, a pilot plant with a capacity to produce 5Kg of lithium was put in operation, opening the possibility of a commercial application of the technology. In December 2012, we built a pilot plant with an annual capacity of 20 tons near Copiapo, Chile, succeeding our empirical study. In 2014, we plan to complete the final empirical study for commercialization of the technology by operating a large scale pilot plant with an annual capacity of 200 tons in Cauchari salt lake, Argentina. The conventional lithium production method using natural evaporation takes 12 months, with lower lithium recovery rate due to impurities such as magnesium and calcium that are in the salt water. POSCO's direct extraction technology, on the other hand takes only 2 months, or a minimum of 8 hours, and is the first method that can increase the lithium recovery rate from the previous 30% up to 80%. 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.

Year	Conventional Method	POSCO's New Technology
Process time	12~18 months	8 hours ~ 2 months
Lithium recovery rate	30%	More than 80%
Lithium carbonate purity	Less than 90.2%	More than 99.9%

# POSPIA 3.0 - Global optimization of POSCO's unique way of doing business

### A New Management System to Realize Global POSCO

With the prolonged global economic recession becoming all but the norm, it has become imperative for companies to continue changing in order for them to maintain competitiveness. Since the 1990s POSCO has been responding to the rapidly changing times through its PI (Process Innovation), building a unique process for doing business.

On January 1st, 2014, POSPIA 3.0, POSCO's management system for the future, was launched at POSCO and Krakatau POSCO, Indonesia. POSPIA 3.0 is a "Global Optimization" project aimed at enhancing the company's competitiveness and expanding those processes already optimized through our PI (Process Innovation) to the global level. Starting with our blueprint for the future which was laid out in 2011, we have finally completed development of a new management system to realize Global POSCO after 2 years and 2 months.

## Innovation and Global Optimization of Processes and Organizational Culture

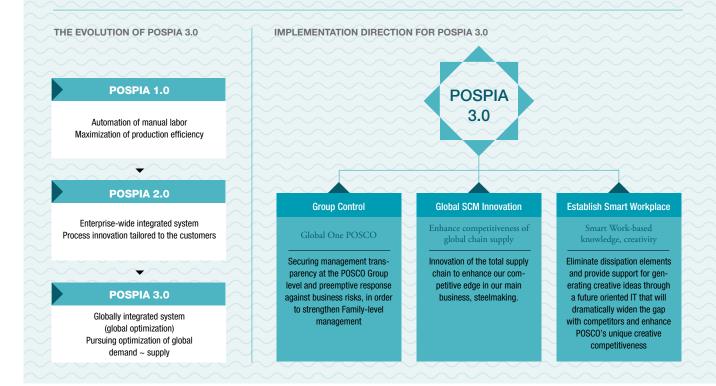
The implementation direction for POSPIA 3.0 is innovation of process and organizational culture. More specifically, it involves restructuring our process in order to quickly respond to customers' needs, expanding POSCO's management system to overseas production and processing plants to design an optimized work

process for our global operations, and building a "smart" space for communication, collaboration and sharing knowledge using new information technologies.

## Competitive Edge that Moves the POSCO Family as One

Through POSPIA 3.0, we renovated our work process to a system of strategy building – execution – evaluation. Thus, we secured competitiveness by enabling the whole POSCO Family to function as one entity. With a unified process, managerial risks will be detected early on and enable us to take preemptive measures to rapidly respond to changing business circumstances, while enhancing the transparency and synergy of POSCO Family's business activities.

In addition, POSPIA 3.0 has enabled us to establish a system for setting sales and production plans as if the Global POSCO subsidiaries are one company. Each month the presidents of subsidiaries across the globe hold a video conference to check each subsidiary's production, sales and inventory data, and making optimum decisions based on this data, reducing stocks at the global level, and thereby enabling an efficient management of resources.



## Work Process Further Enhanced, Focusing on the Customer

With the launch of POSPIA 3.0 all of POSCO's work process will be strengthened centering on the customer. First, we have established a rapid response system so that all customer inquiries will be answered within a day. With the help of the customer response system Smart Note, our salesperson will be able to collect relevant data on site and collaborate with experts, enabling work to be completed at the point of contact. Pre-suggestion, in which we explain new business opportunities and services to customers before we are asked, and customer information gathering and analyzing activities have been strengthened, while the usage of customer-related big data has been enhanced as well.

Further still, we built a quality test determination system that is applied throughout all plants and processes, which enables quality prediction and tracking, while quality design and assurance has been integrated and united globally. Logistics service has been restructured centering on the customers as well. Formerly, we relied on the logistics companies for logistics information, but now we monitor them directly, providing the ships' location to relevant departments and customer companies. By using such visual real-time information, we can quickly detect and respond to abnormal events

such as delayed shipping or accidents, thus further improving customer service.

## Cost Reduction and Stronger Cooperation through SCM Innovation

We expect cost reductions owing to POSPIA 3.0's SCM innovation. By integrating sales, production and raw materials planning; global integrated purchasing; integrated logistics; and utilizing the Shared Service Center (SSC), we expect to see drastic cuts in operation costs. We have also built a collaboration system based on POSPIA 3.0, for mutual growth with our external stakeholders such as suppliers, subcontractors and shipping companies. We provide production plans and purchasing plans to our subcontractors on a real-time basis so that they too can use their human and material resources in an efficient manner.

### **Phased Expansion to POSCO Family Companies**

With a view to enhancing the POSCO Family-level management system and settling a global standard way of doing business in a fast and stable manner, we plan to spread POSPIA 3.0 globally starting from our steel plants around the globe, strengthening our process competitiveness. POSPIA 3.0 will be spread step by step to other subsidiaries such as POSCO E&C, POSCO Energy, and POSCO ICT.

Utilizing Mobile and New Technologies for On-site Completion of Work

### **POSCO Smart Note**

Before meeting with the purchasing manager from KIA Motors, manager Kim at the Automotive Materials Marketing Department goes over the items to discuss with him such as the purchase order and delivery status, using his POSCO Smart Note. During the meeting, he records the items he discussed in the Smart Note as he would in his notebook,

shares photos or videos with the officer at the head office to respond immediately to the customer's request, and gives feedback right at the spot. After the meeting, he can report the results of the meeting at the scene without returning to the office, and without having to waste time in transportation.



### Recording with a smartphone and sharing with the Smart-

The Smart Note can be customized to suit the salesperson and customer, write in it as one would in a notebook, and be used to immediately share information digitally.

Contents needed to prepare for a meeting such as customer related news articles, finding the route to the customer's office, and information on the surroundings of the office building will help shorten the preparation time. The Smart Note can also be used to prepare key information the customer needs via the mobile device.



POSCO Smart Note's start screen



Page for jotting down notes while browsing customer-related news

n transportation.

All sales related information is available at the spot! On-site completion of work is made possible

Any content requested by the customer can be accessed at the spot using the smart phone or smart pad, and relayed back to the customer.

- Instead of returning to the office to work on the PC to document the results of the meeting, the information can be input at the scene to be shared and used for reporting, thus completing the work at the place of the meeting. More attention can be given to the customer instead of desk work, transforming the job to an on-site oriented work system.
- Information that was managed by individuals is gathered and managed as company asset, enabling everyone to share sales know-how and heightening the level of work skills of each individual.



Customer related information gathered at the field is automatically registered in the CRM with just a few clicks.

### KEY ISSUE \_ 04

# Example case of development and sales of highly energy efficient steel products to respond to climate change

POSCO has set the target of reducing the greenhouse gas emission intensity (CO<sub>2</sub> emission per ton of steel produced) by 9% compared to the average during 2007 ~ 2009, and indirect greenhouse gas emissions by 14 million tons by the year 2020. Specially, in order to reduce indirect emissions, POSCO is actively pursuing the supply of highly energy efficient steel sheets. POSCO continues greenhouse gas reduction both inside and outside the company, as well as indirect emission reduction activities by developing innovative low-carbon technologies.

### High strength automotive steel sheets

One of the best ways to improve fuel efficiency of vehicles and reduce greenhouse gas emissions is to make the vehicles lighter. Although there are some variations according to the type of vehicle, it is thought that reducing 10% of the vehicle's weight will reduce CO<sub>2</sub> emissions by 5–8%. High strength automo-

tive steel sheets¹ are thinner while having the same strength, making it possible to make lighter vehicles, thus improving energy efficiency. Assuming the annual mileage of a car made with high strength steel to be 19,000 km² and that it runs for 10 years, the indirect emission reduction effect per ton of high strength steel is estimated to be 0.8 ton. As high oil prices continue and fuel efficiency gains more public interest, automakers are expanding their use of ultra high strength steel sheets to produce lighter automobiles. In 2013, our sales for high strength automotive steel sheets were 876,000 tons, an increase by 7%. POSCO continues investing in these high value-added products, and puts efforts into developing automobiles that are more efficient in terms of the environment, the economy and society, through technological collaboration with automakers.

<sup>1</sup> High strength automotive steel refers to HSS (High Strength Steel) with tensile strength of over 590 MPa and AHSS (Advanced High Strength Steel) with tensile strength of over 440 MPa.

### INDIRECT CO2 EMISSION REDUCTION THROUGH HIGH STRENGTH AUTOMOTIVE STEEL SHEETS

(Unit: 1 thousand tons)

	2009	2010	2011	2012	2013
CO₂ reduction by product lifespan	2,876	5,020	6,308	6,626	7,058
Annual CO₂ reduction effect	288	502	631	659	706
Sales volume (1 thousand tons)	357	623	783	818	876

The calculations are based on the assumption that the high strength steel sheets were applied to automaker A's passenger car (2000 cc), and the improved fuel efficiency owing to lighter weight of the vehicle.

### **POSCO Develops Lightweight Frame for Electric Vehicles**

The automobile industry is focusing their efforts in developing advanced drive systems such as the electric vehicle, and ultra lightweight bodies. Seventeen steelmakers worldwide including POSCO participated in the FSV (Future Steel Vehicle) project conducted by WorldAutoSteel, the automotive group of the World Steel Association, and developed the lightweight body for electric vehicles, and announced the results in 2011.

Meanwhile, POSCO independently developed the PBC-EV (POSCO Body Concept-Electric Vehicle) and completed test production in December 2011, with the goal of launching mass production by 2015. The PBC-EV employs more than 40% of ultra high strength steel and uses cutting-edge methods such as hot press forming and multi-directional roll forming, making the body 26% lighter than conventional automotive bodies. (If hot press forming is applied to a larger area, the weight can be further reduced up to 30%). The lightweight automotive body is beneficial in light of the LCA (Life Cycle Assessment) as well, by reducing approximately 50% of greenhouse gas emissions during its life cycle.

	WorldAutoSteel FSV	POSCO Body Concept Electric Vehicle
Body weight	Compact passenger cars 35% ↓	Lower-medium passenger cars 26% \$\display\$
Greenhouse gas emissions	70%↓	50%↓
Development phase	Concept	Concept
ent phase	Prototype	Prototype

<sup>&</sup>lt;sup>2</sup> Passenger cars' annual mileage (Traffic Safety Research Institute)

OVERVIEW CSR MANAGEMENT SYSTEM INVESTOR CUSTOMER PARTNER **EMPLOYEE** SOCIETY **ENVIRONMENT** 

### KEY ISSUE \_ 05

## FINEX (Fine ore reduction process) is an eco-friendly and economic steelmaking technology

Generally, steel mills produce molten metal by melting iron ores in the blast furnace. Iron ore and coking coal are charged to the blast furnace, and by blowing air at 1,200 °C the coal becomes the heat source to melt the iron. When iron ore or coal is put in the blast furnace in the form of fines or small particles, the hot air does not transfer evenly, and will not be able to melt the iron. Thus, the iron ore goes through the sintering process to be made into sintered ore, and coal into coke lumps before they are charged to the blast furnace. For the steelmaker, putting the raw materials through many processes costs a lot of money and raw materials in the form of fines are hard to use. Moreover, not only are large amounts of energy used at the processes, but various pollutants such as sulfur oxides and nitrogen oxides are produced as well. This is why steelmaking is considered to be a high energy consuming and polluting industry.

POSCO developed a more eco-friendly and economic method called FINEX to address the problems associated with blast furnace production. FINEX is a technology that extracts molten metal directly from the fines without pre-treatment such as sintering.

skipping relevant

S.V (Society Value)

#### FINEX HISTORY

2014

Started FINEX R&D with independent technology

Completed the FINEX demo-plant 1998 (Pohang, annual capacity 600,000 tons)

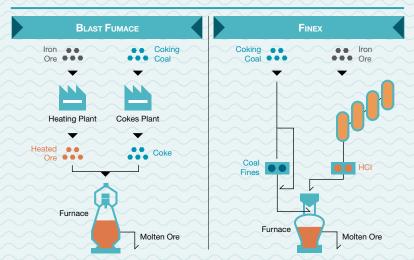
2007 Completed FINEX commercialization plant (Pohang, annual capacity 1.5 million tons)

2011 Signed MOU with Chongqing Iron and Steel Company

Agreed to joint construction of a FINEX integrated steel mill with a capacity of 3million tons per annum (2 units with 1.5 million tons capacity) with Chongqing Iron and Steel Company

> 3rd FINEX plant was completed (Pohang, annual capacity 2 million tons) Formal contract to be signed after Chinese government's ratification and Korean government's approval of the technology transfer

### COMPARISON OF THE BLAST FURNACE AND FINEX PROCESS



The FINEX technology that POSCO succeeded in commercializing for the first time in the world in 2007 uses the cheap iron ore fines and coking coal without pre-treatment. FINEX has enabled us to use iron ore fines (lump diameter less than 8mm) that comprise 80% of the iron deposits and are 20% cheaper. It also contributes to reducing processing plant construction costs as well as production time. Another merit is that it produces fewer pollutants compared to the blast furnace method. The air pollutant emissions reduction compared to the blast furnace method are 97% for Sox, 99% for NOx, and 72% for fugitive dust, making FINEX a very environment friendly technology.

### First export of the state-of-theart FINEX steelmaking technol-

On September 22, 2013, POSCO signed an MOU for a joint project to build an integrated steel mill with an annual capacity of 3 million tons with China's state-owned Chongqing Iron and Steel Company. Chongqing Iron and Steel is 100% owned by the city of Chongqing, established in 1893 with an annual steelmaking capacity of 6.5 million tons. Chongqing is the center of na and has recorded economic growth rates higher than China's average for the past few years, which is expected to bring high demand for steel than any other region in the country.

According to the joint venture agreement, POSCO and Chongqing Iron and Steel will invest 50% each to build a FINEX integrated steel mill with an annual capacity of 3 million tons. This is the result of two years' feasibility study that was conducted after signing the MOU in July, 2011. When the Chinese government ratifies the deal and Korean government approves the transfer of technology at the end of 2014, we will start working on the formal contract.

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2013 POSCO REPORT

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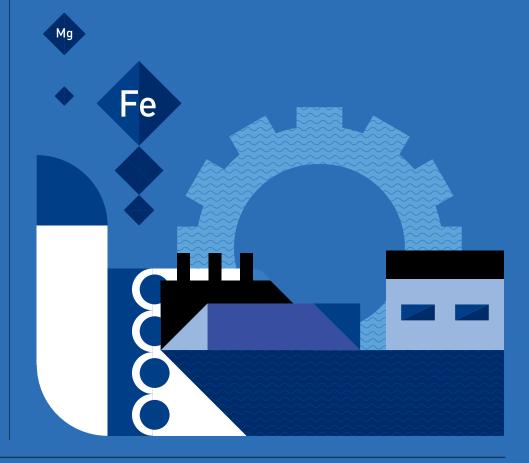
## Plans for 2014 Quality Management

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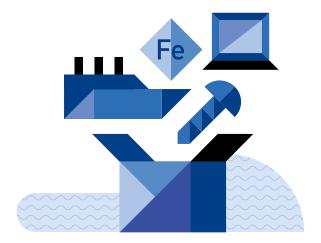
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06: Cases of creating customer value

There has always been the customer at the heart of POSCO's growth. POSCO strives to create new value for the customers through untiring efforts in product development, value competition and quality innovation. It is our goal that all the customers worldwide, from tier 1 customers to the end consumer will make more value and achieve higher performance with POSCO's high quality products and excellent marketing. We will create value that customers truly want and grow together with the customers toward a sustainable future.



## **POSCO Products**



### **Hot-rolled Steel**

Major applications









Hot-rolled products include the hot-rolled coil, which is formed out of hot strip mills, and the hot-rolled sheet, which is made by cutting hot-rolled coil. Some of the hot-rolled coils from hot strip mills are sold as finished products or used as intermediate materials for cold-rolled coils and electrical steel to be reprocessed later into high value-added products.

Pipes, beams, automotive frames/wheels, containers, etc.

### **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. We are actively developing new products to meet the customers' demand for various high-functioning products.

### **Steel Plates**







### Wire Rods







Major applications Ships, large structure, bridges, etc.

Plate products generally refer to steel plates with a thickness of 6mm or more, which are manufactured in the form of plates. 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.



Bridge wire, tire cord, spring, architectural structures, etc.

Major applications Bridge wire, tire cord, spring, architectural structures, etc. Wire rod products are "wire materials" produced in thin and long shapes. They are divided into general and special steel. General steel can also be classified into 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.

### **Electrical Steel Sheets**







Transformers, motors, power generators, etc.





Being highly electromagnetic, electrical steel is in ever greater demand as the need for clean energy grows to support continuing efforts to conserve energy and prevent environmental degradation. This steel is also called silicon steel, due to its high silicon content, and is divided into grain-oriented and non-oriented steel sheets according to its magnetic property.

### Stainless Steel







Major applications

Kitchenware, medical devices, building interiors/exteriors, car 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 kitchenware, automobile parts, and chemical facilities. 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 has been rising.

### **Titanium Products**









### Major applications









Major applications

Major applications

Nuclear/thermal power plants, petrochemical plant, aerospace, sports, medical products, etc.

Titanium is a non-toxic eco-friendly metal with excellent specific strength and high corrosion resistance. In many applications, titanium offers opportunities for reducing operating costs by; better fuel economy through weight savings; improved energy conservation through efficient heat transfer; resistance to aggressive materials.

### **Magnesium Products**

Automotive parts, cell phones, aluminum alloys

Magnesium is a metal with the highest specific strength and mainly used for automotive parts, cell phones, and aluminum alloy. It is emerging as a popular material for the 3Cs (Computer, Communication, and Camera) and car die-casting parts along with aluminum alloys.

# **Eco-friendly Products**

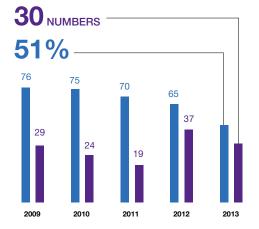




In 2013, the ratio of eco-friendly products took up 51% of all product development, and the sales of eco-friendly products between 2009 and 2013 amounted to 269 thousand tons.

### **DEVELOPMENT OF ECO-FRIENDLY PRODUCTS**

Ratio of eco-friendly products developed (unit: %)
 Number of eco-friendly steel product types



### TYPES OF ECO-FRIENDLY PRODUCT DEVELOPMENT

(Number of development cases, accumulated from 2009 to 2013)



### **ECO-FRIENDLY PRODUCT CATEGORIES**



ANCOR-HS (Advanced environmentally-friendly steel with sulfuric acid corrosion

Steel plates for ships/ structures

resistance)

FH27/32/36/40-TM for

Low carbon equivalent POSTEN100LC for heavy equipment 2

## Steel plates for energy sector

EN-S420/460G2m for offshore structures HIC resistant A516-70 for pressure containers

For oil sand slurry pipelines

3

### Wire rods

High corrosion resistant spring steel

4

## High-performance cold-rolled steel

ANCOR-CS (Advanced environmentally-friendly steel with sulfuric acid corrosion resistance)

Organic Cr-free plates for high corrosion resistant steel

White rust 300hr guarantee GI Cr-free sheet

### 5

## High-efficiency electrical steel sheets

23PNH270 non-oriented electrical steel sheets for vacuum cleaner motors

25PNX1300F non-oriented electrical steel sheets for electric vehicle motors

### 6

## Making lighter vehicles

CR 1300MPa grade Martensite sheet for car

CR 900MPa grade TWIP sheet for automotive reinforcements

CR 2000MPa grade Hot Press Forming sheets for automotive

## High strength EH47 TMCP steel for large container ships



- <sup>1</sup> TEU (Twenty-foot equivalent units): is a unit that represents a twenty-foot container box, and 10 thousand TEU means the ship has the capacity to load 10 thousand containers.
- <sup>2</sup> Yield strength: is the limit point where a material can return to its original shape when stress is removed.

The recent trend in container ships, the representative merchant ship, is that they are becoming larger, from below 10 thousand TEU¹ to over 18 thousand TEU. The reason is that global shipping firms are ordering ultra large, high-efficiency container ships that will enable them to secure an economy of scale when preparing themselves for the economic recovery after 2014. The high-strength EH47-TM for shipbuilding designed by POSCO has a higher yield strength² by 70MPa compared to the EH40-TM that is applied to 10 thousand TEU grade container ships. The EH47-TM is applied to the top level of a 18 thousand TEU grade, large container ship. With the discovery of the North Pole route which can shorten the transportation time by 10 days compared to the Suez Canal, we expect there will be a rise in demand for extreme low temperature steel products that can withstand extremely low temperatures (-60°C). POSCO will meet this trend and continue to develop high-strength extreme low temperature steel products

## High strength spring steel with high corrosion resistance for automobiles



The keywords for the automobile industry of the 21st century are environment and sustainable development. In order to reduce CO2 emissions, automakers are not only developing electric vehicles and hybrid vehicles, they are also actively conducting research on making automotive parts that are stronger and lighter. In order to respond to the needs of the automobile industry, POSCO developed the 1250 MPa grade spring steel used for coil springs. With higher strength of the steel material, the spring fatigue life increases, but if there are defects inside or outside of the steel material, the spring's fatigue life shortens rapidly. To overcome this flaw, we developed spring steel that maintains the same strength while being corrosion resistant, which prevents the spring from breaking due to corrosion.

## GI high corrosion resistance resin coated steel sheet



\* White rust: white powder that is formed on the surface of zinc or zinc alloy, it is a form of zinc corrosion

Currently we produce galvanized steel treated with Cr-free resin film to prevent corrosion. However, if treatment such as painting is not done after processing, corrosion occurs easily, and even before processing, carelessness or faulty packing often led to white rust, which continuously called for the need for improvement. Thus, POSCO developed a high corrosion resistance resin coated steel sheet by adding an anti-corrosive additive inside the Cr-free resin layer so that customers can use the product without any painting treatment. This product has corrosion resistance that is 4 times higher than existing products, and can be used as inner plates for home appliances such as washing machines, refrigerators and air conditioners, or in construction such as cable trays.

### CR 2,000 HPF (Hot Press Forming) steel for automobiles



With vehicle safety regulations becoming stricter, automotive companies are increasing the application of high strength steel in their products to comply with those regulations. To meet this need, POSCO developed the HPF (Hot Press Forming) steel sheet with 2,000 MPa grade tensile strength¹ that can be applied to automobile parts that are complicated in form while requiring high strength, such as pillars, bumper beams, and members. The HPF steel sheet uses the characteristic of steel that becomes soft² at high temperatures that makes them easier to be shaped. The sheet is heated to 900 ℃ before press forming, and is cooled inside the press, which maintains high strength. We strictly control phosphorus and sulfur content, which makes them stronger and more bendable compared to competitors' products. POSCO will continue to meet the automakers' expectations that require strength and formability with the CR 2,000 HPF steel.

### Hot Press Forming Technology schematic diagram



- <sup>1</sup> Tensile strength: The maximum stress that a material can withstand when being pulled from both sides.
- $^{\rm 2}$  Soft: When steel becomes soft, it becomes easy to change the shape.



In order to grow sustainably, which is the ultimate goal of all management activities, a company must have the ability to understand market changes and respond quickly to those changes. In the past, POSCO grew by responding to the stable increase in demand for steel. However, in the current conditions with fierce competition and rising raw material prices, it has become more difficult to create added value, and corporations must come up with new strategies in order to maintain growth in such harsh market conditions.

We will take one step ahead of price competition amongst such fierce competition, and advance our marketing strategy to value competition. Creating customer value within the context of this strategy will be the spine of our growth strategy. Customer value creation provides customized value to the customer, which builds long-term trust. Thus, POSCO will be able to continue technological innovation, and achieve shared growth with the customers.

MARKETING VISION

### MARKETING VISION Your Trust and Success, Our Tomorrow Овјестіче STRATEGY Long-term business partner. Establish customer-first company that customers want to principle and keep promises do business with the most Provide global one-stop service No.1 SoW (Share of Wallet)\* Build a global brand asset. No.1 provider Cultivate global B2B strategy Leader that spearheads change marketers toward a customer-oriented system 'SoW(Share of Wallet): the percentage of a customer's supporting that is captured by a given supplier out of the total spending CORE VALUES Customer centricity Creative & flexibility Global mind Professionalism EXECUTION Each individual's promise to put the Marketing Division's Practice Guideline

The CEO's business principle is to carry out customer-centric marketing, which involves customers' success, win-win with the customers, and earning customers' trust. The essence of "First Class Management," which is one of the 3 basic management principles of POSCO's new vision, is to pursue the utmost customer value, and to create a virtuous cycle where creating customer value brings success to the customer, and in turn helps them grow together with POSCO. We define "Value Competition" as to involve analyzing the customer's needs within the customer's value chain, present practical solutions to the problems the customer is facing, and create real value that the customer can feel, thus becoming the stepping stone for the customer's success.

### Operating system of value-based competition

POSCO has been undertaking various customer-centric marketing such as EVI (Early Vendor Involvement), field sales and emotional marketing. In 2013, we established a POSCO-style value competition strategy to respond more actively to customer's needs in a rapidly changing market environment. Value competition strategy is a marketing strategy which started from the product-centric EVI activity that focused on quality improvement and cost reduction, but now we are expanding the subject of value creation and scope of the value provided, so that we can understand not only the needs of our customers but also that of our customers' customers, and provide a total solution that utilizes our resources in international trading and finance to develop products and technology, enhance the customers' competitiveness, and expand their business.

Based on the idea of value competition, we restructured the sales organization that was divided according to the product, to a customer-oriented, industry-based structure. We reorganized our operations system, completely shifting toward the value competition system. In addition, we conducted various education programs such as workshops and e-learning courses to build a consensus among the employees on the importance of value competition. We developed the VAP (Value Accounting Planning: Roadmap to Value Realization) to systematically gather and analyze the customers' needs; provided overseas market information and exporting know-how to small and medium-sized customers who don't have the resources for overseas marketing; and financial services through POSTECH Venture Capital.

### **Maximizing customer satisfaction**

POSCO conducts an annual customer satisfaction survey in 6 categories such as sales person in charge, service, delivery time, and product quality (5 categories for overseas customers) through an external expert institution in order to listen to the customers' opinions and improvements to be made throughout our products and services, and to improve our activities to enhance customer value. In 2013, we conducted a survey during a period of 3 months starting from August 10th on 220 domestic and 237 overseas customer companies, and scored 88 points for domestic and 79 points for overseas. Compared to the previous year, the score for the domestic customers remained the same, while the overseas survey scored 2 points less. In 2013, we faced some difficulties due to continued economic recess and the accident at Gwangyang Steelworks, but owing to our company-wide efforts we were able to maintain a similar score level as the year before. Based on the survey results of

OVERVIEW CSR MANAGEMENT INVESTOR CUSTOMER ENVIRONMENT PARTNER EMPLOYEE SOCIETY

2013, we will identify improvement tasks throughout all the sectors including products and services and conduct active field sales.

In addition, we will modify the current survey method so that we may draw the needs of each customer in the rapidly changing market conditions, to pursue differentiated customer value creation activities.

### **CUSTOMER SATISFACTION SURVEY RESULTS**

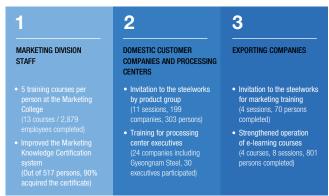
(Unit: points out of 100)

	2011	2012	2013
Domestic	91	88	88*
Overseas	81	81	79
Total	86	85	84

NFI.OU

Meanwhile, POSCO also operates a variety of marketing capability training programs at the "Marketing College" to cultivate marketing personnel's capabilities in customer value creation and market insight despite cut-throat competition and sluggish economy. The program includes work capability enhancement training by ranks and special lectures inviting the customer companies. We also invite our customers to participate in collective training and e-learning courses to enhance their competitiveness and to build mutual trust.

### **MARKETING TRAINING PERFORMANCE IN 2013**



In addition, POSCO has been operating the CRM (Customer Relationship Management) system since 2003 that gathers and accumulates customer information. Through this system, the marketing staff can enhance their understanding of the customers and provide custom-tailored service to fit their needs.

### Plans for 2014: Enhance total solution marketing

POSCO creates customer value by enhancing partnership with the customers through strengthened field sales. We are also expanding customized technology service that proactively develops products to meet domestic and overseas customers' needs, and total solution providing. We will transfer the R&D function to each business division and foster mutual cooperation to reduce the uncertainty surrounding technology and market. We will actively develop and supply high value-added steel products for offshore plants and eco-friendly/polar ships, and strengthen partnership with our customers by strengthening the activities of the R&D cooperation panel.



With the goal of achieving "The POSCO Quality," which aims to touch the customers' soul, POSCO pursues win-win quality management not only at the head office, the steelworks, and overseas production plants, but also with the POSCO Family and suppliers. Under the supervision of the Quality Management Group, we will build POSCO's unique integrated brand value by establishing various quality management strategies for each of POSCO Group's business sector and enhancing the quality of our products and services.

### **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

### THE POSCO QUALITY

### Top quality that touches the customers' soul

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

### Customer Inside

Create customer value reflecting even the potential needs of the customer

### Basic Inside

Value basics and principles and eliminate deviation and waste elements

### SYNERGY INSIDE

Pursue shared growth with the supply chain through trust and communication

2013 POSCO REPORT

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### **Customized Quality Education by Ranks**

To raise awareness on quality among employees and help them learn more about quality management, POSCO runs a customized education programs for each rank. In 2013, a total of 16,000 employees received quality training through 7 offline classes and 10 e-learning courses including special lectures on quality strategy for executives and group leaders and quality mind education for new employees. In particular, the quality management expert academy and the certification auditor training program are in operation, which cultivates in-company experts who will lead the maintenance and improvement of our quality management system. As of 2013, 200 POSCO Family quality experts were produced. They are playing a leading role in diagnosing and providing guidance for quality management.

QUALITY TRAINI
----------------

(Unit: persons)

Classification	Collective training			E-learning		
	General	Expert				
	No. of courses	Participants	No. of courses	Participants	No. of courses	Participant
2011	10	7,100	-	-	6	7,600
2012	9	3,900	1	66	7	20,800
2013	7	1,700	3	144	10	14,300

### **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 2013 the result of the quality management assessment conducted on 19 POSCO Family companies showed that POSCO is at Leading level within the industry, and the Family companies excluding POSCO are at Controlling level, which indicates continued improvement from 2011, when they were at Succeeding level. POSCO will expand the quality management assessment to overseas operations to build a truly global quality management system.

### Service quality assessment

The POSCO Family conducts a service quality assessment that evaluates not only the production value of POSCO, but also the various business sectors of the POSCO Family in order to pursue a global level of quality management. In 2012, we developed our unique assessment model, the first in the B2B industry sector, and conducted the first diagnosis in 2013 on 14 companies in the production, service and E&C sector such as POSCO, Daewoo International and POSCO E&C. The results showed that in the case of E&C and service, the score was in the excellent level compared to domestic competitors, but for the production sector it was only average level. We will identify improvement tasks through service quality assessments and manage the improvement activities to enhance service quality of each business sector.

### **PQA (POSCO Quality Awards)**

POSCO Quality Awards (PQA) are granted to POSCO Family companies with outstanding quality management performance at the annual POSCO Family Quality Assessment. The types of awards are categorized as the Grand Prize, Innovation Prize, Take-Off Prize, and Synergy Prize, which are awarded to those Family companies that have effectively operated the quality management system and achieved excellent results. Candidates are classified into five groups - large corporations, medium corporations, small corporations, suppliers, and subcontracting partners. One company in each group wins the award. PQA motivates subsidiaries 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

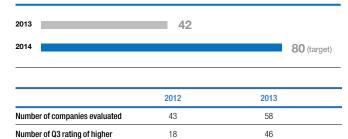
	2011	2012	2013
Grand Prize	POSCO Gwangyang Steelworks	POSCO E&C	POSCO Pohang Steelworks
Innovation Prize	POSCO TMC	POSCO CHEMTECH	POSCO C&C
Take-off Prize	POSCO A&C	eNtoB	POSCO Plantec
Synergy Prize	Stollberg & Samil Corp.	Buhmwoo	Buhmwoo
Synergy Prize	Po Roll Tech	Gwanghee	

### **POSCO Supplier Quality Certification**

POSCO operates the POSQC (POSCO Supplier Quality Certification) system to secure quality at origin by preventing inflow of faulty materials from suppliers and subcontractors, and to secure a global level of quality competitiveness. The certification system evaluates the quality management system of suppliers and subcontractors who supply key raw materials, 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 competence. In the first quality certification evaluation conducted in 2013 on 43 suppliers and subcontractors that supply key raw materials, 18 partner companies received a rating of Q3 or higher. In 2014, our plan is to expand the subject for quality evaluation to 58 companies, and 46 companies to receive Q3 or higher, bringing the current Q3 percentage at 43% to 80%. We will also actively support partner companies 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 RATE

(Unit: %)



OVERVIEW CSR MANAGEMENT INVESTOR CUSTOMER ENVIRONMENT PARTNER EMPLOYEE SOCIETY

## **55**

### **KEY ISSUE \_06**

## New Value Created Through Value Competition Cases of Customer Value Creation

The type of value competition activities are categorized according to the needs identified in the customers' value chain. MI (Material Innovation) is a group of activities that reduce costs and enhance productivity of the customers through steel product development, and changing the material and measurements. PI (Process Innovation) are activities designed to improve the customer's production and logistics process through process optimization in delivery and logistics, inventory management, and treatment processes. MS (Management Support) provides support in marketing, finance and legal matters, while BP (Business Proposal) is a group of activities to help customers expand their business through export support.

### MI Developed low-cost air conditioner motor with Samsung Electronics

Together with Samsung Electronics, POSCO's largest customer of electrical steel sheets, we have continually strived to find methods to lower the cost of home appliances while maintaining the same high quality. With the recent rapid rise of rare earth elements prices, the pressure on Samsung Electronics to reduce costs was heightening, as the rare earth elements were used in the air conditioner motor. The customer wanted to use the low-price magnet as the substitute material, but that resulted in lower efficiency, thus it was impossible to substitute the raw material. Being aware of the dilemma that our customer was faced with, we suggested the development of a new motor that could reduce costs, at the regular technology discussion meeting. We suggested using a new electrical steel product that uses low-price magnets but with the same motor efficiency. The new motor designed with a new steel product and low-price magnet came to achieve satisfactory function through continued efficiency testing. Through the joint development of a new motor the customer was able to reduce costs, and POSCO was able to increase profitability and sales by supplying high quality products - a win-win for both Samsung Electronics and POSCO.

### BP Close cooperation with Chang Won Bending to open new overseas markets

The global economic recession that affected the domestic steel industry also hit the heavy wall thickness steel pipe market. Despite having differentiated competitiveness in bending technology, Chang Won Bending could not avoid being directly hit by the recession, as its sales base was centered on the domestic market. They were trying to find ways to increase the ratio of overseas orders, but the fact that they lacked overseas sales capabilities and their brand awareness was low posed big obstacles. To solve this problem, we started using Daewoo International's global network to help them open the Mexico offshore plant market. In order to meet the strict delivery conditions and quality requirements of the Mexican counterpart, we provided a customized service of meeting the delivery deadline through thorough production control, and proactive technological response. As a result, Chang Won Bending won the bid for the project, and POSCO's material quality and Chang Won Bending's outstanding pipe production technology was recognized. This project was an excellent opportunity for opening a new market with the collaboration of Chang Won Bending, POSCO, and Daewoo International. By entering the Mexican market, both Chang Won Bending and Daewoo International recorded high sales and operating profit, and POSCO achieved high operating profit as well through the sales of high value-added steel products.

### PI Improved shipment condition for wire rod products delivered to KISWIRE's overseas branch

Unlike other products, wire rods have a large volume compared to weight, requiring rigorous quality control and care during shipment. Thus there were some cases where shipping companies were reluctant to ship wire rods on their bulk carriers due to low profitability. In addition, due to the bulk carrier not being able to fasten the products securely, defects often occurred, which incurred additional packing costs to prevent this from happening.

POSCO's wire rods that were sold to KISWIRE's Malaysian branch also needed to find a way to prevent defects in the course of shipping, especially with the increased supply, which required the improved capability of meeting the delivery date. To solve this problem, POSCO suggested that KISWIRE change the shipping condition from bulk carriers to container ships. Although there was some concer for the increased shipping fees, relatively low additional fees and the advantage of large volume transportation enabled them to maintain a similar level of shipping costs compared to shipping through bulk carriers. After changing to container ships, the customer not only reduced inventory costs thanks to shorter shipping time, but claims caused by defects during shipping reduced significantly as well. POSCO also benefited from reduced burden on storage and demurrage. As defects during shipping went down, POSCO suggested lighter packing. After several modifications, we were able to reduce packing material as well as their disposal costs which contributed to customer's cost reduction, and shipping delays caused by packing was minimized, contributing to lessening the demurrage burden

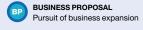
### MS Supported supply to NSK (DongBang Metal, Dongbu Special Steel, Jinvang Specialty Steel)

POSCO has strived to create new value for Japanese bearing companies who value quality more than price. As part of such efforts, POS-CO began joint marketing with our customer companies DongBang Metal, Dongbu Special Steel (drawing company), and Jinyang Specialty Steel (steel bar producing company) targeting NSK of Japan, a global leader in the bearing industry. However, unlike the Japanese market where material procurement is stable because of direct lining of steelmakers, drawing companies and steel bar producers, in Korea, those industries operate separately. Thus, drawing and steel bar companies needed to expand their exports, while POSCO had trouble finding new sales routes. To solve this issue, POSCO joined hands with the drawing and steel bar companies to produce services to actively meet the needs of NSK. First, POSCO conducted direct negotiations on price, quality and delivery to satisfy NSK's need for a stable management, and conducted a joint response strategy by sharing the work with the drawing and steel bar companies. The marketing departments of each company established a stable supply system through close cooperation. Moreover, in response to NSK' request for quality improvement, we provided support in improving the surface chips and roughness, and shared the processing bases with 50 overseas branches including POSCO-IJPC in Indonesia in order to meet the delivery date. Through this process DongBang, Dongbu and Jinyang enhanced their capabilities, enabling them to sell their products to global bearing companies. As a result, our customers' exports increased, which in turn led to increased sales of POSCO products, contributing to shared growth of POSCO and our customer companies.









## **ENVIRONMENT**

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**Environmental Organization** 

Key Environmental Management Programs of the POSCO Family

- · Environmental education
- · Environmental evaluation of Family companies
- · Environmental Management Awards

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Environmental management system **Environmental Impact Assessment Environmental Accounting** 

Water

Air

Energy

By-products

### **Responding to Environmental Risks**

Environmental risk management

Climate Change Response

Hazardous Chemicals Management

- · Reducing Chemicals / Dioxin Discharge
- · REACH
- Enhanced chemicals operations process

Environmentally Friendly Supply Chain Management

- Green-PCP (POSCO Certified Partner)
- Environmental technology consulting for
- · Developing eco-friendly processes and products

### **KEY ISSUES**

07: Biodiversity

### **Environmental Partnership**

Stakeholder Communication

- · Environment colloquium
- · Carbon neutral program
- · Green Walk

Domestic and overseas cooperation activities

Steel is a basic material which is safe and has much potential for innovation. The competitiveness of the material is determined by a comprehensive evaluation of the material in the aspects of design, manufacture, production, usage, maintenance, recycling and disposal, and it is an environmentally friendly material that can contribute to a zero-waste society.

2013 POSCO REPORT

We will bear in mind and practice environmental ethics in manufacture as well as in our overall business activities, minimizing environmental risks and be reborn as a true environmentally friendly corporation.



OVERVIEW CSR MANAGEMENT SYSTEM INVESTOR CUSTOMER ENVIRONMENT PARTNER EMPLOYEE SOCIETY

# **Environmental Management**

5,815

No. of persons who completed the environmental management e-learning course in 2013

Number of employees completed the environmental management e-learning course

21

No. of persons who earned assistant auditor qualification in 2013

**Global POSCO Family's Environmental Management** 

As POSCO's business scope expands, we recognize the growing importance of a comprehensive environmental management and environmental risk management at the Family level. In December 2010, we declared the "POSCO Family Global Environmental Management Directive" to establish an environmental management regime that encompasses subsidiaries, suppliers, subcontracting partners and overseas branches, with the participation of the CEO and the presidents of major POSCO 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.

### POSCO FAMILY ENVIRONMENTAL MANAGEMENT VISION AND STRATEGY

VISION

Set a global standard in environmental management for effective leadership in low carbon green growth.

STRATEGY

Number of employees

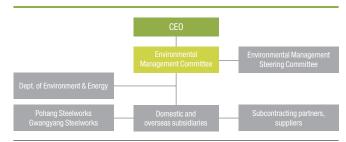
Establishment of integrated environmental management system; strengthening of environmental risk response capability; open communication

### **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 such as sharing detailed implementation plans and performances, and holds regular annual meetings to analyze domestic and international environmental trends and discuss issues to establish medium term environmental and energy strategies at the POSCO Family level. The medium-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 Enterprise Management Meeting and Executives' Meeting, both chaired by the CEO. In addition, we cooperate with 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 COMMITTEE MEETING

	Environmental Management	<b>Environmental Management Steering</b>
	Committee	Committee
Frequency	Once (December)	Twice
Structure	Chairman: CEO	Chairman: Head of Environment & Energy Department
	Members: CEOs of POSCO Family companies	Members: Executives in charge of environmental management at Family companies

## **Key Environmental Management Programs of the POSCO Family**

**Environmental education** POSCO provides various programs to enhance POSCO and POSCO Family's management and employees' understanding and awareness of the environment. The environmental management training is provided online and is open to the subcontracting partners and suppliers, and encourages all related personnel to actively participate in environmental improvement activities. We also operate a Family environmental management community to promote information exchange among working-level employees of the Family companies.

Environmental evaluation of POSCO Family To support the establishment and improvement of environmental management systems at Family companies, we carry out environmental evaluation on Family companies that have acquired the ISO 14001 certification. We provided the ISO 14001 international audit training program for personnel in the environment divisions in the Family companies, securing experts for environmental risk assessment. We are managing environmental risks at the POSCO Family level by conducting joint inspection on wastewater treatment facilities and internal inspection of hazardous air and water pollutants.

Environmental Management Awards In order to enhance our competitiveness in environmental management, POSCO holds the "Environmental Management Awards" to award Family companies that achieved outstanding environmental performance. The Family companies are evaluated on the environmental management systems and their performance; and the 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 CTO, and consists of executives from the Department of Environment & Energy, Steel Technology Strategy Department, and RIST.



**Environmental Management System** 

In 2013, POSCO successfully completed the first stage project for building a web and mobile based integrated environmental performance management system, "New POEMS (POSCO Environment Management System)". New POEMS consists of 7 processes: air – water – byproducts – soil and groundwater – chemical substances – management summary information – and environmental accounting. The year 2013 was the first stage of the project, where the working standard for all processes were reestablished, and basic design to detailed design were completed. The year 2014 will be the second stage for system building and stable operations, after which full operation will begin in December.

Specially, the environmental accounting process to be newly installed will be constructed to enable a quick comparison of per unit efficiency by each facility according to the operating costs (maintenance cost, electricity cost, chemical usage cost), through a systematic history management of those operation costs. In addition, the compliance status of each business site including Family companies can be checked through the management summary information system, which will provide monthly environmental performances of the Family companies. Through this process, environmental management information will be provided to aid the management level to make quick decisions such as investing in new environmental equipment.

Meanwhile, all environmental data such as air and water quality measured at Pohang and Gwangyang Steelworks is transmitted real-time to the provincial government and the Ministry of Environment via TMS (Tele Metering 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 a 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.

### **Environmental Impact Assessment**

POSCO conducts regular examination of the ecosystem – air, water, and other living environment – around Pohang and Gwangyang Steelworks to preserve the surrounding environment. We operate

a voluntary environmental patrol to check the air quality around the two sites and measure the pollution level of a specific area at the request of the residents and provide the results immediately to update them on the environmental conditions. We commission expert agencies to perform environmental impact assessment prior to the construction of overseas plants and national steelwork facilities and submit the findings to the government.

**ENVIRONMENTAL IMPACT ASSESSMENT PROCESS** 

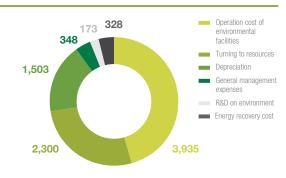


### **Environmental Accounting**

POSCO has been operating an environmental activity costing system based on the ABM (Activity Based Management) method to analyze our environmental performance from an accounting perspective and reflect the result in decision making by the top management. It is designed to simultaneously analyze costs and environmental benefits from energy recovery and turning byproducts to resources, and is used to provide information to major stakeholders such as shareholders, investors, and community members. The New POEMS will produce a visual presentation of the environmental accounting results for the executives to assist in their swift decision making on environmental investments and to be used as a cost cutting tool.







**TOTAL** 

8,587

MAJOR ENVIRO	NMENTAL FACILITY INVESTMENTS IN 2013	(Unit: KRW 100 million)
	AIR 1,	388
	WATER	653
	RECYCLING AND OTHERS	904
Total	2,9	945

<sup>\*</sup> Major investments in 2013

Pohang: Installed closed fuel and raw material storage unit, dust collection system for new facilities, and water treatment facility Gwangyang: Improved dust collection system at the sintering and steelmaking plants, expanded activated carbon regenerating facility for wastewater treatment

### Water

Recognizing water as a major risk factor on a global scale, POSCO conducted an analysis on water usage, potential risks and opportunities, and established a medium-to-long term water management strategies based on the analysis results. POSCO aims to reduce the risk of water shortages and secure a stable supply of water by recycling wastewater, cut water usage, and secure replacement water. POSCO participated in the Water Management Project conducted by World Steel Association from 2007 to 2011 and has been actively utilizing the WBCSD Water Tool - WBCSD's guideline for supply chain water management - to continue improving our water management programs. We have been participating in the Carbon Disclosure Project's Water Program since 2010, providing information related to the water management issue, and POSCO was introduced as a model case in the "CDP Global Water Report 2013".

Pohang Steelworks is implementing a water management master plan for 2013 ~ 2015, in order to regain cost competitiveness through a stable water supply and water quality maintenance. To prepare for an increase in water demand in the medium term, we improved the water purification process, diversified the water source by replacing half of the dam water that supplies 80% of our water usage with Pohang City's treated wastewater, to prevent potential water supply risks. The excess recycled water discharged during nighttime is temporarily stored to be used during daytime, and we improved our processes and facilities to reuse recycled water from the deionized water treatment facility and effluent from FINEX power generation, which enabled us to reuse 6.4 kilotons/ day, and reduce wastewater generation by 3.4 kilotons/day. In addition, the low contamination-level rainwater from the integrated mill and rolling area that produces 74 kilotons/day; the low-chlorine wastewater from the rolling plant; and domestic sewage undergo appropriate treatment to be reused for spraying the roads or as processing water.

With the increased wastewater generation following an expansion of the Gwangyang Steelworks, we are enhancing activities to increase wastewater recycling by improving quality of recycled water and identifying new places to use recycled water. Although steel pro

duction increased, wastewater generation decreased by 10 thousand tons compared to the previous year, and recycled water usage increased by 5 thousand tons. The water discharged from the runoff treatment facility is used to replace fresh water, and we are also in the course of developing and applying substitute water treatment chemicals free of corrosive substances in order to prevent environmental pollution caused by water treatment. In addition, we plan to develop substitute source of water to in respond to water shortage, and are currently reviewing the installation of a reverse osmosis (RO) plant to establish a non-discharge system.

At Pohang Steelworks, we are looking into ways to treat and reuse cokes wastewater applying RO technology to respond in advance to total nitrogen concentration regulations and contribute to lowering pollution of the regional water system. The wastewater discharge is maintained according to internal standards that are 20~80% of the legal limits and the actual concentration such as COD, SS, and TN are less than 20% of legal standards. Through these activities, Pohang Steelworks plans to achieve its target of less than 3.0 m3 of water purchased per ton of steel produced, and less than 9.0 g of total nitrogen discharge per ton of steel by the year 2016. At Gwangyang Steelworks, in addition to finding new ideas to reduce water usage for the plants, we are improving the in-plant water circulation system's wastewater discharging process, as well as installing rainwater recovery facilities. The results of these activities are opened to the public through the weekly water newsflash, encouraging water conservation to all employees.

WATER INTAKE FOR OPERA	(Unit: m3/T-S)		
	2011	2012	2013
Water usage	3.63	3.56	3.71
Effluents	1.60	1.69	1.61
FINAL COD IN EFFLUENTS			(Unit: mg / $t$ )
	2011	2012	2013
Discharge concentration	8	8	9
Legal limit (Gwangyang)	70	70	70
Legal limit (Pohang)	90	90	90
FINAL T-N CONCENTRATION	N IN EFFLUEN	ITS	(Unit: mg / $l$ )
	2011	2012	2013
Discharge concentration	19	15	15
Legal limit	60	60	60

### Air

POSCO is pursuing various environmental activities to improve the air quality near the steel works and surrounding areas. With the goal of maintaining air quality 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, and we are also discussing a voluntary environmental agreement between the municipal government and our business locations.

Pohang Steelworks is implementing the "Air Quality Improvement

Big-Y Project" to reduce fine dust, odors and noise. We have installed the air quality, fine dust, and odorous substance measuring devices, and the measurement results are shared between the environment departments and shop-floor departments via wireless transmission and smart phones, for optimum facilities maintenance. To block fugitive dusts from the raw materials yard from spreading we installed the sub-materials linear yard (95 kilotons) and a silo (180 kilotons) for 3FINEX coal storage, and by mechanizing the raw materials covering job we increased the coverage rate of the materials yard to 51%. In recognition of our efforts to improve air quality, Pohang Steelworks was designated as the "Business of Exemplary Operation of CleanSYS" in 2013, which was hosted by the Ministry of Environment and coordinated by Korea Environment Corporation.

Following the first Voluntary Agreement for Air Pollution Reduction in the Gwangyang Bay Region\* (2006~2010), Gwangyang Steelworks joined hands with the Ministry of Environment, the municipal government of the Gwangyang Bay region, and 17 other businesses located within the area, to sign the 2<sup>nd</sup> Voluntary Agreement (2012~2016) that aims to reduce 20,028 tons of dust, NOx, SOx, and VOCs, which corresponds to 13% of the total discharge volume in 2008. During the year 2013, we made investments to improve the desulfurizing agent at the sintering plant's charging line, and to improve the dust collection system in the steel plants, achieving a reduction volume of 13,720 tons compared to the total discharge volume of 2008.

"Under the 1st Voluntary Agreement, air pollutants discharge was 70,610 tons (annual average during 2006~2010), a reduction by 20,829 tons (22.8%) compared to the total discharge volume of 91,439 tons in 2003.

### Energy

LNG

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 to maintain balance in the national power usage and saving energy costs by adjusting rolling process schedules so that the mills may use night time electricity that comes with lower rates as much as possible. We are implementing energy conservation

TFT activities with the participation of all employees and management at both steelworks to uncover energy waste elements, and by spreading successful projects, we are improving energy usage and energy efficiency.

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 Master Plan for National Energy, POSCO already maintains an independent generation rate of 70% which is unequaled in Korea, and we plan to further expand independent generation and the implementation of renewable energy and distributed generation systems.

Developing energy saving process and technology In 2012, POSCO became the first steelmaker in Asia to acquire the ISO 15001 certification. Based on that same process we established the energy consumption reduction management system, which supports a systematic PDCA (plan-do-check-act) management of energy conservation activities. In collaboration with RIST and POSCO ICT, Gwangyang Steelworks is looking into ways to expand the Smart Industry\*, which has been 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 proofing of the low-to-medium temperature waste heat recovery technology in the sintering plant.

Smart Industry: A system which manages all the flow and status of energy including electricity, gas and heat consumed at an industrial facility in order to reduce energy consumption and  $\mathrm{CO}_2$  emission.

### TOTAL AIR POLLUTANTS EMISSION

(Unit: kg/T-S)



# ENERGY CONSUMPTION (Unit: MWh / kd / MNm3) 2011 2012 2013 Power (purchased) 798 927 1,084 Crude oil 606 2,390 598

786

828

780

### REUSE RATE OF BYPRODUCT GAS

10000	EXTERNAL SALE (2013)	9%
3	REUSE RATE (2013)	91%

TURNING BYPRODUCTS TO	(Unit: 1	(Unit: 10 kilotons / %)			
	2009	2010	2011	2012	2013
Produced amount	1,861	2,254	2,709	2,396	2,209
Volume turned to resources	1,837	2,219	2,666	2,358	2,171
Ratio turned to resources	98.7	98.4	98.4	98.4	98.3

### **By-products**

**Resource management** POSCO is keenly interested in making use of byproducts produced during steelmaking and puts efforts into getting the most value out of them. The total amount of byproducts produced at Pohang and Gwangyang Steelworks in 2013 was 22.09 million tons. Half of these (49%) were blast furnace slag, while the rest was steelmaking slag (27%), dust and sludge (15%), and others (9%).

Among the total byproducts generated, 98.3% is reused. In particular, all the blast furnace slag and steelmaking slag are used as cement material, aggregate substitute, and fertilizer. In order to enhance the value of blast furnace slag, POSCO built a granulated blast furnace slag production facility and turns 83% of the blast furnace slag to granulated blast furnace slag. We are putting our efforts into discovering new uses for steelmaking slag, one of which is to create sea forests to restore marine ecology.

Byproducts for which we have not yet found a way to reuse are disposed of safely through incineration or landfill, and we are continuously searching for ways to minimize the amount of byproducts that are treated in this manner.

**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 made into granulated blast furnace slag to be used with the cement clinker in producing cement, or as the main material for slag cement. Granulated blast furnace slag prevents the depletion of natural resources such as limestone and contributes to reducing  $CO_2$  generation during clinker sintering. In 2013, we used 8,460 thousand tons of granulated blast furnace slag as clinker substitute, resulting in an estimated reduction of indirect  $CO_2$  emission of 6,640 thousand tons.

POSCO did not stop at just supplying cement material. With the joint efforts of RIST, POSCO E&C and POSFINE, we developed an eco-friendly, high-function cement named PosMent, and we

are applying them actively to the construction sites. Compared to the existing slag cement, PosMent has higher slag content but demonstrates improved physical properties. After verification tests on large structures and marine structures that are prone to cracks, we used 510 thousand tons of PosMent in construction in 2013 with the collaboration of a cement manufacturer, and plan to increase its use in the future.

### Export of granulated blast furnace slag and slag powder

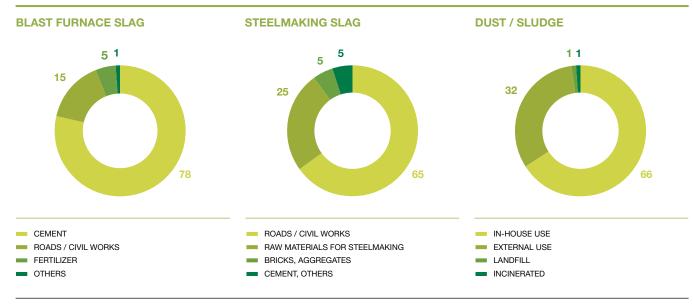
Since the first export of granulated blast furnace slag under an annual agreement signed in 2011, we expanded the market to four Southeast Asian countries, exporting a total of 370 thousand tons in 2013. We exported 170 thousand tons of the value-added slag powder produced by POSFINE, which specializes in slag powder manufacture, securing an overseas sales network for the raw materials and product. Exporting granulated blast furnace slag prepares us 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 to utilize byproducts 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 Mega-Y" project since 2007 to maximize their added value. Through R&D to increase byproduct value, cooperation with relevant institutions, and building a unique byproduct utilization model to enhance synergy with POSCO Family companies, the economic benefits from byproducts amounted to KRW 122 billion in 2013, and aggregate amount reached KRW 740 billion.

Taking one step further from utilizing byproducts generated from POSCO and the Family companies, POSCO will also strengthen collaboration with companies from other industries, expanding our scope of activities and the recirculation of byproduct resources.

**UTILIZATION OF BYPRODUCTS IN 2013** 

(Unit: %)



## Responding to Environmental



### **Environmental Risk Management**

POSCO systematically analyzes and manages risks in order to minimize the impact on the environment and management risks caused by environment. 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 will make it mandatory to evaluate and diagnose environmental risks at three stages - investment review, design & construction, and operation. In order to respond to regulations on greenhouse gases and energy usage, and the policy and economic risk related to preventing environmental pollution, POSCO continuously monitors regulations and policies to identify potential business risks, and actively participates in related discussions to contribute to developing reasonable policies.

**ENVIRONMENTAL RISK MANAGEMENT PROCESS** 



### **Climate Change Response**

POSCO recognizes that responding to climate change and carbon management activities are both a significant risk as well as a strategic opportunity to enhance our competitiveness, and we are focusing on establishing strategies to minimize business risks caused by climate change and turn it into a positive opportunity. With a view to responding to policy risks involved in carbon regulatory policies, we uncover potential risks through continuous monitoring and actively participate in relevant discussions. We also established a policy risk management process to respond to policies and assist management level's decision making. Meanwhile, we are continuing our efforts to develop technologies that will enhance energy efficiency and drastically reduce carbon emission, to contribute to mitigating greenhouse gas emission both inside and outside our company, as

well the indirect emissions. Low carbon technologies developed to respond to carbon regulations and our efforts to reduce greenhouse gases are providing us with opportunities for new profit making business models.

Most of the greenhouse gas generated at Pohang and Gwangyang Steelworks is CO<sub>2</sub>. In 2013 the CO<sub>2</sub> emission was 74.83 million tons, decreasing by 2.8% compared to 7.7 million tons in 2012. Meanwhile, steel production in 2013 was 36.42 million tons, decreasing by 4.1% compared to 37.99 million tons in 2012. The CO<sub>2</sub> emission intensity per ton of steel produced, which indirectly indicates energy efficiency improvement, has increased from 2.03 t-CO<sub>2</sub>/t-S in 2012 to 2.05 t-CO<sub>2</sub>/t-S in 2013, which is an increase by about 1.0%. This is due to the extended abnormal operations at Pohang and Gwangyang Steelworks where we experienced some problems in the processing facility.

Reduction of indirect CO<sub>2</sub> emissions in 2013 recorded 3.12 million tons, by supplying highly efficient steel products such as high strength steel sheets that can increase fuel efficiency of vehicles, and low core loss electrical steel sheets that help energy efficiency of motors and transformers. Blast furnace slag, which is one of the byproducts generated in the course of steelmaking, was supplied as a substitute for cement, contributing to reducing 6.7 million tons of indirect CO<sub>2</sub> emissions in 2013.

CO <sub>2</sub> EMISSIONS INTE
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	2011	2012	2013
Direct emissions (scope 1)	2.00	1.94	1.94
Indirect emissions (scope 2)	0.10	0.09	0.11
Total emission intensity	2.10	2.03	2.05

REDUCTION OF INDIRECT	(Unit: 1000 t-CO <sub>2</sub> )		
	2011	2012	2013

	2011	2012	2013
High-strength automotive steel sheet1	631	659	706
Low core loss electrical steel sheet <sup>2</sup>	2,600	2,510	2,415
Blast furnace slag <sup>3</sup>	5,021	6,290	6,704
Total	8,252	9,459	9,825

Details on our climate change response are described in the 2013 Carbon Report.

### **Hazardous Chemicals Control**

Reducing chemicals/dioxin discharge POSCO completed the 1<sup>st</sup> round of projects for the "Voluntary Agreement to Reduce Chemicals Emissions (30/50 Program)¹ (2005~2011)" as well as the "Voluntary Agreement to Reduce Persistent Organic Pollutants (POPs)² (2006~2010)" in coordination with the government and civic groups. As a result of these efforts, we reached an agreement on dioxin discharge for 2012, and achieved results 35% higher than the target at 15% (reduction target was to reduce dioxin discharge to 50% level of the volume discharged in 2001).

<sup>1</sup> Voluntary Agreement to Reduce Chemicals Emissions: Reduce chemicals discharge volume by 30% within 3 years, and by 50% within 5 years.

<sup>2</sup> Voluntary Agreement to Reduce Persistent Organic Pollutants: Reduce dioxin discharge to 50% of the volume discharged in 2001.

### **CHEMICALS DISCHARGE IN 2013**

	2011	2012	2013
Pohang	38	32	32
Gwangyang	31	41	37

**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), where the information is open to everyone.

- <sup>1</sup> 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).
- <sup>2</sup> MSDS (Material Safety Data Sheets): is a safety and health information cataloging system for substances
- <sup>3</sup> REACH (Registration, Evaluation and Authorization and Restriction of Chemicals): is EU's new chemicals regulation.
- <sup>4</sup> RoHS (Restriction of Hazardous Substances): is a set of directives initiated by the EU, restricting the use of certain harmful substances
- <sup>5</sup> PFOS (Perfluorooctane Sulfonate): is a fluorosurfactant containing persistent organic pollutants

Enhanced chemicals operations process Aware of the impact of chemicals on the environment, safety and community, POSCO strengthened the hazardous chemicals operations process for the chemicals used at the steelworks to respond to potential dangers. In order to minimize the fundamental risk elements accompanying the use of chemicals, we held expert forums to explore technologies that can replace hazardous substances with low-hazard chemicals, or reduce the amount used, and we are currently undertaking basic research for developing those technologies. To prevent human error in the depositing, storage, usage and disposal of chemicals

we provide training to the suppliers and handlers on the dangers of those substances. We improved personal safety gear to ensure the handlers' health, safety, and rapid response in case of emergencies, while strengthening emergency contingency plans to minimize the impact of accidents involving chemicals that may occur within the supply chain. POSCO will continue to manage the chemicals operations process in cooperation with the industry sector, civic groups and experts, in order to safeguard the citizens' safety.

### **Greening Supply Chain Management**

SOCIETY

**Green-PCP** POSCO developed the Green-PCP\* program, a POSCO-style environmental certification program targeting small and medium-sized POSCO Family companies. By 2013, a total of 132 subcontracting partners and suppliers had acquired the certification. Based on voluntary participation of small and medium-sized Family companies, POSCO actively supports subcontracting partners and suppliers in their environmental management and environmental improvement activities. POSCO spreads environmental management throughout the supply chain through the Green-PCP program in order to establish an integrated environmental management system.

\*Green-PCP: Green POSCO Certified Partner

Environmental technology consulting for SMEs POSCO supports shared growth by providing environmental technology consulting to small and medium suppliers and customer companies. Environmental technology experts from POSCO and RIST visit the target companies to grasp the status of environmental risks, diagnose the operation status and draw improvement plans upon which investment plans are made. We are putting efforts into minimizing

### **O** FOCUS

### **Enhancing Environmental Responsibility**

We at POSCO are committed to minimizing our impact on the environment. In particular, the year 2013 was a period of renewing awareness on environmental risks at the Family level. We will continue making improvements to proactively respond to environmental risks.

In order to prevent the recurrence of the leakage of circulation water that occurred at the Gangneung Magnesium Plant, we quickly implemented stabilization measures such as immediate improvements to the facility (relocating piping and storage above ground). We took quick steps to prevent the pollution from spreading to the vicinity, as well as the clean-up and thorough soil pollution investigation for a quick recovery. In particular, at the request of the local residents, we are conducting an impact analysis on the nearby rivers and shores. All these investigations are conducted under the observation of the residents' consultative group to build trust and assure fair investigation. The results are opened to the residents and media via regular briefing sessions.

To prevent any similar events from occurring, POSCO established a Family level environmental risk mitigation scheme that strengthened our environmental management system and operation process for chemicals. We strengthened the environmental audit system and conducted a themed inspection on core issues such as hazardous chemicals and certain water / air pollutants according to the characteristics of the business sites. Moreover, we will apply stricter evaluation for the environmental impact according to the characteristics of each business and the degree of environmental risks involved. Specially, we plan to minimize environmental risks by installing an investment rule that mandates the verification by the environment department when pursuing a new business, in order to prevent any environmental risks that may entail new businesses. We will continue to improve our facilities by expanding environmental investment with the goal of reaching zero environmental risks at our business sites.

POSCO states the following in the "Investment Management Rules" to minimize environmental risks.

"For businesses that have potential environmental risks such as being subject to environmental impact assessment (negotiation / change of agreement / renegotiation) or the Greenhouse gas Target Management System; and those businesses that may be required to meet corporate social responsibility (CSR); discussions should be conducted with the department(s) in charge of the respective field."

2013 POSCO REPORT

environmental risks entailing production throughout the whole supply chain by providing environmental technology consulting such as air quality control, wastewater treatment and improving shop-floor environment.

Developing eco-friendly processes and products POSCO is developing unique innovative technologies to radically reduce CO2 emissions. Research is on-going in various areas, including direct sequestration of CO2 from the byproduct gases produced during steelmaking, and enhancing heat efficiency by using heat energy recovered from the processes. The "CO2 sequestration from byproduct gas produced during steelmaking," which uses ammonia water to absorb and sequester CO2 from the blast furnace gas, the "Sensible heat recovery from slag," which recovers the heat energy from the high-temperature melted slag produced in the steelmaking process are technologies designed to improve energy usage

efficiency at the steelmaking process as well as reducing CO2 emission. Moreover, the "Hydrogen reduction steelmaking" technology, which uses hydrogen in place of coal for iron ore reduction was developed to prepare for the future when large quantities of clean hydrogen production will become possible. Ultimately, POSCO's goal is to develop and apply a next-generation production method that does not use coal or emit CO2. POSCO strives to expand the supply of energy saving products such as high strength automotive steel sheets and energy efficient electric steel sheets that will reduce indirect greenhouse gas emissions not only at the production stage, but also at the product-usage stage. In addition, the steelmaking byproduct such as slag is used as replacement for cement material or aggregate material to preserve natural resources such as limestone and contribute to reducing CO2 emissions.

### KEY ISSUE \_ 07

## **Biodiversity**

Recognizing the importance of preserving biodiversity, POSCO and RIST developed an offshore structure made with steel slag, named "Triton." Steel slag is an eco-friendly material used widely for construction, civil engineering, and fertilizer. Compared to normal aggregates, slag has higher calcium and iron content, which are useful to the ocean by facilitating the growth of seaweeds and photosynthesis, and is effective for purifying contaminated sediment and water. A marine forest made with Triton can fixate CO2 due to carbonization of the slag and photosynthesis of seaweeds. Therefore, it can restore marine ecology, fish and shellfish damaged by whitening caused by the rise of sea temperature. POSCO implemented a pilot project under the MOU with the Ministry of Oceans and Fisheries, to create a sea forest at the fishing ground of the Pyeongsan-li village in Namhae. After 18 months, the sea forest's biomass was ten times greater than that of the bedrock in the surrounding area.

POSCO signed the "Mutual Cooperation on Marine Forestation and Marine Resources" with the Ministry of Oceans and Fisheries, under which we will create sea forests jointly with FIRA (Korea Fisheries Resources Agency), and RIST. The sea forests help restore the marine ecology in the coastal areas and contribute to increasing the income of the fishing villages by restoring marine resources such as abalone and sea cucumbers. The Triton sea forest was introduced as a model case at the WCC (World Conservation Congress) and WBCSD (World Business Council for Sustainable Development) in 2012. In 2013, we will participate in the "Joint Declaration and Signing Ceremony for the Preservation of Biodiversity," joining in partnership with the Ministry of Environment and cooperating with the local residents to undertake various activities.

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-car bon artificial fish reef using steel slag as aggregate.

### CREATING SEA FOREST WITH SLAG

Molding with TRITON stone



Installation of tetrapod for

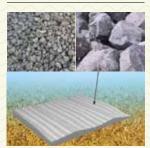


Installation of sea forest structures (reef, fertilizer)

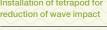


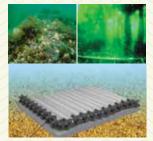
Fostering of sea forest and providing fish with habitats



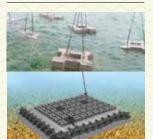


TRITON aggregate reinforces weak strata like sand and mudflat, and supplies iron. (Size: 10mm or less for capping material / 10mm to 70mm for stratum reinforcement / 300mm to 600mm for algae)





It has the function of reinforcing weak strata and stabilizing upper structures while accelerating algae's own attachment and growth by supplying iron



This is the concrete structure combining TRITON aggregate and slag cement. It can be made into various sizes and forms depending on its use



It shows more active algae attachment and growth compared with concrete in general, and is utilized in sea farming, reef fostering projects, etc.



### **Stakeholder Engagement**

Environmental colloquium With higher interest for and stricter regulation on the environment both in and outside Korea, POSCO is holding the "Environment Colloquium\*" 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 colloquium 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 elementary, middle school and high school students, clubs, civic groups and housewives, which was a first among domestic and foreign companies. Since 2010, the program has expanded to include college students as well. 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 www.facebook.com/PoscoCarbonzero

**Green Walk** The Green Walk is POSCO's best-known green campaign where POSCO Family employees and their families can participate to reduce greenhouse gas emissions and practice green living. The campaign fosters voluntary participation in "green action": walk, turn off, reduce, and collect. The Green Walk website is a portal to share news, expert columns, Green Photos and Green Essays. The Green Walk campaign is operated with a civic group and began operating in full swing since January 2011. As of the end of 2013, 13,105 families are taking part in the campaign. In 2014, we will expand the scope to outside the company, and nurture it further into a social contribution activity, where the Green Coins

gathered by the participants can be used for charity.

### **International Cooperation and Activities**

In cooperation with international green growth institutions, POSCO actively participates in activities to support developing nations respond to climate change and their efforts for green growth. POSCO plays a central role in spearheading global green growth. We joined hands with the Global Green Growth Institute to build a model of a micro-grid system using renewable energy, and provided support in business evaluation in the field of resource recycling for developing nations

Category	Activities	Details
Domestic	KOSA Environmental Policy Conference	Responding to changes in environmental policies and promoting voluntary environment improvement activities
	KBCSD	Discussing issues on corporate sustainability management
	Business Institute for Sustainable Development (Korea Chamber of Commerce & Industry)	Policy response and exchange for sustainable growth
	Ministry of Oceans and Fisheries	Mutual Cooperation on Marine Forestation and Marine Resources
	Institute for Climate Change Action	Cooperation for the Green Walk campaign
	WSA Environmental Policy Committee	Information exchange and cooperation with global steelmakers on environmental and climate change policies
	SEAISI Environmental & Safety Committee	Technology exchange and cooperation of southeast Asian steelmakers on climate change policy and environmental issues
	World Business Council for Sustainable Development	Shares business cases and discusses environmental conditions for sustainable development
	World Energy Congress	Participated in the World Energy Congress 2013, Daegu as a member of the organizing committee
	GGGI	Participated in public-private sector partnership for developing countries

### **Awards**

Well aware of the importance of communication with stakeholders in practicing environmental management, POSCO discloses its environment-related information via the Sustainability Report, POSCO website, and POSCO News ever since the first environment report that was published in 1995. In response to stakeholders' heightened interest in climate change, POSCO started publishing the Carbon Report since 2010, and we were the only steelmaker in the world to be included in the Carbon Disclosure Leadership Index by CDP for two consecutive years. POSCO was acknowledged for its consistent efforts for sustainable environmental management, being selected as a leading company by SAM-DJSI for 9 consecutive years, scoring highest in the steel industry sector.

Greenwalk www.greenwalk.co.kr (mobile: m.greenwalk.co.kr)





## **PARTNER**

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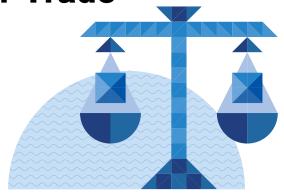
Growing together with all our partners including customers and suppliers is what we at POSCO envision as true success. We help establish a fair market order by implementing the voluntary fair trade program and by providing systematic support to venture companies, fostering a balanced advancement of the corporate ecosystem.

Various shared growth activities including the benefit sharing program contribute to enhancing our partner companies' competitiveness.

POSCO will create a success story together with our partners through active pursuit of these efforts.



### **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.

### **Fair Trade Voluntary Compliance Program**

POSCO observes the 7 major elements of the CP as suggested by the Fair Trade Commission in addition to POSCO's unique compliance program.

FAIR TRADE VOLUNTARY COMPLIANCE PROGRAM



The Compliance Officer nominated by POSCO's Board of Directors to take charge of the overall supervision of the Compliance Program has been reporting POSCO's Compliance Program status to the Board annually since 2004. The Internal Transactions Committee was installed under the BOD for more transparent transactions with subsidiaries in 2004, and has deliberated on 87 agendas up to date. The Fair Trade Support Team was installed also in 2004, to oversee fair trade related tasks. In 2012, the team was expanded to the Fair Trade Support Group, and has since worked to spread the culture of fair trade at the POSCO Family level.

### **Operation of Various Compliance Programs**

Based on the consensus that prevention is most important for compliance with fair trade regulations, POSCO is exerting much effort on 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 integrated the existing 2 courses to a single course, "Easy-to-learn Fair Trade." In 2013, we opened a new e-learning program called "Cases of Fair Trade Violation" so that employees may receive more in-depth training as required. As of the end of 2013, a total of 53,846 personnel have completed the e-learning course since its launch.

In 2012, we developed a software application for the smartphone that provides a fair trade checklist to facilitate self-assessment as to whether any violations are taking place. We distributed a fair trade manual for each division, an integrated manual for the POSCO Family, and a guideline for purchasing and sales so that all personnel can individually check for any violations of fair trade laws and abide by them. In 2013, we held 148 sessions of in-house training for 6,052 POSCO Family employees including new employees, newly promoted employees, purchasing/sales personnel and related departments, and the Compliance Officer gives lectures to POSCO Family executives as well. In addition, we host invitational lectures by external experts from the Fair Trade Commission and Fair Competition Federation.

Meanwhile, since the launch of the internal fair trade website that enables self-audit and online consultation in 2004, employees and executives can personally do self-checks on fair trade matters. The self-audit system has been enhanced by designating 7 key departments such as sales, purchasing, and outsourcing as subjects of mandatory self-audit. The website's main feature, "department-level self-inspection and consulting system," is an internal monitoring system whereby fair-trade related departments conduct self-inspections by referring to the checklist, and if possible breaches are identified, must consult with the company's compliance department.

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 group leaders above division head level, the Fair Trade Leaders comprised of working level employees, and FTA (Fair Trade Academy) where employees in subsidiaries' 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 2013, 9 subsidiaries newly implemented the Compliance Program, making a total of 30 companies that have the program in operation. We continuously foster a compliance mindset through posting articles on the webzine, mailing weekly fair trade trends, and publishing a guidebook that reflects the revisions made to the Fair Trade Act.

### **Our Plans to Foster a Fair Trade Culture**

In 2014, we will devote ourselves to fully incorporating the fair trade culture at the POSCO Family level. Most of all we plan to emphasize the prevention and stoppage of collusion so that no cartel activities will arise within the POSCO Family. We will further enhance the CP at the Family level by: expanding the program to all subsidiaries except SPCs (special purpose company); taking preparatory action for the discussions on ISO standardization of the CP; ensuring stability of the CP to prevent collusion; providing intensified training to enhance expertise within each subsidiary; preventive monitoring against violations; and providing support to shared growth. Moreover, we will commit ourselves to preventing any violations overseas by enhancing training for overseas branches and offices, and providing information on the fair competition law of each country.

### **CP ADOPTION STATUS OF THE POSCO FAMILY**

Time of adoption	Company name	No. of companies (accumulated)
~2006	POSCO, POSCO E&C, POSCO ICT, POSCO SS, POSCO C&C, POSCON, POSCO CHEMTECH, POSCO M-TECH	8
2007	POSCO Machinery Co., Led., POSCO PLANTEC	10
2008	POSCO P&S, POSMATE	12
2009	POSCO A&C, POSCO ENERGY, SNNC	15
2010	POSCO ENGINEERING	16
2011	Daewoo International Corporation, Sungjin Geotech, eNtoB, POSCO AST, POSCO TMC	21 (19)*
2012	POSFINE, POREKA, POSCO NST, POS-HIMETAL	25 (22)*
2013	P&R, NewAltec, SRDC, SPFC, POSCO HUMANS, POSCO TERMINAL, POCU Tech, Blue O&M, POSCO ESM	34 (30)*

Reflects the decreased number due to mergers.

### E-LEARNING COURSES PROVIDED ANNUALLY

(Unit: persons)

Year		Easy-to-learn Fair Trade	Cases of Fair Trade Violation
2011	Employees	1,611	
	Family companies and partner companies	1,366	
	Total	2,977	*Course opened in 2013
2012	Employees	1,140	Course opened in 2013
	Family companies and partner companies	1,366	
	Total	2,506	
2013	Employees	688	2,944
	Family companies and partner companies	1,115	1,262
	Total	1,803	4,206



In the Korean society which has developed around large enterprises, it is not easy for venture companies to grow. Most ventures start small, and lack the capital, information and experience compared to large companies, which can make continued growth difficult. In order to rectify this situation POSCO utilizes its resources so that venture companies may steadily grow into SMEs that are the foundation of the industrial ecosystem. We will nurture the industrial ecosystem by providing effective support for venture companies, and create jobs for young adults, contributing to addressing the social issue of unemployment.

### **POSCO Venture Partners**

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's 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 Venture Partners," providing comprehensive support from establishing ideas and business planning through to 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.

The POSCO Venture Partners Model We are gradually expanding the subject of support by POSCO Venture Partners. We have 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

OVERVIEW CSR MANAGEMENT INVESTOR CUSTOMER ENVIRONMENT PARTNER EMPLOYEE SOCIETY

the investment market, so that the socially vulnerable groups can achieve independence. We also support restart attempts and retirees in order to actively contribute to addressing social issues.



In particular, recently we have been 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. We aim to achieve both business value and society value through these efforts. Starting

from the New Business Idea Contest held in June 20011, the first Idea Marketplace was held on October 27, 2011, and in 2013, the main event took place in two sessions. As of 2013, 65 companies received mentoring support through the Idea Marketplace, and POSCO invested a total amount of KRW 6.27 billion in those companies.

### THE POSCO VENTURE PARTNERS MODEL



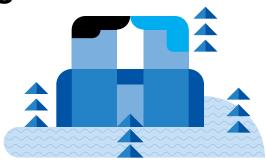
### SUPPORT PROVIDED TO VENTURE COMPANIES

	2012	2013	Total
Companies we invested in	11	24	35
Investment by POSCO	KRW 3.15 billion	KRW 3.12 billion	KRW 6.27 billion

### 5 STEPS OF POSCO'S VENTURE SUPPORT PROGRAM



## Shared Growth Program



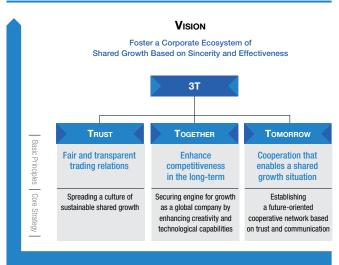
### **POSCO's Activities for Shared Growth**

POSCO's motto for shared growth is 3T (Trust, Together, Tomorrow). Based on our principle of mutual trust (Trust), we have been exerting much effort into establishing a future-oriented (Tomorrow) shared growth (Together) with our partner companies from tier 1 through to tier 4.

Already since the late 1990s, POSCO has pursued shared growth with SMEs. The SME Support Team established in June 2005 was expanded and restructured to the shared growth Cooperation Secretariat in November 2008, which was again transferred to go under the direct supervision of the CEO in order to strengthen shared growth management at the POSCO Family level. In March 2011, the organization was renamed Shared Growth Secretariat, striving for more than shared growth with SMEs but for a future-oriented relationship that covers tier 2 through to tier 4 partner companies as well, to provide broad support for SMEs.

Currently POSCO operates POSCO's unique brand program, financial support for SMEs, and technology cooperation to enhance their R&D capabilities, which are all part of POSCO's 37 shared growth programs in 6 categories, pursuing shared growth throughout all of our management activities. In 2013, we implemented various activities targeting tier 2 partner companies to enhance their competence and spread a culture of shared growth based on fair trade practices.

### VISION AND STRATEGY FOR SHARED GROWTH



### **MAJOR SHARED GROWTH ACTIVITIES IN 2013**

March	Held workshop for vitalizing POSCO Family's benefit sharing.	
April	Meeting to nurture high-potential enterprises.	
May	Voluntary implementation of benefit sharing, agreement ceremony for funding shared growth investment	
June	Benchmarking Germany's hidden champions for nurturing high-potential companies	
October	Held global high-potential companies' CEO workshop (Launching ceremony of the High-potential Company CEOs' Club)	
November	Held POSCO Family Partners' Day Awarded 23 companies in 5 sectors (benefit sharing, technology cooperation, productivity innovation, cooperation among SMEs, QSS activity) POSCO WinC Agreement	
December	Launch ceremony of Gyeongin Hub	

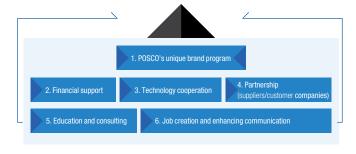
### **POSCO's Shared Growth Program**

POSCO actively operates 37 shared growth programs in 6 sectors targeting suppliers as well as customers to help enhance competitiveness throughout the supply chain.

COMPOSITION OF POSCO'S SHARED GROWTH PROGRAM



Whole supply chain (competitiveness of ecosystem)



### **Shared Growth Governance**

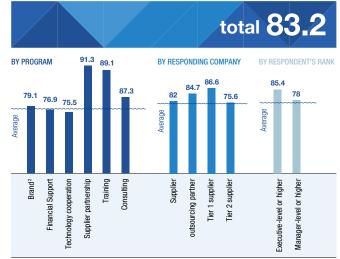
POSCO is organizing a joint consultative group to provide a continuous and systematic support for SMEs at the POSCO Family level, and operates the "POSCO Family Shared Growth Conference" as part of such efforts. Especially in 2012, the members of the Conference that were comprised mainly of representatives from tier 1 companies were expanded to include tier 2 companies in order to spread POSCO's unique culture of shared growth. The POSCO Group's CEO and the representative from the tier 1 and tier 2 companies jointly take the chair, while the 53 members are comprised of executives representing each sector within POSCO, CEOs of POSCO's subsidiaries, and presidents from outstanding partner companies. The Shared Growth Conference convenes every half-year to evaluate and modify shared growth projects to be implemented that year, and decide on systems and policies that will stimulate shared growth. The Conference also identifies new projects for shared growth and announces model cases.

### **Satisfaction Survey on Shared Growth Program**

During a period of 30 days from May 20th to June 18th, 2013, we conducted a satisfaction survey with the collaboration of POSRI (POSCO Research Institute) on 300 partner companies that had participated in our shared growth program during the past two years. The results showed an overall satisfaction score of 83.2 points, and we plan to reflect partner companies' needs identified through surveys and interviews to further advance our shared partner program.



(Out of 100 points)



- <sup>1</sup> Survey covers all programs (except government-linked programs and communication enhancement programs)
- <sup>2</sup> Brand: This is the survey result on benefit sharing, techno-partnership, and executives' shared growth advisory group program)



### **POSCO's Unique Brand Program**

Benefit Sharing POSCO's Benefit Sharing program, which was launched in July 2004, conducts improvement activities with its suppliers and shares the benefits with them. The program induces voluntary participation to improve SMEs' business soundness and technological competence while securing long-term competitiveness and quality for POSCO. 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. Since its inception until 2013, POSCO has awarded a total of KRW 186.5 billion to 895 SMEs that successfully completed 1,940 projects.

\* Details on POSCO's Benefit Sharing is described in FOCUS, page 77

**Techno Partnership** POSCO has been operating Techno Partnership, which is a customized technology support program for SMEs, since September 2006. A pool of 869 researchers from 4 institutions including RIST and POSTECH provide free technical advice to SMEs.When SMEs apply for the Techno Partnership, the subject is selected after evaluation, and a technological advisory group is formed to fit that particular technology, which enters into an agreement with the selected company and starts its support activities. The technological advisory group conducts monthly visits to the



company and consulting sessions such as technology training, and sits down together with the company to solve the problem of the production process or product. In addition, participating institutions provide their lab equipment and test analyses for free, and we mediate between the SMEs and Ph. D level experts to set up a partnership. As of the end of 2013, POSCO provided 595 cases of technological advice and 184 cases of free test device rentals to 108 SMEs.

#### **TECHNO PARTNERSHIP OPERATION IN 2013**

Category	Subject companies	Technological advice(cases)	Test analysis (cases)
Tier 1 company	65	354	117
Tier 2 company	43	241	67
Total	108	595	184

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 3 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.

POSCO Group Executives' Shared Growth Support Group and their activities 
Executives of POSCO and POSCO Group launched the Shared Growth Support Group in October 2010. The group has taken the initiative for shared 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. Executives participating in the Group pay monthly visits to the SMEs, listen to their grievances and offer assistance using their expertise and know-how. Since 2011, the performance within the Support Group is reflected in the executives' performance evaluation. Since the launch of the Shared Growth Support Group until December 2013, 261 executives from 23 POSCO Group companies have provided assistance to 966 SMEs.

# Financial Support for SMEs Having Financial Problems

**SME loan fund** In order to provide low-interest loans to SMEs having trouble financing, POSCO operates a fund worth KRW 900 billion. In 2013, 624 partner companies of the POSCO group received low-interest loans amounting to KRW 450.2 billion through this fund.

40	200	F00	000	
Partner Company Support Fund	shared growth Cooperation Special Fund	POSCO Family Network Loan	Total	
FINANCIAL SUP	PPORT STATUS		(Unit: KRW bil	lion

Shared 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 "Shared 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 secure close ties by establishing POSCO Group ecosystem. As of 2013, POSCO has invested a total of KRW 8 billion in Steel Flower, Duckyang Ind., and SOLRETEC.

Financial Stability Support Fund Together with IBK (Industrial Bank of Korea), POSCO created a Financial Stability Support Fund worth KRW 101 billion to help promising SMEs that are experiencing temporary financial problems. Through this fund we are able to assist SMEs with high growth potential because they have outstanding intellectual properties etc. but who are temporarily going through financial instability to get back on their feet, and thus contribute to enhancing SMEs' competitiveness that is the foundation of a sound national economy.

Installment payment for equipment purchasing The installment payment for equipment purchasing system that was launched in 2010 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

#### **O** FOCUS

An Example of energy cost saving through supporting for supplier (POSCO - Taekyung chemical Co., Ltd,)

Taekyung Chemical Co., Ltd., a liquid carbon dioxide manufacturer that supplies carbon dioxide gas for industrial and beverage manufacturing purposes used a lot of energy, having to pay an annual electricity bill amounting to KRW 1.57 billion. Since 2012, POSCO's Gas & Coal Chemical Business Department and the Executives' Shared Growth Support group came together with Taekyung Chemical to save power consumption by searching for a way to use the -162 °C cold energy generated during gasification of LNG at the LNG terminal as the refrigerant instead of ammonia. As POSCO had to treat the cold energy with hot waste water from a nearby power plant to turn it into cold waste water, it was a shared growth situation for both parties. Through this method Taekyung Chemical is expected to save KRW 850 million a year in electricity bills by using the cold energy generated at POSCO's Gwangyang LNG terminal as the refrigerant for manufacturing carbonic acid. POSCO will be able to save a considerable amount of energy required for treating the LNG cold. The two companies agreed to share the profits generated by reduced energy costs.

half of the contract period has passed, up to 30% of the contract amount less the advance payment.

# Technology Cooperation for Enhancing R&D Capability

#### Private and Public Joint Investment for Technology

**Development** The Private and 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% of the total R&D expenditures or a maximum of KRW 1 billion. A successful R&D project will guarantee an SME a 3-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 48 SME R&D projects.

#### NUMBER OF PROJECTS BY YEAR

	n	i+-	No	of	case	d

	2009	2010	2011	2012	2013	Total
Private and Public Joint R&D Fund	6	6	6	15	15	48

Patent support program for SMEs To boost 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 112 technology escrow agreements as of 2013.

#### NUMBER OF TECHNOLOGY ESCROWS

(Unit: No. of cases)

	2011	2012	2013	Total
Number of technology escrow agreements	12	50	50	112

# Strengthening Partnerships and the Competitiveness of SMEs

**POSCO Certified Partner (PCP) system** The PCP 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.

#### THE NUMBER OF PCP SUPPLIERS AND PRODUCT CATEGORIES

	2007	2008	2009	2010	2011	2012	2013
Certified suppliers	25	26	31	38	42	39	41
Certified product categories	36	40	43	64	70	70	76

Fostering high-potential medium-sized companies POSCO declared that over a period of ten years from 2011 and 2020, it would foster 30 globally competitive high-potential companies. We hope to build a virtuous cycle in the industrial ecosystem where an SME grows into a high-potential enterprise, then again to a large company. As of 2013, POSCO selected 30 suppliers and customer companies and signed MOUs with them, offering a package that includes funding, R&D, professional human resources and overseas marketing. Our efforts have nurtured 6 companies including KC Cottrell and BHI into globally established, high-potential enterprises.

Fostering the culture of shared growth through price adjustments When POSCO and tier 1 partners adjust prices according to price changes of raw materials, we induce the tier 1 companies to adjust their prices to tier 2 ~ tier 4 partner companies as well so that the culture of shared growth will spread to SMEs beyond tier 2 companies. POSCO stipulated this on the tier 1 companies' Shared Growth and Fair Trade Agreement as well as in the general contract provisions.

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. In addition, we run SME product promotion centers at our overseas processing plants to assist overseas marketing of SME's products. In September 2009, 3 companies opened promotion centers in India and 4 companies in Thailand. As of 2013, 3,115 people visited the promotion centers in Thailand and 5,148 people in India. In addition, in an effort to help SMEs open new overseas markets and provide assistance in overseas market research, we opened the Global Growing Center at the Indonesian steel plant's construction site in June 2011, to help them expand their markets overseas.

#### Enhancing competitiveness of foundry pig iron customers

In a bid to strengthen the competitiveness of the foundry pig iron industry, POSCO is postponing price increases and even offering discounts despite increasing international prices for pig iron, while supplying substitutes for the expensive imported materials. In 2013, POSCO conducted discount programs that amounted to KRW 32.9 billion.

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,

<sup>\*</sup> Selection standard: Positive SRM\* evaluation for two consecutive years, supplier that surpasses set amount in terms of delivered goods.

SRM (Supplier Relationship Management): We develop performance evaluation indices customized to market characteristics for each sourcing group, and conduct objective evaluation for each supplier company registered in the sourcing group through the system. Suppliers with high scores get incentives while those who scored low get penalties.

and we provide support in press working and welding techniques using our own professionals. In 2013, 75 customers participated in this program and received assistance in 108 cases.

# Education and Consulting to Enhance Human Capacity and Management Capability

SME vocational training consortium and Saturday classes for executives from SMEs POSCO puts its efforts into SME vocational training consortium, a program to nurture new employees and train existing employees of SMEs. In 2013, 68,851 persons completed the SME training consortium's training program. Since January 2009, we have also held Saturday classes 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.

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, QSS, IT, and Thanks Sharing consulting.

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 2013, POSCO provided support to 130 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 2014.

Productivity Innovation Partnership During a period of three years until 2013, we contributed KRW 1.8 billion and conducted the "Productivity Innovation Partnership" project in collaboration with the Ministry of Trade, Industry & Energy, and provided consulting assistance to 20 tier 1 and tier 2 partner companies. Partner companies that participated in this project received consulting in overall management including technology and shop-floor innovation through expert consultants from the Korea Productivity Center. In 2013 alone, we conducted 63 projects, which accumulate to a total of 194 projects during the past three years. Specially, on December 13th, 2013, Bukang Special Industries, one of POSCO's tier 2 partner companies to participate in the project, won the Minister of Knowledge and Economy Award at the "2012 Shared Growth Support Project Performance Briefing."

"Management Doctor" system POSCO works with partner SMEs and the Federation of Korean Industries Advisory Group, 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, including former POSCO CEOs to effectively guide SME management and enhance their competitiveness. As of 2013, 21 SMEs (7 in the first half year, 14 in the latter half year) have participated in this 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 2013, a total of 1,907 job seekers found employment at 321 POSCO Group's partner companies via this program. The opportunity is open to all SMEs trading with POSCO. They just have to subscribe to the recruitment portal, Job World (www.ibkjob.co.kr/jw/) and post an opening.

Support program for shared growth between tier 1 and tier 2 partner companies In order to ensure that the benefits generated from shared growth programs with tier 1 companies trickle down to tier 2 companies, POSCO introduced the POSCO WinC system in 2013. POSCO WinC is a system to help spread shared growth activities from tier 1 to tier 2 companies and to stabilize fair trade practices. Details of the POSCO WinC system is described in page 78.

\*Details of the POSCO WinC system is described in page 78.

Open Medical facilities for outsourcing partners POSCO pursues human-oriented shared 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 Steelworks are eligible to use this service. In 2013, 8,898 individuals used POSCO's medical facilities.

# Share Growth Performance Index by POSCO Group Executives' Shared Growth Support Group (KPI)

With a view to firmly incorporating shared growth into POSCO's corporate culture as one of our core management principles; and assuring sincerity in the pursuit of shared growth by building mutual trust between large enterprises and SMEs, performance in shared growth activities is included in the evaluation criteria in the executives' review process. The KPI is calculated by the ratio of the completed project by POSCO Group Executives' Shared Growth Advisory Group. ('14KPI: 90%) 12 POSCO Group companies are participating in the initiative. Shared Growth and Fair Trade agreement results, activities within the Shared Growth Support Group, and outstanding accomplishment in shared growth projects are used as evaluation criteria.

#### 2014 Plan for Shared Growth

Based upon trust and communication, POSCO will continue to put efforts into spreading shared growth throughout the industrial sector by supporting technology capability enhancement of partner companies, and also supporting innovation activities of non-trading companies and regions. We will implement various tasks so that

shared growth with SMEs will contribute to enhancing the industrial ecosystem's competitiveness as a whole, and furthermore, be fully incorporated as a new economic paradigm.

Spreading the culture of sustainable fair trade and shared growth With the understanding that the foundation of shared growth lies in fair trade, we plan to put in more efforts into spreading the culture of fair trade throughout the POSCO Group and that this understanding will be incorporated between tier 1 and tier 2 partner companies. We will hold small-scale meetings with SMEs to better listen to their individual voices, and continue to improve our support programs so that we will be able to implement sincere shared growth programs that SMEs can actually feel.

Securing the engine for growth by enhancing creative and technological capabilities POSCO plans to operate a high-potential companies' club through which discussions will take place on furthering shared growth, and put more effort into supporting technology development to secure the engine for shared growth. We will also widen the door for training such as e-MBA and benchmarking to help secure SMEs' capability to grow into high-potential companies.

Building a future oriented cooperation network based on trust and communication With the subject of shared growth among tier 1 and tier 2 partner companies emerging as the center of social discourse, we at POSCO will further enhance shared growth activities for tier 2 companies. We will strengthen the operation of the Industry Innovation Movement 3.0 that was introduced in 2013 to provide support not only to partner companies but also to non-trading companies to improve productivity, as well as spreading QSS - POSCO's unique innovation movement - throughout the whole industrial sector. In addition, we will change the large-scale meetings to small-scale town hall-type meetings' so that we can better reflect the opinions of SMEs in our activities to improve our shared growth system or programs. For human resources cultivation in SMEs, we will strengthen training programs such as the SME training consortium.

Town-hall meeting: an open-type meeting where everyone is free to join.

#### **FOCUS PROJECTS FOR SHARED GROWTH IN 2014**





We believe shared growth 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 22 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), which is POSCO's e-commerce system, before they can trade with POSCO.

#### POSCO GROUP SUPPLIER CODE OF CONDUCT

Respect for employees' basic humans rights	Voluntary employment, abolition of child labor, elimination of discrimination, working hours, payment, humanitarian treatment
Safety and health	Working environment, industrial safety
Environment	Hazardous substances, wastewater/solid waste and air pollution, prevention of pollution and reducing resources usage
Ethics and fair trade	Business integrity, compliance with special clause for ethics in business contracts, compliance with fair trade regulations, building a culture of trust
Protection of trade secret and intellectual property	Management and protection of confidential information, protection of intellectual property
Quality management	Quality management, change management, quality management between suppliers
Shared growth and social contribution	Shared growth, social contribution

#### ▶ POSCO Group Supplier Code of Conduct

http://www.steel-n.com

# Introduction of SRM (Supplier Relationship Management) Evaluation System

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 is comprised of credit, price, quality, delivery time, cooperation, and environment, as well as other elements for plus/minus points. CSR is one of those elements that encompass economic, social and environmental aspects.

In the social contribution sector, companies that allocate more than 50 hours per quarter in social voluntary 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 shared 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. In addition, safety training, safety management activities, and safety regulations compliance are included to promote the establishment of safety management system at the supplier companies. 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 poor, good, or excellent. Suppliers who get "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 twice 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 Certified 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 for earlier detection and its results are reflected in their evaluation.

#### **EVALUATION CRITERIA FOR POSCO FAMILY'S SRM**

Evaluation criteria	Description						
Credit	Credit rating						
Price	Bidding price, quote reliability, appropriate bidding rate						
Quality	Defect rate, defect amount, fault rate, fault amount						
Delivery time	Delay rate, delay amount, average days of delay, number of long-term delays						
Cooperation	Amount of delivery, volunteering performance, number of benefit sharing projects, financial performance of benefit sharing project, tier 2~tier 4 supplier payment date, shared growth agreements, satisfaction level of the department using the delivered materials Environment						
Environment	Amount of eco-friendly products delivered, eco-friendly label certification, ISO 14001 certification						
Plus points	Financial support for tier 2~ tier 4 suppliers						
	Emergency unexpected assistance 0.25 points/case, maximum 2 points						
	Design plan suggestion						
	Safety and health management system certification: 2 points						
	Innovation activities: 1 point/case						
	CP implementation: 0.25 points						
Minus points	Caution from Audit Office: -1 point/case						
	Major accident: -3 points/case						
	General accident: -1 point/case						
•	Safety violation: -0.25 points/case						
•	CSR breach: -3 points/case						

#### **Eco-friendly Materials Purchasing**

In order to encourage purchasing more eco-friendly materials, POSCO allows a 10% price preference for suppliers of eco-friendly materials. In other words, if an eco-friendly material is priced 10% higher than a regular material, we allow the purchase of eco-friendly material. We are building an eco-friendly supply chain, buying materials that serves the same purpose but is less harmful to the environment and human body.

#### **Training to Enhance Supplier Competency**

POSCO operates an HRD consortium for the suppliers, because we believe that the supplier's competency reflects our own competency. Through the consortium, POSCO enhances job competency in staff of small and medium-sized suppliers and supports their growth by continuously spreading POSCO's excellent innovative business activities. Moreover, we conduct ethics training every half year to guide the supply chain to manage ethically, and the participation

in the training also applies to the performance evaluation of the suppliers.

THE SIGNIFICANCE OF PURCHASING ENVIRONMENTALLY FRIENDLY MATERIALS



41

- As a producer, we develop eco-friendly products and practice clean production
- As a consumer, we give preference to eco-friendly products when purchasing

Minimize environmental impact

#### **O** FOCUS

#### **Conflict Minerals**

"Conflict minerals", as defined by Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act(2010), refers to columbite-tantalite(source of tantalum), cassiterite(tin), wolframite(tungsten), gold and their derivatives (also called "3TGs"). Currently limited to DR Congo and its nine neighboring countries, all SEC registered companies have to determine and report by May 31st of each year whether their products manufactured in the previous calendar year contain the four minerals from the designated ten countries (shown in map on the right). This disclosure requirement aims to address human rights violations that occur in the process of obtaining these minerals and to minimize such mineral trade profits from being channeled to armed groups that are fueling regional conflicts.

POSCO uses tin and ferro-tungsten for manufacturing purposes. POSCO, however, does not purchase directly from or have any direct relationship with mines and smelters that produce these raw materials. Upon a reasonable country of origin inquiry, we have determined that 3TGs necessary to the functionality or production of a select few POSCO products did not originate from DR Congo and its surrounding countries. We requested our direct suppliers to identify the source of the materials supplied to POSCO and received confirmation that tin was supplied from Malaysia and ferro-tungsten from Vietnam and China, respectively.

In line with our principle of restricting trade with suppliers that commit illegal, unethical, socially condemnable acts (refer to page 74, POSCO Group Supplier Code of Conduct), we adopted a conflict minerals policy to ensure our products do not contain conflict minerals sourced from controversial mines and smelters in the previously identified region. Our terms are stipulated in bidding requirements and procurement contracts for raw materials. In addition to holding firm-wide information sessions to promote a consistent conflict minerals policy within the POSCO Family, we are considering adding a conflict minerals compliance criterion to the POSCO Family CSR Assessment checklist in order to monitor any issues that may arise from the use of conflict minerals. POSCO is committed to maintaining a socially responsible supply chain and will continue our efforts to make this possible.



#### KEY ISSUE \_ 08

# Working Together and Sharing the Value from Shared Growth FOCUS - POSCO Style Benefit Sharing Model

In July 2012, POSCO established FOCUS, the POSCO-style benefit sharing model, while setting up the Shared Growth Task Force within the Shared Growth Secretariat which is directly supervised by the CEO, in order to spread POSCO's shared growth system as the standard model in the industrial sector.

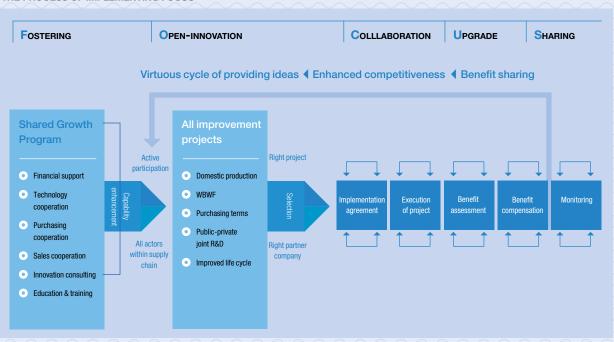
FOCUS is the new name for the POSCO-style benefit sharing system. The name means we will focus on shared growth among partner companies, as well as utilizing our various shared growth programs to Foster our partner companies, and through Open innovation-based Collaboration with them, we will Upgrade the life cycle, delivery time and quality, and Share the benefits according to previously agreed terms.

Through FOCUS, POSCO has established 7 benefit sharing models such as joint improvement and collaboration among partner companies. Under those 7 models, we defined 25 detailed collaboration types, building an infrastructure that will enable us to link the various shared growth activities being implemented within the POSCO Group with the benefit sharing system, enhancing the acceptability and applicability of the benefit sharing system.

In addition, we introduced an incentive system for employees that participate in the benefit sharing program to further invigorate the system. Employees that participate in the benefit sharing system receive up to KRW 3 million in cash or Benefit Sharing Mileage as a prize from the CEO. Benefit Sharing Mileage can be exchanged to donation or cash depending on the individual's choice.

Furthermore, we diversified the route for identifying benefit sharing projects and widened the scope of participation. Formerly, benefit sharing tasks were often identified through partner companies who had more access to finding benefit sharing opportunities. Now, POSCO employees can directly make suggestions online as well. In addition, the participation degree is included in evaluating outsourcing partners and partner companies, and we developed a system designed solely for the effective operation of FOCUS in December, 2012. As such, we have ensured open chances and motivation to participate in the benefit sharing program both internally and externally, and we are looking forward to seeing a faster advancement of shared growth based on communication and trust.

#### THE PROCESS OF IMPLEMENTING FOCUS



#### KEY ISSUE \_ 09

# POSCO WinC' System starts operation to spread the culture of shared growth and fair trade

In order to build a healthy corporate ecosystem, building relations between the company and tier 1 companies is not enough. Only when the whole supply chain fulfills their social responsibility can the corporate ecosystem and society become truly healthy.

POSCO introduced the WinC system in 2013 to ensure that the warmth of the shared growth activities with tier 1 companies are transferred to tier 2 companies as well. WinC is a system that supports shared growth among tier 1 and tier 2 companies so that shared growth activities will spread to the tier 2 companies and incorporate the custom of fair trade. POSCO signed a business agreement with IBK (Industrial Bank of Korea), Kookmin Bank, and NICE D&B (a business information service company) for the operation of WinC, and developed a system that incorporates payment, financial service, delivery price notification, and SME management support functions.

Previously, POSCO made efforts for shared growth such as payment within 3 days to tier 1 companies, but the time for tier 1 companies to make their payment to tier 2 companies was actually 60 days on average. Moreover, there was no way of knowing how much consideration the tier 1 companies were giving to tier 2 companies. However, through WinC, POSCO can check the payment status from tier 1 to tier 2 companies and make sure that payments are made in a timely fashion. After completing delivery to a tier 1 company, a tier 2 company

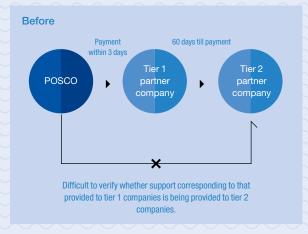
can always issue a tax invoice through WinC, and the tier 1 company makes cash payment immediately after the invoice is issued through the account linked with the WinC system.

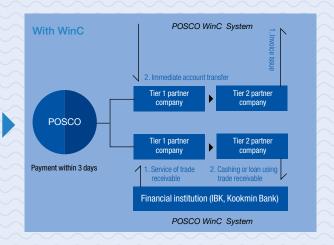
If cash payment is difficult for the tier 1 company, IBK and Kookmin Bank service a trade receivable to the tier 2 company based solely on their contract with POSCO, without requiring any additional financial fees such as credit or collateral from the tier 1 company. The trade receivable owned by the tier 2 company is turned to cash immediately after POSCO pays the tier 1 company, and if it is difficult for the tier 2 company to wait until the date of payment, they can apply for a loan under the same prime interest rate offered to large companies, using the trade receivables as collateral. WinC induces fair trade among tier 1 and tier 2 companies in this way.

We plan to offer management self-diagnosis program and accounts monitoring program for managing purchasing and selling accounts, to help SMEs operate is a stable manner.

In 2013, the first year of introduction, 349 tier 1 companies and 404 tier 2 companies have subscribed to the system, and we will encourage more partner companies to subscribe to further vitalize shared growth among partner companies.

#### IMPROVEMENTS SINCE WINC WAS INTRODUCED





# **EMPLOYEE**

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10: Global Safety & Health System 11: Healing coaching program

Based on the principle of respect for humanity, POSCO supports all employees to enjoy happiness and grow in their work and life.

We have a global-level system to ensure their safety and health, and we build a happy workplace through various realistic compensation and support.

Education and training that nurtures global talents is becoming more advanced.

Based on the belief that employees are the most important resource of sustainable competitiveness, we will continue to foster happiness and growth for all our employees.



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# **Safety**



POSCO puts safety first and considers it as our value based on the principle of respect for humanity, and we practice strict safety and health management at the POSCO Family level. Keeping in mind that our safety management influences not only the life of an employee but also their families, POSCO is committed to observing the safety rules and practices in domestic and overseas operations.

#### Safety and health strategy

The Global Safety & Health Group implement a strategies in safety (training, assessment & consulting, equipment, system), health and disaster, with the goal of realizing a POSCO Family provide a safe and healthy workplace for employees.

In the safety training sector, we conduct training to strengthen the employees' ability to detect and remove dangerous elements. Aside from the 10 Dangerous Elements program for general staff and Safety Leadership program for newly appointed employees, we are also planning to operate the PSM, psychology of safety (BBS education), and disaster training. As for equipment, we will continue to improve the ILS system with the goal of building equipment that blocks any dangers, and will provide consulting to Family companies to expand the ILS certification. In the systems area, we will develop an IT solution that can prevent unsafe behaviors for a scientific and objective safety management, and turn the accumulated know-how into assets through the PSRS activities. In the assessment and consulting area, we are upgrading the assessment tool, cultivating assessment agents, and establishing PSRS change management program, with the goal of establishing a global safety and health management system by providing safety assessment and change management customized to the POSCO Family's needs. In the health sector, we will conduct occupational disease prevention activities, monitor compliance with the health management system, and conducts health risk evaluations to minimize fatal hazards, in order to realize a "Healthy POSCO Family" based on the principle of respect for humanity.

Last but not least, in the disaster reduction sector, we established the enterprise disaster control system designed to respond in time to the disasters and to prevent them, while conducting comprehensive assessment for each disaster type and their impact on the steelworks.

#### Mega-Y project for "Zero safety accidents"

In order to integrate safety and health activities at the POSCO Family level that used to be implemented at the company and regional level, and to establish an optimal strategy, we implemented the Mega-Y project for "Zero safety accidents" under the coordination of the POSCO Global Safety and Health Group from September 2009 to 2013. The Mega-Y project was a comprehensive activity that included not only the steelworks in Pohang and Gwangyang, but also the subsidiaries, subcontracting partners and overseas branches. From 2014, based on the safety and health management system completed through the Mega-Y project that was conducted for 3 years, we will identify 24 tasks in 10 disaster areas to realize a safe and happy workplace for the whole POSCO Family.

PERFORMANCE OF MEGA-Y PROJECT



#### Safety activities

Safety education and training POSCO recognizes the importance of training for the employees safety, and therefore established the system and infrastructure for education and training. We established 36 courses of education and training matrix for different levels including beginner, leadership, and professional course. It is designed to help employees developing essential safety-related capacities to meet their responsibilities more effectively, and enhancing the communication between ranks and expand change management. In addition, the POSCO Global Safety Center, equipped with a lecture hall, exhibition room, 4D theater and laboratory, opened in October 2011, laying the groundwork for systematic and continuous safety training both in theory and in practice. The center operates safety education programs for students and the general public as well as POSCO Family members.

#### SAFETY EDUCATION PERFORMANCE

(Unit: persons)

	2011	2012	2013	Aggregate
	2011	2012	2013	Aggregate
Regular program	11,833	26,205	22,746	60,784
Non-scheduled program	-	1,357	10,377	11,734
Special program	6,366	7,528	17,807	32,701
For personnel in charge	574	1,774	1,880	4,228
Basic safety education for construction	-	3,409	3,885	7,294
Visits	6,823	32,651	27,906	67,380
Total	25,596	73,924	84,601	184,121

#### SAFETY EDUCATION PROGRAMS

# Regular programs Safety rules, equipment safety / ILS, electrical safety, gas safety, high places / heavy items safety, CPR, fire escape, industrial health, PSM (Process Safety Management), disaster management Non-scheduled programs Basics in global safety and health system, equipment safety engineering, 4D video, etc. Special programs Training request from POSCO Family and departments, new employees training, enhancing safety awareness, etc. Safety Personnel programs Safety leadership education for personnel in charge of safety in the POSCO Family

#### Equipment safety engineering education: establishing

equipment safety system the equipment investment stage, practicing safety in equipment design and construction to ensure safety caused by human error or equipment malfunction. We established a standard that ensures safety devices are not omitted in equipment investment and that safety is secured during installation, and we are conducting training to disseminate this improved process.

#### **SAFETY SCORE (2007~2013)**

۷	lum	ber	of	acc	id	ent	S

(): fatalities

	2007	2008	2009	2010	2011	2012	2013
Direct operations	11(0)	6(1)	13(1)	13(1)	12(0)	3(1)	10(1)
Subcontractors	7(1)	5(3)	3(0)	1(1)	6(0)	4(1)	4(1)
Total	18	11	16	14	18	7(2)	14(2)

#### Lost-time injury frequency rate

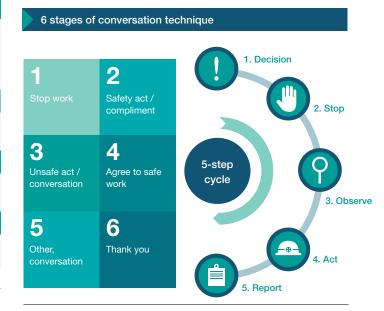
	2007	2008	2009	2010	2011	2012	2013
Direct operations	0.32	0.18	0.39	0.38	0.33	0.08	0.26
Subcontractors	0.17	0.12	0.07	0.03	0.15	0.10	0.10
Total	0.23	0.14	0.21	0.19	0.23	0.09	0.18

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

#### Uprooting unsafe behaviors >> Safety Acts Observation

The SAO program is designed to urge leader-level personnel in charge of compliment their workers on their safety acts at the workplace and asking a questions to help employees realize their unsafe practices and correct them for themselves. This enables the company to identify unsafe practices on site or room for improvement as well as raise employees' awareness on safety and correct unsafe practices.

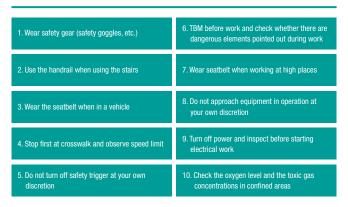
#### SAFETY ACTS OBSERVATION STAGES



Autonomy reciprocity Voluntary reciprocity means general staff without positions point it 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 to send a thank you note for helping correct the unsafe behavior.

Coworker Love Card POSCO has set 10 inviolable safety rules that cannot be changed or violated at the workplace in order to prevent accidents. In case the 10 rules or standards are violated the person in charge issues a Coworker Love Card, and when they act safely the person in charge issues a compliment card. If a worker receives 2 or 3 Coworker Love Cards within a year for violating the 10 rules, we apply strict measures such as a warning from the division head or submitted to the HR Committee, so that POSCO employees and subcontractor employees will always observe the 10 rules.

#### 10 INVIOLABLE SAFETY RULES



<sup>\*</sup>Major accidents (1) Accidents which led to 1 or more fatalities

<sup>(2) 2</sup> or more simultaneous injuries requiring more than 3 months of recuperation  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ 

<sup>(3) 10</sup> or more persons have been injured or fallen ill due to occupation illness simultaneously

<sup>\*</sup>Total working hours in 2013 = total (752,261,650 hours), direct operations (38,131,414 hours), subcontractors (37,120,236 hours)

LTIFR of 2013, according to OSHA (Occupational Safety and Health Administration) standard of 200,000 working hours is: Total (0.03), direct operations (0.05), subcontractors (0.02). Second number after decimal was cut-off

Removing dangerous elements at the workplace Analysis on accidents revealed that major accidents were mainly caused by not cutting off the energy source properly. Homing in on this point, POSCO Family is focusing on removing hazard points at the worksites in order to achieve the target "Zero safety accidents." As part of these efforts, the POSCO Family implemented the ILS (Isolation Locking System) that shuts down, isolates, and locks the energy source before operation has started, to preemptively eliminate hazard at the source, and the Operating Facility Access Control System that prevents safety accidents caused by entering the equipment while in operation, by limiting entry into the equipment. We continually reflect the feedback to improve the system.

The Isolation Locking System (ILS) isolates and locks the energy source which is the cause of accidents beforehand. If a facility starts operating during maintenance/repair, it can be a safety threat to the worker. Therefore, the energy source is cut in advance to prevent abrupt operation of equipment and other workers from operating the equipment unaware of the situation. POSCO stores equipment risk factors into a database to eliminate accidents that could happen during repair.

The 'Operating Facility Access Control System' is a system to control / manage access to equipment when they are being operated. Workers may think it is safe to approach the facility in operation. Thus, this kind of judgment is fundamentally blocked by controlling access to equipment that are in running. We categorized the facilities into Levels 1, 2, and 3 according to hazard elements, where highly hazardous facility is Level 1, and when doors to the facility opens, the facility automatically stops to secure the safety of the workers.

In addition, as part of our efforts to continue improvement of our safety devices, we covered rotors with protective covers to prevent confinement, interlocking or jamming, and identified high-risk targets that require manual work and eliminated or improved dangerous elements.

**OPERATING FACILITY ACCESS CONTROL SYSTEM** 

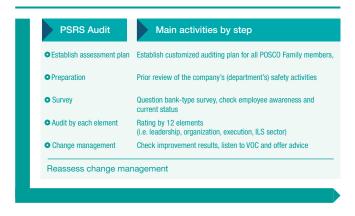
(Unit: cases)



PSRS (POSCO Safety Rating System) consulting Based on our safety know-how, we operate the POSCO Safety Rating System, a global-level safety rating tool. The PSRS conducts quantitative evaluation by inspecting the implementation of safety leadership, organization, equipment safety, and execution for each company, which represent their safety control level. 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. In 2014, the PSRS auditing and consulting service that was provided only to the POSCO Family such as subsidiaries and subcontracting partners

will be expanded to include companies located near Pohang and Gwangyang Steelworks.

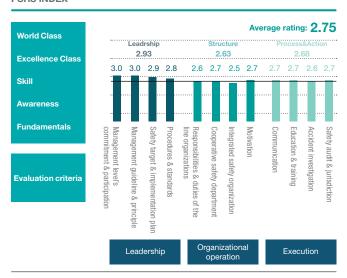
#### PSRS ASSESSMENT PROCEDURE





\*POSCO (14 departments) → (Pohang) 6 departments including Steelmaking Dept., (Gwangyang) 8 departments including Hi-mill Dept.
Subcontractors (18) → (Pohang) 5 companies including Geumwon, (Gwangyang) 13 companies including Gwangyang Enterprise Subsidiaries (3) → POSCO Energy, POSCO AST, POS-HiMetal Others → Safety consulting to safety hub SMEs: 26 companies

#### PSRS INDEX



**Smartphone application for Safety & Health** POSCO strives to achieve zero safety accidents through the "Smart & Fun Safety" initiative, where safety information is provided anytime, anywhere and hazards information is shared utilizing the smartphone mobile technology.

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## **Health**



#### **Employee health management system**

POSCO conducts free health examination on all employees every year to maintain and enhance their health. Examination results are recorded and saved to provide systematic and customized health-care services for employees. Based on the data, health consultations with industrial medicine specialists are offered and customized diet and exercise routines are prescribed. Employees receive health information education and regular checkups, and if necessary, employees are recommended to join counseling sessions and the fitness center of the company. For employees who found health problems, we provide regular medical follow-ups and treatment to prevent their illness from worsening.

Apart from this basic health care activity, we provide our own tumor marker tests (4 types) 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, and employees can select to have an examination every year. In order to help employees keep in shape and prevent musculoskeletal disorders (MSDs), the Physical Therapy Clinic is available and fully equipped with a body analyzer, disc decompression system, and disk rehabilitation machine.

#### 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, and low salt diet movements.

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. All of the POSCO Family employees have succeeded in quitting smoking.

We are also campaigning for moderate drinking for healthy employees and happy family. As the 1st campaign of the 6th Labor-Management Council launched in 2012, the "No sharing glass, No forced drinking, Practice 1231" movement was carried out. Get-together culture also changed from drinking to going to good restaurants and sports games or cultural events.

In order to fight obesity, POSCO has implemented a range of obesity control programs for its employees; 8-week weight loss program, healthy walking campaign, and the development of healthy diet, and riding bicycles movement. These programs are designed to encourage employees to adopt a healthy life style such as regular exercise and proper eating habits. We regularly measure BMI<sup>2</sup>, so that employees can fight obesity.

Moreover, considering the fact that Koreans tend to intake much salt in a day, the possibility of adult diseases like hypertension and obesity is high. Therefore, we are campaigning for a low-salt diet to cut down salt intake since salt is the main cause of adult diseases.

- 1 Practice 123: Twice in One week, less than 3 glasses
- <sup>2</sup> BMI: Body Mass Index used to determine obesity

#### **Industrial hygiene management**

In order to be in the best shape, the internal and external environment surrounding workers need to be pleasant. POSCO is enhancing the convenience and performance of protective gears with the help of protective gear manufactures. Meanwhile, POSCO developed health standards such as "Hearing Protection Program" and the "Healthy Work Program for Enclosed Areas". 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. Thanks to such consistent efforts, POSCO showed an outstanding performance at the "Work Environment Evaluation Management" program, hosted by the Ministry of Employment and Labor every year, and was designated by the Ministry as a "Self-evaluating Organization of Work Environment."

#### Establishment of 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 subcontracting partners, 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 the steel plant in Indonesia, we will expand the application to overseas branches and conduct health management of the POSCO Family that fits the local characteristics.

#### Health education

To raise employees' health awareness, we provide e-learning courses under the topic of Industrial Health'. There are various programs in the course including health promotion, lifestyle improvement, health examination and workplace management / improvement, etc. The courses are available not only to POSCO employees but to anyone including subsidiary employees who want to take the class.

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#### INDUSTRIAL HEALTH EDUCATION (e-LEARNING)

(Unit: persons)

2011	2012	2013
1,599 (in 8 sessions)	959 (in 8 sessions)	2,121 (available any time)

# **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 (Pohang) and Jan. 2012 (Gwangyang). Establishing infrastructure through expanding personnel and facilities to provide additional service, 82 subsidiaries and outsourcing company employees working in steelworks can receive the same medical service benefits as POSCO employees free of charge.

## EMPLOYEES TO USE THE HEALTH PROMOTION CENTER (2013)

(Unit: cases)

	POSCO staff	POSCO Family
Pohang	42,185	4,798
Gwangyang	27,804	3,308

'Gwangyang Steelworks' Health Promotion Center opened to POSCO Family: 66 companies in 2012, 82 companies in 2013

#### Stress management and counseling

For employees' happiness and mental health, we have been operating a counseling office where employees and their families can receive counseling through visits, phone calls, and e-mails. Group counseling is also provided to help employees enjoy a stable and happy work-life. In addition, they can be transferred to the outside

psychiatric clinic depending on the counseling results to receive free treatment when they need a deeper counseling and drug prescription. The counselor keeps all of these procedures strictly confidential.

#### COUNSELING SERVICE PROVIDED TO EMPLOYEES

	2011	2012	2013
Pohang	2,524 persons (715 cases)	1,883 persons (992 cases)	1,337 persons (809 cases)
Gwangyang	Individual counseling 391 cases Off-the-job education 368 persons (13 times) (since June)	Individual counseling 1,331 cases Family program 241 persons (26 times) Off-the-job education 979 persons (23 times)	Individual counseling 905 cases Family program 377 persons (42 times) Off-the-job education 387 persons (13 times)

#### **Health care volunteering**

POSCO has been conducting health care volunteer activities since 1993 in villages with sisterhood ties with the company, where there are no medical facilities or are located far away, as part of our mutual growth efforts with the local community and to improve POSCO's corporate image. The volunteer group comprised of doctors, nurses and pharmacists provide health consultation and treatment, and give them medicines as well as first-aid medical supplies to help those that are marginalized from medical service. The volunteers also conduct environmental cleanup around the villages, strengthening the ties with the local community.

#### Major performances in health sector in 2013

#### GWANGYANG

- 1. Health-up program
  - Selected subjects for "health care" and "health caution," and provided continued care

Health care subject. Those that fall under more than 1 category among the 8 indicators Fasting glucose level (150  $\uparrow$  ), blood pressure (150/95  $\uparrow$ ), electrocardiogram, GTP(80  $\uparrow$ ), r-GTP(150  $\uparrow$ ), AFP(20  $\uparrow$ ), LDL-CHO(190  $\uparrow$ ), TG(400  $\uparrow$ )

Health caution subject: Those that fall under more than 1 category among the 3 indicators Body fat percentage (male 26  $\uparrow$  , female 30  $\uparrow$  ), r-GTP(78  $\uparrow$  ), LDL-CH0(160  $\uparrow$  )

 Conducted intensive follow-up care for subjects with health conditions (continued feedback)

Conducted medical examination on those selected with health conditions

Continued feedback on subjects with health conditions (encouragement mail, individual letter, letter to the family)

Conducted fight obesity program

- Subjects for fighting obesity invited 4 times each quarter, conducted in connection with Harmony Center
- 2. Health Rock Concert
- Established operational plan for the expansion of subjects for special medical exam for shift workers.

Completed institutional evaluation for the working environment measurement and special examination (Grade A: outstanding)

#### Plans for health sector in 2014

#### POHANG

- 1. Health-up campaign through more exercise
  - Establish health surveillance system
  - Develop and operate customized exercise program for each group (normal-obese-extremely obese)
  - Contest and award for departments with outstanding Health-up activities
- ${\bf 2. \ Close \ management \ of \ high \ risk \ individuals \ with \ health \ condition}$ 
  - $\bullet\hspace{0.1cm}$  Periodic chart for out-of-company detailed medical exam by age group
  - Study effect on health of workers in the 4 teams 2 shift work schedule
- 3. Special examination for shift workers (law was strengthened)

#### GWANGYANG

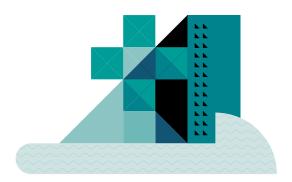
- 1. Intensive care program for subjects with hyperlipidemia
  - Selection and care of hyperlipidemia subjects
  - Distribution of handouts on hyperlipidemia and education
- 2. Counseling program for "anger management"
  - On-site visitation education campaign for "building a healthy mind"
  - Distribution of handouts on anger management
- 3. Medical rehabilitation exercise program
  - Rehabilitation exercise treatment and exercise setting for subjects who have musculoskeletal disease or had surgery
  - Dissemination of proper stretching exercise and prevention campaign to prevent musculoskeletal disorder
- 4. Developed computer system for physical therapy reservation connected with EP or exercise physiology (?)

EMPLOYEE

# Safety & Health Strategy for 2014

INVESTOR

CUSTOMER



The trend of leading governments and steelmakers in the area of safety, health and disaster management is to ensure fundamental wellbeing and prevent major accidents. POSCO has set the strategy for 2014 as establishing fact-based, hi-tech infrastructure to practice scientific and objective safety management, cultivating employees with expertise, building a worksite that guarantee the safety of the workers, and the qualitative improvement of the safety, health and disaster management system. In the safety sector, our goal is to foster safe action in employees and build hazard free equipment. In the health sector, we do to improve the quality of life of our employees through proactive health management activities based on the principle of respecting humanity, while in the disaster management sector we will establish a systematic disaster prevention process.

STRATEGIES AND SYSTEM FOR 2014

#### Safety

Foster safe action in the emplovees and build hazard free equipment

- · Foster a culture where leaders act as role models and employees work in a safe manner.
- · Achieve zero major accidents by everyone participating in identifying fatal hazard elements and devising fundamental improvement
- · Build a virtuous-cycle safety system based on the safety & health management system
- · Establishing fact-based, hi-tech infrastructure to practice scientific and objective safety management

#### Health

Improve employees' quality of life by providing proactive health management activities

- · Provide individual care to health care subjects, and conduct proactive prevention activities against occupational
- . Monitoring of the (domestic and overseas) steel mills' health management system, conduct self-motivated health care (fighting obesity) campaign
- · Auditing of working environment (health aspect)

#### Disaster

Systemize enterprise disaster prevention process

- Enhance disaster management and emergency response capabilities of all employees
- Create a working environment where hazards (fire, explosion toxic leakage) have been deleted / controlled
- Systemize enterprise disaster management (guidelines and standards) and establish scientific disaster prevention

#### VISION 2014

#### **PREPARED W**ORKFORCE

Cultivate employees who are prepared against safety and health disasters

#### SECURE WORKFORCE

Build a worksite that ensures the safety of the workers

#### QUALITY WORKPLACE



Realizing the POSCO Family where the workers are safe and happy life



Fact-based, hi-tech infrastructure to practice scientific and objective safety management

**Big Data** 

#### **SAFETY KPI**

#### 1. Lost-time injury frequency rate(LTIFR)

- Execution strategy: Achieving zero accidents through scientific prevention activities
- · KPI definition: The Index shows the accident frequency. The calculation is based on the number of accidents per 1 million working hours
- → It is the key index for industrial accident statistics (cases/work hours x 106) Target for 2014 is 0.09



#### 2. Major accidents

- Execution strategy: Achieving zero major accidents through intensive management of fatal hazards (2 cases in 2012, 2 cases in 2013)
- KPI definition: Number of major accidents occurred
- → Identify major hazards in a confined space and make improvement in hazard evaluation Target for 2014 is zero major accidents



#### 3. Enterprise safety culture index

- Execution strategy: Raise employee safety awareness by incorporating the safety culture
- · KPI definition: Reflect when conducting **PSRS** evaluation
- → Rate level of safety culture through the score result of the PSRS (5 points scale) Target score for 2014 is 3.12



#### 4. Incorporation rate of industrial health in the company

- · Execution strategy: Incorporate industrial health in the worksite to realize a healthy POSCO without occupational diseases
- KPI definition: POSCO's management level index for no occupational hazards Target for 2014 is 91



Newly introduced index in 2014

#### 5. Enterprise disaster loss prevention rate

- Execution strategy: Secure expertise through cultivating disaster management competencies of all employees
- KPI definition: POSCO's management level index for disaster loss prevention Target for 2014 is 93.1

(Unit: %)

Newly introduced index in 2014

# Global Safety and Health Group

















Control tower + Building infrastructure

## Steelworks, overseas operations

**\$** 



Health Enhancement and plants vention

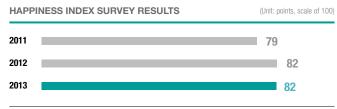
Focusing on execution



Executives and employees are important stakeholders as well as the most valuable resource. Human resources development system, reasonable compensation system, and welfare policy were put in place so that they can grow to be creative talents, which in turn builds a competitive POSCO Family.

#### **Employee Satisfaction Index: Happiness Index**

POSCO looks for the specific direction for Happiness Management through our employee satisfaction survey called Happiness Index. The Happiness Index survey which was conducted every year since 2011 on employees of POSCO overseas branches and the POSCO Group is POSCO's unique survey to assess the corporate culture and employees' attitude. Based on the findings of the survey, we establish plans for the following year to build a happy workplace. In 2013 we strived to achieve work-life balance through group-based care activities that takes into account age diversity, a family-friendly workplace, and a happy workplace that enhances employees' focus on their work. In 2014 we plan to foster challenging spirit and a creative culture, as well as providing customized care for each age group after detailed analysis of their needs.



2014 Target: 84 points

#### Providing customized care by group

We provide customized care by group which takes into account the diversity between generations in order to build a happy workplace where employees can fully immerse themselves. There is the Happy Week Communication Workshop for employees with short continued service years and whose greatest needs are to build communication capabilities. The middle-class employees to whom their roles at work and at home are important, we offer POREKA Weekend Family Program that they can participate in with their children. For female employees who need growth support, we provided Mentoring Day for Women each quarter.

#### Trust and communication with employees

For open communication among the employees, we have the Labor-Management Council, as well as Young Board, Junior Board as communication channels. In addition, we introduced the POSCO&, a two-way communication channel to build consensus on the company's major policies and exchange views. Since 2012, we implemented the Smart Leadership to enhance the communicative capacity of the leaders.

Labor-Management Council Based on the Act on the Promotion of Worker Participation and Cooperation, the Labor-Management Council was launched as an employee representative body on November 17, 1997 with 20 members from management and labor unions. The labor members negotiate on company-wide interests including wage, working policy, welfare, increased 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 Section-Factory Council which is the smallest unit with 383 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, we have promoted the Multi-year wage agreement 2012 to 2013, and 1% donation movement to create a symbiotic labor-management culture. We will also make sure that the company and employees can enjoy win-win. The members of the Labor-Management Council are selected by direct and secrete voting, with 3-year tenure. The 6th members of the council as of 2014 were chosen in Oct. 2012, with their tenure ending in Nov. 2015.

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 POSCO Family including overseas branches. In 2013, with a view to making suggestions in the name of the Young Board regarding POSCO Family's strategies, the Young Board completed tasks such as "An age of uncertainties: suggestions for a sustainable POSCO Family," "Young Board's suggestion on maximizing profitability," and "Path to sustainable growth through creating synergy in group management."

**Junior Board** Started in 2009, the Junior Board is a division-level communication channel, unlike the Young Board. Its role is to secure open communication channels among departments, to discover creative ideas of young employees, and to improve the corporate culture and build a lively organization. The division head and young employees hold discussions or gatherings every half year. Since the second half of 2012 to the first half of 2013, Junior Boards in 9 divisions conducted cultural events or gatherings under the theme of their voluntary choosing to communicate with the division heads.

Feedback from departments to advance the way of work

Improving the culture of meetings, instructions and briefings is at the core of the way of work, and we have continually undertaken improvement efforts. Following the Smart Leadership' of 2012, we distribute the "Feedback of way of work" every quarter to the departments to spread the "Smart" way of working. The feedback consists of the quarterly trend regarding high work-concentration time of the day, and data on meetings, instructions, briefings, and paperless working, and assists the departments in change management to help them achieve their targets. The continued feedback is contributing to improving the company's culture of meetings, instructions and briefings. As a result, the immersion on work rate rose to 71% as of the fourth quarter of 2013, which is an improvement by 26%.

'Smart Leadership: Means changing the main role of leaders (giving instructions, briefings, communication, and doing their tasks) is a smart way. POSCO obtained signatures pledging to observe the "Smart Leader Pledge" and shared the quideline for smart leadership throughout the company.

**SNS** To have open and sincere communication with internal and external stakeholders, POSCO began operating internet blogs, YouTube and Facebook pages. Through the social media, POSCO is enhancing communication with not only the employees but with the outside as well. We introduced various stories on the company and events that are not well known, so that the general public will feel closer to the company.

As a result, the external company blog "Hello POSCO" recorded 2 million accumulated visitors after 1 year and 4 months since its launch, while our Facebook page got 120 thousand fans after only 1 year and 2 months. In addition, we opened a global blog and an account in LinkedIn in January 2013, so that we may share latest corporate news, products, and recruitment information with the people of the world.

The external blog "Hello POSCO" is an online space open to the public that shares information such as company news, episodes of steel in everyday life and employment news. It is divided into POSCO, PEOPLE, TOGETHER, CAREER CULTURE, and SOCIAL tabs. The POSCO Facebook page, which consists of contents from the blog, YouTube, and other POSCO company episodes, helps create a message space where people can participate and relate with.

In recognition for our sincere communication effort and inducing agreement and participation from society, POSCO's social media won the grand prize at the "2013 Korea SNS Awards" in the corporate sector, and the 1st prize in Digital PR at the "2013 Korea PR Awards."

Grand prize at the 2013 Korea SNS Awards

In-house blog, POSCO&





#### POSCO'S SOCIAL MEDIA PLATFORMS



#### COMMUNICATION CHANNEL BETWEEN COMPANY AND EMPLOYEES



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#### Building a more women-friendly work environment

POSCO builds a women-friendly work environment so that they may fulfill their full potential thereby enhancing the company's competitiveness and diversity. In particular, we actively support childcare so that they may focus on work, and offer various programs to help them grow.

#### IMPROVING WOMEN'S WORK ENVIRONMENT

Childcare		Childcare center Childcare centers in Seoul, Gwangyang and Pohang accommodate 120, 180 and 200 children respectively. They help relieve the childcare burden, expand female employment, and contribute to increasing the birthrate. In 2013, in order to meet the growing demand for childcare, we expanded the capacity of the childcare center in Seoul, and improved the facilities as well.
	Î	Resting room for female workers  The restroom is designed for mothers where they can rest and breastfeed their children, to help them do their jobs more easily.
	å	Maternity Leave  Offers maternity leave of up to 2 years, which is 1 year longer than the period guaranteed by law.
	10000	Incentive pay for childbirth  Offers incentive payment for childbirth to address the low birth rate issue and to help out in parenting.
Supporting growth of female workers	M	Mentoring Day for Women  Female employees meet their role models and learn about leadership from them in Pohang, Gwangyang, and Seoul.
WOINGIS	Ē	W Leadership program In order to present a growth vision for manager-level employees who experienced a break in their careers due to childbirth and parenting, we provide an education program with internal and external mentors to guide their way.
	9	Communication channel among female employees  Operates 'Women Leadership', an in-house on-line study group, where female employees share information and resolve their grievances. (Participation rate as of December 2013 was 82%)

#### Compensation and welfare benefits

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, 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 profitability 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 previous method in which the labor and management had 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% to a variable business-performance based system. Employee welfare fund has been established from some of company profits to boost the employees' quality of life. The fund is used for house purchasing loans and stabilization of livelihood, scholarship 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, POS-CO manages 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. We also conducted a healthy drinking campaign with the Labor-Management Council as part of our efforts to minimize elements that can harm our employees' health.

EMPLOYEE WELFARE FU	ND BY YEAR	3	(Unit: KRW 1 billion)
	2011	2012	2013
Company's contribution	62.1	59.1	57.6
Aggregate amount	757	816	874
LABOR COSTS PAID OUT			(Unit: KRW 1 billion)
	2011	2012	2013
Payroll <sup>1</sup>	1,277	1,367	1,401
Payroll <sup>1</sup> Provisions for retirement benefits <sup>2</sup>	1,277 137	1,367 113	1,401 135

- <sup>1</sup> Payroll: Total of monthly salary, cashable welfare expenses (lunch money, personal pension subsidy, business performance-based benefit, incentive)
- <sup>2</sup> Provisions for retirement benefits: Retirement fund for general employees of the year (executives excluded)
- <sup>3</sup> Legal welfare expenses: Total amount of national pension, health insurance, employment insurance, industrial accident compensation insurance, and wage claim quarantee insurance charges

#### AMOUNT OF PENSION SUBSIDIES (Unit: KRW 1 billion) 2011 2012 2013 33.3 National pension (company's contribution) 35.1 36.5 9.1 9.7 Personal pension subsidy 9.1 13,970 14,736 No. of beneficiaries of personal pensions 14,317

"Multi-year wage agreement": The paradigm of advanced wage agreement "Multi-year wage agreement" means a labor-management wage agreement with a term of 2 years or longer. This is an advanced form of wage agreement that will solve the demerits of single-term agreements such as increased negotiation costs due to consumptive negotiation between labor and management, and decreased ability to respond jointly to the global market changes. In 2007, POSCO introduced the multi-year wage agreement for the first time in Korea, and successfully reached agreements in 2007, 2010, and 2012. In addition to POSCO, 25 subsidiaries have switched to the multi-year wage agreement by 2012, making it a unique labor-management culture of the POSCO Family. As the global economic recession lingers and the profitability of the steel industry declines, the multi-year wage agreement system helps us cut waste elements that entails yearly wage agreements, and creates an environment where employees and the company can both focus on sustainable growth.

# **Global Talents**



#### **POSCO Recruiting System**

POSCO pursues "Open recruit" where job seekers can apply regardless of academic background, age, nationality, etc. We are pushing forward the "Structural Screening Process", an advanced hiring evaluation system to scout for talents. The Structural Screening Process is a competence evaluation process based on the "Assessment Center", utilizing various interview techniques to evaluate analytical, planning, communication skills and leadership of applicants in a comprehensive manner. Through such methods, POSCO assesses the future growth potential of the candidates, rather than their current abilities, to recruit the outstanding candidates who can grow with us. In addition, POSCO announces 1 year in advance the company's values, what kind of talents we are looking for, and the plus factors for hiring to select and recruit the talents best suited to POSCO.

#### Recruiting activities in 2013

Recruiting was one of our priorities in 2013 to hunt out global and professional talents, who will be at the very center of POSCO's future success. Along with operating the "POSCO Scholarship," we conducted public recruitment, recruited workers with experience, and overseas recruitment. In particular, we introduced the "Discharged military officer recruitment" and "Challenge internship." Through the discharged military officer recruitment, we secured talents equipped with patriotism, a challenging spirit and a mind to lead by example. The challenge internship is a recruitment method that does not require the applicant to write down education level, alma mater, grades, or to attach a photo, in order to reduce the social cost of building one's personal specifications and foster a sound employment culture. In addition, we recruit 30% of our public recruits among applicants who fall under the categories of: creativity (patent owner), challenging spirit (has experience in starting a venture company), global (multilingual), and win-win (low-income group).

#### Creating jobs for married women with career breaks

POSCO is also active in creating jobs for married women with career breaks due to childbirth, parenting or housework. After hiring housewife employees for manufacturing jobs for the first time among large companies in 2007, we offer vocational training to housewives as part of our efforts to create stable jobs for married women. We will minimize the burden of parenting, and build a happy workplace for our female employees.

#### **Part-time jobs**

POSCO introduced the time-selection part-time job in 2014, to take part in the government's effort to create jobs, and improve the quality of life through flexible working hours. The part-time jobs are available in sales service, promotion guide, administrative support, and facilities maintenance areas, and will recruit 1,000 employees at the POSCO Group level. In addition, for existing employees who so desire owing to parenting, retirement preparation, or disease, they will be allowed to switch to part-time work without the disadvantage of a career break.

#### **HUMAN RESOURCES STATISTICS**

	Classification	2011	2012	2013
Employment	Total number of employees	17,553	17,623	17,823
	Pohang	6,638	6,521	6,556
	Gwangyang	6,254	6,217	6,232
	Head office / Technology Research Center / Offices / Other	4,661	4,885	5,044
	Employees by employment type (persons)			
	Regular	16,824	16,675	17,005
	Contract-based worker <sup>1</sup>	729	748	827
	Employees by gender (persons)			
	Male	16,928	16,921	17,049
	Female	625	702	778
	Employees with disabilities (persons)	445	474	485
	(Ratio %)	2.3	2.5	2.5
	(POSCO)	253	254	255
	(Withplus division of POSCO Humans)	192	220	230
	Average years of service	18.5	18.0	18.5
Recruitment	New hires (persons)	857	818	873
ransfer/	Turnover rate (%)	2.94	5.85	2.91
Retirement	Retirement (persons)	496	1,029	520
	Retired employees who reached retirement age (persons)	1	654	-
emale	Ratio (%)	3.6	3.98	4.4
mployees	Ratio of female employees in manager (G10) <sup>2</sup> positions and above (%)	17	21	21
	Number of female employees in manager (G10) positions and above (persons)	105	146	166
/laternity /	Employees who used maternity leave	15	56	55
Parenting	Average length of maternity leave that was used (days/person)	75.4	71.3	61.7
	Return ratio after maternity leave (%)	100	100	100
	Employees who used parental leave (persons)	22	61	77
	Average length of parental leave that was used (days/person)	2.6	4.9	6.2
	Return ratio after parental leave (%)	100	100	100
	Employees who used spouse paternity leave (persons)	244	532	518

<sup>&</sup>lt;sup>1</sup> Contract based workers are; rehired personnel after retirement, and professionals such as lawyers and nurses

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<sup>&</sup>lt;sup>2</sup> G10 corresponds to a manager (rank system was changed in 2011)

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#### **Talents nurturing system**

POSCO fosters creative talents that together turn the company's vision into reality. That's why we are establishing a lifelong, self-learning education system to allow all employees to be empowered and contribute to the organization. Customized education is provided to all employees from new employees to executives, supporting everyone to become a professional through work-specific training. Special courses are also prepared for employees nearing retirement age and their families, so that they can plan for their lives after retirement. We are also practicing shared growth by empowering employees at subcontracting companies and supplier companies under the SME Consortium education project.

#### Focus area of implementation in 2013 and plans for 2014

In 2013 POSCO focused human talents nurturing in: enhancing the efficacy of e-learning, enhancing the understanding and consensus on the spirit of ownership, improving the performance index of technological training, and strengthening the SME win-win HR nurturing index. For the year 2014, our human resources development will focus on 5 areas: properly understanding the current management environment and the company's new management philosophy to enhance motivation for overcoming risk, job training that nurtures the ability of execution and innovation, systematic cultivation of expert workforce centering on the field, cultivating field experts with strong creative consilience competencies through the "POSCO Technology College," and enhancing the business ecosystem's competitiveness by improving the quality of the SME Consortium education programs.

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 job-related education, OJT, and task execution training according to a training roadmap. The systematic training cultivates the new employees to acquire expert competencies. Before being assigned to their posts, new employees receive POSCO Family introductory training, POSCO's own introduction education, and 5 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, 6 Sigma GB task execution training, and are required to write research papers.

**Cultivating global leaders of the next generation** POSCO operates diverse education 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 cultivation courses 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 identifica-

tion 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, the POSCO Culture Innovator course is offered to cultivate in-company teachers and enhance the competencies of local personnel in charge of education. The Global Junior Executive Development Program is offered to cultivate leaders among the local HR pool.

Cultivating creative consilience talents POSCO operates the TRIZ College to foster POSCO and POSCO Family employees' creative problem-solving capacities. The TRIZ College is an in-company college for engineers and researchers, which offers TRIZ level 1 to level 3 courses. The TRIZ instructor program cultivates expert instructors for each sector. We plan to operate a strategic TRIZ course targeting office workers to cultivate their capabilities to produce creative ideas when establishing plans and strategies.

Education for trust and communication We introduced the POS-CO-In-Me (PIM) program, which is a new form of off-the-job training that combines lecture and concert, in order to quickly convey management issues and philosophy and to heighten employees' pride. It was held 10 times at the art halls in Pohang and Gwangyang Steelworks for general employees. The theme of the 2013 PIM Concert was "Spirit of ownership" with the sub-theme titled "POSCO blooms in me," to remind them of the spirit of ownership. The program included videos, lecture by top management, concert, model employee case presentation, and lecture by a famous lecturer. Top management lectures were given by the CEO and executives above vice president level, and external lecturers famous for their lectures on vision, dreams and execution were invited. The concert was comprised of performances by musical actors, popular singers, and professional Gugak (Korean traditional music) performers.

In 2014 we are planning for a participatory concert and culture talk on the theme of intergenerational understanding to resolve the intergenerational conflict within the organization and encourage sharing

and communication.

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 that used to be run separately at Pohang and Gwangyang. We provide training to new employees and soon-to-be employees to teach them on the overall skills needed to perform their tasks at the field. 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 7-week program consists of liberal arts, character education, and basic field training. 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. We will add the OJT program in the training of soonto-be employees Meister school students and job training, for early competence building of new employees.

University graduates receive intensive training on basic steel technologies such as element technology, the steelworks process, and facilities technology for 18 weeks before being assigned to their posts, in order to cultivate them as conslience 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 8 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 only a few years that will help them maintain and advance their field skills.

For employees who have been rotated from equipment operation to maintenance, we provide basic maintenance training that teaches equipment maintenance and repair. Through the practical maintenance training program, workers already working at the maintenance department receive training to further enhance their maintenance skills. We also operate equipment "6-systems" training, department-customized training, and job training on vacation days to enhance field technology competencies and integrate equipment operation and maintenance skills.

For engineers, we developed expert technology training courses such as element technologies in mechanics, electric & measuring equipment that are necessary in improving the field work, and engineering theories needed to develop new steel technologies. We will further enhance the engineering training by expanding the engineering course pool, performance monitoring and feedback.

In 2014 we opened the POSCO Technology College, establishing the "first employment – later study" lifelong education system that will enable us to secure high-level expert human resources who will lead the new change in the steel industry and achieve global competitiveness early on. The Technology College is a 2-year college degree program with one department (steel convergence). We will cultivate operation and maintenance field experts, at the 2 campuses at Pohang and Gwangyang, 30 persons each.

Employee life design support In order to support life planning, we operate the GLD (Green Life Design) program to employees nearing retirement, to help them plan for a successful second life after retirement. Reflecting the demand for prior preparation period due to an extension of the retirement age, we have revised the operating process and support system for the program. We refurbished the Green Life portal, which is now open to employees over 50 years of age and also to those who have already retired. The portal provides a variety of information and learning content, shares individual's knowhow, as well as an opportunity to widen their network. In the preparatory Green Life program employees over 50 years have learning opportunities to enable them to prepare and design their retired life in an organized manner. Employees who are to retire are eligible to receive Green Life education comprised of e-learning, off-the-job training and customized consulting to help them adjust quickly to life after retirement.

#### LIFE DESIGN EDUCATION PERFORMANCE

Period	Persons (aggregate)	Annual average persons	Duration
2001.10~2013.12	2,684 person	383 person/year	8 day

Operating criteria for 2013: 8 days for employees on salaries

#### CONTENT OF LIFE DESIGN EDUCATION

	Workshop	Counseling	e-Learning
Content	Setting life' goal (3 days) Field trip workshop (3 days) Spouse participation (2 days)	Consulting for setting individual goal Establishing strategies for opening a business or finding new employmentN	Life management, reemployment, opening a business, financial management (10 subjects)
Period	8 day	Anytime on demand	Anytime on demand

Self-directed learning Since 2000, POSCO has actively implemented the e-learning system to foster self-directed learning. POSCO was the first company in Korea to be selected as the best e-learning company for 6 consecutive years by the Ministry of Employment and Labor. Even as the education paradigm changes with the advancement of the information technology, POSCO's e-learning system is taking a leading role. In July 2011 the U-learning was implemented allowing employees to use their smartphones to take the courses. 3,700 video contents were provided to realize a true "Anytime, Anywhere" type of education. In 2012, we developed the G-learning program using games, through the action mobile game and role playing game, adding the element of "Fun" in learning about corporate ethics and information protection. Lately we are drawing a big picture of smart learning in which the learners create, distribute and consume related knowledge on their own, where work and learning are integrated, which means learning is possible anytime. We are presenting a blueprint where various internal and external resources are combined like modules to provide learning content that is customized to the organization, with no restrictions on the device so that it can be accessed through the PC, tablet PC and smartphone and be integrated with work. The typical and atypical big data can be analyzed and to be used in learning and evaluation.

In addition, we opened the "POSCO MBA" which is a form of blended learning that combines e-learning and off-the-job training,

<sup>\*</sup>Not executed in 2011 (retirement age was extended)

in order to cultivate manager-level employees as the leader of the future. With the goal of cultivating the entrepreneurial spirit and management knowledge, we run a 1-year program with a curriculum of business administration, leadership, and strategy classics over the course of 3 semesters.

#### Strengthening innovation education to accelerate innovation

With the PI (Process Innovation) that started in 1999, POSCO introduced 6 Sigma in 2005 to cultivate innovative talent and fulfill tasks, and in 2006, developed POSCO's 6 Sigma and is operating it, promoting continuous innovation. POSCO continues its training courses to nurture MBB, BB, and GB, the innovative leaders who will drive successful management innovation. From 2012 we have been pursuing innovative business activities to secure competitiveness based on innovative capacity, along with activities such as BI (Breakthrough Innovation), CI (Continuous Improvement), and PO (Process Optimization), together with innovative management activities to secure competitiveness based on innovative capabilities and spirit of ownership.

We are also operating the 6 Sigma training, to enhance employees' problem-solving capabilities. To increase the trainees' level of immersion at work and field applicability we increased the ratio of on-site hands-on training from 30% to 70%, while conducting e-learning before starting the program and using actual tasks drawn from the shop-floors. In order to nurture operators who are "strong at maintaining their own equipment", training courses are provided for QSS Improvement Leader and QSS Master, consultants for improving worksites. In 2013, we revised the QSS Improvement Leader textbook to reflect the changes in business environment since we first introduced QSS, focusing on enhancing understanding of QSS and off-job task execution competencies. In 2014, we will proceed with revising the QSS Master textbook as well.

Recently, change management education programs have been enhanced by integrating POSCO's core values and the advantages of other training methods to motivate more employees to lead innovation at the company.

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 subcontracting companies 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, electrics, 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 of 2005 we provided training to 4,241 persons in 132 member companies, but in 2013 that number increased to 71,490 persons in 428 companies. In addition, considering the difficulty some companies might have regarding off-the-job training, we offered 39 e-learning courses, diversifying the method of delivery for a more effective training, as well as providing training consulting. In 2014, we plan to run 80 off-the-job training courses and 40 e-learning courses for 428 SMEs.

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 8 consecutive years from 2006 to 2013, and in 2007 we even received the president's commendation.

TRAINING SUPPORT PROVIDED THROUGH THE HRD CONSORTIUM

	2010	2011	2012	2013
Member companies	377	418	472	428
Number of trainees	32,098	42,436	72,766	71,490

\* 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.

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, while for the expert programs such as skill training we evaluate the trainees' level of understanding (achievement level). 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 increasing e-learning and decreasing the ratio of off-the-job training. This has resulted in less training hours and higher satisfaction.

#### MAJOR INDICES

Classification	2011	2012	2013	Remarks
Number of persons to receive training	530,086	432,859	523,184	
Training hours per capita	252	234	205	Data is based on off-the-
Total training costs (KRW 100 million)	253	178	142	job training (Future Creation Academy, on-site training, lifeld
Training costs per capita (KRW 10 thousand)	145	101	80	learning, commissioned training and e-learning
Trainee satisfaction (scale of 1 to 5)	4.47	4.48	4.62	

#### TRAINING HOURS PER CAPITA BY RANK

(Unit: hours)

Junior exec	cutive manager	Team leader	Part leader	Foreman	Staff
2012	178	198	206	238	222
2013	129	200	188	200	211

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#### KEY ISSUE \_ 10

# The Global Safety and Health System that is used by the POSCO Family in the World

Until now POSCO was operating a computerized safety system used only by our own employees. However, the safety and health management systems were different in each POSCO Family company, and the costs for establishing separate safety and health management systems had many problems including cost burden. In order to solve this problem we started operation of the Global Safety and Health System since November 22, 2013.

The Global Safety and Health System realized multi language and multi time zone to build a global single instance (GSI) environment. It currently supports English and Indonesian. We also built a server DRM to circulate safety and health documents among POSCO Family companies, and we are able to respond immediately to law enactment and revisions.

Through the Global Safety and Health System we will improve the safety level of POSCO Family companies including overseas production bases to POSCO's level, build a sustainable safety and health management system, thereby achieving a zero accident safety culture in the POSCO Family.

GLOBAL SAFETY AND HEALTH SYSTEM'S FEATURES

#### GSI environment

Realized multi language, multi time zone environment

#### Security regime

Built independent safety and health server DRM

#### Responding to legal matters

Enables quick response to enactment or revision of relevant

#### Safety and health management

Brings the whole POSCO Family under a unified safety and health management system

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#### KEY ISSUE \_ 11

# Healing Coaching Program that Provides True Healing and Helpful Coaching

Healing Coaching is a program introduced in 2013 to provide healing care to the employees and foster smooth communication within the organization. Starting with the pilot operation in May 2013, we conducted 17 group coaching sessions, special healing lectures and 1:1 coaching where 400 employees participated. The program consists of healing, meditation, happiness, balance, time management, how to read, writing, healing through film, and healing through art. In particular, the group coaching course that was conducted on lunch hour every Wednesdays was very popular among the employees. POSCO received the "Outstanding Organization of Spreading the Coaching Culture Award" from the Korea Coach Association in 2013, as recognition of our accomplishments in the coaching sector.





# SOCIETY

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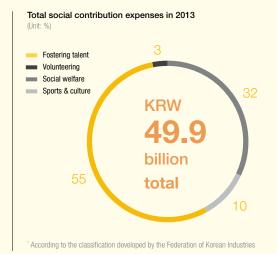
101 Key Issues

12: POSCO 1% Foundation

POSCO's social contribution activities began with building sisterhood ties with nearby villages in 1988 and advanced through launching "POSCO Volunteer Group" in 2003. In 2013, on the 10th anniversary of the Volunteer Group, POSCO further solidified the groundwork for building "a Better World" by establishing the direction of POSCO's social contribution strategy. POSCO will continue to fulfill its role as a responsible corporate citizen and grow together with the community, the society and the country.



# 2013 Social Contribution in Numbers



Social contribution expenditure in 5 major areas (Unit: KRW 100 million)

1 Local community 180
2 Global talents 270

3 Environment 9

4 Multicultural support

5 Cultural heritage 36

#### Donations to Community Chest of Korea

(Aggregate amount KRW 95.95 billion)

10 KRW billion

#### Social Image 2013

(2012: 3.73 points)

3.71 points

'Subjects of survey: 1,000 persons from general public between ages 20 and 59

'Area: 5 metropolitan cities (Seoul, Busan, Daegu, Gwangju, Daejeon) and 2 base cities (Pohang, Gwangyang)

'Sampling method: 3-Staged Stratified Systematic Random Sampling

\*Survey method: Face to face interview

#### Employee volunteer activities

Aggregate volunteer hours in 2013)

**558,575** hours





#### Establishment of 1% Sharing Foundation

Nov. 2013





(Donation by executives and employees KRW 2.4 bn + matching grant KRW 2.1 bn)

#### Social enterprise employment

1,442 persons





\*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)

# For a better world

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 focus areas

We established 3 strategies for building a better world, and selected 5 focus areas to conduct social contribution activities in a more strategic and systematic manner.

#### Strategic Direction

#### 1. Collaboration

Strengthen cooperation with the government, expert NGOs, and media

#### 2. Business Oriented

Strengthen connection with core competencies and business characteristics of each POSCO Family company

#### 3. Big Difference

Design well-made programs which differentiate from other companies and other existing programs



4. Multicultural society 3. Environment

#### POSCO Family Volunteer Group Emblem



#### **POSCO Family Volunteer Group**

The POSCO Family Volunteer Group emblem represents a volunteer who strives to achieve POSCO's social contribution vision, "For a Better World", and the society that grows together with the company. The joy of volunteers of helping one another is depicted by the "dancing volunteer", and the hope that is shared is symbolized by the "star." The persons in green and blue represent each and every volunteer of the POSCO Family Volunteer Group, and depict moving toward an ideal world in harmony and happiness above a green circle that symbolizes the Earth. The POSCO blue color represents the unity of the Volunteer Group members, the orange color represents the warm heart of helping each other, and the sky blue color represents the hopeful future.

2013 POSCO REPORT

# **Local Community**



The local community is the most important stakeholder to POSCO who has grown based on manufacturing business. Embracing, sharing, and growing together with the local community is the foundation for the employees and steelworks and has been a long tradition and creed that POSCO adheres to.

#### **Domestic activities**

POSCO has been conducting social contribution activities since its establishment in order to grow with neighboring communities. We support strengthening local community by vitalizing local economy, and providing support in sports, culture and education centering on Pohang and Gwangyang areas.

#### Creating jobs of hope

POSCO has undertaken various job creation projects including establishing social enterprises to care for marginalized groups in local community and provide stable jobs. POSCO established POSWITH and PSOCO Eco Housing, which then merged into POS-CO HUMANS, POSPLATE and Songdo SE. The "1 Company - 1

Social Enterprise Support" program is a campaign to support social enterprises at POSCO Family level by giving priority when purchasing products and services. In addition, we hire caregivers in Pohang and Gwangyang areas to help seniors living alone, creating jobs for socially vulnerable groups.



Jobs created through social enterprises (aggregate)

#### CAREGIVERS FOR SENIORS LIVING ALONE

#### Support status

Support for caregivers		Support for beneficiaries		
Period	1 year (1 year extension possible)	Selection	Recommendation and review by local	
Method	Public recruit by area and interview		government and relevant institutions	
Wage	10 hours weekly / KRW 40,000 daily pay (about KRW 1 million a month) 4 public insurances and severance pay	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 caregivers

	1 <sup>st</sup> period	2 <sup>nd</sup> period	3 <sup>rd</sup> period	4 <sup>th</sup> period
Pohang	20	20	20	21
Gwangyang	15	15	15	16
Total	35	35	35	37

<sup>&</sup>quot;1st period(2006.5~2008.4), 2nd period(2008.5~2010.4) 3rd period(2010.5~2012.4) 4th period(2012.5~2014.4)

#### **Philanthropic Saturdays**

Every third Saturday of the month is designated as Philanthropic Saturday when members of POSCO voluntarily participate in community service. Executives and employees carry out various volunteer activities such as volunteer camps and outings.

#### POSCO'S SOCIAL ENTERPRISES

#### **POSCO HUMANS**



#### Date of establishment

Jan 4, 2013 (Merger between POSWITH and POSCO Eco Housing)

Administrative support, laundry service, IT service, construction of eco-friendly steel houses, materials production

#### WITHPLUS Division

Employees Total 369 / 191 with disabilities (51.8%) Certified as standard workplace for disabled persons Apr 2008

#### Steel House Division

Employees Total 60 / 28 socially vulnerable group (46.7%) Certified as social enterprise Oct 2010

#### **POSPLATE**



#### Date of establishment

Jan 22, 2010

#### **Business** area

Specimen processing for Pohang and Gwangyang steel plate factory, product warehouse management, subcontracting work for POS HiMetal

#### **Employees**

Total 184 / 97 socially vulnerable group (52.7%)

#### Certified as social enterprise

#### Songdo SE



#### Date of establishment

Apr 29, 2010

#### **Business** area

Cleaning and parking management at POSCO E&C's new company building and POSCO Global R&D Center

Total 138 / 124 socially vulnerable groups (89.9%)

#### Certified as social enterprise

Dec 2010

#### Aggregate number of participants in the Philanthropic Saturday program

Apr 2008

OVERVIEW INVESTOR CUSTOMER ENVIRONMENT PARTNER EMPLOYEE CSR MANAGEMENT SOCIETY



Aggregate number of participants in the Philanthropic Saturday program

2006~2013

579,32

#### Supporting local communities through sisterhood-ties

Starting with Hagwang Village, Gwangyang in 1988, we have continued our "1 Department - 1 Village" activities. We carry out various programs such as scholarships, emergency relief, community cleanup, and lending a helping hand for farming and fishing villages for the 245 villages, schools and organizations in Pohang and Gwangyang.

#### **Donating lecture fees**

It has been 7 years since members of POSCO donated lecture fees recieved from giving lectures outside the company. The donation is used for education, medical support, charity, and vaccine support in developing countries.

DONATION AMOUNT				(unit: KRW 1 thou	
20	009	2010	2011	2012	2013

35 517

53.320

54.945

# 44 296

Smile Microcredit Bank

The POSCO Smile Microcredit Bank provides small loans without collateral to impoverished borrowers who have difficulty in borrowing from finance institutions as they lack collateral or have low credit scores. The POSCO Smile Microcredit Bank provides various financing services for vendors in traditional markets, delivery service workers, single-parent families, and multicultural families,

MICROCREDIT EXPENSES	(Unit: KRW 1 billion)		
	2011	2012	2013
Contributed amount (aggregate)	10	15	20

Loans provided 6.7 7.3 6.9

www.poscomiso.net

46 425

#### Overseas activities

POSCO's social contribution activities are actively carried out in countries where POSCO has operations, and in other developing countries. The POSCO way of social contribution activities has firmly rooted itself as a valuable sharing and volunteering activity that gives the kind of help that is most needed in the local community.

#### Community development program: POSCO-style Saemaul Movement

POSCO carries out the Saemaul movement in developing countries in various forms that is customized to meet the needs of the villagers in order to build a sustainable livelihood

#### Agricultural Training Institute, Mozambique

The Nova Villa Agricultural Training Institute in Mozambique offers a 1-year program to learn Saemaul spirit, acquire practical training with agricultural equipment, operate poultry farm and study theories in related field. The program generates 30 agricultural leaders each year (15 males and females 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 sustainable 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.

#### 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 to ameliorate housing problems. The village is equipped with community center and IT training center. As of 2013, 36 gratitude houses have been provided to the local residents. From 2014, POSCO plans to nurture POSCO Village project in Vietnam into a new CSV (Creating Shared Value) model. POSCO expects to set a model case whereby housing needs of marginalized groups are addressed while creating new demand for steel, which in turn will help expand our overseas business. POSCO A&C, POSCO ICT and POSCO Specialty Steel are also participating in the project, and plan to provide 85 houses by 2015.

#### **Emergency relief**

Since 2005, POSCO has been providing emergency relief kits and donations so that quick help may arrive to the people who have been struck by natural disasters like earthquakes and floods.

#### **EMERGENCY RELIEF PROVIDED**

2005	Typhoon in Ulleungdo, earthquake in Pakistan
2006	Cloudburst in Gangwondo, earthquake in Indonesia
2007	Cloudburst in North Korea, typhoon in Jeollanamdo and Jejudo province
2008	Cloudburst in India
2009	Cloudburst in Jeollanamdo and Busan, typhoon in Taiwan, earthquake in Indonesia
2010	Cloudburst in Daegu and Iksan, earthquake in Haiti, cloudburst in Pakistan
2011	Flood damage in Cambodia
2012	Flood damage in Gyeongbuk, Gunsan and Taean, earthquake in Iran, typhoon in the Philippines
2013	Flood damage in Gyeongbuk, flood damage in Gyeongbuk, typhoon in the Philippines

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2013 POSCO REPORT

## **Global Talents**



Cultivating future talents is the most important area that POSCO invests in because it is vital to the future of the country and the wellbeing of society. POSCO engages in supporting outstanding students through founding schools, operating university students' volunteer group and awarding scholarships.

# POSCO TJ Park Foundation, POSCO Educational 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 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 Asian region.

**POSCO Educational Foundation** POSCO Educational Foundation was established in 1971 and has built and run 12 kindergartens, elementary, middle and high schools in Pohang and Gwangyang. The Foundation recruits outstanding teachers and provides comprehensive training for teachers in order to deliver good curricular lectures and extracurricular education.

#### POSCO EDUCATIONAL FOUNDATION'S ACTIVITIES



#### Number of schools

<sup>2</sup> 2 kindergartens, 5 elementary schools, 2 middle schools, 1 technical high school, 2 autonomous private high schools

12 schools



## Donation for education (1976~2013)

Education expenses and facilities maintenance KRW 831 billion Fund raised from revenue-making business KRW 69 billion, labor welfare fund KRW 4 billion

904 KRW billion

#### **POSCO University Students' Volunteer Group**

In 2007 POSCO launched a university students' volunteer group called 'Beyond', to provide philanthropic experience to potential global leaders. Every year 100 students are selected to carry out various volunteer activities such as building houses, fundraising,

#### 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 (as of March 2014)

Awardees of 2014

(The 8th POSCO TJ Park Prize Presentation Ceremony)

· 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 EMMAUS Welfare Center

#### POSCO Regional Scholarships



#### POSCO New Star Scholarship

Promising students in Pohang and Gwanyang are selected and provided with high school fees and special congratulatory scholarship when they enter the university.

529 students were selected since 2006 (as end of December 2013)

#### POSCO Vision Scholarship

The POSCO Vision Scholarship is awarded to outstanding students who work hard but have financial need.

268 students selected since 2006 (as end of December 2013)

#### Fishermen's Association Scholarship

Scholarships are awarded to children of Pohang and Gwangyang Fishermen's Association members.

Awarded to 1,538 children since 2004 (as end of December 2013)

#### 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. 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 150 individuals since 2009 (As end of December 2013)

and cultural exchange, through which they learn the true value of sharing.

OVERSEAS ACTIVITIES OF THE POSCO UNIVERSITY STUDENTS' VOLUNTEER GROUP

2008 Delhi, India
2009 Chonburi, Thailand
2010 Bandung, Indonesia
2011 Indonesia Bogor
2012 Kien Giang Province

2013 Delhi, India

/ Vung Tau Province, Vietnam



# 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.

**CHIN CHIN WI-FI ZONE ACTIVITIES** 



#### Main programs

Training sessions for teachers, lectures for parents, empathy programs, changing school environment, comprehensive educational advice

Number of participants

1,890 students, 322 teachers, 477 parents

#### Participating schools

Seoul (Daeshin Middle School, Gongneung Middle School) Incheon (Mansu Middle School), Suwon (Samil Middle School), Ansan (Bono Middle School), Pohang (Daedo Middle School), Gwangyang (Gwangyeong Middle School)

#### POSCO Asia Fellowship



The POSCO Asia Fellowship is an academic and cultural exchange program to foster mutual understanding among Asian countries and enhance reputation of POSCO and Korea.

Scholarship program for Asian Students Studying in Korea

Selected 236 students from 27 countries since 2005 (Including 3 students from Africa, as end of January 2014)

Fostering specialists on Asian regional studies

67 Korean students selected for 19 countries since 2006 (as end of January 2014)

Research Grant Program for Humanities and Social Science on Asian Region

Awarded to 189 research projects in 14 countries since 2005 (133 projects in Korea, 56 projects overseas) (as end of January 2014)

Scholarship program for students in leading Asian Universities

Fellowship support to 2,959 students at 37 universities in 12 countries since 2005 (as end of January 2014)

Quarterly Literary Journal, Asia

Published since May 2005, quarterly publication, total of 31 editions have been published (as end of January 2014)

## **Environment**



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 comprised of POSCO employees is playing a vital role in cleaning the sea through 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.

#### CLEAN OCEAN VOLUNTEER GROUP'S ACTIVITIES

Classification		Volunteers (persons)	Excursions	Number of participants	Gathered volume (ton)
POSCO and	Pohang	447	172	8,827	388
others	Gwangyang	122	53	3,028	424
	Seoul	70	22	676	44
Total		639	247	12,531	856
ICT	Gyeonggi-do pr.	29	10	66	3
E&C	Incheon	40		498	
Energy	Incheon	18	-	57	
Engineering	Incheon	19	24	52	27
AST	Incheon	8		40	•
Specialty Steel	Changwon	22		515	•
Total		775	289	13,759	899

(aggregate between 2009~2013)



As multicultural families are rapidly increasing, multiculturalism has become an important subject for the Korean society, seeking unity of the country. POSCO has started early in providing support to multicultural families through creating jobs and changing perception, in order to help the families settle and grow within the society.

#### Joint weddings

In collaboration with Gangnam-gu Office in Seoul, POSCO supports joint wedding ceremonies for the couples who have already built a family together but could not afford to have a proper wedding. POSCO provides the venue, and invites their parents from abroad to make the ceremony more meaningful. In addition, members of POSCO offer pro bono translation services, and POSCO provides jobs for migrant wives through Café Oasia. In 2013, 5 happy families had their wedding. Among them was Kim Tae-hui who works at Café Oasia POSCO P&S branch. POSCO supports joint weddings for multicultural families in Pohang and Gwangyang as well, centering on the local community near the steelworks. Sixty-nine couples had their wedding until 2013.

#### Multicultural Café "Oasia"

Café Oasia was jointly established by POSCO and the Social Enterprise Support Network, and 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 cafés. 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 cafés hold cultural events and training sessions to provide social

venues for migrant females.

MULTICULTURAL CAFÉ SOCIAL COOPERATIVE OASIA

- · Designated as the 1st social cooperative by the Ministry of Employment and Labor: Jan 15, 2013
- As of December 2013, 29 individuals of socially vulnerable groups (including multicultural women) are working at 13 branches.

#### **Danuri Call Center**

Together with the Ministry of Gender Equality & Family POSCO have been operating Danuri Call Center since 2011, which offers counseling and translation services for multicultural families. Migrant wives work at the Center and provide their services in 10 languages including Korean – Chinese, Cambodian, Mongolian, Russian, Japanese, Vietnamese, English, Filipino, and Thai.

#### DANURI CALL CENTER

· 1577-5432



#### **Bilingual instructors training**

Helping to understand the language and culture of each country is an essential element in paving a path to a multicultural society. Good understanding in one's mother tongue and culture can enhance communication within a family, which then leads to building a healthier family. In collaboration with the Hankuk University of Foreign Studies, Center for Multicultural Education, we operate an education program to cultivate migrant women as bilingual instructors as well as a dual-language education program for gifted children.

(Unit: persons



Danuri Call Center users

53,163



Bilingual instructors (aggregate)

162



Dual-language education for gifted children

8,900







# **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 mécénat activities such as music concerts in order to share culture and art with more people.

#### **Cultural assets protection volunteer group**

POSCO participates in Korean culture protection activities through cultural asset protection volunteer group called "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, as well as translating related brochures. In 2013, 163 volunteers offered help in Seonjeongneung (royal tombs) located near the POSCO Center in Seoul. In 2014 we will further expand volunteer activities by actively utilizing employees' expertise.

#### **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 were 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 2013, 4 concerts were held each quarter, where 2,550 people came to share the beautiful occasion.





#### KEY ISSUE \_ 12

# Sharing 1%, Sharing Hope The POSCO 1% Foundation



96%

Participation rate in POSCO 1% Foundation

4.5 KRW billion

Amount raised by POSCO 1% 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 subcontracting partners, and has become a large-scale "sharing movement" with over 20,000 participants. POSCO launched POSCO 1% Foundation at the end of 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. Thirty-three POSCO Family companies and 102 subcontracting partners are participating in POSCO 1% Foundation. With the vision of "Sharing 1% for a Better Tomorrow," the Foundation will start various social contribution activities from 2014 in the areas of social welfare, community development in developing countries and culture and arts.

# SUMMARY OF THE POSCO 1% FOUNDATION

#### General

- Nov 12, 2013
  (Ministry of Culture, Sports and Tourism)
- Appointed as a designated donation organization Dec 31, 2013 (Ministry of Strategy and Finance)

#### Purpose of Foundation

Pursue sustainable growth of our society by spreading 1% sharing campaign by supporting public activities and contributing to the enhancement of cultural prosperity and social welfare.

#### **Target projects**

- Enhancing welfare for marginalized groups in Korea
- Conducting relief activities and building sustainable livelihoods in Korea and in developing countries
- Promoting culture and arts and preserving traditional culture
- Other projects necessary to achieve the objectives of the foundation

More detailed information can be found at POSCO 1% Foundation website.
www.poscofoundation.org

# **APPENDIX**

#### **ABOUT POSCO**

**POSCO SUMMARY** 

(As of March 31, 2014)

Name	POSCO
Head office	(Goedong-dong), 6261 Donghaean-ro, Nam-gu, Pohang-si, Gyeongsangbuk-do, Korea
Area of business	Iron making, steel making, manufacture and sales of rolled steel products
CE0	KWON, Oh-joon

Date of Establishment	April 1, 1968
Number of employees	17,832
Assets (consolidated)	KRW 84,455 billion
Liabilities (consolidated)	KRW 38,633 billion
Revenue (consolidated)	KRW 61,865 billion

Public disclosures can be found in the Annual Report (http://dart.fss.or.kr), FORM 20-F http://www.posco.co.kr/homepage/docs/eng3/jsp/invest/archive/s91b60100201.jsp

On March 14, 2013, POSCO revised its business organization from the existing 6 divisions of strategic finance, technology, growth investment, carbon steel business, stainless steel business and business administration to 4 divisions of steel business, steel production, financial investment, and management infrastructure. The foremost feature of the reorganization is that the organizations that operated according to each business segment are now centered on core functions of steel business and production. The steel business division was established by integrating the existing marketing organization with product solution function, while the carbon steel and stainless steel production segments were integrated into the steel production division.

#### **ORGANIZATION**

(As of March 14, 2013)



#### POSCO and Subsidiaries

#### **CONSOLIDATED STATEMENTS OF FINANCIAL POSITION**

As of December 31, 2013 and 2012 (in millions of Won)

	December 31, 2013	December 31, 2012
Assets		
Cash and cash equivalents	4,208,562	4,680,526
Trade accounts and notes receivable, net	11,492,601	11,037,973
Other receivables, net	1,890,423	1,997,152
Other short-term financial assets	2,970,665	1,849,281
Inventories	9,798,381	10,584,646
Current income tax assets	32,417	17,168
Assets held for sale	2,494	1,190
Other current assets	1,270,668	1,398,180
Total current assets	31,666,211	31,566,116
Long-term trade accounts and notes receivable, net	97,000	142,204
Other receivables, net	797,455	808,903
Other long-term financial assets	4,465,730	3,860,966
Investments in associates and joint ventures	3,808,693	3,039,261
Investment property, net	425,229	521,191
Property, plant and equipment, net	35,760,119	32,276,379
Intangible assets, net	5,929,840	5,662,361
Deferred taxassets	1,139,932	994,684
Other long-term assets	365,198	393,786
Total non-current assets	52,789,196	47,699,735
Total assets	84,455,407	79,265,851

# CONSOLIDATED STATEMENTS OF FINANCIAL POSITION Continued

As of December 31, 2013 and 2012 (in millions of Won)  $\,$ 

	December 31, 2013	December 31, 2012
Liabilitie s		
Trade accounts and notes payable	4,231,322	4,389,195
Short-term borrowings and current installments of long-term borrowings	10,713,646	10,509,348
Other payables	2,128,854	1,834,904
Other short-term financial liabilities	135,904	92,741
Current income tax liabilities	358,930	559,328
Provisions	107,329	77,831
Other current liabilities	2,565,174	2,311,654
Total current liabilities	20,241,159	19,775,001
Long-term trade accounts and notes payable	559	2,593
Long-term borrowings, excluding current installments	15,532,959	14,412,085
Other payables	206,634	243,922
Other long-term financial liabilities	260,021	117,713
Net defined benefit liabilities	273,160	345,688
Deferred tax liabilities	1,711,762	1,461,519
Long-term provisions	146,272	100,098
Other long-term liabilities	260,851	377,814
Total non-current liabilities	18,392,218	17,061,432
Total liabilities	38,633,377	36,836,433
Equity		
Share capital	482,403	482,403
Capital surplus	1,078,266	1,104,814
Hybrid bonds	996,919	-
Reserves	(23,076)	(88,150)
Treasury shares	(1,579,124)	(2,391,406)
Retained earnings	41,090,649	40,346,481
Equity attributable to owners of the controlling company	42,046,037	39,454,142
Non-controlling interests	3,775,993	2,975,276
Total equity	45,822,030	42,429,418
Total liabilities and equity	84,455,407	79,265,851

POSCO and Subsidiaries

# CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

For the years ended December 31, 2013 and 2012 (in millions of won, except per share information)

	Dece	ember 31, 2013	December 31, 2012
Revenue		61,864,650	63,604,151
Cost of sales		(55,004,591)	(56,142,892)
Gross profit		6,860,059	7,461,259
Selling and administrative expenses			
	Administrative expenses	(2,231,805)	(2,129,463)
	Selling expenses	(1,632,120)	(1,678,688)
Operating profit		2,996,134	3,653,108
Share of loss of equity-accounted investees, net		(179,809)	(22,702)
Finance income and costs			
	Finance income	2,380,838	2,897,063
	Finance costs	(2,829,253)	(2,797,638)
Other non-operating income and expenses			
	Other non-operating income	229,073	448,120
	Other non-operating expenses	(650,806)	(809,465))
Profit before income tax		1,946,177	3,368,486
	Income tax expense	(590,997)	(982,879)
Profit for the period		1,355,180	2,385,607
Other comprehensive income (loss)			
Items that will not be reclassified subsequently to profit or loss			
	Remeasurements of defined benefit pension plans	6,224	(62,527)
Items that are or may be reclassified subsequently to profit or loss :			
	Capital adjustment arising from investments in equity-method investees	(183,836)	(130,836)
	Net changes in the unrealized fair value of available-for-sale investments	412,346	(81,471)
	Foreign currency translation differences	(220,464)	(363,088)
Other comprehensive income (loss), net of tax		14,270	(637,922)
Total comprehensive income for the period		1,369,450	1,747,685
Profit (loss) attributable to			
	Owners of the controlling company	1,376,396	2,462,081
	Non-controlling interests	(21,216)	(76,474)
Profit for the period	•	1,355,180	2,385,607
Total comprehensive income (loss) attributable to		·	
	Owners of the controlling company	1,444,262	1,911,506
	Non-controlling interests	(74,812)	(163,821)
Total comprehensive income for the period	-	1,369,450	1,747,685
•		17,409	31,874

#### **CONSOLIDATED STATEMENTS OF CASH FLOWS**

For the years ended December 31, 2013 and 2012 (in millions of Won)

	December 31, 2013	December 31, 2012
Cash flows from operating activities		
Profit for the period	1,355,180	2,385,607
adjustments for:		
Depreciation	2,505,536	2,405,769
Amortization	180,014	157,991
inance income	(1,012,281)	(1,553,200)
Finance costs	1,585,778	1,605,414
ncome tax expense	590,997	982,879
Sain on disposal of property, plant and equipment	(14,177)	(42,290)
oss on disposal of property, plant and equipment	121,133	65,486
Share of loss of equity-accounted investees	179,809	22,702
Cost for defined benefit plans	247,748	226,132
Warranty expense	111,364	25,127
Bad debt expenses	201,185	123,373
Loss on valuation of inventories	49,172	76,484
mpairment loss of assets held for sale	1,814	258,451
mpairment loss of goodwill and intangible assets	125,316	21,776
Gain on disposals of assets held for sale	(101,611)	(193,333)
Others, net	40,821	(13,659)
	4,812,618	4,169,102
Changes in operating assets and liabilities	(116,432)	1,933,358
nterest received	227,989	238,231
nterest paid	(797,316)	(874,711)
Dividends received	193,008	178,317
ncome taxes paid	(816,912)	(710,448)
Net cash provided by operating activities	4,858,135	7,319,456
Cash flows from investing activities		
Acquisitions of short-term financial instruments	(4,449,312)	(3,616,118)
Proceeds from disposal of short-term financial instruments	3,901,527	3,847,682
ncrease in loans	(575,343)	(434,156)
Collection of loans	417,971	318,745
Acquisitions of available-for-sale investments	(309,469)	(307,712)
Proceeds from disposal of available-for-sale investments	269,363	700,686
Acquisitions of investments of equity-accounted investees	(1,076,763)	(492,681)
Proceeds from disposal of investments of equity-accounted investees	89,533	18,428
Acquisitions of property, plant and equipment	(6,569,613)	(7,054,543)
Proceeds from disposal of property, plant and equipment	82,153	272,948
Acquisitions of intangible assets	(543,666)	(448,214)
Proceeds from disposal of intangible assets	5,429	10,945
Proceeds from disposal of assets held for sale	126,809	1,268,545
acquistions of other investment assets	(9,258)	(128)
Proceeds from disposal of other investment assets	31,295	19,566
Cash received from (paid in) acquisition of business, net of cash acquired	5,729	(98,880)
Cash received from disposal of business	5,962	13,041
Other, net	(154,017)	(187,157)
Net cash used in investing activities	(8,751,670)	(6,169,003)
	(0,101)	(0,100,000)

# CONSOLIDATED STATEMENTS OF CASH FLOWS Continued

For the years ended December 31, 2013 and 2012 (in millions of Won)

Cash flows from financing activities		
Proceeds from borrowings	5,098,702	3,007,017
Repayment of borrowings	(2,845,957)	(1,884,140)
Proceeds from (repayment of) short-term borrowings, net	86,475	(1,412,138)
Proceeds from disposal of treasury shares	14,019	-
Payment of cash dividends	(648,580)	(751,908)
Proceeds from issuance of hybrid bonds	1,495,387	-
Payment of interest of hybrid bonds	(26,088)	-
Other, net	358,378	133,542
Net cash povided (used in) by financing activities	3,532,336	(907,627)
Effect of exchange rate changes on cash held	(110,765)	(160,982)
Net increase in cash and cash equivalents	(471,964)	81,844
Cash and cash equivalents at beginning of the period	4,680,526	4,598,682
Cash and cash equivalents at end of the period	4,208,562	4,680,526

# CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

For the years ended December 31, 2013 and 2012 (in millions of Won)

		Attributable to	owners of t	he controlling	company				
Assets	Share capital	Capital surplus	Hybrid bonds	Reserves	Treasury shares	Retained earnings	Sub total	Non- controlling interests	Tota
Balance as of January 1, 2012	482,403	1,150,452	-	405,426	(2,391,406)	38,709,475	38,356,350	2,373,570	40,729,92
Comprehensive income:									
Profit for the period	-	-	-	-	-	2,462,081	2,462,081	(76,474)	2,385,607
Net changes in accumulated comprehensive income of investments in associates, net of tax	-	-	-	(112,974)	-	-	(112,974)	(17,862)	(130,836
Net changes in the unrealized fair value of available-for-sale investments, net of tax	-	-	-	(86,661)	-	-	(86,661)	5,190	(81,471
Foreign currency translation differences, net of tax	-	-	-	(292,015)	-	-	(292,015)	(71,073)	(363,088
Remeasurements of defined benefit pension plans, net of tax	-	-	-	-	-	(58,925)	(58,925)	(3,602)	(62,527
Total comprehensive income	-	-	-	(491,650)	-	2,403,156	1,911,506	(163,821)	1,747,68
Transactions with owners of the controlling company, recognized directly in equity:									
Year-end dividends	-	-	-	-	-	(579,333)	(579,333)	(19,751)	(599,084
Interim dividends	-	-	-	-	-	(154,489)	(154,489)	-	(154,489
Changes in subsidiaries	-	-	-	-	-	-	-	35,870	35,870
Changes in ownership interests in subsidiaries	-	(41,924)	-	-	-	-	(41,924)	715,148	673,224
Others	-	(3,714)	-	(1,926)	-	(32,328)	(37,968)	34,260	(3,708
Total transactions with owners of the controlling company	-	(45,638)	-	(1,926)	-	(766,150)	(813,714)	765,527	(48,187
Balance as of December 31, 2012	482,403	1,104,814	-	(88,150)	(2,391,406)	40,346,481	39,454,142	2,975,276	42,429,418
Balance as of January 1, 2013	482,403	1,104,814	-	(88,150)	(2,391,406)	40,346,481	39,454,142	2,975,276	42,429,418
Comprehensive income:  Profit for the period						1,376,396	1,376,396	(21,216)	1,355,180
Net changes in accumulated comprehensive income of investments in associates, net of tax				(166,787)		1,370,390	(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	6,22
Total comprehensive income	-	-	-	64,827	-	1,379,435	1,444,262	(74,812)	1,369,45
Transactions with owners of the controlling company,									
recognized directly in equity:									
Year-end dividends	-	-	-	-	-	(463,467)	(463,467)	(30,544)	(494,011
Interim dividends	-	-	-	-	-	(154,490)	(154,490)	-	(154,490
Changes in subsidiaries	-	-	-	-	-	-	-	40,506	40,50
Changes in ownership interests in subsidiaries	-	(31,417)	-	-	-	-	(31,417)	373,963	342,54
Issuance 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
	-	(26,548)	996,919	247	812,282	(635,267)	1,147,633	875,529	2,023,162
Total transactions with owners of the controlling company		(20,0.0)	000,010		,	(,,	-,,	0.0,020	2,020,102

# 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 2013 (the "Report").

#### Scope and subject matter

The information for the year ended December 31, 2013 (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 Standard 2008 ("AA1000APS");
- Non-financial information of "POSCO KPI" and "ESG DATA" on the pages 7 through 9 in the Report (the "Sustainability Data") which is based on the reporting principles set out on "About This Report" (the "Reporting Principles").

With regard to the financial data of "POSCO KPI" (page 7) and "ESG DATA" (page 8), our procedures were limited to verifying that they were correctly derived from the Company's audited consolidated financial statements and separate financial statements, respectively.

We read the other information included in the Report and consider whether it is consistent with the Sustainability Information. We consider the implications for our report if we become aware of any apparent misstatements or material inconsistencies with the Sustainability Information. Our responsibilities do not extend to any other information.

#### Assurance work performed

We conducted our engagement in accordance with ISAE 3000(1) and AA1000AS(2). The term 'moderate assurance' used in AA1000AS(2008) is designed to be consistent with 'limited assurance' as articulated in ISAE 3000. Our assurance is a Type II assurance engagement as defined in the Guidance for AA1000AS(2008).

Our work involved the following activities:

- Interviewed personnel in charge of internal reporting of sustainability data and data collection, in order to understand their approach on the 3 principles of AA 1000APS - inclusivity, materiality, and responsiveness
- Visits to the Company' headquarters in Pohang, Seoul office and 9 offices of the integrated subsidiaries: to understand the systems and processes in place for managing and reporting the Sustainability Data
- Review of a sample 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 engagement activities
- 4. Evaluating the design and implementation of the 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 assessment criteria that meets the principles of Inclusivity, Materiality and Responsiveness in the AA1000APS, measuring performance based on the "Assessment Criteria", 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. To the fullest extent permitted by law, we do not accept or

<sup>(1)</sup> International Standard on Assurance Engagement 3000 (Revised) – 'Assurance Engagements other than Audits or Reviews of Historical Financial Information' issued by International Auditing and Assurance Standards Board

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 iudaments.

A limited assurance engagement is less in scope than a reasonable assurance engagement under ISAE 3000. Consequently, the nature, timing and extent of procedures for gathering sufficient, appropriate evidence are deliberately limited relative to a reasonable assurance engagement. In particular:

- We did not attend any stakeholder 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 2013 performance only, as set out in the scope and subject matter section above. Information relating to the year ended December 31, 2012 and earlier periods have not been subject to assurance by us.

Conclusion

Based on the results of the assurance work performed and the Assessment Criteria, our conclusion is as follows:

- On the AA1000APS principles:
- · Inclusivity
- The Company has collected concerns and opinion through stakeholder communication channels that include Customer, Employee, Partner, Society, Investor and Environment.
- 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, 2013 are not fairly stated, in all material respects, in accordance with the Reporting Principles.

#### Recommendations

As a result of our work, we have provided the following recommendations to the management:

- It is recommended to strengthen sustainability governance in order to effectively manage and communicate on corporate-wide sustainability issues and such issues can be reviewed and reflected upon a decision making process in a timely manner.
- To gain credibility of the Company's systematic sustainability
  management from external stakeholders, it is recommended
  to actively disclose the Company goals and objectives, level of
  achievement, and the future plans of key performance indicators
  by each sustainability sector.
- The Company has broadened the scope of the ESG data.
   In order to ensure the consistency of disclosed data, it is necessary to improve the data collection and management process of sustainability reporting.

May 2014 Samil PricewaterhouseCoopers

Seiyoun Jung, Partner



The POSCO website www.posco.com provides various information on POSCO as well as the downloadable PDF version of this Report. For opinions and inquiries regarding the Sustainability Report, please refer to the following contacts.

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