

# BUILDING YOUR TOMORROW TODAY

2013 Doosan Infracore Integrated Report





# **ABOUT THIS REPORT**

#### Period and Scope of the Report

This report contains the activities of Doosan Infracore from January 1 to December 31, 2013, although it contains some more recent information, including its corporate strategies and the composition of the BOD, in terms of the provision of the most up to date information available at the time of this report's publication. This report includes the addition of a table of the company's major CSR performance over the latest three years in the Appendix to enable the stakeholders to keep its achievements in perspective. The geographical scope of the report encompasses the company's worksites in Korea, including those in Seoul, Incheon, Changwon, Gunsan and Ansan. However, this report also contains information on the performance of its overseas subsidiaries and worksites. Doosan Infracore intends to continue expanding the scope of this annual report.

#### **Reporting Principles**

This report faithfully follows the GRI's G4 Guidelines and AA1000 APS (2008) with reference to the dRP Framework of the International Integrated Reporting Council (IIRC). This report has applied the International Financial Reporting Standards (IFRS) for financial statements. It has used the AA1000 Stakeholder Engagement Standards (AA1000SES) as a mechanism to achieve the stakeholder requirements of other standards.

#### **External Assurance**

The report has been assured by Ernst & Young (EY), an independent assurance services provider, which assures the propriety and integrity of the reporting processes as well as the accuracy and credibility of the contents of the report. Its Independent Assurance Report is attached in the Appendix (p.103)

#### Additional Information and Feedback

For additional information, please visit the company's website (www.doo-saninfracore.com). For further details, please contact us at the following address:

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The 2013 Integrated Report contains the strategies and activities of Doosan Infracore, which is striving for 'the enhancement of its underlying competitiveness' under the Doosan slogan, 'Building your tomorrow today.' The cover impressively symbolizes the performance of Doosan Infracore, a company that is building a better tomorrow for humanity through the creation of economic, social and environmental values for all its stakeholders around the world.

## Disclaimer on Predicted Information

This report contains details of some future activities, events and situations based on the company's plans and estimations of future financial outcomes, which may turn out to be inaccurate in the event of changes in the global business landscape, despite the fact that the plans and estimations draw upon the best information available at the time of completion of this report, with due consideration given to future business environments as well as the company's elaborate business strategies. Therefore, Doosan Infracore would like to remind its stakeholders that this report contains some predictions that may be affected significantly due to the risks, uncertainties and other factors involved in the company's global operations.



# THE 2nd INTEGRATED REPORT



#### Reporting method



# PRINTED MATERIAL

This report is published in Korean, English and Chinese in order to serve our global stakeholders located in several parts of the world.

#### INTERACTIVE PDF



This report is also published in an interactive PDF including a shortcut feature to related pages in this report for effective communication. You can check or download additional information at the Doosan Infracore website (www.doosaninfracore.com).

#### Icon used on this report



# CROSS-REFERENCE

Links to the related information of the contents in the report.

# Contact us



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# Reporting Purposes

This is Doosan Infracore's second Integrated Report of its annual and sustainability management reports. Instead of a simple combination of the two, however, this report is aimed at providing accurate information on the whole range of the company's financial and non-financial performance, necessary for the stakeholders to judge its corporate values, and serving to help internalize corporate social responsibility (CSR) throughout all its business activities.

# **Report Backgrounds**

Doosan Infracore began to publish an Integrated Report in 2013 in pursuit of genuine communication with its stakeholders. We did this to go beyond the level of effective communication with them through its previous environmental, sustainability and annual reports.

# **Reporting Organization**

To create a comprehensive report on Doosan Infracore's financial and non-financial performance and social and environmental values, departments related to strategy, sales, IR and communication have participated in the planning for the Integrated Report. More than 40 working level teams have worked on this report with a focus based upon business performance during the present period and into the future.

# Turn the wing page, and you will find a pocket book about Doosan Group and Doosan

Infracore

# Why is Doosan Infracore sustainable?

Doosan Infracore,
a global leader of the urbanization
and civilization of the world,
manufactures construction equipment, machine tools, and engines,
and constantly seeks
new ways to improve the quality of
life and create a better future.

ISB (Infrastructure Support Business) is an industry that manufactures key parts for various industries, supplies power to diverse machines, and supports infrastructure development. All of this contributes to the growth and development of humankind. Doosan Infracore takes an important role in improving people's quality of life and adding to the future value of society through its business in the areas of construction equipment, machine tools and engines. Also, the company pursues a harmonious realization of economic performance, environmental values and social responsibility with the sense of responsibility about the global environment and local communities. Doosan Infracore will continue to grow into an enterprise with world-class business competency by strengthening its underlying competitiveness in technologies, products, quality and operational costs. The solid fundamental competitiveness that does not wobble under any changes in the business environment is the source of the Doosan Infracore's sustainable management.



# **CEO Message**

Doosan Infracore is concentrated on the strengthening of its underlying competitiveness to become a sustainable enterprise. The company upholds these values with its motto: 'Building your tomorrow today'. The company provides its customers with products and services that have drastically improved the areas of quality, features and costs. Doosan Infracore is committed to providing the best products and services in the world by not only trying to see things from the customer's perspectives to make innovations in its technologies and products but also changing the way it works and cultivating Doosan people with professional competency.

# Doosan Infracore has achieved significant outcomes by focusing on the enhancement of underlying competitiveness.

The year 2013 was a year Doosan Infracore poured companywide capabilities into strengthening its underlying competitiveness. In the business environment, the economic recession continued worldwide - as it did in 2012 - with competition among companies in the industry becoming even more competitive and the construction machinery market, the company's key business area, did not show any sign of recovery.

However, even in such environments, the company was able to maintain the profit level of the previous year as a result of all the company employees around the world striving to enhance the company's underlying competitiveness. Sales dropped slightly to KRW 7.7368 trillion in 2013 as slowdown lasted in most markets except in North America while operating profit increased more than in 2012 to KRW 369.5 billion due to Bobcat's upswing and the company's efforts to strengthen its cost competitiveness. It further enhanced its financial soundness by improving its cash flow and successfully raising USD400 million via GDR sales.

On top of that, the company made impressive progress in quality, technologies and productivity, as well as making improvements in its business portfolio. In particular, Doosan Infracore achieved prominent improvement in quality through the operation of quality innovation TFTs in Korea and China. In addition the company also boosts the emotional quality as well as the technological quality of its products through a newly built integrated design center. By launching Bobcat compact equipment equipped with a compact diesel engine that it developed on its own, the company reinforced the foundation for growth in North America. The completion of a plant devoted to the production of large machine tools in terms of the company's enhancement of its high-end product portfolio was a huge

# Doosan Infracore will maximize the performance of the existing business while discovering new growth engines.

In 2014, the economic recovery that started in the second half of 2013 will continue, yet economic growth will remain weak. The United States and Europe are expected to achieve gradual recovery whereas China and emerging economies will continue to have sluggish growth rates.

Doosan Infracore will maximize its performance in the existing business areas on the basis of its enhanced underlying competitiveness in preparation for full-fledged recovery periods down the road. In the meantime, Doosan Infracore will strive to discover its additional new growth engines in the midto longterm. To this end, Doosan Infracore will implement the following specific strategies in 2014:

First, the company will double its efforts to increase profits and enhance its financial stability. Throughout its entire value chain including technologies, purchase and quality, the company will reduce material costs and quality assurance costs while maximizing profit creation into new markets as well as focus upon the expansion of sales in highly lucrative items. The company will cope with exchange fluctuations efficiently and continue the financial innovation activities that it started in 2012.

Secondly, the company will concentrate on the development of technologies and products with competitive market advantages along with quality innovations. It will convert its quality innovation activities including quality innovation TFT into a permanent system, strengthen input from its customers' perspectives regarding product quality, and expand the scope of its quality management to include its service and suppliers. The company will successfully launch new products that meet the new emission standards and embark on the development of a lineup of high value-added products while continuing to strive to secure technologies that will differentiate its mileage and functions from its competitors'.

Thirdly, the company will expand its customer contact points. It will be active in fostering prominent dealers in key emerging markets while promoting dealer restrictions and normalization to strengthen its channel competitiveness. Additionally, the company will upgrade its dealer education and improve parts supply rates with a purpose of making remarkable improvements in its service response time and service quality, thereby improving its level of customer satisfaction.

Lastly, the company will never neglect to find future engines of growth. Currently, the company is engaged in the task of finding mid to long term growth themes by its teams of strategists established in its Corporate Center. The company will carry out diverse attempts to integrate information technologies into mechanical industry while continuing to seek opportunities to expand into relevant businesses such as machinery for the mining industry and 3D printing.

# Doosan Infracore will implement the Doosan Way and its corporate responsibilities to become a proud global enterprise.

Doosan Infracore will continue to promote its motto: "The Doosan Way" in 2014 with a focus placed on 'Doosan Way Change Model' based on the cultivation of Doosan people, the achievement of advanced scientific systems and processes, and enhancement of underlying competitiveness. We will set up a job competency system and step up our professional education to cultivate proud Doosan people armed with job expertise, and continue to promote enhancement of quality, technologies and services, and development of new models, to strengthen our underlying competitiveness. Together with the companywide nine core process improvement activities, the company will carry out the CORE Office activities more actively and eliminate inefficiency in its work processes.

The company will spare no efforts to become a respected enterprise by fulfilling its social responsibilities as a global corporate citizen. It will promote shared growth with its suppliers around the world through practical win-win cooperation programs, and grow together with future generations and local communities through strategic CSR initiatives. Furthermore, the company will work harder for its employees' safety and health, and do its utmost to protect and care for the global environment through operations that promote eco-friendly measures. On top of that, it will respect the basic principles in its endeavors to protect its employees' health and safety and enhance the integrity of the global environment by operating eco-friendly business sites, developing environmentally-friendly products, and reducing greenhouse gas emissions in all of its work processes.



Doosan Infracore will be equipped with robust capabilities through the enhancement of underlying competitiveness and will not sway under any changes in business environments or crisis. I would like to ask all the stakeholders to support and cheer another leap of Doosan Infracore, a proud global enterprise.

Yongsung Kim, President and CE



# Building your tomorrow today

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Synergy Leads to Future Growth

the Foundation of Growth Customer Satisfaction

Doosan Way Change Model: Your Proud Neighbor, Changes in People & Work Doosan Infracore

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# Building your tomorrow today

# 1958

Bobcat has led the trends in the world's compact construction equipment markets since its inception in 1958.

It is still the top brand with high market share in North America and Europe.

315

Doosan Infracore's machine tools portfolio is comprised of 315 types of custom-designed machine tools. Based on its near perfect portfolio, the machine tools BG responds to customers' needs promptly, presenting them with customer surprise.

3&65

Three masters and 65 FC coaches armed with world-class expertise:
Doosan Infracore will expand the Expert Certification System introduced in the R&D division in 2013 to the entire company and cultivate top-tier job experts.



37%

The compact diesel engine (G2) developed by Doosan Infracore is supplied to the entire world. The average annual sales growth until 2018 is expected to be in the neighborhood of 37%. 5,322

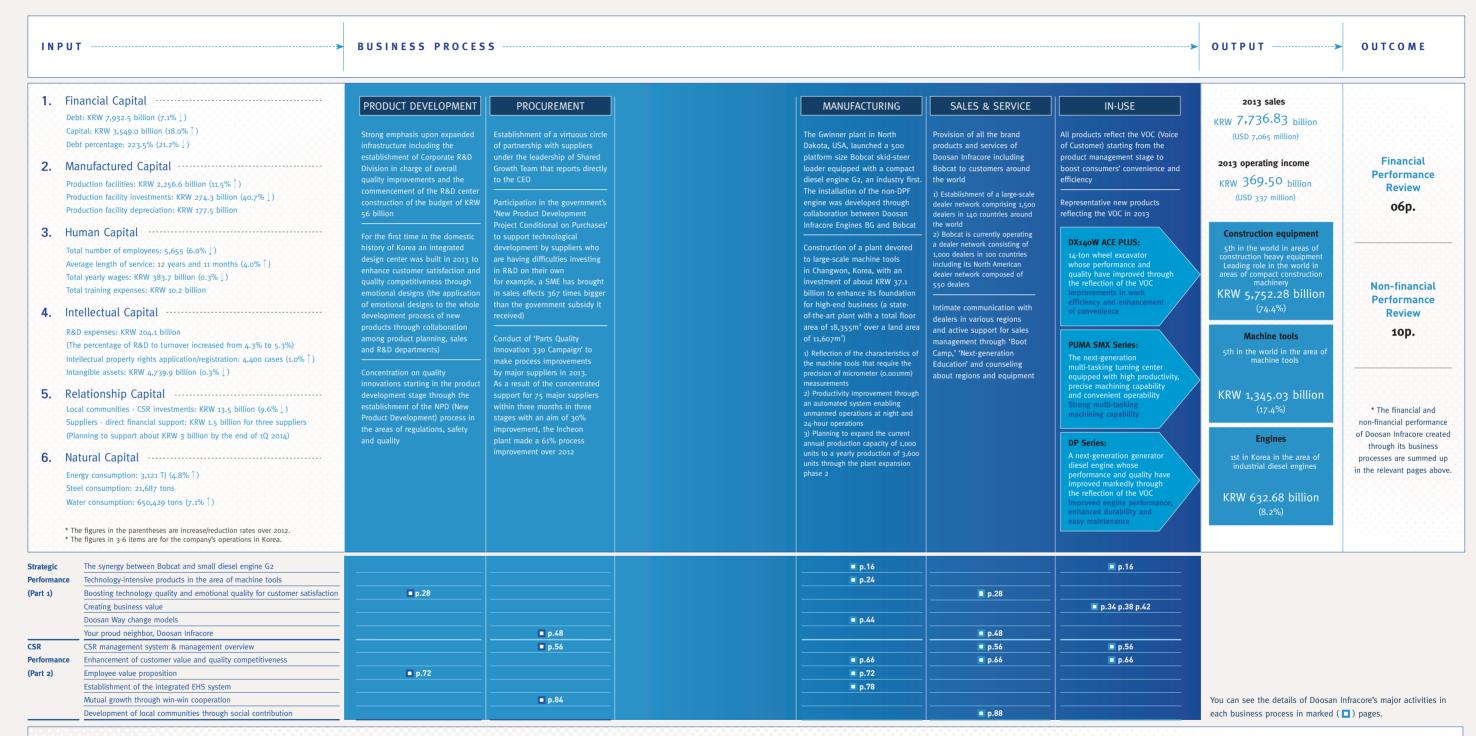
The effort and support of 5,322 people who have made so many sacrifices in order to support society: Executives and staff volunteers who to engage in diverse service activities for neighbors and society. They contribute to making the world a better place to live.

# 2018

Doosan Infracore will continue its systematic drives for improvements in its technology quality and emotional quality. Through innovations in technology and design innovations, it will produce top-tier products that customers will admire and be satisfied.

# Doosan Infracore Business Model

Doosan Infracore intends to provide a general description of how various resources are used and how they interact to create new values through a business model. A business model refers to a series of activities aimed at creating an organization's short-, mid- and long-term values. It is a unique system comprised of inputs, management activities and subsequent outputs that produce positive results. In particular, the business process below sums up how diverse resources and capital is invested in the business flows and turn into Doosan Infracore's differentiated outcomes. This unique business model is instrumental for stakeholders' understanding of the structure of this integrated report that is intended to provide them with accurate information on corporate values through a comprehensive report about the company's financial and non-financial performance.



Vision Global Top-3 Machinery Company Financial Goal

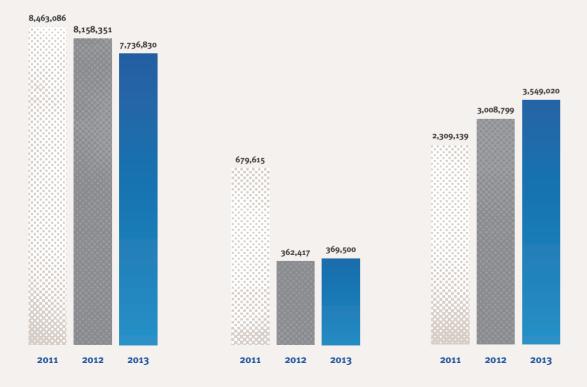
# a Glanc

# Financial Performance Review 2013

# 1. Sales Environment

In 2013, the world economy achieved a growth rate similar to that of the previous year (3.0%). The USA and Japan continued their recovery and Europe started to slowly bottom out of the slowdown slowly while emerging economies recorded a lower economic growth rate due to China's change of course to a qualitative growth and lackluster performance in some BRICs (Brazil, Russia, India and China) countries. In Korea, exports continued to show a positive trend thanks to the gradual recovery of the global economy and reductions in uncertainties at home and abroad, and fixed capital investment including construction investments and other domestic consumption indicators improved. The country's GDP increased by 2.8% in 2013 as compared to 2.0% in 2012.





# Sales Records and Financial Status (based on K-IFRS)

## Sales Records

Doosan Infracore's cumulative sales declined by 5.2% to KRW 7.7368 trillion in 2013 as compared to 2012 because of the global economic recession and uncertainties involved. Despite the reduction of sales, the company's operating income in 2013 improved slightly over the previous year thanks to its efforts to enhance its price competitiveness, among others. Sales dropped somewhat in construction equipment and machine tools while sales increased in engines by 15.9% despite the economic recession thanks to the BG's favorable performance in engines for generators and vehicles, in particular.

Unit: KRW million

	2013	2012	2011
Sales	7,736,830	8,158,351	8,463,086
Cost of sales	6,089,338	6,478,130	6,615,691
Gross profit	1,647,492	1,680,221	1,847,394
Selling and administrative expenses	1,277,992	1,317,804	1,167,779
Operating income	369,500	362,417	679,615
Other non-operating income	28,786	35,902	84,441
Other non-operating expense	69,557	82,008	55,602
Loss before income tax benefit (expense)	(56,964)	(22,160)	285,253
Income tax benefit (expense)	(43,986)	415,503	(78,314)
Net income (loss)	(100,950)	393,343	310,810

## **Financial Status**

The total assets as of the end of 2013 reduced by KRW 63.5 billion to KRW 11.4815 trillion compared to 2012 largely due to reductions in inventory. Total liabilities also reduced over 2012 by KRW 603.7 billion to KRW 7.9325 trillion at the end of 2013 because of the GDR (Global Depository Receipt) issuance and reductions in allowance for severance liability. Total equity increased by KRW 540.2 billion over 2012 to KRW 3.549 trillion in 2013. Net debt dropped by KRW 447.9 billion over 2012 to KRW 4.2263 trillion in 2013.

Unit: KRW million

Total Assets	Total Liabilities	Total Equity
11,481,494	7,932,473	3,549,020

Unit: KRW million

	2013	2012	2011
Current assets	3,706,206	3,861,995	4,232,530
Non-current assets	7,775,288	7,682,996	7,471,145
Total assets	11,481,494	11,544,990	11,703,675
Current liabilities	2,753,668	3,539,078	4,473,166
Non-current liabilities	5,178,805	4,997,113	4,921,370
Total liability	7,932,473	8,536,191	9,394,536
Capital stock	1,037,277	843,290	842,779
Capital surplus	237,381	14,255	8,288
Retained earnings	1,313,453	1,299,786	963,023
Total equity	3,549,020	3,008,799	2,309,139

## **Construction Equipment BG**

**Performance by Sector** 

The construction equipment BG recorded a slight decrease in sales in 2013. Yet in Korea, it solidified its leading position in the industry through such measures as the introduction of new products, improvements in sales structure, and enhanced product support. North America accounted for a large portion of its sales as Doosan Infracore launched its array of compact equipment. Therefore it maintained its leadership in skid-steer loaders and compact track loaders. It also increased its sales in large heavy equipment by expanding its marketing channel coverage, which markedly contributed to increases in companywide sales and profits. In China, sales dropped somewhat by the impact of protracted market stagnation and the restructuring of sales channels. However, the market share in emerging economies continued to expand especially due to increased market shares of excavators and wheel loaders, thereby surpassing the market growth rate. In Europe, markets continued to slow yet the company's sales turned upwards in 2013 due to its enhanced marketing efforts.

#### **Machine Tools BG**

The machine tools BG showed a slight drop in sales in 2013 over 2012. Yet it recorded achievements surpassing the market growth rate through enhanced regional marketing activities and award of large projects in Eastern Europe and China. Also, it reinforced the foundation for its future sales growth through the establishment of regional growth strategies for the German and French markets in Europe that are likely to recover soon. The markets in Southeast Asia have shown great growth potential.

#### **Engines BG**

Despite the difficult management environments of 2013, Engines BG achieved an increase in sales in 2013 over 2012 by launching short-term sales expansion strategies through watertight relationship management with large customers. Recently, in spite of difficulties in external business environments due to the inflow of low-cost Chinese products and rising raw material prices, the company is focusing on the development of new types of machinery in preparation for new emission standards, the expansion of its engine lineup, the improvements in work environments and quality improvements through investments in upgrading its production facilities.

763,600

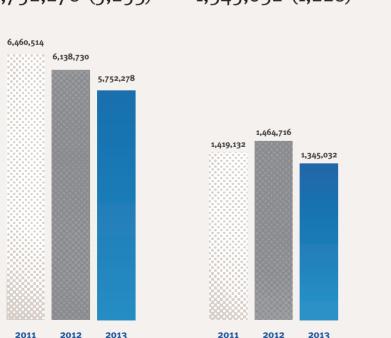
2011

632,682

545,495

2012 2013





Sales 2013 2012 2011 Construction equipment 5,752,278 6,138,730 6,460,514 Machine tools 1,464,716 1,345,032 1,419,132 Engines 632,682 545,495 763,600 Common 6,838 (180,160) 9,410 Total 7,736,830 8,158,351 8,463,086

Unit: KRW million

Operating Income	2013	2012	2011
Construction equipment	231,287	230,611	493,369
Machine tools	145,895	145,116	200,220
Engines	(7,465)	(26,080)	49,520
Common	(217)	12,770	(65,320)
Total	369,500	362,417	679,615

#### Cash Flow

Consolidation-based cash flow from operation activities in 2013 recorded KRW 481.9 billion. Net cash outflow occured in the amount of KRW 595.3 billion in the area of cash flow from investing activities whereas net cash outflow due to financing activities including payback of debts and corporate bonds amounted to KRW 80.2 billion. The cash and cashable assets at the end of 2013 were about KRW 287.8 billion given the exchange fluctuations of the assets.

Unit: KRW million

	2013	2012	2011
Cash flows from operating activities	481,935	(450,365)	117,185
Cash flows from investing activities	(595,347)	(527,064)	(290,228)
Cash flows from financing activities	(80,201)	811,065	328,609
Cash and cash equivalents, beginning of the year	462,494	624,032	476,739
Cash and cash equivalents, end of the year	287,838	462,494	624,032

# Tax Strategy

Doosan Infracore implements its policies and activities related to taxes with a purpose of strengthening its global competitiveness. The policies and activities are designed to improve our brand values, marketing competitiveness and quality - the core values for its business - and create healthy economic outcomes, to meet the company's business purposes. Specifically, Doosan Infracore achieves its policies through tax management by carrying out appropriate tax activities through ETR (Effective Tax Rate) and risk management. As indicated in their corporate financial statements and footnotes, the company implemented accurate accounting procedures and disclosure regarding matters relating to corporate tax. Through tax management, the company carries out its Tax Planning function, which reviews its transaction structures and prevents double taxation. It's also composed of a Transfer Pricing function that aligns the company's tax policies and its overseas business strategies to the arm's length principle. Also, through tax accounting, the company processes corporate tax related accounts according to DFAS (Doosan Financial Accounting Standards) and local generally accepted accounting principles, and discloses the results in its financial statements and their footnotes.

Doosan Infracore faithfully fulfills all of its obligations for declarations, reports, payments and cooperation for tax liability as required by tax laws and relevant regulations through Tax Compliance and Tax Audit Defense. It responds reasonably to tax investigations and other requirements of tax authorities. As a global enterprise equipped with a large-scale business network to carry out business around the world, Doosan Infracore complies with all the national and local tax principles in countries where it operates its business.

# Non-financial Performance Review 2013

STEP 1
STAKEHOLDER ISSUE CONFIRMATION
STEP 2
INTERNAL CSR DIAGNOSES
STEP 3
DETERMINATIONS OF PRIORITIES
REVIEWS AND FEEDBACK

# STEP 1 STAKEHOLDER ISSUE CONFIRMATION

At this stage, Doosan Infracore selects a group of issues through the analysis of recent CSR trends and issues and listens to stakeholder's insights for their opinions about the selection. Above all, the company checks recent CSR issues and social attention through the analysis of the media, CSR-related international standards, guideline indicators and internal and external environments. Based upon the analysis results, we ask our stakeholders for their opinions and insights. The stakeholder engagement process progresses by way of in-depth interviews with key stakeholders or questionnaires for a multitude of stakeholders. Stakeholder issues are determined through discussions about the interview and questionnaire results between CSR Working Group and its collaborative organizations. Through the process of hearing its stakeholders' voices directly, Doosan Infracore boosts the usefulness and precision of the results of stakeholder engagement.

# STEP 2 INTERNAL CSR DIAGNOSES

By developing its own CSR diagnosis model and carrying out its own diagnosis, Doosan Infracore preemptively responds to key external assessments while developing and promoting its CSR issues and tasks. The diagnosis frame is comprised of six areas such as governance, customer value, employees, EHS, progress operations and local community development and engagement. Through discussions at CSR Working-level Council, yearly improvement goals and mid- and long-term directions are set. In 2013, the CSR diagnosis model was improved and applied to worksites in Korea and China. In 2014, a revised model reflecting local characteristics will be applied to the business sites in North America.

# STEP 3 DETERMINATIONS OF PRIORITIES

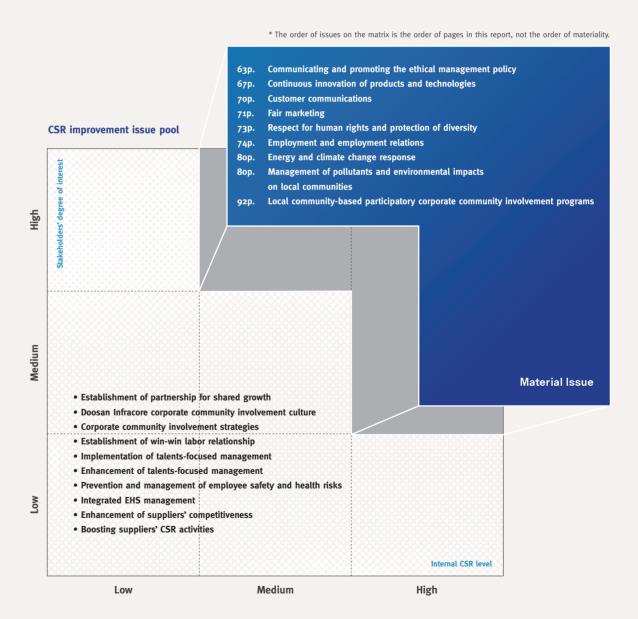
Material issues are identified by analyzing selected issues through CSR analysis and stakeholder engagement, among others, through the prisms of internal CSR maturity level and the degree of interest from stakeholders' perspectives. Priority is given to issues that demand improvement and are on the top of the concerns of the stakeholders. Doosan Infracore sets and implements a mid-term strategy to deal with those issues that have less stakeholder impact but are considered material by its competitors in advanced countries or in global trends while the level of the company's response to the issues is far from sufficient. The following were selected as the material issues of 2013: communicating and promoting the ethical management policy, continuous innovation in products and technologies, respect for human rights and protection of diversity, energy and response to climate change, and local community-based participatory corporate community involvement programs. The chosen material issues are worked on through collaboration with departments in charge so that the best results can be obtained in connection with the company's existing business activities.

# **▼** REVIEWS AND FEEDBACK

STEP 4

Regarding the issues selected at CSR Working-level Council, monitoring plans for concrete and continuous improvement are being discussed. Doosan Infracore has continued to improve its management environment to promote its CSR strategies and top-priority tasks for the past year. We would like to share our major activities and outcomes as well as our plans with the stakeholders and receive feedback from them. It should be noted that an independent third party has verified the contents of this report. Specifics about the verification are available in the third party assessment report at the end of this report.

Non-financial Performance Review has been prepared so the stakeholders can check the company's CSR (Corporate Social Responsibility) activities at a glance. Doosan Infracore establishes and manages its CSR scope in order to achieve accurate communication with its stakeholders as well as promote systematic and efficient CSR activities through materiality assessment processes. Key issues are selected for each activity area. For material issues that are evaluated to have high priority and potentially strong impact, the company sets KPIs so that the stakeholders can compare and analyze yearly implementation results, and takes great care to manage them.



The key issues with M marks are material issues. The KPI (Key Performance Indicator) of each material issue is indicated in parenthesis. Please refer to the relevant DMA (Disclosure on Management Approach) page for the goals and performance of key issues and the KPI management status of material issues. The major performance in Non-financial Performance Review 2013 covers the most outstanding activities in each category irrespective of their KPIs.

	M: Material Issue		
Major stakeholders	Customers, employees, suppliers	Shareholders/investors, customers/dealers, employees, suppliers, local & central governments, media	Shareholders/investors, employees, local and central governmen media
Areas of CSR activities	Fair operations	Customer values	HR
Achievement directions per area	Transparency-ethical management (p.63)	Enhancement of customer value and quality competitiveness (p.66)	Employee value proposition (p.72)
Key issues (material issue management KPI)	Communicating and promoting the ethical management policy       (employees' ethics education completion rate)	Continuous innovation of products and technologies M (the ratio of R&D investments to sales)  Customer communication M (Reduction ratio of the number of customer complaints received)  Fair marketing M (number of personal information leaks)	Respect for human rights and protection of diversity M Employment and employment relations M (Number of senior employees) Implementation of HR management Enhancement of HR developmen Establishment of win-win labor relations
2013 major performance	Launch of CSR Committee	Expansion of R&D investments	Employees on maternity and childcare leave
	United Nations Global Compact  Chair: President & CEO	204.08 Investments KRW 204.08 billion (5.3% of sales)	2.12 ↑ Employees on maternity and childcare lear increased by 2.12 times
	Joined the UNGC for the first time among Doosan Group affiliates	1,199	Establishment of self-initiated study system
		Planning to invest KRW 1,199 billion between 2013 and 2016	
	Attraction of long-term investors	Reduction of customer complaints (registration)	11.5  Learning credits per person 11.5 credits
	9.90%	16%	0.13%
	The percentage of long-term investments 9.90% (GIC 7.76%, NPS 2.14%)	16% improvement in customer complaints (registration) within warranty periods	Percentage of education expenses in sales: 0.13%
	Enhancement of ethical management	31%	Improvement of employment relations
		31% improvement in initial customer complaints (registration)	80
		Improvement of process defects	80 people transferred to full-time worker
	Opening internal report center Revision of the Code of Conduct and expansion of the reporting system	61% improvement (Incheon Plant)	60 Retirement age extended to 60

Major stakeholders	Shareholders/investors, employees, local communities, local and central governments, media	Employees, suppliers, local and central governments	Employees, suppliers, local communities, local and central governments, media
Areas of CSR activities	EHS	Fair operations	Local communities
Achievement directions per area	Establishment of the integrated EHS system (p.78)	Mutual growth through win-win cooperation (p.84)	Development of Local Communities through Corporate Community Involvement (CCI) (p.88)
Key issues (material issue management KPI)	Integrated EHS management Energy and climate change response M (GHG emissions) Management of pollutants and environmental impacts on local communities M (Number of non-compliances with environmental standards) Prevention and management of employees' safety and health risks	Establishment of partnership for shared growth     Enhancement of suppliers' competitiveness     Support for suppliers' establishment of sustainable management systems	CCI strategies Doosan Infracore CCI culture Local community-based participatory CCI programs M (number of participating employees)
2013 major performance	Implementation of global EHS evaluation	Financial support	Expansion of employee participation
	4/6 EHS evaluation for four operation sites in Korea and six in China and Europe	Shared Growth Special Fund KRW 103 billion raised  Support for product development	5,322 CCI participating employees 5,322
	Establishment of a system to respond to Emission Trading plan	55	Voluntary CCI
		Parts localization development 8 cases New model joint development 40 cases Support for OEM and modules 7 cases	24.3% ↑
	Establishment of a roadmap for carbon reduction	Enhancement of CSR capabilities	Salary portion donation KRW 226.57 million (24.3% increase over 2012)
	GHG emission management		Continuous CCI
	92.7%	Agreement signing ceremony for protection of human rights of suppliers' employee	0.35%
	92.7% of permitted GHG emissions	10 10 suppliers declared CP	Percentage of CCI investment amount to sales 0.35%

# North America & Oceania

Sales -KRW million (USD million)

2,548,427 (2,327) 2,838

In 2013, the demand for replacement of construction equipment rose in North America in line with the recovery of the USA construction business and growth in the compact construction equipment market. Starting in 2014, the market is expected to shrink somewhat because of the implementation of enhanced Tier 4 Final emission standards. The Construction Equipment BG will launch large- and compact-scale construction equipment meeting new emission regulations on time to lead the market. Machine Tools BG plans to enhance marketing in keeping with the recovery of the manufacturing sector of North America. the company's main market. Engines BG is planning to expand its eco-friendly engine business including compact engines and generator engines.



Doosan Infracore is a global company comprised of 23 production facilities, 51 sales subsidiaries and branches, 11 R&D facilities, as well as a large-scale sales network comprised of more than 1,500 dealers in over 140 countries. More than 14,300 employees are striving to achieve the world's best products and services to customers around the world. For efficient management, Doosan Infracore has divided the world into four regions - North America & Oceania; Europe, the Middle East and Africa; China; and Asia Pacific and emerging market. In addition we have also established and implemented business strategies tailored for the market and customer situations in each region.

Although difficult management environments have persisted because of the global economic recession, Doosan Infracore has concentrated its resources on the enhancement of its underlying competitiveness in all its business areas - Construction Equipment, Machine Tools and Engines - and actively promoted its strategies differentiated for each geographical region. In developed markets like North America and Europe, the company has expanded market penetration efforts for its large heavy equipment on the basis of its leadership in the compact construction equipment area while enhancing marketing for its machine tools. In China, the company focused on improving its performance in construction equipment through the launch of products customized to local conditions and the restructuring of its sales channels. In emerging markets in the Middle East, Africa, Asia, Latin America and the CIS, it has positively responded to market growth through the launch of tailored products and expansion of sales channels. Doosan Infracore will ratchet up its insights of the global market, and build up capabilities to continue to grow under any changes in business environments.

\* USD 1.00 = KRW 1,095.04

# **Europe, the Middle East & Africa**

Sales -KRW million (USD million)

2,496

1,311,108 (1,197)

Furone is beginning to show recovery from economic slowdown due to a fiscal crisis. Unfortunately, due to emission standards, the 2014 construction market is projected to have a negative effect. Despite this setback the company will expand sales by enhancing its leadership in compact construction equipment as well as its marketing strategies for medium and large heavy equipment. In the area of machine tools, where demand is expected to grow steadily. the company will focus its efforts on the increase of sales in technology-intensive products. For the construction equipment markets of the Middle East and Africa, where sales increased in 2013 largely due to an expanded network of marketing channels. the company will launch aggressive marketing campaigns to continue to maintain high sales growth in the regions in 2014.



#### China

Sales -KRW million (USD million)

1,030,990 (942)

2,947

In 2014, China is expected to continue slower economic growth as it did in 2013 due to a delay in economic recovery. However, the market is most likely to begin to recover in the second half by maintaining improvements in macroeconomic indicators and increases its infrastructure investments within the area of construction equipment. The company will engage in marketing strategies considering local characteristics while launching new products like excavators and wheel loaders that meet the special needs of local customers in order to further enhance customer satisfaction. The company will continue to launch compact construction equipment equipped with fuel efficient high capacity features and specialized largescale mining equipment characterized by improved durability to increase its sales in the country. In the area of machine tools. Doosan Infracore will concentrate on the launch of customized products and marketing efforts through participation in exhibitions, for instance, to enhance its foundation for growth.



# Asia Pacific & Emerging Market

Sales -KRW million (USD million)

2,846,305 (2,599) 6,028

Slow growth continues within the emerging economies such as the Asia-Pacific region, Latin America and the CIS. Yet market growth is expected along with a gradual economic recovery in these regions. Doosan Infracore plans to enhance its market competitiveness through the launch of products customized for local conditions, the enhancement of marketing channels, and service differentiation. Most notably, Doosan Infracore will expand its network around the excavator plant in Brazil that began operations in 2013, while launching aggressive marketing campaigns to further secure its leadership position in the various Latin American markets.







Bobcat introduced its skid-steer loader models S<sub>5</sub>10, S<sub>5</sub>50 and S<sub>5</sub>90; compact tracker loader T<sub>5</sub>90; and large models 600, 700 and 800 at 'BAUMA 2013,' the biggest construction equipment trade show in the world.

# Launch of Bobcat 500 platform size Bobcat skid-steer loader equipped with diesel engine G2

Through the launch of the 500 platform size Bobcat skidsteer loader equipped with a compact diesel engine G2, Bobcat has secured a new foundation for growth. Through the installation of G2. it has reduced costs and increased profitability while securing competitiveness needed to cope with Tier 4 Final emission standards. Also, as it is now able to procure most parts including engines internally, Bobcat has improved its production stability and can respond to customer after-sales services and engage in performance enhancement activities on time. The newly launched Bobcat skid-steer loader is comprised of skid-steer loaders (SSL) and compact track loaders (CTL), a line of the most popular products to customers. The series is not only outstanding in performance and durability. It meets Tier 4 Final emissions requirements, the latest environmental regulations, without a costly DPF (Diesel Particulate Filter) device, thereby contributing to customers' work efficiency improvements, cost reductions and fulfilling environmental requirements. With its new skid-steer loader, Bobcat is expected to further expand its performance in the world market including the North American markets.

# The world's top brand for compact construction equipment

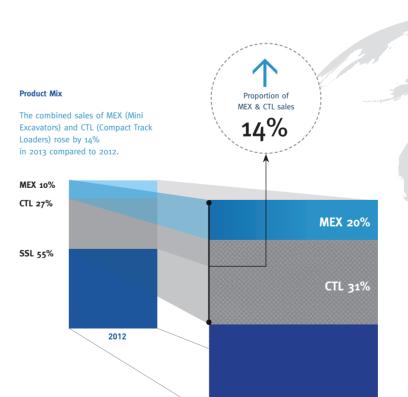
With a corporate history of more than 50 years, Bobcat is the world's top brand in compact construction equipment. Following its development of the first skid-steer loader in 1958, Bobcat launched the Bobcat brand in 1962 and began to expand overseas in 1970, embarking on full-fledged business expansion. In addition to the skid-steer loader market, Bobcat soon advanced into markets for mini excavator (MEX), utility vehicles and mini track loaders as well. It has maintained its leadership positions in these items ever since.

# Continuous favorable performance in the North American markets

Bobcat became part of the Doosan family in 2007. It began to generate profits in 2011 and continued its performance year after year. It played the leading role in improving the financial performance of Doosan Infracore despite a global economic slowdown in 2013. It was able to expand its sales and profits through diverse efforts such as cost reduction, improved operation efficiency through efficient investments, and launch of new products like the M-Series, which has received continuous praise from dealers and customers for its prominent improvement in performance, comfort and reliability. Moreover, due to the improved product mix effects by the M-Series, the sales proportion of compact track loaders and mini excavators - highly profitable items - increased by 14% in 2013 over the previous year. As the North American market is predicted to continue to improve by 2018, the growth pattern of Bobcat is expected to continue for some time to come. On the basis of the favorable performance and leadership of Bobcat, Doosan Infracore will advance in the large heavy equipment market and continue to expand its business engagement with a focus placed on rental business.

**6** 

business value
- Construction
Equipment
p.32



Out of the Bobcat products, its skid-steer loaders, all-wheel steer loaders, mini track loaders, compact track loaders, and Toolcat™ utility work machine have maintained their market leadership for decades, leading the development of the world's compact construction equipment market.

# No. 1 in the global market share



# Outstanding competitiveness recognized worldwide

The reason Bobcat has been the global leader and earned customer trust is that it has extraordinary technologies, production, channels, and services.

Bobcat is running a unique NPD (New Product Development) system. Its technology patents have surpassed the 2,000 mark. Its prominent R&D competency and key part manufacturing technologies are undisputable. To further its capability to produce innovative technologies, Bobcat has invested US\$20 million in its Bismarck operation site. This building is named the Acceleration Center, a cutting-edge R&D support center, equipped with test tracks and an outdoor test center among others.

In addition, Bobcat has a full range of production facilities ranging from steel processing to parts manufacturing to finished goods production. It has armed itself with unrivaled comparative edges in stable product supply, price competitiveness and quality control. It has established the world's best standardized production system, and so it can maintain the same quality in any of its various plants in North America and Europe and roll out diverse products customized to customers' needs.

The worldwide Bobcat sales network is another source of its success. The company has established a network comprising more than 550 dealers in North America. Worldwide it runs a network composed of around 1,000 dealers in more than 100

# Competitive global production system

As it is equipped with its own manufacturing facilities, ranging from material processing to parts and finished goods production, Bobcat has secured a stable product supply and price competitiveness as compared to its competitors. Also, it is capable of implementing efficient production management pursuant to market situations and customer requirements.

countries that serves its global customer base. It continues to communicate with dealers in various regions through various arrangements including 'Boot Camp' which is a course based upon products in order to educate the next generation.

Bobcat is equipped with more impressive capabilities in customer services. It offers comprehensive solutions covering the whole range of activities including design, production, distribution and support. It can provide more than 80 types of attachments to make sure that its customers can make the best of Bobcat equipment. Apart from the prominent performance, its products are equipped with user-friendly access enabling efficient equipment operations and eco-friendliness. All of this meets Tier 4 Final emission regulation. As a result, customer satisfaction with Bobcat products is very high.



Engines BG succeeded in developing G2, a revolutionary industrial compact diesel engine and began mass-producing it in an exclusive plant completed in 2012. G2 is a cutting-edge engine equipped with ULPC (Ultra Low PM Combustion), the company's unique combustion technology, and a new technological standard 'Non-DPF.' The engine meets Tier 4 Final requirements, the latest emissions regulations. It produces higher power while spending less fuel and engine oil. It is a high-efficiency eco-friendly engine armed with the best performance and durability. The G2 factory located within the Incheon Plant is an exclusive compact diesel engine plant furnished with state-of-the-art production facilities. Its annual production capacity is 25,000 units. The factory is equipped with industrial robots in the assembly line, and thus real-time monitoring is possible. Furthermore, it is equipped with sophisticated production management systems such as error-prevention systems, RFID (Radio-frequency Identification) and MES (Manufacturing Execution System). Therefore it is expected to have stable production quality comparable to that of the global industry leader.

# NON-DPF\* SYSTEM

With new advances in technology, the installation of DPF is now unnecessary. Compact diesel engine G2 is equipped with a non-DPF system that meets emission standards.

\*DPF: Diesel Particulate Filter



# Technological prowess the world pays attention to

Compact diesel engine G2 does not need the installation of a costly DPF. Therefore its price competitiveness is outstanding. Furthermore, its space utilization capability is superb due to its small footprint. Cost and time saving strategies are high in relation to the maintenance costs of the after-treatment system. As compared to its competitors' engines, markedly improved fuel saving effect is another boon. The excellence of G2 engine is widely recognized around the world. In Korea, it was selected by the Korea Federation of Mechanical Technology Organizations as the only recipient of the 'Top-10 Mechanical Technologies' award in parts materials at the ceremony of 'the Day of Machine Tools 2013.' It was also given an IR52 Jang Young Sil Award in 2013. In February 2014, it was honored with 'the Innovation Award' at the 2014 FLTA Awards for Excellence from the UK Forklift Truck Association (FLTA). The awards are the most highly regarded recognition in Europe.

# Expanding G2 engine supply to Bobcat and Doosan Portable Power, etc.

Compact diesel engine G2 can be installed in diverse industrial equipment including excavators, loaders and forklifts. For its excellence in performance and quality, it is getting plenty of attention as a replacement of existing engines. In April 2013, Doosan Infracore signed a contract with Bobcat regarding the supply of three models of its compact diesel engine (1.8l, 2.4l and 3.4l) for five years, securing a solid buyer. Engines BG is planning to increase the G2 engine installation rate in Bobcat products. It has signed a memorandum of understanding (MoU) with Doosan Infracore Portable Power (DIPP) for the supply of engines for generators and air compressors, and is engaged in the development of the products. G2 engine is also installed in 2-3.5 ton forklifts of Doosan Corporation Industrial Vehicle.

## Strategies to secure future earnings and maintain competence

In 2013, dealers and customers who participated in various trade fairs including Bauma 2013 showed deep interest in the G2 launch schedule emphasizing the outstanding performance of the model. Engines BG has not only secured a stable purchaser but also boosted the brand recognition and quality credibility through the supply of its compact diesel engine G2 to Bobcat. On top of that, with the advance into the Tier 4 Final market, Engines BG expects to expand into the global sophisticated engine markets easily. Doosan Infracore is planning to expand its product supply to major global players as well as Doosan affiliates, fostering G2 engine as the company's new engine of growth.

**CAGR** 

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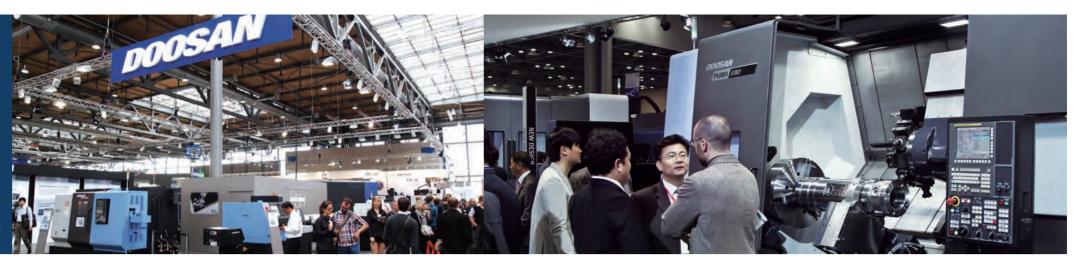
Creating business value - Engines p.40





# Catching global customers' eyes with competitive, high-end products

Doosan Infracore participates in international trade shows like EMO (Machine Tool World Exposition) as well as DIMF (Doosan International Machine Tools Fair). Here we launch and present new products and communicate with global customers and dealers on a personal basis.



## Enhancement of the technology-intensive product lineup

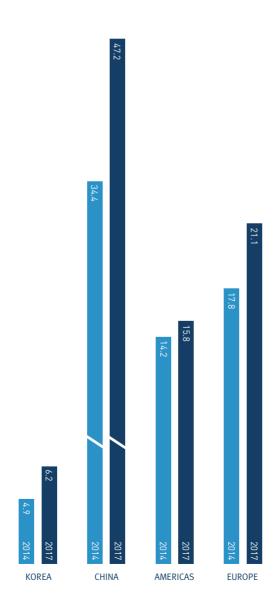
Machine Tools BG enhances its technology-intensive product business through the expansion of its product lineup. We focus on the security of core technologies in preparation for global economic recovery and growth of new demand industries. Technology-intensive products include multi-axial complex processing machines that can carry out the complex processing of parts and large machine tools that can process large parts precisely. They are high value-added machine tools that require high levels of technologies and quality. Machine Tools BG possess diverse technology-intensive products in the areas of horizontal/vertical turning centers, machining centers, double column machining centers and horizontal boring mills.

Machine Tools BG is promoting the implementation of a roadmap for new product development and the enhancement of competitiveness for each value chain. It is now engaged in the development of large-scale horizontal/vertical turning centers, horizontal boring mills, and boring machines. In the area of multi-tasking turning centers, it is focusing on further upgrading the existing highly efficient multi-tasking machines as well as the development of large high-efficiency multi-tasking machines. It is also proceeding with the development of new products in the areas of vertical machining centers with 5 axis simultaneous controls and horizontal machine centers. It will pursue the expansion of its manufacturing infrastructure, upgrade of its expert employees, and the securing of application technologies in order to enhance the competitiveness for each of its value chains such as production and quality. It will also actively promote strategic alliance with companies devoted to technology-intensive products and secure the world's top-tier competitiveness for technology-intensive products.

# Expansion of production infrastructure for large machinery

Machine Tools BG has built a factory devoted to the production of large machine tools within the Changwon plant with a purpose of strengthening the foundation for its business in technology-intensive products. Since 2012, it has invested KRW 37.1 billion to build a cutting-edge factory with a floor area of 18,355m2. The factory is scheduled to begin operations in February 2014. The factory is equipped with precision machining equipment and various facilities that are optimized for the production for large machine tools. Given the characteristics of machine tools that require micrometer (0.001mm) accuracy, it has minimized ground vibrations through the advance of technology. It further heightened the precision of maProspective demand for machine tools in major areas

Source: Oxford Economics Global Machine Tool Outlook (October 2013)



## Optimal Solutions for the Future

The new slogan of Machine Tools BG - Optimal Solutions for the Future - contains the BG's commitment to making constant innovations in products, technologies, thinking, processes and ways of doing business with a purpose of providing customers with optimal solutions best suited to each customer's needs.

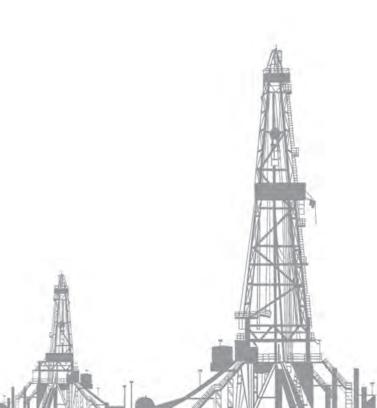
chining equipment through isothermal-isohumidity control features. Also, it further improved productivity through automated systems that enable unmanned machining at night and around-the-clock operations. The company plans to expand the production capacity from 1,000 to 3,600 units a year through factory expansion phase 2  $\frac{1}{2}$ considering the growth of aviation and energy industries demanding large machine tools.



Machine Tools BG actively participated in major international trade shows, met new customers and dealers, and engaged in aggressive marketing activities. In May 2013, the Changwon Machine Tools Plant held the 9th DIMF (Doosan International Machine Tools Fair) with the attendance of 4,600 visitors from 41 countries around the world. The fair fielded a total of 63 kinds of sophisticated products including 26 types of turning centers, 25 sorts of machining centers, 4 types of electrical discharge machines, and 4 kinds of Swiss Turns as well as 4 sorts of large machining tools, demand for which has increased recently. Most notably, the company revealed its next-generation orthogonal multi-tasking machine tool for the first time. Other new technologies and products that caught plenty of attention at the fair include Doosan CNC D300 equipped with CNC controller developed and improved by the company in terms of performance and features such as:

- 1) Smart-i system enabling access by smartphone equipped with the latest mobile technologies
- 2) A new operation panel with enhanced usability and convenience
- 3) Dialog-type programming system enabling easy preparation of machining programs

Machine Tools BG also participated in EMO 2013 held in Hanover, Germany. It fielded a total of 24 types of products - including 8 new products including the next-generation multitasking machining center SMX; 13 machining centers; 1 NC boring machine; and 2 Swiss Turn - an automated system and diverse applications, giving visitors opportunities to experience the advanced technologies and high quality of Doosan Infracore. In 2014, it plans to participate in SIMTOS (Seoul International Machine & Tool Show) 2014 in Korea; IMTS (International Manufacturing Technology Show) 2014 in the United States; and China-DIMF (Doosan International machine Tools Fair) 2014. It will field a full lineup of its products including new technology-intensive products and further activate its trade show marketing.





2014

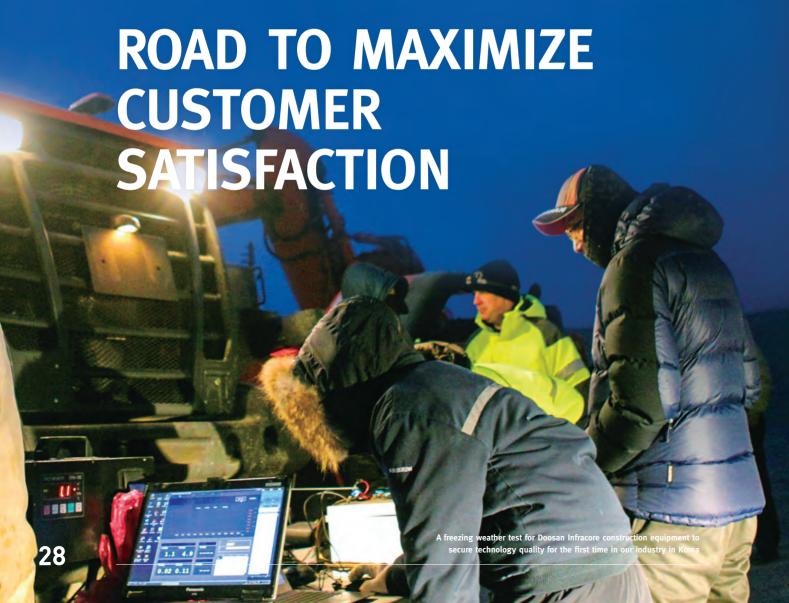
**>>** 

**Build infrastructure for quality improvements** 

Set up Corporate R&D Division
Start constructing Integrated R&D Center

Enhance technology quality

Improve quality from the customer perspective Cope with the latest emission standards Introduce the concept of emotional quality





# Boosting technological competitiveness through enhanced R&D

To develop products that can move customers and make improvements in quality, Doosan Infracore has established a Corporate R&D Division and is building an Integrated R&D Center with a budget of KRW 56 billion. This division controls all the pre-product development processes including strategies, plans, designs and tests. It strives to develop top-tier products meeting the market demand for quality, costs and performance. Also, the engineers at the division play the leading role in organizing Quality Enhancement TFTs and carrying out freezing weather tests. Doosan Infracore pours all of its resources in the improvement of the quality of its products.

# TFT activities designed for quality innovations from the customer perspective

Doosan Infracore carried out Quality Innovation TFT activities in Korea and China in 2013 to make improvements in dealing with Quality customer complaints. The TFTs were designed to respond to customer demands quickly and accurately and solve quality issues p.71 fundamentally to step up the company's product competitiveness in the markets. Through the TFT activities, cases of improvement tasks were identified in Korea and China. The tasks were thoroughly cause-analyzed and the results were applied to product quality innovation activities. Due to such positive efforts, the company was able to reduce customer complaint (registration) cases by 31% at the beginning of 2013 compared to 2012. It has also secured the ability to preemptively meet the demands of customers and markets through the launch of new products meeting the Tier 4 Final emission standards and the efforts to boost the emotional quality of its products.

# Efforts to secure technology quality through freezing weather

Doosan Infracore carried out freezing weather tests for its construction equipment, for the first time in Korea, on the plains of Cheolwon, which was 15 degrees below zero Celsius, in January 2014. The company's low temperature tests previously had been carried out in the Reliability Center at the Incheon Plant. To verify equipment performance under customers' actual work environments, the company built a performance test ground in Cheolwon, one of the coldest areas in South Korea.

The special three-week tests covered major types of construction equipment under development as well as its competitors' equipment. To carry out engine performance tests under extremely low temperatures, an exclusive team came from Scania Group. Sweden and joined the tests. The performance tests covered all the areas that might cause trouble in low temperatures, such as fuel systems, soot and smoke, electric and electronics systems, and noise and vibration levels, under simulated customers' actual equipment operation situations. Evaluations were carefully made per work situation and operation duration. Given the reality that construction equipment has to continue to operate and pause according to work schedules, the data on the temperatures of engine oil, cooling water, fuel and hydraulic fluid, etc. were analyzed over a few weeks. The results of endurance tests in freezing temperatures will be reflected in the company's future R&D and quality improvement efforts.

# Design capabilities to design an emotional quality\*

Doosan Infracore established an integrated design center in 2013 for the first time in the industry in Korea. It is boosting its customer satisfaction and quality competitiveness through emotional designs from the customer perspective. The purpose of incorporating emotional quality into its machines and equipment is to make sure that its customers can feel an emotional attachment and pride through not only stable product quality but also improvements in appearance, colors and operation convenience.

The design center applies the concept of emotional design to the entire process of new product development in collaboration with product planning, sales and R&D divisions. Most notably, customers' opinions are reflected at the design planning stage, the initial stage of design processes in an effort to develop more customer-friendly products with higher degrees of user friendliness. The integrated design center is equipped with all the necessary infrastructure such as:

1) Style Part is in charge of exterior and interior parts of products 2) CMP (Color, Material and Finish) Part responsible for colors and materials

3) Mock-up Work Room using clay models

4)Indoor Evaluation Room for the 'virtual' product operation. This operation is responsible for the design of major products of Doosan Group.

In addition, one of its key responsibilities is the creation of Doosan's unique design DNA and the 'family looking' throughout all its products. As is told by its slogan of "We Build Doosan Icon," the design center will also play a pivotal role in establishing the unique design identity of Doosan brands.

# Building emotional quality created through innovative designs

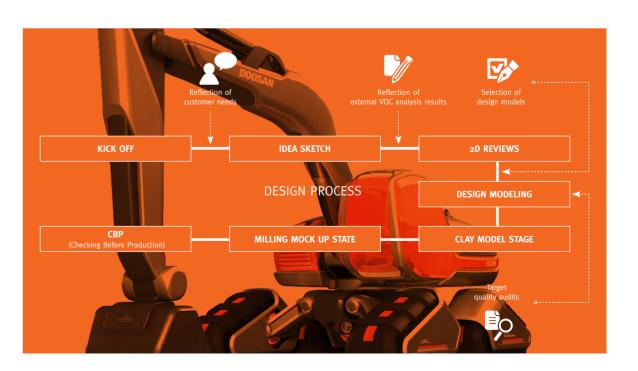
A hot topic in the industry is the emotional design of Doosan Infracore shown on its next-generation excavator resembling a 'transformer' and its wheel loader reminding people of a sophisticated automobile. In 2009, the company concept excavator 'CX' won the best prize at Red Dot Awards for the first time in the construction equipment industry. CX was praised for its design enabling the optimized work performance in diverse work environments while emphasizing future-oriented design elements. The 'PUMA SMX Series' won a 'Winner' Award in Product Design of the Red Dot Award 2014. It is the future for the next generation. It functions upon a multiple level with machine tool reflecting user-centered ergonomic designs. Therefore, its unique characteristic is drawn upon the basis of user-friendly functions. The PUMA SMX Series also received the Good Design Award (Korea) and the AIDA (Australian International Design Award). It has been most favorably recognized in a number of international trade shows for its innovative technological features and design creativity. Doosan Infracore will continue to materialize emotional p.68 quality that approaches a step closer to customers through the development of innovative designs that take into account convenience, safety, eco-friendliness and efficiency.

\* Emotional quality: Emotional quality can be defined as 'perceived quality:' one in which a customer feels and gains from a product that he/she is faced with.

# TECHNICAL QUALITY



# PERCEIVED QUALITY







#### 2013 market situations and management performance

In 2013, the economic recovery continued to expand in North America due in large part to GDP growth and the housing market recovery. Yet recovery was delayed in China and Europe. Emerging markets in Asia, the CIS and Latin America suffered slowdowns. Construction Equipment BG showed increases in sales and earnings thanks to the successful launch of new compact construction equipment with improved performance in North America, expansion of channel coverage, and increased market share for medium-large equipment. In Europe, the company's performance improved slightly over the previous year due to its marketing strategies in spite of the economic slowdown in the region. In Africa, remarkable sales increases were made through the securing of new channels. However, in China and other emerging economies, sales dropped somewhat due to a lackluster performance following the restructuring of sales channels and subsequent slower performance. Construction Equipment BG suffered a bit in reduced sales to KRW 5.7523 trillion in 2013 compared to 2012 as a result of the worldwide slowdown in markets

# Creation of stable revenue and enhancement of underlying competitiveness

Construction Equipment BG focused on stock management and cost reductions through SCM (Supply Chain Management) to create revenues despite lackluster economic recovery. The launch of customized medium-large equipment with improved performance and quality features and compact equipment including the Bobcat M-Series contributed to the company's efforts to create revenues. The company secured new dealers in West Africa, Asia and North America to expand coverage. It finished reorganizing the sales channel in China successfully and improved the channel competitiveness. Doosan Infracore built a PDC (Parts Distribution Center) in Dubai and improved the parts supply rate. Through the development of service programs and enhancement of internal organizations, it also did its best to complete a distinctive service of networks.

#### 2014 prospect

The construction equipment market in 2014 is anticipated to maintain a slow growth pattern worldwide. The North American market is predicted to shrink somewhat due to enhanced emission regulations. The Chinese market is expected to recover starting in the second half due to improvements in macroeconomic indicators and increased infrastructure investments. The markets in Latin America and the CIS are likely to continue to stagnate because of economic slowdown. Throughout the Middle East and Africa, growth rates are expected to reach record highs.

# Leadership for compact products and expansion of sales for large products

Construction Equipment BG will continue efforts to improve its cost structure with a purpose of maximizing its performance in 2014. It will expand the sales of medium-large equipment in China and emerging markets through the launch of new products and the enhancement of contact with customers while increasing the market share of its large construction equipment. Through the successful launch of excavators and wheel loaders meeting Tier 4 Final requirements, the expansion of its channel coverage, and concerted efforts for its key customers in the developed world like North America and Europe. The company will also maintain its overwhelming leadership in the compact equipment market in developed countries through expanded presence in construction and rental markets and enhancement of Tier 4 Final solutions with the installation of compact diesel engine (G2). The company will upgrade its profitability by strengthening its engagement in parts and attachment business. In preparation for market recovery down the road, it will continue to concentrate on the reinforcement of its underlying competitiveness in products, technologies, channels and ser-

# Equipped with prominent performance, fuel efficiency, durability and user convenience Doosan Excavators is a force for the future

# Improved work efficiency

Powerful Doosan DLo6 engine

Quieter fan clutches

High performance control valves

Optimal flow-control main pump

Quick coupler to remove remaining pressure

# Enhanced conveniences

Integrated large LCD color monitor

Application of glass antenna

Reduce vibration in the cabin

Integrated operation switch

Single screen display of operational info and rear view camera Multi-function suspension sheet and slim steering column

# Improved durability

Application of LED warning lights

Anti-slip front pipes

Lamp protection covers

High durable mainframe

High durable front

Mudguard fender Chrome plated pins

# Improved service

Increased battery capacity

Improved shape of the mainframe step

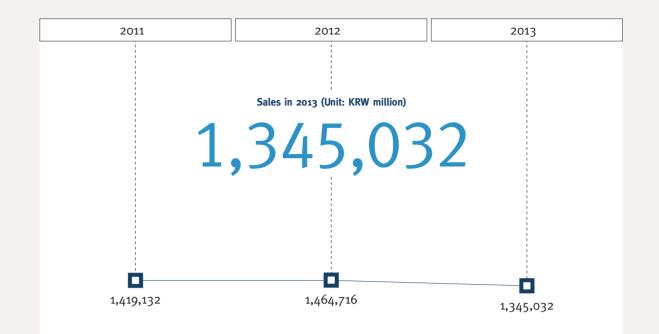
Heat installation in the water container for winter months

Enhanced material for the fuel filler pipe

Extended cooling water replacement period







# 2013 market strategies and management performance

In 2013, due to the global economic recession, Machine Tools BG had to reanalyze its global marketing strategies. Therefore, the company has established and implemented differentiated sales strategies depending on the market situations of major regions. In Korea, it launched aggressive marketing strategies based on its leadership in the industry. Overseas it carried out specialized sales promotions for each region and expanded its sales network while focusing on the reinforcement of onsite marketing through participation in various trade shows. Although it recorded an 8.2% decline in sales at KRW 1.345 trillion, it secured large projects in Eastern Europe and China.

# The launch of new strategic products and establishment of regional growth strategies

Machine Tools BG launched a number of new products at its own trade show DIMF (Doosan International Machine Tools Fair) and EMO in Europe, publicizing the prominence of its products and raising its brand recognition. In particular, its next-generation SMX (Super Multi-tasking Turning Center) captured the keen interest of both dealers and customers. An integration of a turning center and a machining center, SMX has improved productivity and work convenience. It was also significant that Machine Tools BG established growth strategies for the European market predicted to recover from slowdown soon and the Southeast Asian market with a high growth potential to build the foundation for future growth.

# 2014 sales environment predictions

In 2014, it is expected that the manufacturing sector in the North American market, the core market for Machine Tools BG, will recover and demand in the European market will show a gradual increase. China is estimated to continue to slow down due to economic uncertainties. Most notably, competition will become even fiercer in the market because of Japanese suppliers aggressive marketing affected by the low value of the yen. In the mid- to long-term, a gradual growth is likely to be realized with China leading the pack. Also, in line with the growth of aviation and energy industries and the sophistication of the automotive industry - the consumers of machine tools - the demand for technology-intensive machine tools is anticipated to continue to grow.

# Enhancement of competitiveness and implementation of differentiated sales strategies

Machine Tools BG will concentrate on the securing of product and technology competitiveness, and the enhancement of its moment of truth marketing and internal competency. It will implement differentiated sales strategies - including enhanced promotion of strategic products, expanded target marketing for demand industries, reinforced regional sales networks, and discovery of new projects in emerging markets - to prepare itself for market recovery and compete against increasingly fierce global competition. Machine Tools BG will strengthen its positioning as the global leader by featuring its full product lineup including new technology-intensive products at 'SIMOS (Seoul International Machine & Tool Show 2014' in Korea and 'IMTS (The International Manufacturing Technology Show) 2014' in the United States. It will also continue to expand its technology-intensive product lineup to deal with the growth of its demand industries like aviation and energy industries.

# Next-generation orthogonal multi-tasking turning center integrating the features of a machining center and a turning center

# Powerful multi-tasking capability

Multi-tasking features with
spindle 1, spindle 2, B axis and milling
High-strength mechanical structure through
structural analysis designs
Maximization of the Y-axis machining area
through orthogonal structure

# Outstanding precision

Minimization of thermal errors of spindles and feed shafts through oil cooling systems

High-speed, high-precision feed systems

Equipped with the precision control of b-axis and C-axis in the range of 0.0001°

# Ergonomic designs and convenient features

Easy tool check and replacement through frontal placement of tool magazine
Control system enabling height control, turns and horizontal movement
Convenient ATC (Automatic Tool Changer) control system

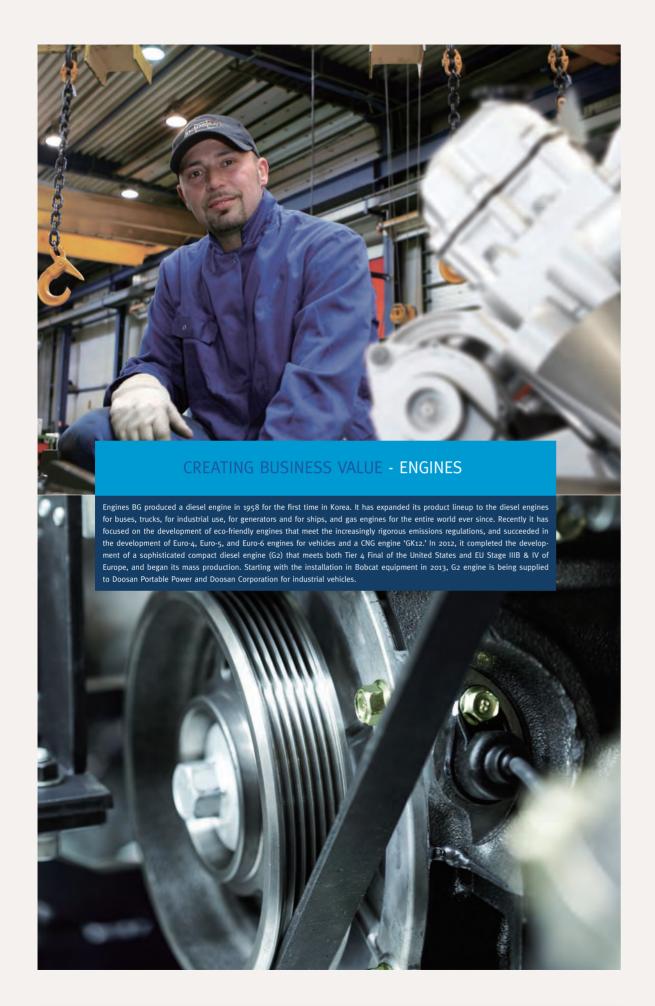
# PUMA SMX

\* SMX: Super Multi-tasking Turning Center



PUMA SMX Series is a next-generation multi-tasking turning center equipped with high productivity, precise processing capability and convenience operability. Equipped with the features of both a machining center and a turning center, the series has added some absolutely necessary functions from the customer perspective and reinforced convenience. It saves time and personnel since it can carry out parts processing in complex shapes requiring a number of pieces of equipment at a time. It is equipped with the top-of-the-class machining capability including the design of feed shafts X-Y-Z in orthogonal coordinates, minimization of thermal errors due to cooling feature, and long-lasting precision control function to boost the quality level of processed parts. Other advantages include not only ergonomic designs and easy operability for work efficiency improvements but also convenience maintenance service made possible through the provision of maintenance assistance features.







# 2013 market situations and management performance

In 2013, the engine market was faced with difficult market environments due to a sharp decline in the demand for construction equipment, slower growth in commercial vehicle and engine market and aggravated price competition caused by a global economic recession. Engines BG actively carried out short-term sales expansion strategies through elaborate large customer management. Through sales increases in generator and vehicle engines, it achieved a 16% increase in sales over 2012 to KRW 632.7 billion.

# The launch of new generators and commercialization of a compact diesel engine

In 2013, Engines BG reinforced the foundation for growth. In the generator engine business, it reinforced its product lineup by launching 'DP series engines for generators' with improved capacity and performance according to customers' needs. It also succeeded in the commercialization of sophisticated high-efficiency eco-friendly compact diesel engine (G2). Through stable mass production, it began to be supplied for forklifts of Doosan Industrial Vehicle and compact construction equipment of Bobcat in the USA. The performance evaluation of mass-produced G2 proves its excellence in both performance and durability. Delivery to Bobcat was realized six months ahead of schedule. Engines BG also significantly improved its quality competiveness through upgrades in process quality via facility sophistication and improvements in parts quality via support for suppliers' competency enhancement.

#### 2014 prospects for sales environments

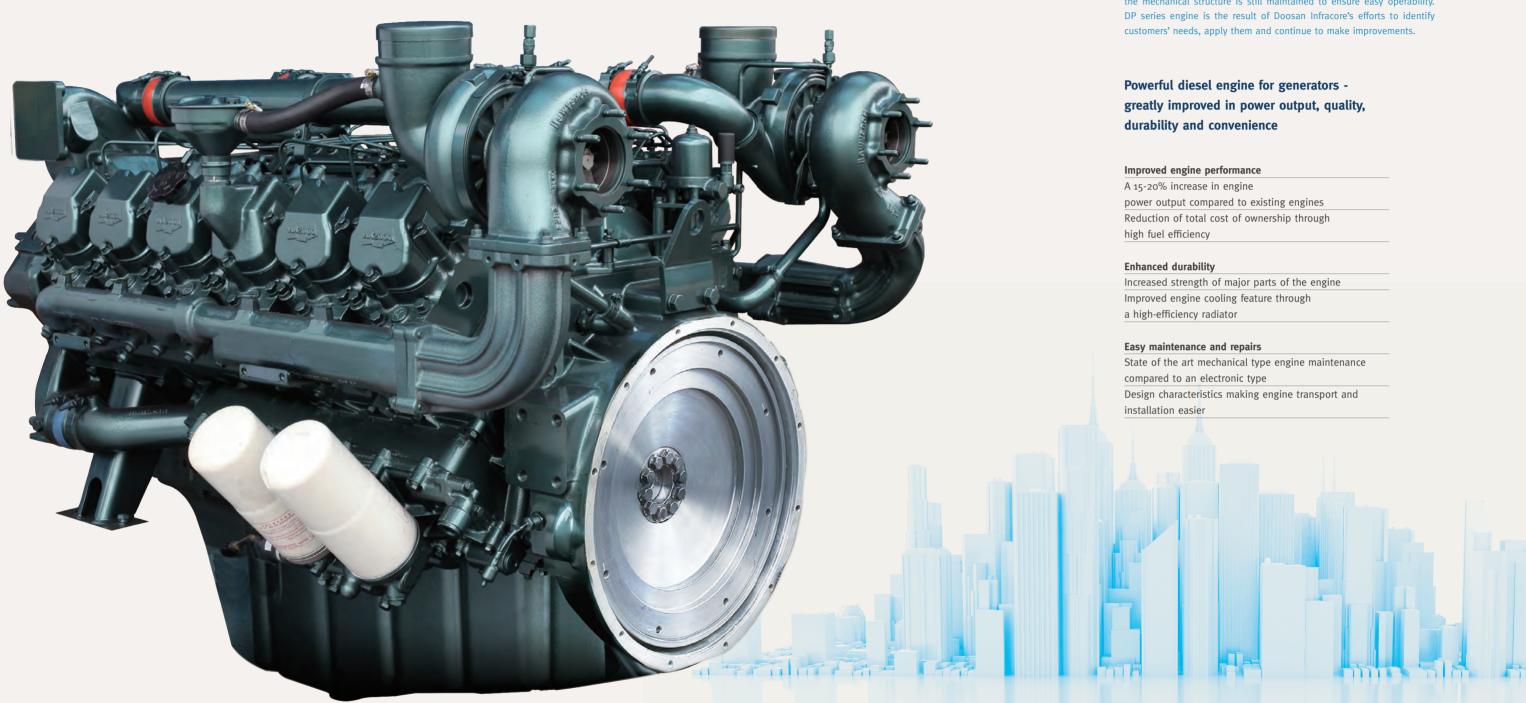
In 2014, the engine market will continue a lackluster growth pattern. However, the demand for eco-friendly gas engines and large power output engines is showing strong demand. Other positive opportunities include the demand recovery in emerging markets such as the Middle East and South America, potential purchase power of large customers, expanded foundation of regular customers, and increased sales of G2 meeting new emission regulations. Thus, it is expected that Engines BG can secure a medium and long-term growth momentum in 2014. Sales of generator engine is anticipated to grow following the expansion of eco-friendly power generation infrastructure in line with the eco-friendly policies being promoted in China and Russia among others and a shale gas development boom.

# Improvement of profitability and enhancement of underlying competitiveness

In 2014, Engines BG will continue the 2013 efforts to improve short-term profitability and enhance underlying competitiveness. It is expected that sales will increase in 2014 following sales increases of DP series generator engines launched in 2013. Engines BG plans to promote increased sales of engines for generators and ships while enhancing its compact engine business. Most notably, it will set up a mass production system for G2 engine to supply products to Doosan Industrial Vehicle and Bobcat while actively securing new customers to reinforce its foundation for growth. It will maximize the growth of its existing business by enhancing contact with customers in order to maximize profit creation while boosting its competitiveness by establishing an optimized product lineup for each demand industry such as commercial vehicles, generators, ships, and construction equipment. On top of that, it will concentrate on securing the world's highest-level competitiveness in quality, technologies and costs to realize its vision of the world's best engine maker.

# DP SERIES

\* DP: Diesel Power Generato



quality, durability and convenience. Launched in 2013, DP series generator diesel engine has realized customer satisfaction through prominent performance and quality. Engines BG accommodated customers' diverse needs in the areas of power output, cooling capacity, cold startability, durability, manufacturing convenience and user safety, and reflected them in the whole range of the product development. While the power output range has increased through Doosan's technological prowess, the mechanical structure is still maintained to ensure easy operability. DP series engine is the result of Doosan Infracore's efforts to identify customers' needs apply them and continue to make improvements.

Powerful generator diesel engine remarkably improved in power output,

# **CULTIVATION OF DOOSAN PEOPLE: FOSTERING JOB EXPERTS**

The company strives to cultivate Doosan people equipped with both leadership and job expertise on the basis of the philosophy of the Doosan Way and Doosan Way Change Model. As part of the efforts, it began to establish a job expert cultivation system on a gradual basis in 2013. After carrying out FC (Functional Competency) analysis, the company carries out job education according to the analysis results and promotes the establishment of clear growth paths. It also introduced a job expert certification system laying the foundation for the cultivation of the best experts in each area.

#### Cultivation upon job expertise system through FC diagnosis

FC (Functional Competency) begins with the classification of job expertise units required to be secured for each major job and then identifies jobs to be experienced for one to secure expertise. Next, it compares employees' current capabilities and the level of technologies/knowledge they need to secure expertise, analyzes the current level, and figure out solutions. If one uses the FC diagnosis results, not only can a company secure the competency at an organization level by means of internal cultivation, hiring, departmental transfer, among others, but also each employee can establish a clearer growth path. By the end of 2013, Doosan Infracore completed the establishment of job expert cultivation system for R&D and production departments through FC diagnosis for each job. In 2014, it is planning to expand the diagnosis to sales, purchase, logistics, and overseas and technical employees.

# **Expert Certification System for Top-tier Experts**

In order to encourage employees to continue to prosper in their professional lives and cultivate next-generation experts, Doosan Infracore has introduced an expert certification system (the master system) in its R&D Division as a pilot project. The expert certification system consists of 'masters,' pioneers in their respect areas, and 'FC coaches,' who can support employees in their job competency improvement. Masters are those who can lead the technological development at the level of the company or division with the top-tier global expertise in their respective area. They are also candidates for researchers. Introduced in 2013, the expert certification system has produced three masters and 65 FC coaches. Following the pilot introduction in the R&D division, the company will expand the system companywide.

The Doosan HR cultivation system -

"CULTIVATION OF PROUD DOOSAN PEOPLE"

the **DoosanWay**Our story. Our vision

#### **PURPOSES OF HR CULTIVATION**

Enhancement of underlying competitiveness and fostering innovation-leading experts

COMPETENCY SYSTEM

(FUNCTIONAL COMPETENCY)

The job expert cultivation system of Doosan Infracore reviews elements that could affect job expertise in terms of industrial characteristics, vision and strategies, organization and job structures, organizational culture, HR characteristics and institutions, identifies five core issues, and is designed in alignment with the Doosan HR philosophy.





# ADVANCED/SCIENTIFIC WORK PERFORMANCE: CORE OFFICE

CORE Office Implementation Process

KICK-OFF
Establishment of promotion systems

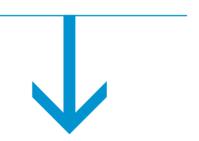
EFR (ENGAGEMENT FOR RESULT)
ABA (ACTIVITY BASED ANALYSIS)
Identification of initial issues

OCM (OPEN COMMUNICATION MEETING)
Identification and finalization of additional issues

IMPROVEMENT PLAN
Generation of improvement ideas

ACTION & MONITORING
Task implementation and monitoring

# LOWERING INEFFICIENCY





CORE office means a smart office project of Doosan Infracore designed to eliminate inefficient elements in its work processes and achieve an advanced and scientific way of carrying out tasks. CORE Office is aimed at getting rid of inefficient elements in work processes and use the saved time to help enhanced the company's underlying competitiveness. Through the activities, we seek to improve job concentration and shorten working hours, which in turn improves the corporate competitiveness at the company level and enables individuals to maintain a balance between work and life at the personal level. On the basis of the pilot operations in 2012 and 2013, the company is planning to expand the CORE Office activities companywide.

## **CORE** Office activities for work efficiency

CORE Office processes progress in the order of issue identification and finalization, identification of improvement tasks, and task implementation and monitoring. To identify issues, the company conducts interviews with employees, collects data using questionnaires to identify inefficient elements in the organization, and carries out job analysis for each team to figure out inefficient work elements. The identified issues are confirmed through group interviews by rank and additional inefficiency factors are figured out. The issues identified through such processes are divided into quick fix tasks that need to be fixed immediately and core issues that must be solved in the long term. Unlike quick fix tasks, for which improvement activities are launched immediately, an action team deals with core issues over a period of time through workshops or through companywide support. As the need for cooperation among relevant departments in the process of solving tasks increases, the company actively promotes 'Cross Team Doosan Way Time,' a discussion session among relevant departments, A relevant Operational Innovation Team and CORE Office team, which assists to increase improvement effects, does task implementation and monitoring.

# Achievements of the pilot CORE Office project and company distribution

The pilot CORE Office project was carried out for 850 employees in the Machine Tools Business Division from the second half of 2012 to March 2013 in three phases. In the first and second phase, for which improvement has been for quick fix issues, an average of 55% reduction in inefficiency has been recorded. Another pilot CORE Office project was implemented in Engines BG for 258 employees between January and April 2014. After that, the company will expand CORE Office to Operation Division, Technology Division, Sales Division, etc. to complete activities upon all the company organizations involved in work-site operations.



Enhancement of HR development p.75

# tegic Performance

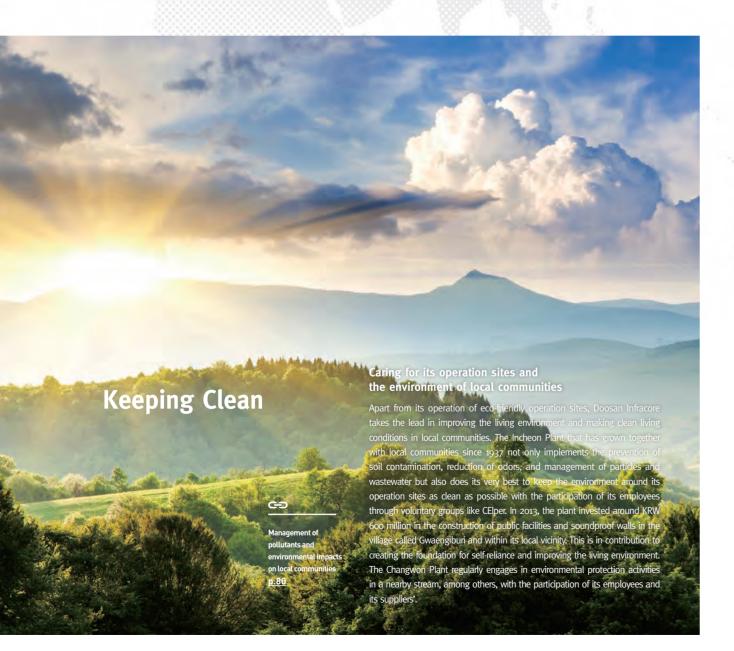
# YOUR PROUD NEIGHBOR, DOOSAN INFRACORE

A proud neighbor opening up a better tomorrow together with local communities

Doosan Infracore strives to become a respected corporate citizen by faithfully carrying out its social responsibilities. It is a core value of the Doosan Way. It will become a proud neighbor who communicates with and grows together with local communities around the world and open up a better tomorrow for all.









KOREA



# **Growing Together**

# **Enhancing competitiveness through trust and cooperation**

To achieve a higher level of win-win relations with its suppliers, Doosan Infracore is expanding its scope of cooperation to its second- and third-tier suppliers. In 2013, it supported 25 suppliers for the establishment of their ERP & SCM systems, completing the foundation for One Chain Single Plan that connects Machine Tools BG of Doosan Infracore and its primary- and second-tier suppliers. The project involved the establishment of an ERP system in the company's five primary suppliers while building an SCM system connecting four second-tier companies to each of the five suppliers - 20 companies in total - in cooperation with Machinery Industry Shared Growth Promoting Foundation. The suppliers that participated in the system establishment computerized their purchase order and warehousing processes, making remarkable improvements in accuracy and timing.

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Establishment of partnership for shared growth p.85

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# **Giving a Hope**

# Bringing children a brighter future

Under the philosophy of Doosan Group, "People are the Future," Doosan Infracore supports HR cultivation around the world. It takes the initiative not only in programs in Korea such as Dream School and Junior Technical School but also in the education for the next generation in China and other emerging economies. In China, the company has participated in Project Hope since 2001, donating CNY 10.25 million to impoverished areas and building 34 Hope Elementary Schools in more than 20 provinces and cities including Gansu, Ningxia, Qinghai, Sichuan and Chongqing. It has also run 'Doosan Hope Travel - Summer Camp' every summer since 2007 in China. In 2013, it held the camp with the attendance of students from Doosan Hope Elementary Schools under the theme of "Share hopes, achieve dreams."



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Dream School p.89

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Junior Technical School p.90

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Doosan Hope Elementary Schools in China p.89





GUYANA



# **Giving a Chance**

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Creating shared value p.30

Helping the young discover the possibilities through systematic technical education

Doosan Infracore has begun to offer technical education to the young in developing countries where its equipment is being used in order to cultivate them as skilled technicians and help them stand on their own feet. In 2013, Farm Supplies Limited, a Doosan Infracore dealer in Guyana, South America, opened 'the Doosan Technical Course' in one of the local schools. The course teaches 30 young people how to operate and repair heavy equipment during a two-year workshop. Doosan Infracore plans to offer graduates an internship followed by full employment. Farm Supplies has donated an excavator as an educational facility and Doosan Infracore has donated equipment manuals and excavator miniatures needed for the course. Doosan Infracore is planning to expand the skilled technician-training program mostly to other emerging markets.

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# **Contributing to Society**



# Implementing neighborly love through donations and services

Doosan Infracore continues to support a local golf tournament that Bobcat in the USA has sponsored since 1984. In 2013, more than 30 employees and their families participated in 'the 49th Bobcat ND Open Golf Tournament' as volunteers to help with the daily operations. Revenue from the tournament is donated to 'Village Family Service Center' that offer family-related services. A total of USD 800,000 has been donated. Bobcat continues to support local welfare facilities. For instance, it has provided diverse heavy equipment for the resurfacing of the asphalt parking lot of Village Family Service Center with which it has maintained close relations for 30 years, and its employees were directly involved in the work.





# **Loving & Helping**

# Running for the hopes and dreams of children

Geith is an affiliate of Doosan Infracore based in Slane, Ireland. It specializes in the design and manufacture of attachments. It has cooperated with local communities and grown with them together. Geith's employees at the Dublin business site participated in a marathon for a charity organized by Jack & Jill Children's Foundation in 2013. The foundation helps mentally or physically handicapped children due to brain damage receive short-term medical service at home. Despite bad weather, Geith's employees completed the tough 10km race, raised funds and donated them to the foundation, putting their neighborly love in action.



Global corporate community involvement activities - Europe



# OUR CSR PERFORMANCE

In 2013, Doosan Infracore did its best to actively communicate and cooperate with all its stakeholders such as shareholders, investors, customers, dealers, employees, suppliers, local communities, central and local governments, and the media to create new values.

As a result, its CSR management competency got strengthened and its customer values and quality competitiveness were further upgraded. Employees' performance and satisfaction were enlarged. Integrated EHS management was promoted actively in all its business sites around the world. The number of suppliers that grow through win-win cooperation increased. The company was able to make bigger contributions to the development of local communities through CSR initiatives. Doosan Infracore will continue to carry out its CSR activities systematically and strategically in its pursuit to become a loved and respected sustainable company.

CSR Management System & Management Overview	Integrated CSR Management System Accountable Corporate Governance Transparent and Ethical Management Risk Management	It contains the company's philosophies, strategies and major activities regarding its CSR activities and overall management matters such as the CSR system, corporate governance, ethical management and risk management.
Enhancement of Customer Value and Quality Competitiveness	Continuous Innovation of Products and Technologies Customer Communication Fair Marketing	It contains the company's efforts for technology development and quality innovation to create customer values. It enhances product competitiveness along with the information about the company's endeavors to raise customer satisfaction and the security of personal information.
3	Respect for Human Rights and Protection of Diversity Employment and Employment Relations Implementation of HR Management Enhancement of HR Development Establishment of Win-Win Labor Relations	It contains details of the company's diverse activities to cultivate Doosan people equipped with world-class expertise and leadership.  We base this leadership upon building an organizational culture suitable to its global corporate status.
Employee Value  4  Establishment of the Integrated EHS System	Integrated EHS Management System Energy & Climate Change Response Management of Pollutants and Environmental Impacts on Local Communities Prevention and Management of Employees' Health and Safety Risks	It introduces the major activities that the company implements for the protection of the global environment and the promotion of employees' safety and health on the basis of an integrated EHS system together with meaningful achievements in each area.
5 Mutual Growth through Win-Win Cooperation	Establishment of Partnerships for Shared Growth Enhancement of Suppliers' Competitiveness Support for Suppliers' Establishment of Sustainable Management Systems	You can see the processes of how the company has implemented genuine shared growth with its suppliers to help them improve their competitiveness and promote sustainability management through active communication and support measures.
Development of Local Communities through Corporate Community Involvement (CCI)	Corporate Community Involvement Strategies Doosan Infracore Corporate Community Involvement Culture Local Community-Based Participatory Corporate Community Involvement Programs	It introduces corporate community involvement activities that it actively carries out around the world, including support for future generations, support using its capabilities, support for local communities, and employee engagement in order to grow with society.

# INTEGRATED CSR MANAGEMENT SYSTEM

Doosan Infracore seeks to raise values for itself and its stakeholders through its business management activities. Regarding its stakeholders, the company focuses on enhancing communication with each of its stakeholder groups, including shareholders, investors, employees, suppliers, local communities, central and local government, and media, throughout the entire range of its management activities with the aim of creating new values for them. Regarding the companv. Doosan Infracore pursues efficient management with balanced approaches to corporate growth and stability with the aim of continuing to raise its future corporate values on the one hand, and of seeking healthy shared growth with its stakeholders through responsible CSR management as a leading global corporation on the other.

#### **CSR Promotion System**

At Doosan Infracore, CSR activities are coordinated by the CSR Team at the Secretariat, which reports directly to the CEO. The team has been in operation since 2011. The CSR Committee, as the company's top decision-making body on CSR matters, is headed by the company CEO. It sets the medium-to-long-term strategies and directions. The CSR Working Group, which is composed of team leaders, draws up specific action plans. The company's exclusive CSR department, the CSR Team identifies stakeholders' needs and issues,

diagnoses the company's CSR level, formulates CSR tasks and strategies, monitors CSR performance, and publishes integrated annual reports.

#### CSR Committee

Doosan Infracore operates the CSR Committee, consisting of the CEO and other key executives. It is the company's highest decision-making body regarding CSR: it not only establishes the company's CSR strategies and policies and examines the performance of each CSR program, but also reviews potential business challenges arising from changes in CSR environments and seeks new business opportunities thereof. The committee is composed of experts from five key areas selected by the committee, namely, HR, EHS, Fair Operations, Customers and Local Communities, and has organized one companywide CSR support organization, the Advisory Group, to promote CSR to the greatest possible extent as a leading global corporation.

#### **Support for International CSR Efforts**

Doosan Infracore joined the United Nations Global Compact in 2013 for the first time among Doosan affiliate companies following careful discussions and final approval by the CSR Committee. Doosan Infracore fully supports and complies with the ten principles of the UNGC in all its management activities.

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Non-financial performance review 2013 p.10

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UN Global Compact - Ten Principles p.106

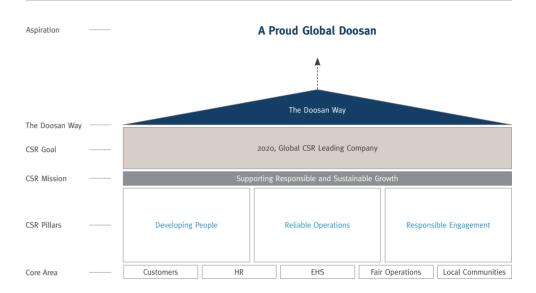
# **CSR Promotion System**



# CSR Operational Structure (Annual Process for Major Tasks)



# **CSR Strategies**



#### **External Assessments**

Incorporated into DJSI Asia Pacific for three straight years from 2011 to 2013

Obtained Class A in the ESG (Environmental, Social, Governance) Evaluation conducted by the Corporate Governance Service, Korea

Obtained Class AA (the highest) in the evaluation conducted by SUSTINVEST, Korea

Obtained Class S (the highest) in the evaluation conducted by EFC (formerly Eco-Frontier), Korea

2012 IR Report selected as an outstanding report by the CRRA, in the area of 'Creativity', UK

#### China Subsidiaries' CSR Activities

To promote shared growth with local communities, the Chinese subsidiaries of Doosan Infracore have played a leading role in CSR implementation despite their difficult business environments. They have contributed to the establishment of Elementary Schools of Hope and various activities geared toward environmental protection. In addition, they have enhanced safety in their production processes while continuing to make improvements in their working conditions. As a result, they have been designated as Class 1 Corporations for the country's Safe Production Standardization endeavors. They have spared no efforts in supporting their suppliers in terms of both quality improvements and manufacturing capabilities. Most notably, DICC (Doosan Infracore China Corporation) was recognized as 'The Most Prominent Employer in China's Construction Equipment Industry' for two consecutive years (2012 and 2013) for its outstanding CSR activities, and was awarded First Prize in the 2013 Excellent CSR Company Awards in 2013, too.

In September 2013, DICC published the very first report on the CSR activities of the five Chinese subsidiaries. The report is composed of five parts concerning advanced technologies, quality management, personnel cultivation, environmental protection, and shared growth. It was given a four-star grade (the second highest award after a five-star honor) by the China Expert CSR Report Evaluation Committee, which recognized the report as an excellent report that mirrors the company's corporate values precisely through its well-structured presentation of contents in terms of comparability, readability and creativity. The report also won the 2013 Golden Bee CSR Reports Honor Roll Award, which is jointly awarded by China WTO Tribune, an official publication of the Ministry of Commerce, China and the PKU International Research Center for CSR and Sustainability Management. Doosan Infracore is the only Korean company to have received the honor to date. The report is set to be included in the White Book on CSR by Korean Companies in China published by the Korea Chamber of Commerce in China; Exemplary CSR Activities by Korean Companies in China (Chinese version) published by the Korean Consulate-General in Shanghai, China; and a compilation of outstanding CSR activities published by the China Association of Enterprises with Foreign Investment under the Ministry of Commerce, China.

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# Stakeholder-centered CSR Activities

Communication with stakeholders and their participation are important strategic values for Doosan Infracore's CSR. The expectations and demands of the various stakeholder groups, including customers and suppliers, are collected through regular communication activities performed by each functional department. The CSR Team also conducts an annual survey and in-depth interviews to collect stakeholders' opinions. The issues identified through these efforts are not only reflected in the company's management activities, as the transparently disclosed CSR activities help establish positive synergy with the stakeholders as well.



Materiality evaluation process and material CSR issues p.10

Stakeholder Shareholders/Investors Customers/Dealers Local communities Local/Central governments Media **Employees** (environment/NGOs) 1,1 V 血 ocal and central governments are group of Doosan Infracore. Doos oridge of communication between nportant value for Doosan critical factor in the determination usiness base and invaluable eighbors. Doosan Infracore provides its shareholders and nvestors with transparent opportunities to grow into global leaders. It has developed diverse seeks shared growth with local communities as a responsible o the VOC, and strives to supply aluable goods to customers from welfare systems to upgrade the biding by the law in earnest. quality of their lives. management through technical and financial support among other forms of assistance. of their right to be informed. provements in profitability
sk management
shanced disclosures
bund corporate governance
usiness opportunity and Major Issues ir evaluation and compensation
hanced support for HR development ompliance with rules and regulation irticipation in private-government spanded information sharing
ith suppliers
nhanced support for suppliers to
alise their capabilities (finance,
schoology training environment technology, training, environment ethical management, etc.) Support for suppliers' entry into overseas markets Strengthened fair transaction pra usiness opportunity and sk management gagement in various social con d volunteer activities xpansion of R&D investments and harpening technological edges Distinctive customer services **Communication Channels** General meeting of shareholders, Labor-Management Council, Suppliers' Day, Shared Growth Day Town hall meetings with Participation in private-government disclosure materials VOC, Call Center grievance handling tools local communities cooperative partnership standardization Website for investment info tranet, company newsletters Education and training for suppliers Participation in government-Ooosan Way Survey for suppliers perating joint cooperation programs Dialogues with top management

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# ACCOUNTABLE CORPORATE GOVERNANCE

# Composition of Shareholders and Equity

Doosan Infracore is one of the key affiliates of Doosan Group. It runs production and sales subsidiaries in more than 140 countries. As of the end of 2013, its share outstanding was 207,455,314 and its equity capital was KRW 1.0372 trillion. The largest shareholder was Doosan Heavy Industries & Construction with a 36.40% stake, followed by GIC Private Limited, Singapore (7.76%) and the National Pension Service of Korea (2.14%).

#### Communication with Shareholders and Investors

The management of Doosan Infracore positively collects and incorporates the expectations and demands of shareholders, investors, customers and other stakeholders into company decisions concerning investment and other major events. It attracts investments by proving its genuine corporate values in the global market in terms of its growth potential backed up by its technological competitive edges. Doosan Infracore provides clear and transparent information to its stakeholders on time through its preemptive IR (Investor Relations) approaches. In 2013, it held four corporate presentation orientation meetings and over 400 IR meetings including securities investment conferences and NDRs in Europe and the USA as well as in Korea. Furthermore, Doosan Infracore actively encourages institutional investors to pay visits to its worksites to obtain diverse, reliable information. Through frequent round-table conferences between the CEO/CFO and investors, the company listens intently to its investors' opinions. Doosan Infracore plans to build a strategic trust-based business partnership with its investors through transparent and positive IR activities.

## **Protection of Minority Shareholders**

Doosan Infracore operates a paper ballot system in a bid to protect minority shareholders' voting rights. When sending out notices of general shareholders' meetings, Doosan Infracore encloses paper ballots so that shareholders can exert their voting rights in absentia. Their votes are valid as long as they arrive at the company one day prior to the meeting day.

# **Disclosure of Corporate Information**

Doosan Infracore not only complies with legal disclosure requirements but also does its best to maintain a sound balance between its financial and non-financial disclosures through the voluntary revelation of its CP (Compliance Program) status and CSR activities.

#### Status of Disclosure Activities

Disclosure of provisional statistics on sales performance

Quarterly and biannual reports, statement of affairs

Disclosures relevant to annual and special shareholders' meetings

Disclosure of sale of treasury stock

Disclosure of changes in the shareholding structure

Disclosure of current state of conglomerates released by the Korea Fair Trade Commission

Current state of Compliance Program operations

Relevant disclosures including sustainability reports

Disclosure through company presentations

Decisions on the acquisition of other corporations' shares and subscription certificates

#### Composition of the BOD and Decision-making Systems

Doosan Infracore raises values for the company and its shareholders by implementing accountable and transparent management practices. As the company's highest business decision-making body, the Board of Directors works on behalf of investors and oversees and approves decisions regarding massive investments or borrowings, consolidation or division of business entities, and other major business issues, from the perspective of long-term growth.

#### **Composition of BOD**

The BOD of Doosan Infracore consists of two internal and three external directors as of March 2014. There are three committees under the BOD: the Audit Committee, the Internal Transaction Committee, and the Outside Director Candidate Recommendation Committee. Internal directors are recommended by the BOD and selected at a general shareholders' meeting. External directors are recommended by the Outside Director Candidate Recommendation Committee in consultation with the Outside Director Candidate Recommendation Advisory Group, and selected at a

# Investment Attraction from GIC Private Limited (formerly the Government of Singapore Investment Corporation)

Doosan Infracore issued global depository receipts (GDR) in December 2013. As a result of its active overseas IR, it succeeded in attracting investments by GIC Private Limited, one of the largest sovereign wealth funds in the world. GIC has purchased 16,094,460 shares of Doosan Infracore, including 12,540,000 GDR shares and an additional 3,554,460 stocks in the stock market. The GIC stake (7,76%) in Doosan Infracore is second only to Doosan Heavy Industries & Construction (36.5%). The success in attracting GIC as a major investor, which tends to adopt a long-term view with regard to investments, will not only contribute to minimizing fluctuations in the company stock price, but is also expected to positively affect the company's future attempts to raise long-term investment funds.

# Intra-organizational Decision-making System



general shareholders' meeting, thus ensuring their independence from the company's principal or major shareholder. The Outside Director Candidate Recommendation Advisory Group, which is composed of three outsiders (Heesoo Lee, Hocheol Yang and Jeonghee Seo), recommends candidates for external directorships - i.e. up to twice the number of external directors to be selected - to the Outside Director Candidate Recommendation Committee according to the relevant laws and the company's bylaws. Then the committee - which is composed entirely of external directors (Jaehoon Lee, Sairee Yoon and Taeshin Kwon) - selects three external director candidates and requests the approval thereof at a general shareholders' meeting. Candidates for internal directorships are selected by the BOD and approved at a general shareholders' meeting

As regards the external directors, Doosan Infracore considers the diversity of their specialty areas. Currently, director Sairee Yun is a lawyer specializing in fair trade and internal transactions; Jaehoon Lee is an expert in economic and environmental matters; and Taeshin Kwon is an economist.

#### Operation of the BOD

The BOD deliberates on, makes resolutions on, and verifies key management decisions. It also decides upon items specified under the relevant national laws and company bylaws, items that a general shareholders' meeting delegates authority to deal with, basic business directions, and major issues regarding the execution of business activities. It incorporates the opinions and suggestions of shareholders, executives and employees collected through shareholders' meetings and IR activities in decision-making. The board confirms and adjusts any interests by sharing information in advance. All directors are permitted to participate in the BOD's deliberations via telecommunication devices capable of transmitting audio and video data simultaneously, thus confirming their attendance at a meeting. Directors may not delegate their authorities to a proxy. They maintain their independence from major shareholders and executives. However, directors with a vested interest in a particular agenda item are prohibited from voting on it in order to guarantee transparency in the BOD decision-making process.

## BOD Status (As of February 2014)

Category	Name	Current positions & roles in the BOD	2013 attendancerate	Category
Internal	Yongsung Kim	President and CEO of Doosan Infracore Co., Ltd., Chairman of the Board		
	O gyoo Lee	President and CEO of Doosan Infracore Co., Ltd., Director		
External	Sairee Yun	Managing Partner of Yulchon LLC., Chair of the Internal Transaction	70%	
		Committee, member of the Audit Committee, member of the Outside		
		Director Candidate Recommendation Committee		
	Jaehoon Lee	President of Korea Polytechnic University, chair of the Audit Committee,	80%	
		member of the Internal Transaction Committee, member of the Outside		
		Director Candidate Recommendation Committee		
	Kijong Hong	Lawyer at Kim Chang & Lee, chair of the Outside Director Candidate	90%	Term of office
		Recommendation Committee, member of the Audit Committee, member of		expired
		the Internal Transaction Committee		Mar. 21, 2014
	Taeshin Kwon	President of Korea Economic Research Institute, member of the Audit	75%	Newly
		Committee, member of the Internal Transaction Committee, member of the		appointed Mar.
		Outside Director Candidate Recommendation Committee		29, 2013

 $<sup>^{\</sup>star}$  Kijong Hong, an external director, retired from the post on March 21, 2014 due to the expiration of his term of office

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<sup>56</sup> CSR management system & management overview

<sup>66</sup> Enhancement of customer value and quality competitiveness

<sup>72</sup> Employee value propositio

<sup>78</sup> Establishment of the integrated EHS system

#### 2013 BOD Activities

In 2013, ten board meetings were held on thirty-eight agenda items including reports on management performance with regard to CSR activities and the issuance of global depository receipts (GDR). Board meeting attendance for outside directors stood at 80%.

#### Committee Activities

There are three committees within the BOD: the Audit Committee, which is tasked with guaranteeing transparent and independent auditing processes; the Internal Transaction Committee, which is responsible for promoting transparency in corporate management by establishing a framework for complying with fair trade regulations; and the Outside Director Candidate Recommendation Committee, which is charged with making recommendations for outside directors at a general shareholders' meeting. The committees are all composed of external directors.

#### **Activities of the Audit Committee**

Headed by director Jaehoon Lee, the Audit Committee is composed of all three external directors of the company. It supervises the company's accounting and business practices. As regards accounting, the committee reviews accounting-related documents including financial statements, and the accounting firm's audit procedures and results. If necessary, it re-

quests the accounting firm to carry out an additional examination of the company's accounting records and related documents, and checks the results. It also receives reports on the internal accounting management system from the internal accounting manager and reviews the information. As for business practices, the committee members can attend BOD meetings and other important meetings, and, if necessary, receive updates on management and business operations from directors, and request the BOD to review certain of the company's reports on major business issues and to supplement the documents. In 2013, the committee held seven committee meetings as shown below

#### **BOD Evaluation and Remuneration**

The remuneration of both internal and external directors is determined within the limits approved at a shareholders' meeting. The company also implements a performance salary system which links executive compensation with business performance. Accordingly, the directors are given a basic salary corresponding to their pay grade as well as a performance bonus based on the organization's management results. In 2013, a total of KRW 242 million was paid to the external directors.

#### **BOD Activities**

Date	Current positions & roles in the BOD	No. of attending outside directors (Total)
Feb. 4, 2013	Approval of 2012 Financial Statements and Business Report, and 9 other items	3(4)
Mar. 4, 2013	2012 Audit Report, 13th General Shareholders' Meeting and Purpose of the Meeting,	4(4)
	and 4 other items	
Mar. 29, 2013	Approval of Internal Transaction with Doosan Corporation, and 6 other items	4(4)
May 3, 2013	Management Performance Report for 1st Quarter of 2013, and 1 other item	4(4)
May 14, 2013	In-kind Contribution of Stake in Doosan Capital	2(4)
July 24, 2013	Management Performance Report for 1st Half of 2013, and 1 other item	3(4)
Oct. 28, 2013	Report on Business Results From Q3 of 2013, and 3 other items	3(4)
Nov. 21, 2013	Approval of Issuance of Global Depositary Receipts (GDR)	4(4)
Dec. 10, 2013	Approval of Issuance of Global Depositary Receipts (GDR - Including Issuance of New Shares)	2(4)
Dec. 10, 2013	Delegation of the Authority to Issue Bonds to the Representative Director, and 3 other items	3(4)

#### Audit Committee Activities

Date	Agenda items	No. of attending outside directors (Total)
Feb. 4, 2013	2012 Accounting Settlement Audit Report, and 4 other items	2(3)
Mar. 4, 2013	Approval of 2012 Audit Report, and other items	3(3)
Mar. 29, 2013	Election of Chairman of the Audit Committee and Election of Outside Auditors	3(3)
May 3, 2013	Report on Review of Accounting Settlement for 1st Quarter of 2013	3(3)
uly 24, 2013	Report on 2013 Semi-annual Review, and 2 other items	2(3)
Oct. 28, 2013	Report on Review of Accounting Settlement for 3rd Quarter of 2013	2(3)
Dec. 10, 2013	Discussion on the Service Contract for an Outside Auditor's Handling of Non-audit Business	3(3)

# TRANSPARENT AND ETHICAL MANAGEMENT

#### **Transparent and Ethical Management Directives**

All affiliates of Doosan Group, including Doosan Infracore, adhere to the same Code of Conduct. In this way, all operating systems companywide, including ERP, e-Procurement, Internal Control (Oversight) and Fair Trade Compliance, are interlinked. This helps ensure that all business activities are conducted transparently and with a greater level of work efficiency. In addition, the Audit Committee is operated under the Board of Directors, and is tasked with promoting, evaluating and auditing transparent and ethical management practices.

#### Communicating and Promoting the Ethical Management Policy

In 2013, Doosan Infracore revised its Code of Conduct in line with the Doosan Way declared during the year. It also expanded the application of the Code of Conduct to all its overseas subsidiaries. The company worked out detailed rules for the Code of Conduct that are designed to raise awareness of the importance of ethical management practices among stakeholders and strongly urge them to comply with the Code of Conduct faithfully. The CEO issues a letter around the time of major Korean holidays (when gifts are traditionally exchanged) to all the employees of Doosan Infracore and its suppliers to ask them to comply strictly with the Code of Conduct. Each year, all employees are required to attend a training session on professional ethical conduct. The training helps to raise their awareness of ethical business practices and control the ethical risks involved in their business transactions in advance. To prevent unintended problems from occurring during their daily business conduct, the company publishes a White Book that contains ethical problems discovered in the process of its regular audits or reported by employees. The book includes an analysis of the fundamental reasons for the ethical problems and solutions to similar problems, along with as much quantified data as possible. The company continues paying particular attention to the cases mentioned in the book. Doosan Infracore requests its new employees to sign a written oath pledging their compliance with its Code of Conduct. It also requires its new suppliers to submit a publicly notarized written oath pledging not to engage in unethical business practices before allowing them to be registered with the company as suppliers. The company also posts the Code of Conduct on its website along with information on how to report irregularities, in order to broaden the corporate consensus on ethical management. In 2013, it modified certain parts of its rules on disciplinary actions so as to prevent certain disadvantages that sanctioned employees had previously experienced in personnel

matters for far too long. Although Doosan Infracore takes the strictest possible measures against ethical violations, it does not want its employees to suffer from the stigma indefinitely. In 2014, the company is planning to develop additional educational materials on ethical management and provide an educational course accordingly. The materials will include not only the company's code of conduct but also its internal reporting processes, the White Book on Ethical Issues, and examples of ethical violations.

Education on ethical	2011	2012	2013
management			
Completion percentage	98.8	99.4	99.3

#### **Audit and Monitoring**

With the increase of overseas business area and responsibility resulting from the growth of overseas business and IFRS adoption, Doosan Infracore has established audit teams, in North America and China in 2012, that share exactly the same audit criteria. The audit teams apply the same ethical standards as those applied by the head office in Seoul. The audit team in Seoul respects the subsidiaries' responsible business management while striving to assess the actual state of their business and secure transparency in their accounting practices. In 2013, the head office audit team conducted joint audit inspections with local audit teams in China and North America. Together they identified areas requiring improvement and upgraded the relevant work processes. The company enhanced its worldwide audit system during the year.

#### **Internal Controls Evaluation System**

Since 2006, Doosan Infracore has operated an internal controls evaluation system for the entire range of its business areas including finance, sales, purchasing and production operations. The results of regular evaluations are reported to the audit committee and board meetings through the CFO and CEO in accordance with the Act on External Audit of Corporations. In 2014, the company will apply the same internal controls evaluation system to its subsidiaries in China before expanding the scope of its application to other areas around the world in stages.

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#### **Internal and External Reporting Systems**

Doosan Infracore runs internal and external reporting systems including the Cyber Reporting Center to facilitate the immediate reporting of any unethical acts. Items to be reported include all types of unethical acts such as bribery, unfair business transactions and corruption: violations of the Doosan Way, Doosan Infracore's Code of Conduct, and the country's laws; and other irregularities. Previously, the reporting of ethical violations was possible only online through the Cyber Reporting Center. In 2013, the company made significant changes: it opened a reporting center at 'Doodream,' the Doosan group portal, and expanded the reporting mechanism from online reporting to include reports by mail, telephone, fax and personal visit. The reporter's identity remains confidential. Reports are acted upon promptly according to the relevant procedures. The company's actions are notified to the informer and shared companywide, thereby serving to further raise ethical awareness among employees.

\* Reported cases of corruption/violations acted upon: 3/6 in 2011, o/o in 2012, and 4/4 in 2013

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

Doosan Infracore enhances its fair trade voluntary compliance program (CP) by monitoring performance before and after the implementation of CP, expanding the rewards for CP best practices, updating the CP handbook regularly, and cultivating CP experts in each business group. In addition, the company provides CP training not just to its employees but also to the staff of its suppliers, along with education on export and import regulations, in an effort to motivate all its suppliers to implement the CP themselves. In recognition of its progress with the CP, Doosan Infracore was selected by the Korea Customs Service in 2013 as an AAA class (the highest class) company from among other Authorized Economic Operator (AEO) companies.

The Changwon plant was designated as an outstanding worksite by Statistics Korea for its cooperation with the agency on various statistical surveys. The AEO certification is awarded to companies that satisfy the Korea Customs Service in the areas of compliance with rules and regulations, internal control systems, financial stability and safety management. So far, Doosan Infracore is the only machinery manufacturer in the country to have received such recognition.

In 2013, Doosan Infracore was imposed a penalty by the Fair Trade Commission, Korea for its share (14.26%) in Doosan Capital, a financial subsidiary of Doosan Group. Through diverse efforts, the company's violation status was terminated. Doosan Infracore has established a systematic and practical compliance system for an international level of compliance business management, and runs regular training programs on compliance to enhance employees' compliance with the law.

#### **CP Performance Reporting to the BOD**

Doosan Infracore reports on the progress of its fair trade voluntary compliance program - including biannual education on fair trade and the results of monitoring of any of its violations of rules and regulations - to the BOD and discloses the results to the public.

#### RISK MANAGEMENT

#### **Risk Management System**

Doosan Infracore operates a risk management and reporting framework in response to various risk possibilities that may reduce the company's value and cause economic losses. Risk factors are analyzed and managed with regard to the likelihood of their occurrence and the impact they may have on the company. It has established risk management processes by which executives and working-level employees are able to detect any problematic symptoms early on and take prompt remedial actions.

#### **Financial Risk Management**

Market risk: Exchange risks occur as a result of changes in currency exchange rates, which may affect the forecasting of future deals, perceived assets and liabilities, and net investment in overseas operations. For Doosan Infracore, foreign exchange losses are among the most critical risks. As such, the company's basic strategies are to reduce fluctuations in profits and losses due to changes in foreign exchange rates. Doosan Infracore carries out hedge trading based on the supply and demand for foreign currencies. It rules out speculative trading. Interest rate risks arise

largely from adjustable rate loans. In order to cope preemptively with the risks, the company minimizes external loans with its internal reserves, reduces high interest rate loans, improves the long- and short-term borrowing structure, and monitors and responds to changes in interest rates at home and abroad regularly. Financial instruments are exposed to the risk of changes in market prices that may negatively affect the fair value of the financial instruments and the company's cash flow. The company measures risks arising from changes in prices regularly and manages key investment assets separately.

Credit risk: Credit risk arises from ordinary transactions or investment activities when a customer or business partner does not follow the conditions of the relevant business agreements. It may also arise from cash, cashable assets, derivatives, and deposits in banks and other financial institutions. To manage its credit risks, Doosan Infracore regularly assesses the financial credit ratings of its business counterparts and sets different credit limits for them by taking into account their financial status and track records. For credits for which default is anticipated at the end of the fiscal year, Doosan Infracore carefully assesses the risks involved and reflects the results in its consolidated financial sheets.

**Liquidity risk:** Liquidity risk largely arises from a shortage of liquidity. It materializes when a corporation fails to fulfill its obligations to pay off financial debts or to finance its normal operations. To prevent such situations, the company establishes three-month and annual financial balance plans, which allow it to minimize the influence of business, investment and financial activities on the monetary balance. The forecasts help the company secure and maintain sufficient liquidity in preparation for possible liquidity risks in the future.

Capital risk: Capital risk management involves the maintenance of an optimum capital structure in order to protect the company's capabilities to continue providing its shareholders and other stakeholders with corporate profits while reducing the cost of capital. Doosan Infracore maintains its capital in alignment with its debt ratio. Specifically, it adjusts its dividend payouts to shareholders and repays capital reserves in order to maintain or modify the capital structure, while issuing new shares and selling assets to reduce debts.

#### Risk Management System



#### Key Risks and Relevant Responses

	Key risks	Responsive measures	
Strategic risks	Global economic slowdown	Maximize short-term profitability and strengthen core competitiveness	
	Stricter environmental regulations on products	Develop and apply eco-friendlier technologies	
Financial risks	Market risk	Manage exchange rate fluctuation, interest rate and price risks	
	Credit risk	Manage credit risks and minimize losses by safeguarding	
		measures in bonds	
	Liquidity risk	Establish quarterly and annual financial balance plans	
	Capital risk	Reduce capital costs, manage liabilities	
Operational risks	Quality risk	Establish quality management system	
	Ethical management and compliance risks	Audit unethical irregularities, provide employees with ethical training	
	Risks related to personal information protection	Establish personal information protection guidelines, build an	
	and data security	information management system, and provide employees with	
		information security training courses	
Environmental	Climate change risk	Build a climate change response system	
and natural	Occupational safety and employee health	Build the field manager-led EHS system, and manage the safety and	
disaster risks		health of employees	
	Efforts to prevent fire	Voluntary fire safety management (Firefighting Center)	
	System to respond to natural disasters	Manage natural disaster risks and mitigate damages	

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#### ENHANCEMENT OF CUSTOMER VALUE AND QUALITY COMPETITIVENESS

Quality management at Doosan Infracore begins with 'design with care' and 'elaborate assembly.' Doosan Infracore values a strong engineering culture that concentrates on fundamental competitiveness, and is taking powerful strides to join the ranks of 'the global top three machinery firms.'



🔞 : Material Issue	KEY ISSUE	
1	2	3
Continuous Innovation of Products and Technologies M	Customer Communication (M)	Fair Marketing W

GOAL	2013 PERFORMANCE	2014 PLAN	2014 TARGET
Improvement of quality	Establishment of organizations devoted to	Enhancement of technical proficiency of	Technology/OP Headquarters
management systems	quality improvement	personnel in charge of quality	Enhancement of FC* competency of engineers in charge of quality
	Improvements in the DQMS* system	Improvement of overseas/OEM quality standards	Revision of overseas/OEM quality standards
	Implementation of QMS* evaluations	Expansion of QMS evaluations	QMS evaluations of all plants in China
Enhancement of	The percentage of R&D investments to	Continuous enhancement of	Establishment of the Integrated R&D Cente
R&D capabilities	turnover: 5.3%	R&D investments	
	Establishment of the Integrated	Enhanced prevention of quality problems	Cultivation of prevention masters and
	Design Center		enhancement of FMEA*
	Implementation of DFSS* Black Belt Training		
Continuous quality	Development of key parts for wheel loaders	Efforts to develop key parts	Development of key parts for driving gear,
innovations	Parts Quality Innovation 330 Campaign		competitive in terms of price,
			performance, and quality
	A 16% reduction in customer complaints	Improvements in the number of customer	23% reduction in the number of customer
satisfaction	(registration) within warranty periods	complaints (registration)	complaints (registration)
	Hosting of conferences for VOC (Voice of	Enhancement of VOC management	Customer satisfaction surveys
	Customer) analysis and information sharing		
	Launch of the worksite visit program	Expansion of scope of the worksite visit	Expansion of worksite visits by leaders and
		program and upgrading of means of VOC collection	engineers and securing of core VOC data
	Holding of orientation sessions and	Provision of tailored information	Participation in more than three Korean
	participation in numerous exhibitions		and international exhibitions
Quality innovations from	Launch of Quality Innovation TFT	Expansion of customer-oriented quality	Shorter time to reflect customer opinions
the customer's perspective		innovation activities	
Provision of correct infor-	Provision of safety labels	Expansion of provision of information	Prevention of violations with regard to ma
mation on products		on products	keting communication

\* DQMS (Doosan Infracore Quality Management System) \* QMS (Quality Management System) \* DFSS (Design For Six Sigma)

 $\mbox{{\fontfamily{\footnotember FMEA}}}$  (Functional Competency)  $\mbox{{\fontfamily{\footnotember FMEA}}}$  (Failure Mode and Effects Analysis)





#### Continuous Innovation of Products and Technologies

Management environments are deteriorating due to rapid changes in domestic and international business circumstances. Yet Doosan Infracore is gearing up for another leap forward as soon as the global economy recovers by securing differentiated fundamental competitiveness on the basis of continuous technical innovation. Most notably, Doosan Infracore thoroughly checks that the quality goal set for each product development stage has been met in an effort to enhance its product quality competitiveness. It has also improved its VOC handling processes to reflect customers' opinions on the ground more quickly and accurately.

#### Improvement of quality management systems

Establishment of organizations devoted to quality management: In 2013, Doosan Infracore established the Design Improvement Team for Mass-Produced Items under the Corporate R&D Division and an FQM unit under the Operations H/Q Quality Assurance Team in order to reinforce its collaborative system for quality improvements, supply products that are efficient and easy to use from the customers' perspective, and step up its quality competitiveness. Furthermore, it has established the Quality Innovation Team under the Quality Center to diagnose and upgrade the company's quality management processes from the customer perspective to reflect customers' needs on time.

Improvement of the DOMS (Doosan Infracore Quality Management System): Doosan Infracore continues to upgrade and standardize its quality assurance processes to secure quality competitiveness worthy of a leading global company. Doosan Infracore has also begun to establish an automatic quality performance analysis system targeting systematic data analysis, and has expanded the range of its quality management by increasing the number of geographical regions subject to its quality management. To help prevent the recurrence of quality issues, it has built a database concerning the quality objectives for and the results of the development of excavators and engines along with chronological accounts of any quality issues that arise. In addition, Doosan Infracore runs schooling programs for quality competency with

the purposes of improving the professional capabilities of personnel in charge of quality assurance and promoting the smooth transition of key functions assumed by its technical employees to other employees. In order to equip itself with an integrated quality management system befitting a leading global company, Doosan Infracore is planning to extend the application of its DQMS to its overseas worksites and suppliers.

QMS (Quality Management System) Evaluation: Following the establishment of an optimized quality management evaluation system, Doosan Infracore is building a quality evaluation system for its supply chain including its suppliers. Currently, the company is implementing its QMS evaluation in Korea, China and Norway, and will continue to boost its power of execution by accumulating expertise in quality evaluation, expanding its application to other areas, and developing the QMS further.

Establishment of a global quality network: : At Doosan Infracore, the Quality Center of the Operations H/Q takes the lead in monitoring the diverse quality issues that arise around the world. It has built a global collaborative network with quality and service organizations in China and Norway to create synergy for quality improvements. Doosan Infracore will work ceaselessly to produce products that earn praise and recognition all around the world.

#### **Enhancement of R&D Capabilities**

Increased investments in R&D: Doosan Infracore is engaged in a project to enhance its fundamental competitiveness by investing KRW 1.199 trillion in R&D for four years starting in 2013. Of the total R&D budget, it will pour about KRW 757.2 billion into its key business areas such as construction equipment and engine materials in a drive to boost competitiveness in its core business areas for three years starting in 2014.

In 2013, Doosan Infracore carried out a series of organizational reforms: It set up the Corporate R&D Division and the Quality Division, and built the Integrated R&D Center to bring together its research personnel from across the country to a single location and create synergy. Doosan Infracore is working to

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increase the proportion of its key personnel involved in product development to the level of global leaders in the industry in a bid to enhance its technological development competency. It has also built a system whereby researchers' expertise is reinforced and respected through the introduction of a functional competency (FC) system devoted to technical personnel. To equip itself with upgraded product development capabilities, Doosan Infracore offered DFSS Black Belt education (Term 1) to the head of the Corporate R&D Division and twenty-two Part Leaders who had previously completed the DFSS (Design for Six Sigma) Green Belt courses.

Through DFSS and other diverse means, Doosan Infracore has secured robust design capabilities, established processes and organization for engineering data management. To help invigorate its R&D corporate culture, Doosan Infracore has also introduced round-table conferences and the Life Caring system. In 2013, it launched an ideas competition within the company with the aim of securing capabilities to develop new technologies while trying to spread a dynamic R&D culture companywide. Some 207 teams participated fresh ideas to the contest. The Grand Prize went to the team that proposed a 'Wireless Control & Monitoring Application for Excavators via Smartphone.' All the ideas are being carefully reviewed for potential patent applications, and some of them may be reflected in the mid-term strategic plan of the Corporate R&D Division.

**R&D Direction:** Doosan Infracore has established NPD (New Product Development) processes with respect to regulations, safety and quality to make quality innovation a constant concern right from the product development stage. The Corporate R&D Division is composed of three departments: the Development of Large Heavy Equipment, which carries out research and development on the company's core products like excavators and wheel loaders; the Development of Engine Products, which concentrates on the development of engines that meet regulations on emissions and fuel efficiency; and the APDC (Advanced Product Development Center), which is striving to develop advanced core technologies. The division is primarily

focused on R&D activities that enable the company to secure differentiated technological edges and the establishment of advanced engineering processes. Having set the years 2013 and 2014 as the "phase of concerted efforts to solve quality issues," the division is now working to fix the quality issues of its electric and electronic units. It has also set the year 2018 as the deadline for enhancing the Emotional Quality of its products. It is seeking improvements in its machine tools and engines in terms of operability and convenience. It is working hard to boost its product competitiveness through the development of highly profitable market models for the mining and forestry industries. In the area of research on machine tools, the division is focusing on the development of super-precise, super-fast and high-strength machine tools by drawing upon sophisticated electronic control technologies. The division places particular emphasis on the development of high valued-added top-tier products in business sectors with great potential for continued growth such as the aviation and energy

Development of customer-care products: Doosan Infracore is committed to developing products that are safer and healthier for consumers to use and which deliver excellent performance and operational efficiency throughout its entire product development process. Doosan Infracore's commitment to enhancing the emotional quality is reflected in every single process of its product development.

At the product planning stage, Doosan Infracore carefully examines various countries' technical regulations as well as international standards in such areas as GHG emissions, fire, explosion, noise, heavy equipment operator's field of vision, vehicle rollover, electromagnetic waves, and toxic chemicals before drawing up any plans to develop products and implement verification. Doosan Infracore currently reflects major key technical regulations such as the "Rules on Safety Standards for Construction Equipment" of Korea; the Machinery Directive of Europe; OSHA (Occupational Safety and Health Administration) and MSHA (Mine Safety and Health Administration) of the USA; and the GB Standard of China in its product development

#### Major R&D Performance in 2013

Category	Development records	Major development contents	Departments concerned
Improvements/	47 cases	Quality improvements of mass-produced excavators and wheel loaders and	Corporate R&D Division
Upgrades		relevant verification / Development of technologies designed to improve anti-	
		abrasion and prevent oil leakage from hydraulic machine tools / Development	
		of means to reinforce the performance of generator engines / Development of	
		means to optimize the performance of driving gear for fast high-powered engines	
		/ Development of high-intensity casting materials	
		Development of technology that reduces friction in machine tools / Development	Machine Tools Business
		of technology to compensate thermal deformation in machine tools	Group R&D
New technology/	85 cases	Development of excavators and wheel loaders that meet the Tier-4 Final Emission	Corporate R&D Division
product		Regulations / Development of excavators and wheel loaders targeting China and	
		other emerging markets	
		Development of next-generation multitasking machine tools	Machine Tools Business
			Group R&D
Total	132 cases		

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FC (Functional Competency): fostering job experts

### <u>p.46</u>

Beginning of another leap through technologyintensive products (Machine Tools) p.24



Compact diesel engine - At the heart of the growth p.21

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Efforts to secure technology quality through freezing weather tests p.30

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Design capabilities to design an emotional quality (Integrated Design Center) p.31 plans. At the design stage, Doosan Infracore prevents problems from occurring by systematically reflecting customer demands. It endeavors to ensure that high quality products are developed by checking whether a product is designed according to the predetermined product development goals. During the final verification stage, the company not only has the product performance tested and verified by licensed external institutions but also continues to further improve product quality through voluntary additional tests including product performance tests during the freeze-up period.

Since March 2013, the company has published The PSC Times (Product Safety & Compliance), a monthly magazine on regulations for heavy equipment in a bid to raise awareness of the importance of product safety among its employees. The magazine places particular emphasis on product safety standards and technical regulations. As part of its efforts to upgrade the emotional quality of its products, Doosan Infracore opened the Integrated Design Center in Yongin, Korea for the first time in the construction machinery industry in Korea in December 2013. Equipped with all the necessary human and physical resources, the center is expected to produce innovative product designs that will perfectly satisfy our customers' needs for outstanding emotional product quality.

Development of eco-friendly products: Doosan Infracore is concentrating its resources on boosting its business competency through the development of a range of next-generation products such as hybrid excavators and eco-friendly engines. It is also striving to enhance its fundamental competitiveness by establishing systems that can cope with its customers' needs while simultaneously meeting the increasingly strict environmental regulations well in advance. For

instance, Doosan Infracore launched the mass production of its small, eco-friendly diesel engines equipped with D-ECOPOWER, an eco-friendly high-fuel-efficiency technology, in 2013. E-ECOPOWER is Doosan Infracore's creative proprietary technology that improves fuel efficiency via the electronic control of hydraulic pumps. The nine sensors installed on the system calculate the amount of oil and operational power required to operate excavators. Controlled by hydraulic pumps, the sensors supply only the required amount of fuel to the equipment in operation, thereby raising operational efficiency while reducing fuel consumption sharply. Following its launch in European markets, the 38-ton excavator equipped with E-ECOPOWER was launched in Korea in January 2013. Compared with previous products, the model features superior fuel efficiency (improved by more than 20%), reduced fuel consumption (12%), and enhanced operability (20%). Doosan Infracore plans to apply the E-ECOPOWER technology to its lineup of large excavators of more than 40 tons or above.

#### Doosan Tech. Forum



Doosan Group emphasizes R&D to secure differentiated competitiveness, and generously compensates its employees' positive results and innovative attempts. In 2013, it held the Doosan Tech. Forum with the purpose of creating opportunities for the company to enhance its technological competency and seek new technological convergence while boosting the staff's pride. The forum was attended by more than 650 technical staff and executives of the company based at home and abroad including Chairman Yongmaan Park. A total of 225 technical papers were presented, followed by special lectures by experts. The papers were presented in seven sectors including machinery, materials, electricity and electronics, and construction and technology management over a period of two days. The Grand Prize and thirteen prizes for excellence were awarded to the best teams along with cash prizes and plaques.

Hyeon Sik Ahn, a senior researcher at the Corporate R&D Division, along with his three co-authors, presented a paper on "The development of the PCA (Pump Controlled Actuation) hydraulic system to improve the fuel efficiency of excavators,' which was selected as the Grand Prize winner. Three other papers were awarded the first prize for their excellence. The PCA system presented by the grand prize winning team has significantly improved fuel efficiency: it is estimated that when applied to an excavator, the system will deliver a whopping 29.1% fuel improvement effect. Doosan Group will continue to hold the Doosan Tech. Forum every year to share the technical accomplishments of its staff and executives around the world and boost exchanges among experts in different technology areas while creating technological synergy.

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#### Continuous Quality Innovation

Production of defect-free products: To minimize defects at the production level. Doosan Infracore carries out various innovation activities such as the prevention of corrosion in canning parts, improvements in the cleanliness of hydraulic parts, upgrades in the precision of the cuts, and standardization for welding. The company also strives to prevent its suppliers from producing defective parts in the first place through various measures such as the promotion of 3P6S\*, improvements in outgoing inspection systems. enhancement of testing power during test runs, and concerted efforts to improve quality at the initial marketing stage. As a result, the company reduced the number of initial consumer product quality complaints (registration) by 31% in 2013 over 2012. The number of quality complaints (registration) at the front office has fallen by 66% in Korea and 94% in China.

\* 3P6S: Three 'P's (Proper Items Proper Quantity and Proper Place) and six 'S's (Safety, Sort, Straighten, Shine, Standardize and Sus-

Development of key parts: In 2013, Doosan Infracore launched the Parts Quality Innovation 330 Campaign for those suppliers most likely to cause disruptions in the company's manufacturing processes. The initiative was designed to cut the defect rate in manufacturing processes by 30% to make sure that the company is supplied with better quality products by its suppliers. For nine months in 2013, the company made concerted efforts to improve the quality of its suppliers' products. A total of 75 suppliers participated in the campaign in three groups. As a result, the Incheon Plant demonstrated a 61% improvement rate in its process quality over 2012, and is planning to make another 20% improvement within the first three months of 2014. Doosan Infracore continues to make improvements in its kPPM (a defect ratio during 100 hours) by implementing constant quality management efforts. It is also concentrating on the development of key parts to supply custom-tailored products to its customers. In 2013, DISD (Doosan Infracore Shandong Co.), China succeeded in developing the wet-type axle and the hydro-mechanical transmission comprising the power system of wheel loaders. The new parts have significantly improved the performance of the company's wheel loaders. The hydro-mechanical transmission is a key part of a wheel loader. It accounts for more than 90% of the market share in China as its price-performance ratio is simply outstanding. The Chinese subsidiary started its development project in 2011 and succeeded in developing the DT501, its original transmission model, in 2013. The DT501 continued to earn praise for its high quality from the company's customers throughout its trial period in 2013, and will be mass-produced in January 2014. Doosan Infracore will work harder to develop the world's highest quality key parts including electronically controlled automatic transmissions.

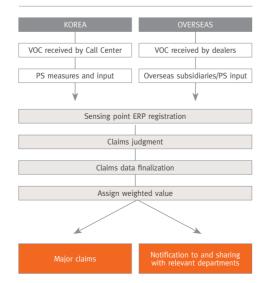
#### **Consumer Communications**

The Operations Division of Doosan Infracore shepherds the quality innovations of the company's machine tools sector under the slogan of "Customer First, Quality First, I Act First" in an effort to advance its organizational culture. That means that the company believes that the Customer should be its highest value and Quality its top priority throughout the entirety of its business performance. It is also a reflection of the company's strong commitment to realizing 'customer-centered' values, the key mandate of the Doosan Way.

#### **Enhancement of Customer Satisfaction**

VOC management (reflection of customer opinions): Firm in the conviction that "answers lie in the voice of the customer (VOC), the highly qualified technical staff of Doosan Infracore visits its major customers at least once a quarter and listens to them carefully. The company runs the VOC Center, which always offers high quality customer service and resolves customers' inconveniences as quickly as possible. Doosan Infracore has also developed a series of quality indicators to better represent the quality level of the company's products from the customer's perspective, such as indicators of the repetitive defect rate and the major defect rate, in a bid to continue to make customer-centered product improvements in quality. Specifically, it holds VOC Meetings to share the customers' voice with its suppliers. The participants carefully analyze the customers' inconveniences as well as their outright demands for improvement. Doosan Infracore also implements NPD (New Product Development) Process to reflect customers' voices in the product development stage. Through this, the number of customer complaints (registration) dropped by 16% over 2012 on the basis of the head office in Korea, Meanwhile, in 2013, Doosan Infracore China Corporation (DICC) was ranked first for the ninth consecutive year in a national customer satisfaction survey of all the excavator manufacturers in the country in recognition of its continuous efforts to enhance customer satisfaction. In 2014, it has set itself the goal of reducing the number of customers' initial quality complaints (registration) by 23% over the previous year. Doosan Infracore is also planning to conduct a companywide customer satisfaction survey.

**VOC Reflection System** 



now products hy reflecting customer feedback

Construction Fauinment p.34

Machine Tools

9

Beginning of another leap through technologyintensive products [Machine Tools] p.24

Quality Innovation p.30

3

Provision of customized information: Doosan Infracore provides its customers with accurate information on its new product lineup by hosting regular invitation-based customer events and participating in various international exhibitions. At exhibitions, the company provides its customers with all the necessarv information in a more customer-friendly way by arranging outdoor booths for more effective communication with them and by participating in exhibitions with its suppliers to be able to provide more details in addition to product demonstrations. To enable its customers to obtain the information they need anywhere, anytime, Doosan Infracore has built the DIDIM (Doosan Infracore Dealer Information Management) system, an integrated customer management system that is accessible from customers' mobile devices.

#### **Ouality Innovations from the Customer's Perspective**

Doosan Infracore runs Quality Innovation Task Force Teams in Korea and China to resolve customer claims within the shortest possible time. This initiative is designed to enhance the competitiveness of the company's products in the market by responding to customers' demands quickly and accurately and offering fundamental solutions to any chronic quality issue. In Korea, the TFT comprising eight functional groups including electric & electronic units, hydraulic parts, interior trim and engine worked for 100 days between April and July 2013 with a total of 89 technical staff on the team. In China, the TFT consisting of six functional groups such as electric and hydraulic labored for 120 days starting in August 2013 with 66 technical staff from around the country and a number of support staff from Korea. These task force teams identified 516 improvement tasks in Korea and 564 in China. The company is now applying the solutions devised by the teams through painstaking casual analysis to its new product specifications.

#### Fair Marketing

Doosan Infracore abides by the laws pertaining to sales, marketing and information security, and consequently was not subject to any legal sanctions due to exaggerated or false claims in advertisements in 2013. The company is taking various measures to enhance its stakeholders' convenience in obtaining information on the company's performance. One example is the improvement of its website to meet the requirements of the Web Accessibility Standards while enabling the blind to access the company's online information more conveniently.

#### **Product Labeling for Customer Safety**

With respect to various measures related to product liability and safety, Doosan Infracore stipulates the scope of functional duties and the methods of promotion throughout the entire product lifecycle from design to sales to after-sales service. To ensure correct and safe operation and maintenance of equipment and machine tools. Doosan Infracore provides safety labels of three levels - danger, warning and caution according to the severity of the risks involved. It places the key content of which customers must be aware at the beginning of its product manuals to emphasize the importance of the information. Doosan Infracore produces safety labels to be attached to construction equipment according to ISO 9244 while following ISO 6750 for the operator manuals supplied together with its products.

\* Doosan Infracore complies with various customer safety standards including the European Safety Standards, China Safety Standards, and Product Liability Act of Korea. It is also implementing various

#### **Enhanced Customer Data Security**

Established in 2012, the Data Security Team is responsible for companywide personal information security, with the head of each department playing the role of a working-level data protection officer. Encryption for the personal information DB has been completed. Comprehensive monitoring is conducted to detect suspicious behavior regarding the leakage or misuse of data, as well as an unauthorized reading of data outside work hours and excessive accessing of data. Systematic training and guidelines are provided to the personnel who work in departments dealing with personal data. Training is also provided at delivery companies, training centers and other outsourced service providers that are provided with personal data. In addition, the storage of citizen ID numbers in the personal data management system has been minimized. Constant monitoring of access to the system is also carried out. Doosan Infracore has never been sanctioned for a leakage of personal data or a violation of the relevant laws during the past three years.

#### **Quality Innovation TFT**



The task force teams are expected to bring more than KRW 7 billion by 2015 to the company in terms of improved product quality. One of their innovative solutions to a chronic problem is the resolution of shark antennas which tend to break easily during equipment operations in mountains, for instance, due to the presence of numerous obstacles there. The new idea is an antenna pattern treatment on windows. This creative solution will not just prevent damage to antennas but also improve the reception of radio waves, not to mention the fact that it is a unique feature available only with Doosan products.

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# EMPLOYEE VALUE PROPOSITION

The fundamental competitiveness of Doosan Infracore begins with its people. The company achieves business growth through people's growth, and invests the fruit of its business growth into the growth of its people. The company has named such a virtuous circle approach the 2G Strategy (Growth of People, Growth of Business), signifying harmonious growth between people and business.



M: Material Issue				
		KEY ISSUE		
1	2	3	4	5
Respect for Human Rights and Protection of Diversity (M)	Employment and Employment Relations M	Implementation of HR Management	Enhancement of HR Development	Establishment of Win-Win Labor Relations

		PERFOR	RMANCE CHART	
_	GOAL	2013 PERFORMANCE	2014 PLAN	2014 TARGET
1	Respect for human rights	Revision of the Code of Conduct	Establishment of educational systems of ethical management	Establishment of educational systems
	Protection of employees' diversity	Establishment of the Female Employee Council in Corporate R&D Division	Expansion of the Female Employee Council	Launch of a pilot project of the Female Employee Council
2	Improvement of employment relations	Promotion of 80 temporary workers to full-time positions	Additional promotion of temporary workers to full-time positions	Reduction of the proportion of temporary employees to 1% level
		Extension of retirement age and introduction of a wage peak system	Implementation of the systems and amendment to relevant regulations	Implementation of orientation meetings for all employees
3	Implementation of fami- ly-friendly management	Introduction of the family care leave program	Encouragement of participation in the family-friendly system	Publicity of systems related to childbirth and childrearing
4	Enhancement of job competency	Establishment of a job experts system	Construction of an FC system and institutionalization of support measures	Construction of an FC system for all corporate jobs
		Construction of a welding training center and establishment of parts assembly training shop	Enhanced cultivation of technical specialists	Establishment of the Technicians Plaza
		Establishment of the EDU system Introduction of the learning credit system	Stabilization of a self-initiated study culture	Support for study clubs and voluntary achievement sharing occasions
5	Formation of a win-win labor culture	Operation of Worksite Competitiveness Enhancement Committee Stabilization of a culture of mutual respect	Support for enhancement of fundamental worksite competitiveness	Operation of regular dialog channels

KEY PERFORMANCE INC	DICATOR		
Female employees (Unit: %)	Older employees (over 55) (Unit: Persons)	Maternity and childcare leave of absence (males) (Unit: Persons)	Maternity and childcare leave of absence (females) (Unit: Persons)
8.47	278	171	68
7.44	233		
			32
			21
2013	2013	2012	2012



#### 1. Respect for Human Rights and Protection of Diversity

Doosan Infracore favors strong teamwork based on fairness and warm-heartedness. The company strives to build a corporate culture whereby the company selects, assigns, evaluates and cultivates talent according to reasonable criteria and principles while employees present their diverse opinions freely and communicate with one another with an open mind.

#### Respect for Human Rights

Following Doosan Group's declaration of the Doosan Way in 2012, Doosan Infracore proclaimed its new Code of Conduct in 2013. The Code of Conduct consists of 'Inhwa' (fairness, harmony and respect), 'Integrity and Transparency', 'Fair Competition', 'Customer-orientation/Innovations and Growth', and 'Social Contributions/Safety and the Environment'. The company not only urges its employees to implement the Code of Conduct as the guiding principles for their business activities, but it also strongly recommends its suppliers to comply with the code faithfully. The Inhwa section of the code calls on employees to respect their colleagues' human rights and work towards open communication with one another. The company believes that Inhwa enables its employees to build genuine teamwork amongst themselves on the basis of pride and warm-heartedness. As declared in the Doosan Way and the Code of Conduct, Doosan people respect each individual's unique characteristics. They are never subjected to discriminatory treatment in employment, evaluation and remuneration on the grounds of their gender, religion, disability, age, social status, regional background, nationality, ethnic background, physical condition, marital status, pregnancy and childbirth, family type or status, race, skin color, ideology or political convictions, sexual orientation, educational background, or medical history. The company does not tolerate inadequate language or acts such as verbal abuse, violence or sexual harassment that harm the company's spirit of Inhwa. It never treats its employees unfairly on the grounds of personal connections between executives and staff members such as academic or regional backgrounds.

\* Compliance to ILO (International Labour Organization) standards: Doosan Infracore complies with the international labour standards of ILO, respects the freedom of association, and supports ILO's policies for the end of unfair discrimination among workers, child labour, and forced/compulsory labour.

#### **Protection of Employees' Diversity**

Doosan Infracore considers its 14,309 employees across the world the driving force behind its growth and development. As of the end of 2013, the company employed 5,655 Doosan people in Korea and 8,654 overseas. Doosan's employees in Korea include 5,515 full-time employees (97.5%) and 140 temporary workers (2.5%).

Their average term of employment with the company currently stands at 12 years and 11 months. In the Corporate R&D Division, the proportion of female staff has risen 350% over the past five years. In 2013, the company was awarded the 'Proper' class by the Ministry of Employment and Labor in its 'Evaluation of Employers' Active Efforts to Improve Employment Conditions' in recognition of the company's diverse systems and programs designed to increase female employment and cultivate female managers along with the company's appropriate planning to improve its employment practices. The company will do its very best to increase the proportion of female managers in keeping with the rising proportion of female employees among the company's new recruits year after year. In 2013, the female employees at the Corporate R&D Division formed the Female Employee Council for the first time in the company's history. The council is taking a leading role in the protection of corporate diversity, as well as contributing to the promotion of a corporate culture that respects diversity through the publication of a newsletter and the arrangement of special lectures on this topic for the company's employees.

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#### 2. Employment and Employment Relations

Doosan Infracore complies with the conventions adopted by the International Labor Organization (ILO). As a member of the UN Global Compact, the company supports the Compact's Ten Principles and accordingly prohibits discrimination, child labor and forced labor, and fully supports employees' freedom of association.

#### Improvement of Employment Relations

lob creation: Doosan Infracore does not discriminate against its temporary workers with regard to working conditions or welfare benefits as compared to its fulltime employees. It offers its temporary employees opportunities to advance to full-time employment through competency evaluations. In 2013, the company transferred 80 temporary workers in the areas of technology and product development and product testing to regular positions, which has not only enhanced their sense of belonging to the company but improved their productivity too. The company is planning to reduce the current percentage of temporary workers (2.5%) to around 1% in stages through gradual job reassignment. Labor and management in the Incheon plant signed a CSR implementation contract and, through job reassignment, have reduced employees' overtime work and hired 60 regular employees and 16 temporary workers in addition to the transfer of 17 temporary workers to full-time status based on competency evaluations.

Extension of retirement age: Due to rapid population aging, Korea is witnessing an increasing need for social stability through retirees' financially stable post-retirement lives and continuous employment opportunities for them into their later years. Thus an extension of the retirement age has emerged as a pressing social issue in Korea. In 2013. Korea revised the law and extended the official retirement age to 60 to take effect as of 2016. Doosan Infracore decided to implement the extension (from 55 to 60) two years earlier, in 2014 considering both the change in social atmosphere and employees' demand for earlier implementation. The company has introduced a wage peak system to absorb the financial burdens involved. The wage peak system is implemented from the end of the quarter when employees reach the age of 58 to the end of the quarter when they turn 60. During the period, their annual pay reduces gradually but never falls below 70% of their peak annual wages. The company plans to allow them to use their extended period at work to groom their potential successors and share their know-how with other colleagues while preparing for their post-retirement programs. Before their annual pay begins to decrease, they will receive their severance pay in advance or transfer their retirement fund to a DC (Defined Contribution) plan so that they will not suffer any financial disadvantage due to their deferment of retirement and the company's implementation of the 'wage peak' system.

Compliance with labor policies: Doosan Infracore is one of the local companies that have signed an agreement with the Ministry of Employment and Labor to comply with the ministry's guidelines on inhouse subcontract practices. The company not only

abides by all the rules and regulations with respect to in-house subcontracts but also supports its subcontractors' efforts to improve their workers' job security and working conditions. In June 2013, the company conducted a comprehensive inspection of its in-house subcontract practices amid increasing social concern about the matter, and found no case of a subcontractor working in the same production line with Doosan employees.

#### No Discrimination in Employment

Unlike other companies in Korea, Doosan Infracore prohibits its job applicants from indicating their course credits in their job application documents. It provides its employees with top-level remuneration packages as part of its efforts to motivate them to grow into high-caliber, yet warm-hearted Doosan people. Doosan Infracore ranks among the country's most highly preferred companies by job applicants. In 2013, the company was recognized by the Ministry of Employment and Labor as an excellent job creator. Doosan Infracore has never violated any laws on labor, fair trade or medical services. Nor has it ever breached the rules on the mandatory recruitment of persons with disabilities. It offers hiring preference to veterans and their families according to the relevant legislation too. The company also runs diverse business-education partnership programs, of which the 'Doosan Class' at the Kunsan Mechanical & Technical School is an outstanding example, and hires well-prepared young technical talents.

#### 3. Implementation of HR Management

On the basis of 'a warm-hearted merit system,' Doosan Infracore pursues the sustainable joint growth of the company and its employees. The company strives to improve its working conditions to create an organizational culture in which employees recognize each other's differences and engage in their work enthusiastically. The company works hard to expand the scope of its family-friendly management, and helps its employees to strike the right balance between work and family life and to improve the quality of their lives

#### Fair Performance Assessment and Compensation

The Doosan Infracore employee competency assessment is based on the concept of the ideal Doosan employee and conducted in an objective and fair manner. The assessment identifies individual strengths and areas that require further development, and then the appropriate opportunities for growth and nurturing are duly provided. The company's personnel management system is well established. It reflects visibly in performance assessments the growth of the individual in step with the Doosan Way. Performance assessment is carried out according to the MBO (Management By Objective) methodology. A one-on-one evaluation and feedback type interview is carried out between the evaluate and his or her supervisor. This approach heightens the employee's receptivity to the results and makes the link between performance and pay more transparent.

#### Implementation of the Doosan Way

2013 was the inaugural year for the implementation of the Doosan Way. Leaders took the initiative in the launch of diverse programs designed ultimately to develop the company into a strong yet warmhearted organization. In May, the company conducted a Doosan Way survey on all its employees. In August, it held 'the Dialog with the CEO 2013' to discuss the future directions of the Doosan Way campaigns. Under the theme of "Our Competitiveness, Our Future," the dialog began with presentations on the results of the Doosan Way survey, the outcomes of Quality Innovation TFT, ways of improving work efficiency, and methods of cultivating Doosan people. The entire session was videotaped and has been shared by all the company employees during 'Doosan Way Time.'

#### **Family-friendly Management Policies**

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The quality of employees' lives improves when the proper balance is struck between work time, family time, and leisure time. To this end, employees in Korea are provided with at least two weeks' summer vacation and a fringe benefit package including home loans, maternity leave, childcare, health checkups, medical treatment, and children's education. The company implements maternity and childcare leave of absence or shorter working hours to help employees with childbirth and childcare obligations. It also runs childcare centers and nursing stations at worksites to assist employees who have infants. Doosan Infracore has also introduced a special leave of absence which employees can use to care for their family members in need, personal development, or infertility treatment. In addition, the company implements 'Family Day' when employees leave work early and spend quality time at home once a month under the firm conviction that employees who are happy at home work better. It also helps employees' family members to better understand the company and to network with other family members through management briefings, the Doosan Family Culture Fair, and social contribution programs open to family members.

#### 4. Enhancement of HR Development

Doosan people strive to contribute to organizational development and improve their personal competency. They cherish the philosophies of Doosan and implement them faithfully. Doosan Infracore has set itself the HR cultivation target of 'fostering global leaders who will pioneer the organization's changes and innovations.' Through diverse educational programs, the company systematically supports its employees in their efforts to grow into global specialists in their respective areas, armed with a firm belief in Doosan values and culture and the type of leadership that it advocates.

#### **Enhancement of Job Competency**

Job competency cultivation system: To continue enhancing employees' competency, Doosan Infracore has established a job competency cultivation system that takes each individual employee's traits and capabilities into account. In 2013, it reinforced its internal expert cultivation track and overhauled its CDP (Career Development Plan) based on its employees' job competency. The company has also made improvements to the job expert pool, training facilities, and curriculum so that employees can engage in personal development activities completely by themselves and at their own initiative.

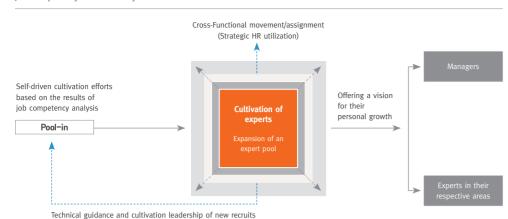
Cultivation of technical experts: Doosan Infracore fully respects its technicians' mastership and the self-esteem such expertise entails, and concentrates on the cultivation of technical experts who will lead corporate growth in the future. The company offers a total of 22 specialization training courses for six levels of positions. In addition, it provides courses for newly promoted personnel for each rank, and leadership courses designed to train human-centered worksite-oriented managers. In 2013, Doosan Infracore set up specialized training facilities for each of its key domestic plants including the Welding Training Center, an exclusive welding training institute, at the Incheon plant: the Assembly Training Shop, which offers product disassembly and assembly practice, and the Assembly/Hydraulic/Tool Practice Center at the Ansan plant: and the Machine Tool Training Center at the Changwon plant. The company also encourages its technicians to obtain national technical certificates, and grants 'master technician insignia' to those who have received master technician certificates in various areas as a symbol of the company's recognition of their expertise. The company is considering

Family-friendly Vacation and Leave of Absence Programs

	Contents	Eligibility	Period
Leave of absence for childcare	Leave of absence for childcare	Employees with children aged 8 or	Up to one year including one LOA
Shorter working hours during	Reduction of work week to 15-30	younger who are not elementary	and shorter working hours for
childcare period	hours	school students	each child
Pre-natal and post-natal	Childbirth-related leave	Female employees who have given	Paid leave for the first 60 days,
maternity leave		birth, had an abortion or suffered	unpaid leave for 30 days
		stillbirth	
		Male employees whose wives	Paid leave for three days
		have given childbirth	
Family care leave	Leave of absence for family care	Employees with a family member	6 months plus 6 months
		to care for (parents, children,	
		spouse, spouse's parent(s))	
Leave of absence	Leave of absence for inevitable	Employees wanting personal	6 months plus 6 months
	reason(s)	development or those in need of	
		infertility treatment	

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introducing a 'great technician system' and a technical executive system. In 2014, Doosan Infracore will build Technical Employee Plaza in the main building of the Incheon Plant, where the handprints of the company's best technical employees in various domains will be displayed in recognition of their contributions to the development of the company.

#### Establishment of the EDU (e-Doosan University) Sys-

tem: In 2013, Doosan Group launched EDU System, a group-wide comprehensive e-HRD portal that provides not only educational information but also diverse educational methodologies and tools. It helps employees find time for their personal development and engage in study at their own initiative. All the courses in the system are accessible from all manner of smart devices, thus enabling employees to study anywhere, anytime. The company is also planning to set up the R Development Index Standardization Management System, which will allow the company to effectively monitor and utilize all HRD-related activities.

Introduction of the Learning Credit System: In 2013, Doosan Infracore introduced the Learning Credit System, a mandatory academic credit system for office workers. The most outstanding feature of the system is that it allows employees to devise their own study plans and follow them at their own pace. The educational program is composed of 'Leadership Credits' designed to enhance leadership competency and 'Professional Credits' aimed at boosting job proficiency. The trainees grow into Doosan people equipped with both expertise and leadership.

**Study clubs:** Employees share their work experiences with one another and discuss better practices among themselves. These organizations are initiated by the employees themselves. The club activities are totally voluntary. In the case of office workers, 1,331 employees participated in the programs hosted by 130 study clubs in 2013. Study clubs for technical staff were launched in 2013. 185 technical employees participated in the activities organized by 25 technical study clubs during the year. Coaching leaders with technical certificates play a pivotal role in the operation of the clubs. About 70% of the club members are young employees - supervisors or below. The clubs contribute

to enhancing personal and corporate competitiveness: club members share the know-how they have accumulated in diverse fields and discuss potential solutions to various issues freely, making the best use of their different backgrounds and abundant experience on the ground.

Voluntary sharing of performance results: Employees voluntarily share the know-how they have amassed at worksites over the years with one another and discuss potentially better ways of approaching various issues. Such a trend is taking root. In the case of office workers, more than 1,200 employees participated in 36 meetings in 2013, sharing their collective intelligence under the leadership of experts in various fields, while the latter did not hesitate to share their valuable experiences and know-how with their colleagues. Specifically, they incorporated their award-winning innovations and improvements - including technical advancements and refinements - into their business practices. The participants also listened carefully to VOCs. The gatherings constituted valuable opportunities for genuinely open communication, both vertically and horizontally. In the case of technical employees, 'The Best of the Best Job Performance Share Fair' enabled participants to see the advancement and sophistication of the company's work processes at a glance, while the 'Intra-Plant Meeting to Share Practices' enabled those engaged in the same manufacturing processes at different plants to discuss their respective experiences and proposals for improvement. The year 2013 marked the eighth anniversary of 'The Best of the Best lob Performance Share Fair,' in which more than 200 people including all the executives, team leaders, technical employees, union officials and employees from the company's suppliers participated, sharing their experiences of excellent improvements in a variety of areas with one another. 2013 also saw the launch of the 'Intra-Plant Meeting to Share Practices,' which was attended by excellent theme leaders and worksite managers from six plants in Korea and China

#### **Cultivation of Global Talent**

**Enhancement of leadership:** Firm in the conviction that the destiny of an organization depends upon the commitment of its leaders, Doosan Infracore is

striving to cultivate global leaders who will pioneer future changes and innovations at the company. The company has developed leadership training programs designed to educate Doosan people of different ranks about the leadership skills they need and to help them internalize the contents. The training is being expanded in stages.

Global comprehensive education: Doosan Infracore has built up a network between the head office HRD and its overseas subsidiaries' HRDs to share key training courses through regular Global HRD Council meetings. In 2013, it launched the China HRD Committee for collaboration between the head office and HRDs in China. The company also opened the GCC (Global CFO Course), a global financial educational program, designed to upgrade the competencies of Doosan people around the world.

Education on the global work environment: Doosan Infracore is implementing 'Cross Cultural Training,' a job training program designed to help Doosan emplovees assigned to overseas posts adapt to local work environments more easily, including the study of local languages, culture, and business practices. Meanwhile, in 2013, Doosan Infracore launched the 'Value Sharing Program' whereby the head office invites new employees hired in China to Korea and takes them on a tour of the company's major plants in the expectation that they will gain a better understanding of the company as well as boosting their confidence and pride in the company and its products. The program also offered the visitors valuable opportunities to network with their colleagues at the head office with a view to forming working-level cooperative relations.

#### **Sharing Corporate Culture**

Mentoring program: In 2013, Doosan Infracore began to offer its mentoring program not only to new employees but also to new executives hired from outside and new technical employees hired via pathways different from new college graduates. Mentoring for executives is provided on the basis of one-on-one mentoring dialogs for six months. Emphasis is placed on helping them to acquire the leadership skills advocated by the Doosan Way and to internalize Doosan Infracore's unique organizational culture. For new technical employees, one-on-one mentoring is provided for nine months and helps them to acquire sound perspectives about the corporation and corporate culture.

Implementation of lifelong education: Doosan Infracore implements lifelong education to help employees achieve a sound work-life balance. In 2013, five courses including 'Humor and Public Speaking Skills' were offered. In addition, the company holds annual training courses for employees approaching the retirement age. Lectures are provided on 'goals in later life,' 'change management,' and 'health management solutions,' thereby helping participants make a smooth transition to their retirement.

#### Establishment of Win-Win Labor Relations

Doosan Infracore is proceeding with various labor-management cooperation programs while striving to establish a consensus between labor and management based on mutual trust and respect. In recognition of the company's contributions to good labor-management partnerships and industrial peace through the establishment of advanced labor relations, the Incheon and Gunsan plants were honored with the Grand Prize at the Industrial Peace Awards in 2013. The labor union in Shandong under DICC (Doosan Infracore China Corporation) was designated as the 'Exemplary Labor Union in the Province of Shandong.'

#### **Overall Labor Relations**

Since the launch of the 'win-win' labor union in 2012, the company has implemented major win-win cooperation programs such as 'the declaration of no more strikes for good,' 'the quickest conclusion of collective bargaining through the assignment of the right to set a wage increase to management' and 'improvements in the personnel system for employees in technology positions.' Labor and management have enhanced their communication via a number of regular dialog changels

#### Launch of the Worksite Competitiveness Improvement Committee

At Doosan Infracore, the 'win-win' labor-management culture is instrumental in its efforts to strengthen its fundamental competitiveness. In 2013, the company launched the Worksite Competitiveness Improvement Committee, which is composed of management, labor union and worksite managers. The committee shared information on management status and discussed major issues at worksites with the goal of enhancing the competitiveness of worksites. The committee held quarterly meetings at which the major agenda items included employees' suggestions for improvement, campaigns for a culture of mutual respect, and the staging of employee-oriented events. The committee has already emerged as one of the key communication channels between labor and management in the company.

#### **Labor Union's Support for the Company's Business Management**

The labor union of Doosan Infracore has worked to enhance 'win-win' labor relations by getting involved in the company's business activities, such as sales and marketing, not to mention its quality improvement efforts. The union also cooperated with management in the area of customer support. It took part in the Quality Innovation Resolution Fair 2013, joined forces with management in the company's visits to top-tier customers, participated in the meetings with invited customers, and wrote thank-you letters to customers - in the name of the union chairman. Furthermore, the union set up the Customer Support Department to provide more actual customer support.

<sup>56</sup> CSR management system & management overview

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Establishment of the integrated EHS system
 Mutual growth through win-win cooperation

Development of local communities through CCI

# ESTABLISHMENT OF THE INTEGRATED EHS SYSTEM

worksites

Improved employee health Enhanced follow-up care after physical

**KEY PERFORMANCE INDICATOR** 

examinations

management

Class A by the MOEL)

Implementation of a win-win cooperation

program for safety and health (granted

As a global corporate citizen, Doosan Infracore acknowledges the severity of climate change and the importance of taking responsive measures. It strives to minimize negative impacts on its stakeholders throughout its entire business process. Doosan Infracore considers EHS (Environment, Health and Safety) to be crucial. It has set the following as the strategic directions of its EHS management: (1) enhanced efficiency through an integrated EHS system; (2) strengthened leadership and expertise of EHS personnel; (3) establishment of an autonomous safety protection system; (4) and enhanced prominence of EHS management. It has established a companywide integrated EHS management system.



M: Material Issue

1

Integrated FHS

Management

2

Energy and Climate Change Response M 3

Management of Pollutants and Environmental Impacts on Local Communities M

Prevention and Management of Employees' Safety and Health Risks

Maintenance of Class A awarded by the MOEL

4

#### 2013 PERFORMANCE GOAL 2014 PLAN 201/ TARGET Global implementation of EHS evaluation Continued evaluation in existing areas and Subsidiaries in Korea: 80 points expansion of evaluation to North America Subsidiaries out of Korea: 70 points grated global management (4 plants in Korea, 3 plants in China, 3 plants in Europe) Upgrading of EHS standards Upgrading the EHS IT system Publication of integrated EHS Academy integrated management Completion of EHS job analysis Operating the EHS Academy education manuals system Responsible responses to Establishment of a companywide climate Laying the foundations for implementation Establishment of mid- to long-term climate mate change change response system of the emission trading scheme change response strategies and carbon reduction roadman Management of GHG Operation of energy conservation TFT Voluntary monitoring and management of A 1% more reduction than legally Reduction of GHG emissions by 13% more additional GHG emission sources permitted levels than planned Enhanced monitoring of environmental Emissions within 40% of the legally Minimization of environ-Establishment of a dust sealing system Replacement of wastewater treatment carriers impacts mental impacts on local permitted level Natural recovery of polluted soil Enhanced communication Operation of the Council on Environmental Analyzing levels of impact on different Drawing up diagrams of stakeholders' degrees with stakeholders Improvements in local communities stakeholders of relationship Establishing IT-based real-time monitoring Installation of movable CCTV systems at Enhanced management of Self-certification of voluntary management of risk factors in 159 jobs worksites Enhanced management of A 30% improvement in hazardous working Continuous monitoring and improvement 30% reduction in industrial accidents over the conditions safety and health of hazardous working conditions previous year Provision of medical team services at

Enhancing suppliers' EHS management

Operating stress management programs 
Opening of two counseling centers

KEY ISSUE

PERFORMANCE CHART

# (Unit: tCO,eq) Non-compliance with environmental standards (Unit: No. of cases) 1 \* 0.39 1 \* 0.39 1 \* Failure to meet the reporting requirements on water discharge at the Gwangju Plant, for which a penalty was imposed.



#### 1. Integrated EHS Management

At Doosan Infracore, the EHS Planning Team at the head office controls and supports the company's worldwide EHS management efforts. In 2013, the company's efforts to build eco-friendly worksites were recognized in Korea by the Excellence Prize at the Green Enterprise Implementation Awards of Changwon City; the Saemangeum Regional Environmental Office Director Award; and the Nakdong River Basin Environmental Office Director Award.

#### Construction of an Integrated Global Management System

To upgrade its EHS management to the level of a global industrial leader, Doosan Infracore carried out its own EHS evaluation of all of its workplaces around the world in accordance with the DSRS\* evaluation criteria. The results indicate that at the four plants in Korea, including the Incheon plant, workers identify work risks and manage them appropriately on their own, and the company's suppliers also demonstrate an exemplary level of EHS awareness. The six plants in China and Europe showed a keen interest in EHS and exclusive EHS departments were offering appropriate technical and administrative guidance services. Doosan Infracore is planning to expand the annual internal evaluation to North America in 2014.

\* DSRS (Doosan EHS Rating System): The EHS evaluation system was developed by Doosan Group to evaluate the EHS level of each worksite quantitatively and encourage them to make improvements on a continuous basis.

#### **Construction of an Integrated Management System**

Enhanced competency of EHS personnel: Doosan Infracore built the FC (Functional Competency) System in 2013 in order to train EHS specialists, and plans to launch the EHS Academy in 2014, with the relevant education and training scheduled to start during the same year. Instead of sporadic EHS education provided at the individual or team level, Doosan Infracore will offer systematic EHS education through the professional training systems established at the EHS Academy, and upgraded EHS education will be offered. As such, big differences will be made in the company's performance in the cultivation of EHS experts. Since 2011, the company has held biannual EHS seminars companywide, including its overseas subsidiaries, in an attempt to improve the competency of EHS personnel worldwide and have them share relevant information with one another.

#### Construction of an integrated management system:

Doosan Infracore built its integrated EHS IT system in 2013 to bolster its EHS management process and establish a solid basis for responding to diverse worldwide restrictions. The EHS IT system involves the development and implementation of 249 programs targeting 31 work processes, and is classified into EHS business management, safety management, environmental management, firefighting management, healthcare management, and greenhouse gas management. The EHS IT system consists of various elements including the ERP-based system for EHS managers, EHS portal (Web) for field staffers, and mobile EHS (smartphones, table PCs) for field use. Thus, real-time information exchange and management has become a reality. The constructing of an integrated EHS IT system will shorten the time taken for Doosan people to collect and analyze information, enabling managers to make decisions faster, which in turn will improve their work efficiency to a significant extent.

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FC (Functional Competency): fostering job

CSR management system & management overview

<sup>66</sup> Enhancement of customer value and quality competitiveness

<sup>72</sup> Employee value proposition

Establishment of the integrated EHS system
 Mutual growth through win-win cooperation

#### 2. Energy and Climate Change Response

Fully aware of the seriousness of climate change, Doosan Infracore has worked out countermeasures and implemented them companywide. Due to the characteristics of the company's processes, the consumption of indirect energy sources is much higher than that of direct energy sources. Nevertheless, the company has measured the GHG emissions of each of its worksites and received external independent assurance about its efforts since 2004.

#### **Responsible Responses to Climate Change**

All of the company's worksites in Korea have been designated by the government as workplaces subject to the country's GHG and Energy Target Management System. Since 2011, the company has set GHG emission reduction targets for worksites in each region and by business sector. The company has met the country's legal limits on GHG emissions. To promote response measures to climate change more effectively, the company formed an exclusive team and staff. In 2013, it began operating a companywide energy conservation task force to promote the reduction of GHG emissions in each business sector systematically. Doosan Infracore has also estimated its mid-tolong-term GHG emissions and worked out a roadmap for GHG emissions reduction in preparation for the implementation of the emission trading scheme in 2015 and as part of its strategic response to climate change in the medium and long term. The company will measure GHG emissions at its three production subsidiaries in China and conduct diagnosis and analysis before taking action to reduce the quantity thereof. The Chinese subsidiaries will continue to expand the scope of calibration and management of their GHG emissions to include Scope 3 emissions and indirect emissions, including those from employee commuting and business trips.

#### **Management of GHG Emissions**

Doosan Infracore's companywide GHG emissions are managed according to the Rules on GHG and Energy Management. Energy consumption is measured by gauges at each plant and production line and by energy type (electricity, LNG, etc.). The results are fed automatically into the Energy Monitoring System in the company's integrated EHS IT system. Specifically, the GHG Management System, part of the integrated system, automatically converts, analyzes and reports the data collected by the integrated system.

#### **Enhancement of Resource Efficiency**

Through the introduction of an automatic valve system for condensed water, the Incheon plant solved the problem and improved its energy efficiency. In 2013, it saved more than KRW 147.84 million in conserved energy by carrying out some plumbing work and installing automatic traps. The Changwon plant connected water pipes to the pipes of high-temperature (110) exhaust gas emanating from boilers. and established waste heat recovery processes that generate hot water. With a production rate of about 66.000 Kcal per hour from the re-generated hot water. the Changwon plant saved about KRW 19.16 million in 2013. The Changwon plant has also replaced the old ceilings of its factory buildings with waterproofing material with high insulation effects to reduce the loss of latent heat and boost the thermal effect of the structures. The reinforcement of the waterproofing layer has had the effect of temperature correction. and the adiabatic constant rose, raising the average temperature inside the buildings by about 3°C. It is estimated that the Changwon plant will save about KRW 43.2 million in fuel costs each year.

#### 3. Management of Pollutants and Environmental Impacts on Local Communities

Doosan Infracore strives to create pleasant working conditions and minimize negative environmental impacts on local communities. To this end, the company has introduced eco-friendly waste treatment methodologies; is enhancing its monitoring and supervision of its emission of pollutants; and is implementing diverse measures aimed at reducing pollutant emissions and bringing about other significant changes. For further information on the company's utilization of resources, waste disposal and other initiatives, please refer to the CSR Performance Sheet in the Appendix.

#### **Management of Environmental Pollutants**

Management of odors and air pollutants: Doosan Infracore has introduced the odor reduction technologies of advanced companies from Germany and lapan. The company has paid considerable attention to the fact that the odors emitted by its plants originate largely from the combination of various chemicals such as organic solvents, ammonia, and sulfur. Thus it has introduced facilities and technologies capable of tackling each of the sources of odor separately during different processes - an approach that has helped the company reduce odors significantly. By investing continuously in eco-friendly, high-efficiency facilities, the company is reducing the number of processes that generate pollutants. Doosan Infracore always sets its bar for environmental protection higher than the country's legal requirements, and continues to reduce its overall generation of pollutants through earnest efforts for improvement, while taking the bold decision to shut down or transfer some of its manufacturing processes where necessary.

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CSR facts and figures p.100

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Caring for its operation sites and the environment of local communities (Plants in Incheon and Changwon) p.48

Management of hazardous substance (oils): In 2012, the Incheon plant began to replace its oil pipes. The plant also ran educational courses on the handling of dangerous goods with the aim of fostering DGR license holders, and increased the number of license holders to 18 (up from the legal requirement of 8), thereby bolstering its human inspection resources and practices. The inspection results of the company's safety officers in charge of handling hazardous materials are collected by the companywide integrated management system in real time via a mobile system.

Management of hazardous substances (gases): To prevent explosions caused by gas leaks, Doosan Infracore has completed the upgrading of its facilities, including the replacement of gas containers and breakers, and removed unused or idle gas facilities from worksites to minimize safety hazards in its plants. The company has also educated gas handlers and appointed licensed personnel in order to strengthen its human inspection management, and modified its rules on and standards for gas facility installation and operation safety in keeping with changes in the detailed gas safety management rules.

#### Minimization of Environmental Impacts on Local Communities

Management of scattering dust: Doosan Infracore has built a dust sealing system designed to transfer and collect dust through sealed pipes using the air injection method rather than the existing fork lift transfer method. In addition, the company has remodeled its waste molding sand storage facility into a closed structure, installing roofton dust collectors to prevent dust from being dispersed outside. Furthermore, to reduce the dispersion of dust caused by vehicles moving within the plant, the company has installed automatic wheel and car washing facilities to thoroughly monitor dust dispersion. And, in order to continue improving the issue of dust dispersion. Doosan Infracore will use sealed pipes, and will build both dust transfer sealing management systems in all its major processes, and dust monitoring systems which enable real-time monitoring of discharge outlets.

Wastewater management: Doosan Infracore has replaced its Green Center SOD tank carriers. The company has also replaced facilities, engaged in continuous monitoring activities, and conducted a full investigation of its twenty-five especially hazardous materials on a regular basis to prevent environmental accidents, including untreated sewage spills into streams, and to tighten its control of government-designated hazardous chemicals whose discharge into waterways is strictly prohibited. Doosan Infracore's pollution control goals for discharged wastewater is better than the legally permissible level, and the company has continued to meet the targets.

**Soil management:** Starting in 2009, the Incheon plant conducted a two-year precision survey of its entire premises to identify the scope of soil quality resulting from its long-term business operation. The company voluntarily executed a three-year project (2011-13) to improve the soil. With an investment of KRW 6 billion, the company successfully completed Phase 1 of the project and improved soil quality in its business premises.

#### **Enhanced Communication with Stakeholders**

Doosan Infracore continues paying close attention to the environmental impact of its business operations on local communities. It enhances monitoring while striving to make ongoing environmental improvements with the purpose of creating a better clean living environment in and around its worksites. In 2013, it moved some processes in its foundry, and relocated the rainwater gutters of its engine factory. To prevent the leakage of odors and air pollutants from the foundry into local communities, the company has sealed the roof and ceiling windows at its plants altogether

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#### 4. Prevention and Management of Employees' Safety and Health Risks

Doosan Infracore identifies all potential risk factors faced by workers in connection with their operation of machinery and their work environments and deals with them preemptively. The company is promoting "the companywide voluntary management of risk factors by workers" to shift the focus to worker-initiated EHS activities instead of officer-led efforts.

#### **Enhanced Management of Risk Factors**

Voluntary management of risk factors: Doosan Infracore declared 2013 the inaugural year of the worker-initiated Safety and Health activities. It held a number of meetings to identify risks with the participation of workers on the ground. During the year, workers engaged in 159 different jobs obtained certification for their voluntary risk factor management efforts, and shared their major experiences with colleagues through public contests, while the company emphasized the importance of Safety and Health in its new educational training materials on the subject.

Implementation of EHS prizes: Doosan Infracore is enhancing its efforts to achieve an accident-free work-place through a variety of programs designed to promote employees' active participation in EHS activities and their internalization of the necessary safety measures around the clock. Doosan Infracore introduced EHS prizes in 2013 and awarded accident-free production units - at the level of the smallest organizational unit possible - in January and July, respectively. In addition, it held the Best of the Best Job Performance Sharing Fair in May to offer opportunities for employees to share their own outstanding EHS experiences with others, and the Voluntary Management of Risk Factors Contest in November in an effort to expand the base for its EHS activities.

Management of risk factors leading to musculo-skeletal disorders: According to Article 24 of the Occupational Safety and Health Act, Doosan Infracore conducts a survey on the risk factors for musculo-skeletal disorders every three years and tries to make improvements in all types of work involving excessive physical strain. Most importantly, Doosan Infracore operates the Musculoskeletal Improvement Implementation Committee which is composed of EHS officials, labor union officers, site managers and production supervisors. The members of the committee meet every month to discuss all the factors that might lead to excessive physical strain and find solutions together.

#### **Enhanced Management of Safety and Health**

Enhanced health management at worksites: According to Article 42 of the Occupational Safety and Health Act, Doosan Infracore carefully checks for any hazardous processes within its plants and work environments - including noise, dust, heavy metals and organic solvents, etc. - twice a year. Meanwhile, the company takes diverse actions to boost its workers' health and morale. Since March 2013, Doosan Infracore has dispatched two medical doctors from the company clinic to the Incheon plant once each month to provide various medical services including medical treatment, health consultation, and first aid kit maintenance. In the summer, the doctors also prescribe vitamins and salt to prevent dehydration.

Win-Win cooperation with suppliers for EHS: Since 2012, Doosan Infracore has participated along with its suppliers in the 'Win-Win Cooperation Program for Safety and Health' promoted by Korea's Ministry of Employment and Labor. The company has helped its suppliers improve their safety and health practices by providing them with all the necessary information and consulting services so as to enable them to better their working practices and working environments, as well as to run fitness programs for their employees and to take preventive measures against possible industrial accidents. Doosan Infracore also offers financial rewards to suppliers that record 'zero accidents'. In recognition of its efforts, Doosan Infracore was awarded an "A" grade (the highest) by the Ministry of Employment and Labor in the latter's evaluation of corporate programs in the areas of employee safety and health, while the Incheon Plant won the excellence prize in the manufacturing sector at the Contest for Outstanding Win-Win Cooperation Programs in safety and health hosted by the same ministry in

Establishment of a comprehensive employee safety & health management system: Doosan Infracore contracted with International SOS, a leading global medical and travel security services company, in 2012 and has since provided comprehensive overseas safety management services to Doosan employees based or traveling overseas. All Doosan people are entitled to medical services, emergency relief from war, natural disaster or accident, and information on travel security from the company in foreign countries where they are stationed or traveling. In 2013, Doosan Infracore had the International SOS service provided to more than 2,800 staff members including business travelers from the company's various overseas business sites

Management of Employees' Safety and Health Risks

	2011	2012	2013
Number of risks identified and improved	2,115	2,759	3,969
Accidents (%)	044	0.28	0.39

across the world. In 2014, the company will prepare and distribute a pamphlet on the utilization of the service companywide while making the service accessible from mobile devices so that employees can take full advantage of the service anywhere anytime.

#### Improved Employee Health Management

Enhanced follow-up care after physical examinations: In 2011. Doosan Infracore increased the number of beneficiaries of its free comprehensive physical examination service by extending the scope of service to all Doosan people aged 35 years or older (from those aged 40 and over). For those employees who are identified as requiring aftercare during their annual checkups, the company offers them free follow-up test services every four months and, depending on the health grades assigned to them by medical doctors, encourages them not to engage in overtime work or night shifts and motivates them to accept the need to take better care of themselves and do their best to recover their health. Against the backdrop of such comprehensive company efforts to promote individual employees' health, the Incheon plant was selected as an outstanding workplace in the promotion of its employees' health at an annual event co-hosted by the Ministry of Employment and Labor and the Korea Occupational Safety and Health Agency in August

Operation of stress management programs: To promote its employees' mental health, Doosan Infracore has complemented its mental healthcare program, which it began to offer on a regular basis in 2007, and will begin to provide in-house psychological counseling service in 2014 to make a professional stress management service available to employees at worksites at all times. The company will commission on-site counseling service for the Incheon and the Changwon plants - where more than 1,000 employees

work at each on a daily basis. For other business sites, the company will arrange for employees to receive counseling service at designated medical institutions within their respective regions. All counseling records will of course remain strictly confidential.

Operation of a low-sodium diet corner: Doosan Infracore built a low-sodium diet corner in the cafeteria of the Incheon plant in 2013. The corner offers food with 25% less salt on average. Employees have reacted to the arrangement enthusiastically: The corner is currently being used by more than 200 employees each day. In 2014, the company will make the corner even more popular by expanding the menu, replacing tableware with new materials, and publicizing the advantages of a low-sodium diet more aggressively.

Vaccination support for employees and their family members: To protect the health of our employees, Doosan Infracore provides vaccination services for six common major diseases (yellow fever, cholera, malaria, typhoid, A-type hepatitis, and tetanus) to its employees prior to dispatching them on business trips to vulnerable overseas regions, with the exact number of vaccination injections determined by the specific requirements of each country they are traveling to. The company has vaccinated all its employees for water-borne A-type hepatitis, and provides cost support for influenza vaccination for all of its employees, including new recruits and term employees, and their family members in Korea, on a request basis.

#### Advanced Safety and Health Management Competency of Doosan Infracore



Doosan Infracore manages the safety and health not only of its own employees at its production sites and offices but also that of its suppliers' workers. The company applies its enhanced safety and health management standards to its global business sites, and evaluates their performance in this area each year. For its positive results in the domain of safety and health, Doosan Infracore won the Minster of Employment and Labor Award in the area of education on industrial safety and health and the promotion of health at the Outstanding Industrial Safety and Health Promotion Case Contest 2013. It also won the Minister of Security and Administration Award at the 12th Republic of Korea Safety Awards. In 2013, the Incheon plant received the grand prize for its representative's presentation of his experiences as Incheon City's honorary industrial safety supervisor. The plant also received the director of the National Emergency Management Agency Award on Firefighters' Day. Elsewhere in the company, the Gunsan plant was honored with the Minister of Security and Administration Award for its excellence in fire response preparedness, and DICC (Doosan Infracore China Corporation) won recognition as a class-1 enterprise by the State Administration of Work Safety, China, for the country's National Standardization of Safe Production Procedures in 2013.

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# MUTUAL GROWTH THROUGH WIN-WIN COOPERATION

Under the conviction that shared growth with its suppliers is the ultimate source of its competitiveness, Doosan Infracore strives to build a virtuous circle partnership with all of them. The company consistently pursues a win-win situation with its suppliers by way of helping them enhance their competency through systematic collaboration in the areas of technology, quality assurance and management practices.



M: Material Issue		
	KEY ISSUE	
1	2	3
Establishment of Partnerships for Shared Growth	Enhancement of Suppliers' Competitiveness	Support for Suppliers' Establishment of Sustainable Management Systems

		PERFOR	MANCE CHART	
		- TENION	MARCE CHART	
	GOAL	2013 PERFORMANCE	2014 PLAN	2014 TARGET
1	Creation of a shared	Achieved a high score in shared growth	Expansion of shared growth to second-tier	Introduction of the benefit sharing system
لث	growth culture	index evaluation	suppliers	for second-tier suppliers
		Assessed as a "good" company of shared		Expanded application of SCM to second-tier
		growth		suppliers
		Implementation of the benefit sharing system		
	Enhancement of communi-	Implementation of Suppliers' Day and	Enhancement of communication channels	Implementation of Suppliers' Day and Shared
	cation with suppliers	Shared Growth Day	with suppliers	Growth Day
		CEO's visits to suppliers (five times)		
2	Support for enhancement	Localized development of parts (8 cases)	Support for suppliers' technology and	Localized development of parts (12 cases)
	of suppliers' product	Joint development of new machine models	product development efforts	Joint development of new machine models
	competitiveness	(40 cases)		(30 cases)
		OEM and module support (7 cases)		
	Expansion of financial	3-times-a-month payment & 41% cash	Increased proportion of cash payment	Accomplishment of the 60% cash
	support suppliers	settlement ratio		settlement ratio
		Direct support: KRW 1.5 billion	Continuation of financial support	Increased direct support amount
		Combined support: KRW 103 billion /		
		other support: KRW 700 million		
	Joint entry into overseas	Joint participation in exhibitions (6 times)	Increased joint participation in exhibitions	Joint participation in exhibitions on more
	markets			than 3 occasions
_	Enhancement of ethical	Signing of CP declaration by 10 suppliers	Dissemination of CP & ethical management	Additional CP declaration by more than
3	management			7 suppliers
		Support for supplier operation & education	Expansion of supplier support	Implementation of technical education and
		about the Subcontract Act:		next- generation CEO education
		(8 times / 42 firms / 48 persons)		
	Protection of suppliers'	Establishment of guidelines on working	Protection of the rights and safety of	Mandatory submission of employment con-
	employees	conditions of in-house subcontractors'	suppliers' employees	tracts upon signing of new supplier contracts
		workers; support for 95 suppliers' employee		Expansion of health examination service to
		health examinations		second-tier suppliers

upport for suppliers' technological evelopment (Unit: Case)	Cash payments (Unit: %)	Financial support for suppliers (excluding indirect support) (Unit: KRW 100 million)	Suppliers that signed the CP declaration (Unit: No. of suppliers)
55	41.0	1,052	10 🚾
<u>8</u>			
<u>5</u>	<u>8</u>	<u> </u>	
		222	



#### Establishment of Partnership for Shared Growth

Doosan Infracore helps its suppliers to lay the foundations for sustainability management and tap into future-oriented markets through the enhancement of their unique competitiveness with the ultimate aim of reinforcing its global competitiveness in the whole range of its business activities from production to delivery. Doosan Infracore has promoted shared growth with its suppliers by providing customized support to each of them. In 2014, the company will introduce an upgraded supplier evaluation system to provide support to its suppliers on the basis of more objective assessment results.

#### Creation of a Shared Growth Culture

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Enhancing

through

trust and

p.49

cooperation

(expansion of support for 2nd and

3rd -tier suppliers)

competitiveness

Doosan Infracore has established a virtuous circle type of partnership with its suppliers under the leadership of its shared growth team, which reports directly to the CEO. The company reflects the shared growth performance of its executives relevant to shared growth in their MBO (Management By Objectives) appraisal. It also considers its suppliers' shared growth performance when planning purchases from them for the following year. At the level of Doosan Group, affiliate companies' shared growth performance is evaluated annually, and additional stock options are granted to CEOs and executives who have excelled. In 2013, Doosan Infracore was assessed as a "good" company in the shared growth index evaluation conducted by the National Commission for Corporate Partnership on 74 domestic companies. The company's performance

was selected as an exemplary case for the Manual on the Benefit Sharing System published by the Ministry of Trade, Industry and Energy, Korea, in the area of automobiles/shipbuilding/machinery. Furthermore, the company received the Presidential Award and the SMBA Administrator Award at the SME Quality Innovation Fair 2013. In 2014, it will expand the benefit sharing system to its second-tier suppliers and work even harder to stabilize a virtuous circle type of partnership with its suppliers.

#### **Enhancement of Communication with Suppliers**

Doosan Infracore gathers its suppliers' opinions through regular Shared Growth Council meetings. Its CEO and BG Heads visit the company's suppliers on a regular basis to listen to their voices and find solutions to their problems on the ground. The company has also instituted both Suppliers' Day and Shared Growth Day, during which it shares its annual business plan with the suppliers and the suppliers' outstanding shared growth experiences with other suppliers. It also awards those suppliers that have recorded outstanding achievements in cost efficiency and productivity through innovation activities. At Supplier's Day 2013, which was attended by 161 suppliers, Doosan Infracore awarded three prominent suppliers and asked them to share their experiences with the rest of the participants. On Shared Growth Day 2013, the company recognized another three suppliers, and ten suppliers declared their intention to implement the Compliance Program (CP). On top

**Enhanced Communication with Suppliers** 

	2012	2013
Suppliers' Day	171 suppliers	161 suppliers
Shared Growth Day	175 people from 155 suppliers	158 people from 121 suppliers
No. of CEO visits to suppliers	6	5

Processes that Gather and Reflect Suppliers' Opinions in the Company's Business Activities



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of that, Doosan Infracore designates its globally competitive suppliers as 'Leading Suppliers' and rewards their efforts, the details of which the company shares with other suppliers. Through ceremonies for shared growth agreements, meetings, workshops and case study sessions, the company stresses the importance of shared growth and encourages all the relevant individuals to do their utmost to ensure the company's successful shared growth performance.

#### 2. Enhancement of Suppliers' Competitiveness

Doosan Infracore has been supporting its suppliers' inventory and delivery management systems to enable them to upgrade their delivery compliance rate and product quality. Thanks to these efforts, the company has been able to build a virtuous circle type of win-win system that has in turn enabled it to secure a stable supply line and produce high-quality products.

#### Support for Enhancement of Suppliers' Product Competitiveness

Supplier Competitiveness Enhancement Support Center: To enhance suppliers' competitiveness and stabilize their management, Doosan Infracore helps them to establish a reasonable inventory and delivery management system. An exclusive team comprising fifty in-house experts and technical engineers continuously visits suppliers for a period of six to twelve months to offer guidance and support. The company has continued to expand the scope of its supplier support: Specifically, the support team has provided technical support in the areas of welding, material manufacturing, and non-destructive inspection in addition to its support for suppliers' innovation in the fields of 3P6S, Lean, DTC, Single PPM\*, quality guidance and problem solving, with the aim of improving the suppliers' manufacturing competitiveness. With such support measures. Doosan Infracore expects to improve the quality of its suppliers' parts by more than 60% by 2015 compared with 2013.

- \* 3P6S: Three 'P's (Proper Items, Proper Quantity and Proper Place) and six 'S's (Safety, Sort, Straighten, Shine, Standardize and Sustain) activities.
- Lean: Activities designed to minimize inventories and innovate work processes, thus reducing costs and enhancing productivity.
- \* DTC: Design to Cost innovation
- \* Single PPM (Parts Per Million): A quality innovation campaign to achieve the quality management goal of reducing the ratio of faulty products to under 100,000 per 1 million products.

Support for technical development and quality improvements: For suppliers which cannot afford R&D investments, Doosan Infracore has joined the government's 'New Product Development Project Conditional on Purchases' and supported them in their technical development efforts. One of the company's suppliers has brought in sales effects worth 367 times the amount it received from the government by succeeding in developing a new product under the program.

Educational support for suppliers: In 2013, Doosan Infracore offered its employees 57 internal and external courses including an on-site FTA course. To help suppliers with human resources, the company offered its suppliers university-linked employment education, helping them to secure HR in manufacturing, assembly, electricity and electronics.

#### **Expansion of Financial Support for Suppliers**

Financial support: Doosan Infracore provides financial support to its suppliers in four different directions: direct support, indirect support, mixed support and special support. In particular, under the mixed support program, the company raises and operates a special fund for shared growth, based on an escrow in an association of banks to support suppliers' operating funds at low interest rates. In 2013, the company raised a fund of KRW 103 billion and provided financial assistance to its suppliers as operating funds. To further stabilize the suppliers' operations, the company offered them KRW 1.5 billion in facility investment funds. It is also diversifying the sources of its financial support for suppliers by making network loans and family corporate loans available to them

2013 Supplier Educational Support Program Performance

	No. of courses	No. of suppliers	No. of trainees
University-linked education	21	378	469
Government and other agencies-linked education	11	284	1,674
Doosan education (quality, FTA, etc.)	17	526	714
Supplier CEO education	6	411	417
Employee candidate education	2	9	16
Total	57	1,608	3,290

#### Suppliers' Next Generation CEO Candidate Course



Doosan Infracore launched the next-generation CEO candidate course for its suppliers in 2013, as some CEOs of the company's seasoned suppliers are getting ready to hand on the baton to their successors. Launched to help the new CEO candidates prepare for shared growth with Doosan Infracore, the course is an evolved combination of the leadership course for the supplier CEOs, which was provided until 2012, and the job training course for Doosan employees. In 2013, some sixty CEO candidates participated in the course, during which Doosan Infracore executives introduced the company's strategic directions and led positive discussions about the insights required to run a successful business. The company plans to enhance the curriculum and expand the scope of attendance in 2014.

and by investing in the Machinery Industry Shared Growth Promotion Foundation. Doosan Infracore also improved its settlement practice by increasing its payment frequency to suppliers from twice to three times a month and increased its cash payment percentage to 41% in 2013.

Support for interest-free installment payment scheme for machine tools: To enhance the quality competitiveness of its suppliers. Doosan Infracore offers them a interest-free installment payment benefit of up to 24 months to facilitate their purchase of machine tools as part of its support for their facility improvement efforts. In 2013, the company expanded the no-interest payment deal not only to its second- and third-tier suppliers but also to the suppliers of the other affiliate companies of Doosan Group. It is estimated that each of the suppliers of Doosan Infracore can save an average of KRW 72 million in interest payments a year (based on an annual interest rate of 6%) from the arrangement, significantly reducing the initial burden on their machine tool improvement costs.

#### Joint Entry into Overseas Markets

Supplier support program for joint overseas market entry: Doosan Infracore implements a supplier support program for joint overseas market entry for those suppliers that, although they engage in export operation with excellent technological prowess, have financial difficulty in manufacturing due to the smaller size of their operations and/or lower credit ratings. The company also provides financial support to outstanding suppliers so that they can quickly settle into their initial overseas outposts and bolster their competitiveness overseas. In 2014, it will join forces with the Korea EXIM Bank to enable its suppliers to take full advantage of the bank's wide-ranging local networks and obtain local loans as a means of coping with currency risks more effectively.

Support for joint participation in exhibitions and global benchmarking: To help suppliers bolster their competitiveness and enter overseas markets, Doosan Infracore operates various support programs including its support for suppliers' participation in global parts fairs. In 2013, the company participated in the Korea Industry Fair 2013 with six of its suppliers. It also built joint booths with its suppliers at numerous exhibitions, fully paid for the construction of their exhibition stands, and helped publicize their technological prowess and product excellence. In addition, the company expanded its overseas advanced company observation program to include its secondary suppliers in a bid to help them gain opportunities to enhance their global competitiveness.

#### Support for Suppliers' Establishment of Sustainable Management Systems

Doosan Infracore provides full support for its suppliers' efforts to comply with ethical management, fair trade, human rights and environmental protection requirements - efforts whose necessity the suppliers recognize but which they cannot implement easily be-

cause of their size and/or their lack of the relevant infrastructure - and to react effectively to social issues. Doosan Infracore will expand the scope of its support for the establishment of sustainable management systems by its suppliers while continuing to share core values with them and motivating them to secure the ability to operate the system on their own as early as possible.

#### **Enhancement of Ethical Management**

Operation of Supplier Participatory Compliance Program: To establish a fair trade culture among its suppliers, Doosan Infracore supports their adoption of CP and compliance with the Subcontracting Act. In 2013. ten suppliers declared their adoption of CP. According to the fair trade and shared growth agreement between large and small-sized companies, signed in January 2012, the company encourages its primary suppliers to sign the said shared growth agreement with the company's secondary suppliers, thus promoting fair trade and shared growth. Doosan Infracore also offers its suppliers education on FTAs, trade-related restrictions and CP in order to reduce its own subcontracting risks and promote a fair trade culture companywide. In 2013, Doosan Infracore did not violate any laws relating to fair trade and subcontracting.

Operation of the internal reporting system: To disseminate ethical management to its suppliers while strengthen their executability, Doosan Infracore posts information on unfair transactions involving its employees or suppliers on the company website. It has also formed the Cyber Audit Team and set forth rules on its internal reporting system. Most notably, Doosan Infracore runs the Unfair Transaction Activity Report Center and the Supplier Hotline (both online and via an exclusive telephone line) for reports on or inquiries about irregularities committed by its employees or suppliers. The company requires new suppliers to submit their ethical management pledges upon their initial contract registration with the company. The company continues to strengthen its executability for ethical management.

#### **Protection of Suppliers' Employees**

Respect for suppliers' human rights: Doosan Infracore set forth The Guidelines on the Protection of Decent Working Conditions for In-house Subcontractors' Workers to protect the human rights and improve the working conditions of its suppliers' workers. In 2013, Doosan Infracore and its key suppliers held a ceremony to sign an agreement pledging their compliance with the aforesaid guidelines.

#### Support for Suppliers' Employee Medical Examination:

Doosan Infracore operates a program that pays for the healthcare of its suppliers' employees and a free comprehensive medical examination support program for its suppliers' CEOs and their spouses. For those needing aftercare, the company provides them with a cerebrovascular disease care program and a customized individual disease counseling and care program. In 2013, 180 people from 95 suppliers benefited from the programs.

<sup>56</sup> CSR management system & management overview

<sup>66</sup> Enhancement of customer value and quality competitiveness

<sup>72</sup> Employee value proposition

<sup>78</sup> Establishment of the integrated EHS system

84 Mutual growth through win-win cooperation

<sup>88</sup> Development of local communities through CCI

# DEVELOPMENT OF LOCAL COMMUNITIES THROUGH CORPORATE COMMUNITY INVOLVEMENT (CCI)

Doosan Infracore fulfills its Corporate Social Responsibilities (CSR) as a corporate citizen and works hard to create a happier and more affluent future by collaborating with local communities for mutual prosperity. In accordance with Doosan Group's CSR principles, Doosan Infracore seeks to support the growth of local communities on the basis of its employees' active engagement and truthfulness throughout all its CRS activities.





KEY ISSUE

1

Strategies

Corporate Community Involvement

2

Doosan Infracore Corporate Community Involvement Culture Local Community-Based Participatory
Corporate Community
Involvement Programs M

_		PERFOR	RMANCE CHART	
•	GOAL	2013 PERFORMANCE	2014 PLAN	2014 TARGET
1	Establishment of	Selection and implementation of the three	Restructuring the CCI portfolio	Establishment of new business-related
	strategic CCI models	key promotion areas		programs
			Setting up a global synergy plan	Establishment of CCI guidelines for overseas
				business sites
	Enhancement of internal	Publication of CCI newsletter and	Survey of CCI satisfaction	Implementation of satisfaction surveys
2	communication	implementation of system reforms		for domestic worksites
	Activation of voluntary	Services by voluntary clubs, the labor-	Expanding support for clubs and	Expansion of scope of support for clubs
	service activities	management joint voluntary group, and	autonomous voluntary groups	
		'Cooperation' voluntary group		
	Expansion of opportunities	Mandatory CCI education for new recruits	Provision of voluntary service opportunities	Implementation of CCI activities by new
	to participate in CCI	(fresh college graduates and seasoned employees)	to new recruits	recruits more than twice a year
	Enhancement of each	More than 7 CCI campaigns per business	Identification and implementation of	Development of fund businesses
3	business group's CCI	group	service programs drawing on	Provision of two workshops for working level
	executive ability		Employment Fund	employees
			Competency enhancement of local	
			CCI personnel	

KEY PERFORMANCE INDICATOR			
Employees participating in CCI (Unit: Persons)	Employee salary portion donation and account-based donation (Unit: KRW million)	CCI investment amount (Unit: KRW million)	
5,322	227	20,300	13,468
275		2011 14,900	13,468
2013 2012 2012 2017 2011	2013 2012 34 2011	**	



#### Corporate Community Involvement (CCI) Strategies

Recognizing Corporate Community Involvement (CCI) as an integral part of its business activities, Doosan Infracore has been active in carrying out various CCI initiatives. For instance, the 'Dream School' initiative is its representative, employee-participatory, long-term CCI commitment to the development of the upcoming generations, which it launched in 2012. The company plans to complete its own strategic CCI models and systems for its global worksites and to begin carrying out CCI activities in all of them more systematically in 2016.

#### **Establishment of Strategic Corporate CCI Models**

Doosan Infracore has strived to build its strategic CCI models, devise its own unique CCI programs and systems, and boost employee engagement and earnestness in its CCI activities in a bid to activate its social contributions. For more systematic implementation of its CCI activities, the company has focused its CCI efforts on the following three areas: (1) support for future generations; (2) support connecting related-businesses; and (3) support for local communities. The company has built a CCI information system within its work portal, established an award system and an attendance management system, and built club support for employees' continuous participation. In keeping with the CCI directions of Doosan Group, Doosan Infracore will explore a diverse set of CCI programs aimed at boosting the future competitiveness of local communities and enhancing the company's corporate values so as to enhance its CCI portfolio significantly in 2014.

Bringing children a brighter future (Provision of education for children in China and other emerging market region) p.50

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#### Support for the Next Generation

Doosan Infracore's support for the next generation is aimed at helping children build a brighter, more hopeful tomorrow by offering them opportunities to study, experience diverse cultural programs, and chart their future with confidence.

**Dream School:** The 'Dream School' of Doosan Infracore was launched in accordance with the company's belief that "Your future depends on your dream and on hard work." The initiative helps first and second graders at middle schools to 'find their dreams' by allowing them to participate in various competency

enhancement programs and field trips with the aim of fostering their confidence in the future and their future occupations. In 2013, the second year of the program, 115 students from four regions (Seoul, Incheon, Changwon and Gunsan) were selected as mentees. while the same number of Doosan Infracore employees participated as mentors and helped the mentees find their dreams and gave them emotional support. During five professional mentoring programs involving experts in various areas, the mentees learned about the right attitudes and received career information. as well as engaging in 'dream camps,' occupational experiences, occupational interviews, and school visitations together with their mentors, thereby bringing them a step closer to fulfilling their dreams. Meanwhile, the graduates of the Dream School 2012 participated in follow-up programs in 2013 and had opportunities to make their dreams even more concrete.

**Dream Start Support Project:** Doosan Infracore proactively participates in the Dream Start project, which is led by the Ministry of Health and Welfare and is designed to help children from low-income homes grow as healthy members of society. Under this program, volunteer employees from our five main workplaces nationwide provide opportunities for elementary school students in their respective communities to enjoy culture experiences.

Doosan Hope Elementary Schools in China: Under the slogan of "We will build a beautiful China together!" Doosan Infracore China Corporation (DICC) is carrying out 'Project Warmth,' which helps young adults find jobs by operating vocational technology training centers, and 'Project Hope,' which builds elementary schools in less developed areas of China. Since 2001, the company has donated some 10.25 million RMB (about KRW 1.79 billion) to impoverished areas, and built a 34 Hope Elementary Schools in China, bringing hope to needy children all around the country.

<sup>56</sup> CSR management system & management overview

<sup>66</sup> Enhancement of customer value and quality competitiveness

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#### **Support through Company's Work Capabilities**

Doosan Infracore also makes the best use of its business resources for its CCI activities, including its expertise in mechanical engineering and its lineup of heavy equipment and machine tools. The company is planning to promote its CCI with a view to helping its CCI service recipients stand on their own two feet through the utilization of its products and training centers.

Support for disaster relief: In April 2013, Doosan Infracore dispatched an emergency relief team comprising two excavators and four service personnel to the Province of Sichuan after it was hit by an earthquake measuring 7.0 on the Richter scale. The team arrived at the scene just three hours after the quake, and cleared roads leading to the epicenter so that army trucks and numerous rescue teams could get to the victims awaiting help. Doosan Infracore was the only foreign company to respond to local needs so quickly. The company also took the lead in emergency relief and recovery efforts for the 2008 Great Sichuan Earthquake and the 2010 Qinghai Earthquake by providing construction equipment and relief funds. It has also provided disaster relief and recovery assistance in many other countries including Brazil, the USA, and Haiti among others.

**Junior Technical School**: A talent donation-based CCI activity, the Junior Technical School, which consists largely of company researchers specializing in natural sciences and engineering, supports elementary school students in making hands-on kits together and learning about scientific principles. Started in 2008, the group conducted its 2013 program for child patients at Seoul National University Bundang Hospital in 2013.

Equipment Donation: Doosan Infracore donates its inhouse test engines to universities situated near our workplaces so that students can practice assembling and disassembling them and thereby improve their technical competency. The company plans to donate one mock-up SMX, the company's representative next-generation multitasking machine tool, to the Changwon Science Center as an exhibition model in the first half of 2014. The mock-up was built at the product development stage to exactly the same specifications except for its size: it is a one-fifth scale model of the actual SMX tool.

#### Support for Local Communities

Doosan Infracore proactively engages in local community services including community clean-ups and the 'One Company One Village' campaign, and supports local events and local construction work around its five business sites in Korea and its overseas branch offices worldwide.

'CElper' the Operations Division voluntary group: 'CElper' comprises 89 workers at the Incheon Plant. It engages in environmental clean-up activities in the neighborhood and volunteer work in neighboring welfare centers.

Delivery of coal briquettes of love: Employees at the Incheon and Gunsan plants carry out a campaign called 'Delivering coal briquettes of love' (coal briquettes are used for cooking and home heating in parts of Korea). They buy the briquettes and deliver them to the doors of impoverished and senior citizens living alone in their neighborhoods each year. Employees' families including young children and adolescents participate in the voluntary service. The coal briquettes represent a critical form of aid that helps the disadvantaged to survive the country's long winter season.

'Sharing Club' in Seoul Sales Branch of Machine Tools BG: Members of the Sharing Club, a voluntary club at the Sales Branch - Seoul of the Machine Tools BG, regularly visit the Dream Tree Village, an orphanage, and create fond memories with the children by engaging in diverse activities together. In 2013, they held a pizza-making class and an ocarina folk art (decoration) class for the children, enjoyed diverse cultural performances, and participated in environmental clean-up activities with them.

Delivery of first aid kits of love: On 'Dream Community Day' held in the first half of 2013, a total of 225 Doosan people from the Seoul, Incheon, Gunsan and Changwon business sites gathered together and made more than 1 300 first aid kits of love and delivered them to underprivileged families. Each kit was stocked with more than ten essential medicines including a mosquito repellent made of three natural ingredients that are harmless to vulnerable people, including children and senior citizens, together with a letter written by a Doosan employee to the recipient.

#### CCI Activities in 2013 by Area (Korea)

	Support for the next generation	Support through company's work capabilities	Support for local communities
No. of events (Events)	75	8	137
No. of employees (Persons)	1,532	55	3,735
No. of hours (Hours)	466	30	450

#### **Doosan Infracore Corporate Community** Involvement (CCI) Culture

The CCI activities of Doosan Infracore are also implemented at the individual and club levels as well as at the corporate level as mentioned above. Numerous voluntary clubs have been formed at the company's worksites as well as at its divisions and BGs. The ioint labor-management Volunteer Group and the ioint Volunteer Group between Doosan Infracore and its suppliers are also currently operational. Doosan Infracore strives to create a consensus on CSR with its stakeholders while expanding the range of its CCI activities through continuous communication with them and providing them with opportunities to engage in its CCI activities.

#### **Enhancement of Internal Communication**

Doosan Infracore publishes 'Dream News,' a company newsletter, to share information on its CCI activities and related news with its stakeholders. It also publishes information on its worldwide CCI performance via the company magazine and internal work portal.

#### **Activation of Voluntary Service Activities**

Salary donation and voluntary clubs: Many employees actively participate in various companywide CCI activities such as the Dream School and Dream Community Day. Approximately 90% of all employees in Korea participate in the salary donation campaign (whereby each employee donates a small percentage of his/her salary) to raise company CCI funds. Also, workers at each worksite in the country have organized voluntary groups for various purposes and demonstrated genuine care for their neighbors by engaging in diverse activities such as free meal services for the disadvantaged, providing volunteer work at orphanages, and helping with young children's studies. The company provides an annual average of KRW 2 million to every one of its voluntary groups to help them provide social services on a continuous basis.

Participation in the Salary Contribution Campaign

	Participants	Participation rate
Membership	5,000	88%

Amount Collected via the Salary Donation (excluding the matching grant amount)

(Unit: KRW million)

182 2011 34

227

Amount Collected via the Salary Donation in 2013

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Implementing neighborly love through donations and services (Bobcat sponsored North Dakota Open Golf Tournament) p.52

Helping the young possibilities through systematic technical education (Technical education for developing countries p.51

#### Global Corporate Community Involvement (CCI) Activities



The global business sites of Doosan Infracore build schools, provide emergency relief services, and help with the renovation of diverse facilities, thereby positively participating in community growth. They are also active in making donations and carrying out voluntary services for the disadvantaged in their respective local communities.

China - Organized in 2009, the DICC voluntary group has engaged in diverse social contribution activities including improvements of the water supply, stream clean-ups, and the provision of financial help for needy families. In 2013, it won the title of the 'Top-Ten Voluntary Group' in Yantai, China for the third time. Meanwhile, DICC has been active in CCI activities such as the construction of Hope Elementary Schools, the provision of assistance to needy households, and environmental clean-ups. It was awarded the Best CSR Prize in 2013.

North America - In North America, Bobcat has joined forces with United Way, a US charitable organization that supports community education, income stabilization, and healthcare. In 2013, it won the 'Top 20 Contributor Award' in the Bismarck region. Bobcat employees from the Bismarck business site have participated in the 'Great American Bike Race,' a fundraiser for children and young adults with cerebral palsy and other related disabilities, for eight years running. They also participated in the 17th Annual Bike Race 2013 in two teams and raised a total of USDs.000. Furthermore, Bobcat offices in Bismarck, Fargo, Gwinner, and Wahpeton in North Dakota conduct diverse CCI activities and do their best to assist their respective communities.

Europe - In Europe, Doosan Infracore has a number of subsidiaries that have operated in their current locations for a very long time, ever since starting up as local firms. They continuously engage in community-based CCI initiatives, including 'Company Visiting Day,' which is designed largely to enable young adults in local communities to apply for 'job experience,' and to receive career orientation advice tailored to the future generations. They also engage in a campaign called 'Be a Doo-er' on their own initiative, showing their strong commitment to CSR.

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Mutual growth through win-win cooper

Joint labor-management CCI activities: The Incheon 3. Plant has formed the 'Hope Dream Team,' a joint labor-management volunteer organization in which management and union members work together to achieve mutual growth with local communities and expand direct interaction with the underprivileged in those communities. The labor union and management signed 'the Implementation Pledge of Joint Labor-Management CSR' with the Central Regional Labor Office of the Ministry of Employment and Labor to assert their strong commitment to conducting joint CSR initiatives. In 2013, their joint community involvement programs included the 'Delivery of Coal Briquettes of Love:' special events for children on Children's Day: the preparation of first aid kits; the invitation of people with disabilities to dinner; and the distribution of kimchi (a traditional fermented Korean side dish made of vegetables). These activities helped convince the relevant local communities of the company's commitment to shared growth with them.

Joint Corporate Community Involvement (CCI) with suppliers: Doosan Infracore engages in joint CCI initiatives with its suppliers, too. In 2013, the company launched the 'Box of Four-Colors Hope' project. Volunteers made gift boxes with goods tailored to four different groups of disadvantaged people: children and adolescents from low-income households; multicultural families; seniors living alone; and North Korean defectors. The company delivered 670 gift boxes to the focus placed on enhancing local communities' households in Jeonbuk Province in 2013. In addition, competence. Doosan Infracore holds working-level a number of CEOs of Doosan Infracore have joined the voluntary group 'Share Love' and engaged in CCI its partner agencies and local welfare centers, at least activities regularly together with staff of Doosan Infracore and its suppliers in 2013.

#### **Expansion of Opportunities to Participate in CCI**

To build on the companywide consensus on CSR, a core value of Doosan Way, Doosan Infracore makes CSR education a mandatory course for all its new recruits, whether fresh (high school or college) graduates or seasoned employees from other organizations. The education introduces the notion of CSR and corporate community involvement, the directions of Doosan CCI, and main CCI activities and how to participate in them. In addition, the company has designated the weekday prior to its anniversary (June 4) and International Volunteer Day (December 5) as 'Dream Community Days' when employees at the four worksites in Korea reach out to the marginalized in their respective communities.

#### Local Community-based Participatory Corporate Community Involvement (CCI) Programs

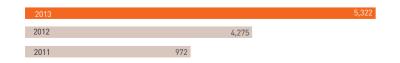
Doosan Infracore believes that a business must become a responsible member of the local community it belongs to and that the community must be able to grow together with the business. Doosan Infracore is striving to expand its CCI portfolio so that its CCI programs can help address the compelling issues faced by local communities through customized CCI programs, and thereby create a long-lasting win-win relationship with the communities.

#### Enhancement of Each Business Group's CCI Executive

To achieve co-prosperity with its local communities, Doosan Infracore is promoting a diverse set of CCI activities suited to the different characteristics of the neighborhoods surrounding its worksites around the country. The company promotes CCI for each worksite with the resources of the Employee Fund and the deposits in the Community Chest of Korea in order to bring practical improvements to local communities with full employee engagement. When selecting beneficiaries, Doosan Infracore asks the related public agencies including welfare offices in local communities for recommendations in an effort to boost transparency as well as efficiency in the process, with workshops with its stakeholders, such as officers at once a year as part of its efforts to open a permanent communication channel with them concerning the issue of beneficiary selection.

No. of employees participating in CCI

(Unit: Persons)



5,322

No. of Employees Participating in CCI in 2013

# **APPENDIX**

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# CONSOLIDATED FINANCIAL STATEMENTS

#### CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

As of December 31, 2013 and 2012 (Unit: KRW)

Description	FY2013	FY2012
ASSETS		
CURRENT ASSETS:	3,706,205,672,474	3,861,994,577,716
Cash and cash equivalents	287,837,894,710	462,494,292,429
Short-term financial instruments	476,689,896,477	222,294,825,630
Short-term investment securities	10,615,626	0
Trade and other receivables, less allowance for doubtful accounts	1,332,548,957,307	1,309,109,422,991
Derivative assets	42,058,214,557	73,437,207,075
Inventories	1,489,497,127,395	1,662,008,926,258
Assets held for sale	440,866,076	2,645,196,457
Other current assets	77,122,100,326	130,004,706,876
NON-CURRENT ASSETS:	7,775,287,867,964	7,682,995,884,101
Long-term financial instruments	2,011,500,000	2,011,500,000
Long-term investment securities	9,187,861,752	9,244,959,753
Long-term trade and other receivables, less allowance for doubtful accounts	3,509,019,686	8,374,860,523
Non-current derivative assets	1,776,066,413	4,525,583,392
Property, plant and equipment, net	2,256,581,320,986	2,023,666,222,683
Intangible assets	4,739,850,232,360	4,754,639,097,102
Investment property	28,306,350,354	27,871,356,394
Investments in joint ventures and associates	154,127,200,055	145,002,625,289
Deferred income tax assets	463,420,422,875	589,291,669,281
Other non-current assets	116,517,893,483	118,368,009,684
TOTAL ASSETS	11,481,493,540,438	11,544,990,461,817
LIABILITIES	71. 71999 1-719.	31137-71-7-7
CURRENT LIABILITIES:	2,753,667,942,752	3,539,078,481,832
Trade and other payables	1,119,257,063,688	1,067,423,350,749
Short-term borrowings	730,370,021,070	1,325,079,857,757
Current portion of bonds	426,872,492,128	469,592,187,972
Current portion of long-term borrowings	84,927,848,154	270,380,842,054
Income taxes payable	33,732,288,923	31,856,682,031
Derivative liabilities	1,111,137,066	831,659,485
Provisions	148,532,912,250	146,441,019,324
Other current liabilities	208,864,179,473	227,472,882,460
NON-CURRENT LIABILITIES :	5,178,805,345,405	4,997,112,665,932
Other non-current payables	20,695,021,176	27,504,331,079
Bonds	1,764,755,744,200	1,585,861,248,159
Long-term borrwoings	2,637,741,509,672	2,508,227,472,114
Retirement benefit obligation	564,414,857,221	753,810,600,998
Non-current derivative liabilities	0	_
Deferred income tax liabilities	8,002,730,726	7,707,578
Non-current provisions		
Other non-current liabilities	5,549,688,773	7,370,145,747
Total Liabilities		110,769,464,224
	7,932,473,288,157	8,536,191,147,764
EQUITY	0 / 0 / -	
Equity attributable to owners of the parent	2,986,855,517,363	2,457,226,134,087
Capital stock	1,037,276,570,000	843,290,170,000
Capital surplus	237,381,189,581	14,254,797,512
Capital securities	508,259,603,649	508,259,603,649
Other equity items	(26,387,480,016)	(30,403,879,853)
Accumulated other comprehensive loss	(83,127,632,799)	(177,960,866,635)
Retained earnings	1,313,453,266,948	1,299,786,309,414
Non-controlling interests	562,164,734,918	551,573,179,966
Total Equity	3,549,020,252,281	3,008,799,314,053
TOTAL LIABILITIES AND EQUITY	11,481,493,540,438	11,544,990,461,817

#### CONSOLIDATED STATEMENTS OF INCOME

For the years ended December 31, 2013 and 2012

(Unit: KRW)

Description	FY2013	FY2012
SALES	7,736,830,293,865	8,158,350,959,705
COST OF SALES	6,089,337,802,977	6,478,129,915,411
GROSS PROFIT	1,647,492,490,888	1,680,221,044,294
Selling and administrative expenses	1,277,992,100,880	1,317,803,816,096
OPERATING INCOME(LOSS)	369,500,390,008	362,417,228,198
Finance income	173,794,728,373	249,570,319,161
Finance expense	532,454,814,457	570,352,372,508
Other non-operating income	28,786,137,744	35,901,618,689
Other non-operating expense	69,556,686,922	82,007,652,363
Share of profit(loss) of joint ventures and associates	(8,014,965,285)	(18,393,850,149)
Gain(loss) on disposal of investment in joint ventures and associates	0	704,719,182
Gain on disposal of investment in subsidiary	0	0
Impairment loss of investment in associates	(19,018,488,883)	0
Income(expense) from continuing operations before income tax expense	(56,963,699,422)	(22,159,989,790)
INCOME TAX BENEFIT(EXPENSE)	(43,986,238,851)	415,502,546,441
Income(loss) from continuing operations	(100,949,938,273)	393,342,556,651
Income(loss) from discontinued operations	0	0
NET INCOME(LOSS)	(100,949,938,273)	393,342,556,651
Attributable to: Owners of the parent	(101,756,286,055)	340,338,846,265
Non-controlling interests	806,347,782	53,003,710,386
EARNINGS(LOSS) PER SHARE	•	
Basic earnings(loss) per share from continuing operations	(596)	2,018
Diluted earnings(loss) per share from continuing operations	(596)	2,018
Basic earnings(loss) per share	(596)	2,018
Diluted earnings(loss) per share	(596)	2,018

#### CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

For the years ended December 31, 2013 and 2012

(Unit: KRW)

escription	FY2013	FY2012
T INCOME(LOSS)	(100,949,938,273)	393,342,556,651
ms not reclassified subsequently to profit or loss	308,303,135,286	(841,308,862)
-measurements of net defined benefit liabilities	142,313,920,280	(841,308,862)
valuation of property, plant and equipment	165,989,215,006	0
ms reclassified subsequently to profit or loss	(69,441,653,532)	(178,730,584,238)
in(loss) on valuation of avaliable-for-sale financial assets	(23,922,052)	(61,673,396)
crease(decrease) in equity of associates	(720,654,126)	(1,195,628,629)
in(loss) on translation of foreign operations	(48,571,548,795)	(267,579,682,463)
in(loss) on valuation of cash flow hedge derivatives	(20,125,528,559)	90,106,400,250
OTAL COMPREHENSIVE INCOME	137,911,543,481	213,770,663,551
wners of the parent	122,039,587,370	201,297,149,529
on-controlling interests	15,871,956,111	12,473,514,022

#### CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

For the years ended December 31, 2013 and 2012

(Unit: KRW)

Description	Capital stock	Capital surplus	Capital securities	Other equity items	Accumulated other comprehensive income(loss)	Retained earnings (deficit)	Non-controlling interests	Total
Balance at January 1, 2012	842,779,420,000	8,288,339,555	0	94,339,619,629	(42,494,821,600)	942,153,278,515	440,135,192,649	2,285,201,028,748
Cumulative effects of change in accounting policy	0	0	0	0	0	20,869,836,335	3,067,995,051	23,937,831,386
Balance at January 1, 2012, after adjustment	842,779,420,000	8,288,339,555	0	94,339,619,629	(42,494,821,600)	963,023,114,850	443,203,187,700	2,309,138,860,134
CHANGES IN EQUITY								
Net income	0	0	0	0	0	340,338,846,265	53,003,710,386	393,342,556,651
Remeasurements of net defined benefit liabilities	0	0	0	0	0	(3,575,651,701)	2,734,342,839	(841,308,862)
Revaluation and disposal of property, plant and equipment	0	0	0	0	0	0	0	0
Gain(loss) on valuation of available-for-sale		0	0	0	(61,673,396)	0	0	(61,673,396)
Increase(decrease) in equity of associates		0	0	0		0	0	(1,195,628,629)
Gain(loss) on translation of foreign operations		0	0	0			(43,264,539,203)	(267,579,682,463)
Gain(loss) on valuation of derivatives	0	0	0	0		0		90,106,400,250
Capital transactions with shareholders		0		0	0	0		0
Exercise and extinguishment of share options	510,750,000	5,966,457,957	0	(4,934,464,091)		0		1,542,743,866
Share-based payment	0	0		3,446,189,499				3,446,189,499
Issuance of capital securities			508,259,603,649	3,440,109,499				508,259,603,649
Conversion of convertible preferred stock				(94,499,680,439)			94,499,680,439	500,259,005,049
			0					
Equity transactions amongst consolidated entities  Capital increase with consideration in subsidiaries			0	0		0		0
			0	(215,750,926)		0	511 5-17	
Partial disposal of investment in subsidiary		0	0	0		0		0
Business transfer amongst consolidated entities	0	0		(1,181,046,879)		0		0
Net effect of changes in accounting policy		0	0	0		0		0
Dividends				0		0		0
Others	0	0	0	(27,358,746,646)	0	0	0	(27,358,746,646)
Balance at December 31, 2012	843,290,170,000	14,254,797,512	508,259,603,649	(30,403,879,853)	(177,960,866,635)	1,299,786,309,414	551,573,179,966	3,008,799,314,053
Balance at January 1, 2013	843,290,170,000	14,254,797,512	508,259,603,649	(30,403,879,853)	(177,960,866,635)	1,299,786,309,414	551,573,179,966	3,008,799,314,053
Cumulative effects of change in accounting policy			0	0		0		0
Balance at January 1, 2013, after adjustment	843,290,170,000	14,254,797,512	508,259,603,649	(30,403,879,853)	(177,960,866,635)	1,299,786,309,414	551,573,179,966	3,008,799,314,053
CHANGES IN EQUITY								
Net income (loss)	0	0	0	0	0	(101,756,286,055)	806,347,782	(100,949,938,273)
Remeasurements of net defined benefit liabilities	0	0	0	0	0	128,656,116,582	13,657,803,698	142,313,920,280
Revaluation and disposal of property, plant and equipment		0	0	0	164,526,295,394	306,523,007	1,156,396,605	165,989,215,006
Gain(loss) on valuation of available-for-sale	0	0	0	0	(23,922,052)	0	0	(23,922,052)
Increase(decrease) in equity of associates	0	0	0	0	(720,654,126)	0	0	(720,654,126)
Gain(loss) on translation of foreign operations	0	0	0	0	(48,822,956,821)	0	251,408,026	(48,571,548,795)
Gain(loss) on valuation of derivatives	0	0	0	0	(20,125,528,559)	0	0	(20,125,528,559)
Capital transactions with shareholders	193,986,400,000	219,628,416,169	0	0	0	0	0	413,614,816,169
Extinguishment of share options	0	3,497,975,900	0	(3,497,975,900)	0	0	0	0
Share-based payment		0		2,233,974,578		0		2,233,974,578
Issuance of capital securities		0	0	0	0			0
Conversion of convertible preferred stock		0	0	0		0		0
Equity transactions amongst consolidated entities								
Capital increase with consideration in subsidiaries				(2,448,078,041)				
Partial disposal of investment in subsidiary		0	0	(2,440,070,041)		0	2,440,070,041	0
Business transfer amongst consolidated entities				7,728,479,200		0		0
Net effect of changes in accounting policy			0	0		0		0
Dividends				0		(13,539,396,000)		(13,539,396,000)
Others	0	0	0	0	0	0		0
Balance at December 31, 2013	1,037,276,570,000	237,381,189,581	508,259,603,649	(26,387,480,016)	(83,127,632,799)	1,313,453,266,948	562,164,734,918	3,549,020,252,281

#### CONSOLIDATED STATEMENTS OF CASH FLOWS

For the years ended December 31, 2013 and 2012

(Unit: KRW)

escription	FY2013	FY2012
SH FLOWS FROM OPERATING ACTIVITIES	481,934,725,495	(450,365,234,755
Cash generated from operations	760,438,890,834	438,409,211,826
Net income (loss)	(100,949,938,273)	393,342,556,65
Adjustments	737,408,867,508	245,431,355,928
Changes in operating assets and liabilities	123,979,961,599	(200,364,700,753
Interest received	21,276,076,828	27,692,389,440
Interest paid	(285,422,726,836)	(782,514,855,762)
Dividends received	1,027,636,796	9,599,997
Income tax paid	(15,385,152,127)	(133,961,580,256)
SH FLOWS FROM INVESTING ACTIVITIES	(595,347,429,015)	(527,064,183,145
Cash inflows from investing activities	26,729,701,200	94,763,166,396
Disposal of long-term financial instruments	173,836,508	244,033,153
Decrease in loans	23,940,469,187	37,934,761,916
Disposal of property, plant and equipment	2,615,395,505	54,998,888,339
Disposal of intangible assets	0	731,406,05
Disposal of investment properties	0	854,076,937
Decrease in short-term financial assets	0	(
Decrease in short-term investment securities	0	(
Cash inflows from business transfer	0	1
Cash outflows for investing activities	(622,077,130,215)	(621,827,349,541
Increase in short-term financial assets	254,395,216,473	104,155,996,91
Acquisition of investment in joint ventures and associates	35,000,000,000	6,410,284,877
Increase in long-term financial instruments	0	2,000,000,000
Acquisition of long-term investment securities	24,258,582	7,095,495,328
Increase in loans	0	(
Acquisition of property, plant and equipment	239,329,631,970	406,588,201,502
Acquisition of intangible assets	93,328,023,190	95,577,370,919
SH FLOWS FROM FINANCING ACTIVITIES	(80,201,261,384)	811,064,576,96
Cash inflows from financing activities	1,391,885,962,919	2,181,526,256,158
Increase of borrowings	357,841,063,250	1,152,738,130,513
Issuance of bonds	620,430,083,500	496,658,603,59
Capital transactions with shareholders	413,614,816,169	(
Exercise of share option	0	1,594,320,000
Disposal of investment in subsidiary	0	(
Issuance of capital securities	0	530,535,202,054
Cash outflows for financing activities	(1,472,087,224,303)	(1,370,461,679,197
Repayment of borrowings	974,225,224,303	1,137,461,679,197
Repayment of bonds	480,000,000,000	233,000,000,000
Dividends	17,862,000,000	(
FECT OF EXCHANGE RATE CHANGES IN CASH AND CASH EQUIVALENTS	18,957,567,185	4,827,508,40
et increase(decrease) in cash and cash equivalents	(174,656,397,719)	(161,537,332,539
ISH AND CASH EQUIVALENTS, BEGINNING OF THE YEAR	462,494,292,429	624,031,624,968
ISH AND CASH EQUIVALENTS, END OF THE YEAR	287,837,894,710	462,494,292,429

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#### **INDEPENDENT AUDITORS' REPORT**

To the Shareholders and the Board of Directors of Doosan Infracore Co. Ltd.

We have audited the accompanying consolidated financial statements of Doosan Infracore Co., Ltd. and subsidiaries (the "Company"). The financial statements consist of the consolidated statements of financial position as of December 31. 2013 and 2012 and the related consolidated statements of income, consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows, all expressed in Korean Won, for the years ended December 31, 2013 and 2012. The Company's management is responsible for the preparation and fair presentation of the consolidated financial statements and our responsibility is to express an opinion on these consolidated financial statements based on our audit

We conducted our audit in accordance with auditing standards generally accepted in the Republic of Korea. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2013 and 2012 and the results of its operations and its cash flows for the years ended December 31, 2013 and 2012, in conformity with Korean International Financial Reporting Standards ("K-IFRS").

Accounting principles and auditing standards and their application in practice vary among countries. The accompanying consolidated financial statements are not intended to present the consolidated financial position, results of operations and cash flows in accordance with accounting principles and practices generally accepted in countries other than the Republic of Korea. In addition, the procedures and practices utilized in the Republic of Korea to audit such financial statements may differ from those generally accepted and applied in other countries. Accordingly, this report and the accompanying consolidated financial statements are for use by those knowledgeable about Korean accounting principles and auditing standards and their application in practice.

Deloiite Anjin LLC

Deloitle Amin LLC

This report is effective as of March 13, 2014, the auditors' report date. Certain subsequent events or circumstances may have occurred between the auditors' report date and the time the auditors' report is read. Such events or circumstances could significantly affect the accompanying consolidated financial statements and may result in modification to the auditors' report.

#### REPORT ON THE ASSESSMENT OF INTERNAL ACCOUNTING **CONTROL SYSTEM (IACS)**

To: CEO.

Doosan Infracore Co., Ltd.

We reviewed Doosan Infracore's report on the assessment of internal accounting control system (IACS) as of December 31, 2013. The Doosan Infracore management is responsible for designing and operating IACS, while we are responsible for reviewing the contents thereof and reporting review results. The company management states in the attached report on the assessment of IACS: As a result of its assessment, the Company's IACS as of December 31, 2013 is deemed to be designed and operated effectively from the materiality perspective according to IACS standards.

We reviewed IACS according to IACS review standards. These standards require that the review procedures are planned and implemented so that it can be assured of the report on IACS assessment with a lower level compared with accounting audit from the materiality perspective. The review procedures involve the understanding of the Company's IACS, questioning about the management's IACS operation report, and confirmation of relevant documents within a limited scope as deemed necessary.

The Company's IACS refers to the IACS regulations and the organization of control and operation thereof. The IACS regulations lations were enacted to provide reasonable assurance of the trust of financial statements that were written according to K-IFRS for the writing and disclosure of reliable accounting information. However, due to its inherent limitations, IACS may not detect or prevent significant distorted expressions in financial statements.

In addition, when making a forecast of a period in the future on the basis of those in the report on the assessment of IACS (Internal Accounting Control System), one has to take into account the possibility that the assessment of a period in the future and assumptions thereof may turn out to be not so relevant due to changes in the future situations or the management's noncompliance with related procedures or policies, which could result in IACS being rendered inappropriate. From our reviews of the management's report on IACS assessment, we have not found anything that is judged to be non-compliant with the IACS review standards from the materiality perspective. This audit covers the company's IACS as of December 31, 2013, not thereafter. As the audit has been prepared in accordance with the Act on External Audit of Stock Companies, Korea, it might not be appropriate for other purposes or users.

Deloiite Anjin LLC

March 13, 2014 Deloitle Amin LLC

\*The following data were based on the company HQ.

#### CSR FACTS & FIGURES

category 1	category 2		2011	2012	2013	note
ECONOMIC						
Economic growth:	Consolidated	Sales	8,463,086	8,158,351	7,736,830	
business results (KRW million)		Operating income	679,615	362,417	369,500	
		Net income	310,810	393,343	(100,950)	2012 figures altered due to the application of new accounting standards
	Non-consolidated	Sales	4,426,917	4,243,619	3,827,352	(on the basis of business reports)
		Operating income	369,376	53,691	(19,514)	
		Net income	313,804	(121,315)	(120,358)	
Financial soundness:	Consolidated	Total assets	11,703,675	11,544,990	11,481,494	
asset status (KRW million)		Total liabilities	9,394,536	8,536,191	7,932,473	
		Total equity	2,309,139	3,008,799	3,549,021	2012 figures altered due to the application of new accounting standards
	Non-consolidated	Total assets	5,844,575	6,763,982	6,905,923	(on the basis of business reports)
		Total liabilities	4,155,946	4,620,963	4,331,045	
		Total equity	1,688,630	2,143,019	2,574,878	
	Credit rating		Α	А	А	Provided by Korea Investors Service
Governance structure (%)	Board Directors pa	rticipation rate	87	94	80	
	(outside directors)					
Technological leadership	R&D professionals		917	1,197	972	Based on the company HQ.
(No. of people, KRW million, %)	R&D investment		154,489	181,006	204,082	Based on the company HQ.
	Percentage of R&D	to tumover	3.5	4-3	5-3	Based on the company HQ.
Customer satisfaction	Customer informati	on security breaches	0	0	0	Based on the company HQ.
(No. of breaches)						based on the company HQ.
Education on ethical	Completion percen	tage	98.8	99.4	99-3	Once per year / person
management (%)						Office per year / person

category 1	category 2	2011	2012	2013	note
EMPLOYEES					
Total no. of employees	Total (Korea)	5,414	5,764	5,655	Excluding dispatched employees (E-HR based on December 31, 2013)
(No. of people)	Total (Global)	14,376	15,206	14,309	
By job	Office	3,197	3,570	3,436	
(No. of people)	Technical	2,217	2,194	2,219	
By employment type (No. of people, %)	Non-regular	172	191	140	Contracted jobs (commissioned jobs, commissioned technical jobs, outside directors, advisors, consultants, and externally commissioned jobs)
	Ratio of non-regular	3.2	3-3	2.5	Non-regular / Total (Korea)*100
Diversity	Disabled	109	121	121	Based on E-HR; national disabled classification (levels 1~6)
(No. of people)	National merit recipients	133	145	141	Based on E-HR; national merit recipients (merit no. or approved people
	Elderly	250	233	278	Elderly: 55 and over (based on total-Korea)
	Males	5,011	5,289	5,176	
	Females	403	475	479	
Annual employee turnover rate (%)	Total (Korea)	2.4	1.6	1.3	Monthly employee turnover / monthly total no. of employees*100
Turnover by age (%)	20'S	0.9	0.6	0.3	Turnover by age = number of turnover* employees by age /
	30's	1.0	0.8	0.7	monthly average of employeesx100
	40's	0.3	0.1	0.2	*No. of turnover: Number of employees who have left for employment in
	over 50's	0.2	0.0	0.1	other companies or personal reasons (except for retirement or contract termination
Average annual training hours	Office	182	175	53	
per person (hours)	Technical	26	31	31	
Average training expenses	Office	1,389	1,549	3,258	
per person (KRW 1,000)	Technical	270	289	221	
No. of employees on parental	Males	167	158	171	Employees who started their paternity leave in 2013
leave (No. of people)	Females	13	24	38	Employees who started their maternity leave in 2013
Return to work rate following maternity leave (%)	Females	100	100	100	Maternity leave ending in 2013
Employees on childcare leave (No. of people)	Females	8	8	30	Employes who started their childcare leave in 2013
Return to work rate following childcare leave (%)	Females	100	60	99	Users of their childcare leave and employees exempted from the leave 2013 /employees with their childcare leave ending in 2013
			82.5	82.2	
Union membership rate (%)		84.4	02.5	02.2	Technical employees at production units (1,783 subscribed out of 2,168 employees)
Sexual harassment education (No. of people)		5,105	5,466	4,880	86% and 88% of administrative and technical staff, respectively, participated (739 unattended due to overseas trips/temporary dispatche stays/education and LOA)

category 1	category 2	2011	2012	2013	note
SOCIETY					
Financial support for suppliers	No. of financial recipients	141	128	180	
(No. of suppliers, KRW 100 million, %, No. of payments)	Financial amount provided	222	457	1,052	
	(excluding indirect support)				
	Ratio of cash settlement cases	20.1	41.6	41.0	
	No. of price payments	Twice	Three times	Three times	
		monthly	monthly	monthly	
Technical development support for suppliers	No. of technical development	80	95	55	
(No. of companies / No. of cases)	cases supported				
	No. of technical protection	6/6	16/21	19/22	
	cases supported				
Education support for suppliers (No. of courses / No. of people)		10/435	72/3,519	57/3,290	No. of trainees who attended external training session
Competitiveness enhancement support for		3,493	3,111	-	2013 performance totaling criteria was changed
suppliers (Man-Day, No. of people)		-	-	47	2013 periorinance totaling criteria was changed
Provision of casting molds to strengthen suppliers'		298	589	592	
capacity of developing parts (No. of companies, KRW 100 million)		278	235	277	
EHS support for suppliers (No. of companies)		19	76	61	
CP adoption support for suppliers (No. of companies)		13	12	10	Suppliers who declared to introduce CP
Employee participation in corporate community involvement		972	4,275	5,322	
activities (No. of people)					
Corporate community involvement investments		203	149	135	
(KRW 100 million, %)		0.46	0.35	0.35	CSR investments / sales
Employee participation in "Salary Fraction Donation" campaign	No. of participants	4,552	4,895	5,000	
(No. of people, %)	Percentage of participants	91.8	89.7	88.0	
Annual fund raised by Salary Fraction Donation campaign (KRW 1,000)		33,625	182,327	226,573	

category 1	category 2	category 3	2011	2012	2013	note
ENVIRONMENTAL	50-, -		2311	2312	2015	
Environmental investments			151	200	196	
and operating costs (KRW 100 million)						
ISO 14001 (EMS) certification (No. of workplaces)	Korea		3	3	3	All Korea workplaces certified
Energy usage volume	Companywide, Korea	Total	3,018	2,978	3,121	
(Including direct and indirect usage) (TJ)		LNG	468	382	380	
		Power	2,339	2,396	2,489	
		Diesel	180	179	220	
		Others (LPG, kerosene, etc.)	31	21	32	
Fuel usage volume	Incheon	Steel plate	20,452	20,131	21,687	
(ton, Basic unit: ton/KRW million)		Steel plate basic unit	0.005	0.005	0.006	Basic unit calculated based on yearly sales
		Scrap metal	52,000	44,500	43,200	
		Scrap metal basic unit	0.012	0.010	0.011	Basic unit calculated based on yearly sales
		Sand (molding sand)	42,000	32,000	34,200	All molding sand is recycled
		Sand basic unit	0.009	0.008	0.009	Basic unit calculated based on yearly sales
Water usage volume	Companywide, Korea	Water	813,254	607,251	650,429	Including use of service water and underground water
(ton, Basic unit: ton/KRW million)		Water basic unit	0.184	0.143	0.170	Basic unit calculated based on yearly sales
Total volume of reused or recycled water	Incheon		800	800	800	
(ton, Basic unit: ton/KRW million)			(use of grey water)			
Greenhouse gas emissions	Companywide, Korea	Total	164,257	153,441	162,080	The allowed GHG emissions in 2013: 174,846
(including indirect and direct emissions)		Scope 1	43,085	37,065	40,757	
(tonCO2eq, Basic unit: tonCO2eq/KRW		Scope 2	121,180	116,376	120,876	
million)		Basic unit	0.037	0.036	0.032	
	Incheon	Total	111,699	106,373	112,485	
		Scope 1	25,779	22,885	25,338	
		Scope 2	85,920	83,488	87,147	
	Changwon	Total	19,950	19,198	18,892	
		Scope 1	3,998	3,352	3,062	
		Scope 2	15,950	15,846	15,828	
	Gunsan	Total	19,658	16,606	18,701	
		Scope 1	10,746	8,320	10,048	
		Scope 2	8,912	8,286	8,652	

<sup>\*</sup> The 2011 data covers the performance from July 1 to Dec, 31 due to the establishment of internal standards and the introduction of a computer system following the launch of CSR Team.

category 1	category 2	category 3	2011	2012	2013	note
ENVIRONMENTAL	,					
Wastewater volume (ton)	Companywide, Korea		109,848	114,933	103,461	
	Incheon	-	89,439	95,420	84,630	0.1.6
	Changwon		11,989	11,843	11,108	Data for 2012 modified
	Gunsan		8,420	7,670	7,723	
Water pollutant emissions	Incheon	BOD	8.2	2.5	6.6	Legal limit: 120mg/L. Company limit: 48mg/L
volume (mg/L)		COD	11.6	10.2	11.2	Legal limit: 130mg/L. Company limit: 52mg/L
		Suspended solids	8.3	2.0	4-5	Legal limit: 120mg/L. Company limit: 48mg/L
	Changwon	BOD	-	-	-	Legal limit: 130mg/L. Company limit: 52mg/L
		COD	7.5	5.6	5-7	Legal limit: 130mg/L. Company limit: 52mg/L
		Suspended solids	2.0	2	0.5	Legal limit: 130mg/L. Company limit: 52mg/L
	Gunsan	BOD	147	90	113	Legal limit: 400mg/L, Company limit: 160mg/L
		COD	121	110	112	Legal limit: 400mg/L, Company limit: 160mg/L
		Suspended solids	10.9	18	10	Legal limit: 200mg/L, Company limit: 80mg/L
Air pollutants (ppm, Dust: mg/m³)	Incheon	NOx	3.8	2.5	0.8	Legal limit 200ppm, Company limit 80ppm
		SOx	4.2	0	6.6	Legal limit 400ppm, Company limit 160ppm
		VOCs (Continuous/Non-con-	13.8	11.7/26.0	6.4/14.1	
		tinuous)				Legal limit 40/200ppm, Company limit 32/160ppm
		Dust (Electric furnace/	3.2	2.6/2.6	4.2/3.5	
		Non-electric furnace)				Legal limit 20/50mg/m³, Company limit 8/20mg/m³
	Changwon	VOCs	18	25	18	Legal limit: 200ppm, Company limit: 160ppm
	(No NOx, SOx)	Dust	3	5	4	Legal limit: 50mg/m³, Company limit: 20mg/m³
	Gunsan	NOx	0.3	0.14	0.13	Legal limit: 200ppm, Company limit: 80ppm
		SOx	0.9	1.15	1.58	Legal limit: 400ppm, Company limit: 160ppm
		VOCs	2.4	2.73	4-45	Legal limit: 4oppm, Company limit: 32ppm
		Dust	2.7	2.43	1.76	Legal limit: 50mg/m³, Company limit: 20mg/m³
Ozone depleting substances	Incheon	CFC, HCFC, CH Br, R-22	-	-	-	
	Changwon	CFC, HCFC, CH Br, R-22	-	-	-	No ozone depleting susbtances
	Gunsan	CFC, HCFC, CH Br, R-22	-	-	-	
Waste emissions and recycling rate	Companywide, Korea	Total volume of waste	63,431	54,932	52,911	
(ton, Recycling rate: %)		Recycled volume	59,907	-	47,452	
		Recycling rate	94-4	87	90	
	Incheon	General waste	57,681	49,872	48,014	
		Specified waste	3,340	2,637	2,801	
		Recycling rate	96	88	91	
	Changwon	General waste	932	1,077	753	
		Specified waste	618	496	478	
		Recycling rate	57	56	56	
	Gunsan	General waste	668	669	649	
		Specified waste	192	181	216	
		Recycling rate	59	71	60	
Industrial accident rate	Companywide		0.44	0.28	0.39	Based on treatment approvals

# INDEPENDENT ASSURANCE REPORT

#### To the management of Doosan Infracore

At request of Doosan Infracore (the "Company")', we have reviewed the information presented in the 2013 integrated report (the "Report"). The management of the Company is responsible for preparing the Report. Our responsibility is to carry out a limited assurance engagement on the Report and to provide opinions on it based on our review.

#### LEVEL OF ASSURANCE

We undertook a limited assurance engagement in accordance with ISAE 3000. The nature, timing and the extent of procedures for gathering sufficient, appropriate evidence are deliberately limited relative to a reasonable assurance engagement. Consequently, the limited assurance of ISAE 3000 is in accordance with the moderate level as defined by AA1000(2008).

#### THE LIMITATIONS OF OUR REVIEW

We excluded GHG(Greenhouse Gas) emissions in our limited assurance engagement. And, we did not review environmental and social performance data prior to 2012. However, we reviewed financial performance data based on the Company's 2013 audited financial statements.

#### **OUR CONCLUSIONS**

The result of our review is outlined below.

#### INCLUSIVITY

Has the Company been engaging with stakeholders across the business to develop and implement its approach to CSR?

- We are not aware of any key stakeholder groups that have been excluded from the stakeholder engagement process outlined in the Report.
- We are not aware of any matters that would lead us to conclude that the Company has not applied the inclusivity principle in developing its approach to CSR.

#### **MATERIALITY**

Has the Company provided a balanced representation of material issues concerning its CSR performance?

- We are not aware of any material aspects concerning the Company's CSR performance which have been excluded from the Report.
- Nothing has come to our attention that causes us to believe that the Company's management has not applied its processes for determining material issues to be included in the Report.

#### PROCEDURES PERFORMED

We conducted our engagement in accordance with ISAE 3000<sup>1</sup> and the requirements of a Type 2 assurance engagement as defined by AA1000AS(2008)<sup>2</sup>.

We performed the following procedures to form our conclusion on the Report:

- Evaluated the Company's processes for stakeholder engagement.
- Reviewed the Company's processes for determining material issues of stakeholder groups.
- Searched the media coverage of the Company's CSR issues during the applicable reporting period.
- Reviewed recently reported CSR issues of the Company's global competitors.
- Interviewed a selection of people in charge to understand the current status of CSR performance and the Reporting process during the Reporting period.
- Reviewed selected data regarding the Company's CSR performance, supporting evidence for assertions, and information from corporate-wide systems.
- Reviewed The Company's process for collecting and consolidating CSR performance data
- Reviewed whether financial performance data has been extracted properly from the Company's audited financial statements.

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<sup>1</sup> International Standard on Assurance Engagement (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information from International Auditing and Assurance Standards Board

<sup>2</sup> AA1000AS(2008): The second edition of the AA1000 Assurance Standard from AccountAbility

#### RESPONSIVENESS

Has the Company responded to the stakeholder concerns?

 We are not aware of any matters that would lead us to conclude that the Company has not applied the responsiveness principle in considering the matters to be reported.

#### COMPLETENESS AND ACCURACY OF PERFORMANCE INFORMATION

How complete and accurate is the economic, social, and environmental performance data in the Report?

- We are not aware of any that have been excluded from the economic, social, and environmental performance data.
- Nothing has come to our attention that causes us to believe that the data relating to the above topics has not been collated properly from the Company's reporting processes.

How plausible are the statements and claims within the Report?

 We are not aware of any misstatements of information or explanation used to support statements and claims on the Company's CSR activities presented in the Report.

#### **OBSERVATIONS AND AREAS FOR IMPROVEMENT**

Without prejudice against our conclusions presented above, we believe the following matters require attention in order to improve the Company's CSR reporting.

- Stakeholder's attention on the Company's CSR activities has recently been growing. In response to their interests, the Company needs to strengthen its stakeholder communication system that collects and deals with various stakeholder opinions from not only domestic but also overseas operations.
- To obtain goals as a leading CSR company, the Company needs a more profound integration of CSR into

corporate management strategy. This can be achieved by setting specific CSR targets and establishing a system that allows managing and reporting of actual performances in comparison to the original target.

 As the Company's international business is expanding, the level of generation, aggregation and reporting of economic, environmental and social data from overseas operations needs to be improved to provide more complete performance data to stakeholders.

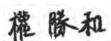
#### INDEPENDENCE

We comply with the Ethical Standard issued by IFAC (International Federation of Accountants).

#### **OUR ASSURANCE TEAM**

The assurance engagement was performed by the engagement team with a long history of experience and expertise in CSR area.

Seung Wha Gweon Country Managing Partner EY Han Young Seoul, Korea May 2014



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#### GLOBAL NETWORK





#### **UN Global Compact - Ten Principles**

#### **Human Rights**

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and Principle 2: Should make sure that they are not complicit in human rights abuses

#### **Labor Standards**

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.

Principle 4: The elimination of all forms of forced and compulsory labour;

Principle 5: The effective abolition of child labour; and

Principle 6: The elimination of discrimination in respect of employment and occupation.

#### **Environmen**

Principle 7: Businesses should support a precautionary approach to environmental challenges;

 $\label{principle 8: Undertake initiatives to promote greater environmental responsibility: and$ 

Principle 9: Encourage the development and diffusion of environmentally friendly technologies.

#### **Anti-Corruption**

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery

Doosan Infracore supports UNGC - Ten Principles.





The 2013 Doosan Infracore Integrated Report uses FSC<sup>TM</sup> (Forest Stewardship Council<sup>TM</sup>)-certified paper, bearing the logo carried only by products made using timber from environmentally developed and managed forests. The report was printed at a FSC-certified print shop using soy oil ink which drastically reduces the emissions of air pollutants.

#### Status of Business Locations in Korea

Seoul Office	ice Doosan Tower, 275 Jangchungdan-ro, Jung-gu, Seoul			
Incheon Plant	489 Injung-ro, Dong-gu, Incheon	82-32-211-1114		
Changwon Namsan Plant	40 Jeongdong-ro 162beon-gil, Seongsan-gu, Changwon-si, Gyeongsangnam-do	82-55-280-4114		
Changwon Daewon Plant	101 Samdong-ro, Uichang-gu, Changwon-si, Gyeongsangnam-do	82-55-270-0497		
Changwon Seongju Plant	19, Changwon-daero 1144beon-gil, Seongsan-gu, Changwon-si, Gyeongsangnam-do	82-55-280-4114		
Gunsan Plant	185 Dongjangsan-ro, Gunsan-si, Jeollabuk-do	82-63-447-3042		
Ansan Parts Service Center	48 Yongdam-ro, Sangnok-gu, Ansan-si, Gyeonggi-do	82-31-400-2114		

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