



























**Doosan Infracore** 

#### **ABOUT THIS REPORT**

#### **Report Compilation Standards and Reporting Principles**

This Integrated Report provides a channel through which Doosan Infracore communicates with stakeholders on company business and CSR activities. This is the first time that we have produced the annual report and sustainability report in a single volume, and our compilation was carried out in accordance with GRI (Global Reporting Initiative) 3.1 guidelines. The IR Framework put forward by the International Integrated Reporting Council was also referenced. In addition, we have worked to meet various stakeholder expectations and requirements by applying the AA1000 Stakeholder Engagement Standard (AA1000SES) when deducing key issues.

#### Reporting Period and Scope

The coverage of this Integrated Report is from January 1, 2012 through December 31 2012, while key performance data are also provided for each of the two previous years for comparative purposes. The scope of the coverage is primarily focused on domestic operations in Korea (Seoul, Incheon, Changwon, Gunsan, and Ansan), while some data on overseas operations are included. The scope of reporting will continue to be expanded in the future.

#### **Anticipated Readership**

The most important stakeholders for Doosan Infracore include customers, shareholders, investors, employees, suppliers, the Press, governments, local communities, schools, students preparing for employment, and research institutions.

#### Third Party Verification

This report has been audited by a third party, Samil Accounting (a member firm of PriceWaterhouseCoopers), to ensure the appropriateness and veracity of the reporting process as well as the accuracy and reliability of the report contents. The Independent Auditors' Report can be found on Page 82.



"Building Your Tomorrow Today" is the theme of the Doosan Infracore 2012 Integrated Report. Doosan Infracore's square-frame CI motif describes Doosan Infracore's stories for improving fundamental competitiveness and expresses the creation of new values. Doosan Infracore's current efforts and its stories will certainly create a better tomorrow.

#### Disclaimer for Forward-looking Information

Doosan Infracore prepared this report on the basis of various assumptions related to the future operational environment, as forward-looking activities, events, or phenomena represent plans at the time the 2012 report was prepared as well as forecasted information on financial results. These assumptions may turn out to be less than accurate. Moreover, the forward-looking information supporting these assumptions contain a risk of significant discrepancies between the predicted values herein and the actual results realized in the future, uncertainties, and other factors. Therefore, the forward-looking information is subject to change with changes in the external environment as well as in company plans.

This report was prepared on the basis of KRW and an equivalent of USD on a yearly basis is marked on the main pages. The standard rate applied is as of Dec 31st 2012. (1 USD = 1,071.10 KRW)

#### THE 1st INTEGRATED REPORT



Doosan Infracore Co., Ltd. ("Doosan Infracore") issued an Environmental report in 2009 and 2010, followed by a sustainability report in 2011 and 2012 as a way to elevate the efficiency of communication with stakeholders. The annual report and sustainability report are among the most important publicly disclosed documents covering the company's economic, social and environmental records. They will be prepared in an integrated format from 2013 onwards to enhance communication effectiveness.

#### The Purpose and Significance of the Integrated Report

This is the first Integrated Report published by Doosan Infracore. We believe our economic activities must also bring social and environmental value because our commitment to meeting social and environmental responsibilities increases the benefits for diverse stakeholders and ultimately raises business competitiveness. With this goal in mind, we are issuing our first Integrated Report. This is not simply merging the annual report and sustainability report data into the same physical document. Rather, our financial and non-financial performance records are being presented side by side to provide stakeholders with a more precise picture of our overall corporate value. The result can be described as a product of our ongoing efforts to incorporate corporate social responsibility (CSR) in every aspect of our business.

Importantly, we have striven to highlight the linkage between the financial and non-financial data, an approach that is designed to show how CSR is reflected in our overall operations. Moreover, this Integrated Report clarifies the work roles and responsibilities for each function regarding health, safety, the environment and other key management issues, and includes our strategic direction, key performance indicators, 2012 results and plans for 2013. In the process of compiling this Integrated Report, we have added greater independence to our reporting and management processes. Moreover, we expect that our efforts in providing this integrated report will help consolidate the thinking of our top executives and support their strategic decisionmaking. It should also serve to elevate stakeholders' understanding of and engagement in Doosan Infracore.

#### The Integrated Reporting Process at Doosan Infracore

Organizational units involved in Strategic Planning, Marketing, Investor Relations, and Communication all participated in the planning of this Integrated Report in order to ensure comprehensive coverage of our corporate values relating to financial, intellectual, human, environmental, and social matters. More than 40 working level teams prepared the reports on our performance and plans for satisfying diverse shareholder requirements and ensuring sustainable growth.

#### Contact us

You may access additional information on our homepage (www.doosaninfracore.com) or by contacting us:

Doosan Infracore Corporate Center, CSR Team Doosan Tower Building, 25th F. 275 Jangchungdan-ro, Jung-gu, Seoul 100-730 Republic of Korea Tel: 82-2-3398-2117 E-mail: infracore.csr@doosan.com ( This pocketbook contains an introduction to Doosan Group and Doosan Infracore. )



# **CORPORATE OVERVIEW**



01 DOOSAN GROUP • 03 THE DOOSAN WAY • 05 COMPANY PROFILE

Doosan Infracore manufactures the construction equipment, machine tools, and engines that support infrastructure construction and operation, helping to improve the quality of people's lives and improving the future. The company remains committed to achieving economic success while fulfilling social responsibilities and protecting the environment.

The Doosan Way, a set of core values for the next century, is the foundation for Doosan Infracore to develop fundamental technology and quality competitiveness, and make people the top business priority.

The goal is to work in harmony and grow together with diverse stakeholders, including customers, shareholders, employees, suppliers, and local communities, thereby earning trust and respect as a leading global player.

# **CORPORATE OVERVIEW**



#### Doosan: The oldest but fastest company with 117 years of history

Doosan is the oldest enterprise in Korea with 117 years of history. It is also a company that went through continuous change and significant growth during the years. The 117-year history of Doosan began in 1896 with the opening of "Park Seung-jik Store," the first modern store in Korea which opened in Baeogae (Jongno 4-ga), Seoul. Doosan soon grew into a consumer goods company specializing in beer and other beverages. Following its success in vertical and horizontal systematization of its alcoholic beverage business, Doosan posted an 80% market share in the business during the 1970s and 1980s. During this time, Doosan always topped the list of not only the alcoholic beverage businesses but also many other areas of consumer goods.

#### Shifting to Infrastructure Support Business

Doosan was faced with difficult challenges during the midgos due to market saturation and emerging of cut-throat competition in the domestic market. During this time. Doosan realized that it needed a total makeover based on "selection and concentration" and decided to sell its beer division, the OB (Oriental Brewery), and integrate its multiple subsidiaries under the Doosan Corporation. Such a pioneering move for the future enabled Doosan to solidify its position and become even stronger, preparing it to weather the storm of the financial crisis that hit Asia in 1997 and 1998. At the dawn of the new millennium, Doosan embarked on massive transformation to become a global company, developing new growth engines and overhauling its business portfolio altogether. Through a series of successful mergers and acquisitions, Doosan completely transformed itself from a consumer goods company to an ISB (Infrastructure Support Business) provider, specializing in power generation, seawater desalination, construction & engineering, heavy machinery & construction equipment, energy, national defense and production facilities.

#### A Solid Profile and Capabilities as Global Corporation

In the 2000s, Doosan made momentous inroads into the world market by acquiring Babcock (U.K., 2006) in possession of coal-fired boiler technology, and Bobcat (U.S.A., 2007), a manufacturer of various construction equipment. At that time, the Bobcat acquisition was the largest M&A deal made by a Korean company in history.

This significant achievement was largely due to Doosan's insight in corporate values and growth potential of international companies. Doosan's operational excellence that was demonstrated post M&A and its unique organizational knowhow of bringing harmony between employees from various backgrounds and culture, also played a great role.

As a result, Doosan is now ranked at the top in seawater desalination and power generation facilities in the world. Doosan has also developed 19 products that won the status of "World Class Korean Products". It has secured global competitiveness in its major business areas.

01

Doosan has also proven its global leadership in organizational operations. It hired people based on merits irrespective of races and nationalities. It put foreign executives in the positions of top management. The proportion of foreign employees has reached 50%. In addition, Doosan has implemented up-to-date work procedures throughout its global network so that it can compete with any global business conglomerate.

#### **Doosan's Growth Engine**

Behind the success of Doosan is its unwavering "trust in people." This was something our founder firmly believed in, who often had said, "investment in people makes the foundation for business." This belief is well summed up in our 2G Strategy (Growth of People, Growth of Business). The 2G strategy has been the driver of our past successes and will guide us through our journey toward prosperity in the global stage. At the heart of the 2G Strategy is the virtuous circle of "growth of people laying the foundation for the growth of the company, and the latter leading back to the former." With its trust in its employees and its continuous investment in human capital, Doosan was able to go through bold restructuring and innovative portfolio transformation successfully.

#### The Future of Doosan

Doosan hopes to become a "Proud Global Doosan", with firm belief and trust in people. "Proud Global Doosan" means becoming a company that every stakeholder is proud of. Our stakeholders include not only the employees and employers of Doosan, but also our customers, shareholders and the communities around us. Our vision is to become a company that everyone involved with can be proud of. To bring better life to mankind, for everyone who works for us and for whom we work for, Doosan continues to walk forward, doing our best every step of the way.

#### Doo (斗) San (山)

Doosan means "The little grains of sand that, all together, add up to make a mighty mountain." It means great achievements can be made only when everyone involved joins forces. The name represents Doosan's will to never stop walking until its goals are achieved, making history every step of the way.

#### **Affiliates**

02

Doosan Infracore Doosan Heavy Industries & Construction Doosan Engineering & Construction Doosan Engine Doosan Industrial Vehicle Doosan DST Rexcon Doosan Corporation Electro Materials Doosan Corporation Mottrol Doosan Corporation Information & Communications Doosan Corporation Glonet Doosan Capital Oricom Neoplux Doosan Feed & Livestock Doosan Tower Doosan Bears Doosan Cuvex Doosan Dong-A SRS Korea Doosan Magazine **Auxiliary Organizations** Doosan Art Center DLI-Yonkangwon Chung-Ang University Chung-Ang University Hospital

2011 Financial Highlights
(Unit: KRW in billions)

Total Assets

41,734

(USD 38,963 million)

**Total Stockholders' Equity** 

12,755 (USD 11.908 million)

Sales

26.290

(USD 24.545 million)

**Operating Income** 

1,492

(USD 1,393 million)

\* This report was published ahead of the 2012 Group Annual Report. Thus, the report is based on 2011 Group financial statements.











The Doosan Way

The Doosan Way,
Doosan's Belief and Philosophy for
Creating a Proud Doosan in the World



03

#### Doosan Credo

The Doosan Credo is a set of principles that represent Doosan's philosophies and our unique way of doing business. These principles have been the foundation of Doosan's success for the past century. The Doosan Credo is integral to every aspect of our business and people, clearly guiding our decisions and the way we do business. Through the realization of these values, Doosan accomplishes its ultimate goal. The Credo consists of Doosan's "Aspiration" and "Core Values".

## Aspiration

#### Doosan's ultimate goal is the creation of a "Proud Global Doosan".

In our Vision, each of our employees and all of our stakeholders will benefit from, and be proud of their association with, Doosan. Every employee takes great pride in being a member of Doosan. Each customer recognizes and appreciates Doosan's high-quality goods and services. Every shareholder values our fair and high levels of profit.

#### Core Values

#### Doosan people practice the nine core values of the Doosan Credo.

Doosan people practice the nine core values of the Doosan Credo everywhere we operate, every day, to build a "Proud Global Doosan". These values guide the way we do business, the way we treat each other and the way we work with all of our partners. The nine core values of the Doosan Credo are as follows:

People	Cultivating People	Integrity and Transparency
Inhwa	Customers	World-class Technology and Innovation
Profit	Social Responsibility	Safety & Environment



በፈ

#### **Cultivating People**

Doosan people approach others with respect and consideration. In turn, we view our people as individuals, not simply a means to achieve corporate performance. As people are the center of who we are, we take genuine care in their development, making their cultivation our top long-term priority.

#### Inhwa

Our people understand that individual performance is vital to team performance. Each individual pursues the common goals of the organization and voluntarily collaborates based on mutual trust. They achieve strong teamwork in the truest sense of the word, one that is firmly grounded on fairness and camaraderie. At Doosan we describe this as Inhwa.

#### **Limitless Aspiration**

Doosan people impose no limits to their aspirations, constantly setting higher goals and standards. When we say "higher goals and standards", these goals are not about just becoming Number One. They are about setting goals high enough to allow people to feel great personal pride when they are achieved. Imposing no limits to our aspiration means our efforts and improvements to constantly raise the bar are both unceasing and voluntary. The sense of achievement from achieving our goals provides strong motivation to go beyond our individual limits, fueled by individual curiosity and passion. Our people find great personal meaning through this virtuous cycle, spontaneously and tirelessly driving their aspiration to the next level.

#### **Open Communication**

Doosan people are completely open in communication. We have a strong trust base which allows colleagues to freely express opinions and value those of others, regardless of hierarchy. In fact, we have an obligation to provide constructive dissent when backed by clear rationale. When we make mistakes, we acknowledge them. We never hide them. People who acknowledge mistakes and keep their promises are truly worthy of trust. Such trust enables open communication.

#### **Tenacity & Drive**

Our people possess true tenacity and the drive to make even the hardest things possible. When faced with a problem, we never give up but exhaustively research every possibility until we find the answer. But we are different in how we define tenacity. We look at the situation from numerous perspectives, never simply relying on ourselves and our existing resources. Doosan people practice "smart tenacity" utilizing every available option and means, both internal and external, from preparation to implementation, to achieve goals. At all times, we keep the concept of successful closure in mind and at the forefront of everything we do. Where necessary, and without hesitation, we actively seek out new ideas, knowledge, technologies and resources, regardless of origin. This allows us to access the best insights and talent in the market.

#### **Prioritization & Focus**

Our people focus and prioritize on what matters most. Whatever task we are faced with, our work starts with identifying priorities. When priorities are set, we mobilize all available resources and go straight to the heart of the hardest and most important issues, solving them once and for all.













Company Name	Doosan Infracore Co., Ltd.	
Year Founded	1937	
CEO	Yongsung Kim	
Main Business Areas	Production and Sales of Construction Equipment, Machine Tools, Engines	
Total Assets	KRW 11,552.8 billion (USD 10,786 million) / (Consolidated basis)	
Equity	KRW 2,996.7 billion (USD 2,798 million) / (Consolidated basis)	
KRW 8,158.4 billion (USD 7,617 million) / (Consolidated basis)		
Operating Income	perating Income KRW 362.4 billion (USD 338 million) / (Consolidated basis)	
Employees	15,206	
Credit Rating	A (Corporate Bonds)	



Doosan Infracore, with the Doosan Group's core philosophy - the Doosan Way - at its foundation, is striving to reach the Global Top 3 in the machinery industry by 2020 on the strength of its leading technology and products.

2020 Global Top 3 Machinery

Construction Equipment (Including Related Business)		Machine Tools
Construction Equipment: Global Top 3	Engines: Global Top Tier Engines with the Best Technology	Global Top 3 in Metal Cutting
	T	

Technology and Products

The Doosan Way / One Doosan / Global Talent

Doosan Infracore's goal of reaching the world's top three machinery companies means being a company that posts the industry's top revenue and profit, faithfully performs its corporate social responsibilities, and continues to provide the best value to all those involved, including shareholders. To achieve this vision, Doosan Infracore is endeavoring to practice the Doosan Way, to establish a powerful corporate culture unifying its multinational employees and to foster global talent. Further, in order to supply excellent products that maximize customer value, Doosan Infracore is pushing to enhance its capabilities to analyze market and customer needs, to develop innovative technologies, to secure fundamental quality competitiveness, and to innovate productivity.

#### **Business Overview**

Doosan Infracore boasts world-class technologies and products in the machine industry, including construction equipment, machine tools, and engines. The Construction Equipment BG offers construction and civil engineering infrastructure solutions with the backing of exclusively competitive products such as excavators, wheel loaders, skid-steer loaders, heavy attachments, and articulated dump trucks. The BG also has world-class construction equipment brands such as Bobcat, Geith, Montabert and Tramac. Since its business inception in 1976, the Machine Tools BG has been the foundation for the development of national key industries, and is now taking a leap forward as a global leader through a continued investment in technologies and innovation. The Engine BG has a full lineup of products such as diesel engines and gas engines that meet various environmental regulations, now emerging as a world-class engine company. Based on its solid global competitiveness in various business groups, Doosan Infracore vows to pursue innovation and active pioneering to grow as one of the global top three companies in the machinery industry.

#### DOOSAN









Doosan, a total brand of infrastructure support business (ISB), provides diverse products worldwide such as excavators, wheel loaders, ADTs and mobile power generators in the construction equipment, machine tool and engine areas.

Bobcat, a world-class brand of compact equipment in construction, other industries, landscaping and agriculture areas, provides total services from design to manufacturing, distribution and support.

Geith, a brand of large attachment products for excavators, has earned significant recognition from customers for its excellent quality, services, and highly reliable products over the past 50 years.

Montabert is a brand of hydraulic and pneumatic demolition tools, which are used in a wide range of areas including construction, civil engineering, mining and quarrying.

Tramac is a brand of hydraulic breakers and plate compactors designed to maximize productivity based on sophisticated technologies applied to innovative designs and to minimize downtime of work.











( This pocketbook contains an introduction to Doosan Group and Doosan Infracore. )



#### **Doosan Infracore History**

1937	Established Chosun Machine Works
1966	Listed on the Korea Stock Exchange
1975	Completed the construction of Incheon Engine & Materials Factory
1977	Completed the construction of Changwon Machine Tools Factory
	Completed the construction of Incheon Construction Equipment and Industrial Vehicles Factory
1981	Established the Central R&D Center
1986	Started mass production of the excavator model developed in-house
1990	Established Doosan Infracore Europe S.A. in Belgium
1994	Established Doosan Infracore U.K., Ltd. in the U.K.
	Established Doosan Infracore China Co., Ltd. in Shandong, China
1996	Received the Grand Prize in the Korea Quality Awards
1998	Established Doosan Infracore Germany GmbH in Germany
	Established Doosan Infracore America Corp. in the USA
	Completed the construction of Forklift Factory in Yantai, China
2003	Established Doosan Infracore Machine Tools Yantai Co., Ltd. in Shandong, China
2004	Awarded the USD 1 Billion Export Tower during the Trade Day
2005	Reborn as Doosan Infracore Co., Ltd.
	Established Doosan Infracore Co., Ltd. (Rep. Office) in Dubai
2006	Established a holding company in China, Doosan Infracore investment Co., Ltd.
2007	Acquired CTI, holder of original technology for HCNG engines
	Established Doosan Infracore (Suzhou) Co., Ltd. Established
	Established Doosan Infracore India Private Ltd.
	Acquired Yantai Yuhua Machinery Ltd.
	Established Doosan Infracore International, Inc. (DII)
	Acquired Ingersoll Rand's compact equipment unit, along withother units.
	Awarded the "USD 2 Billion Export Tower" on Trade Day
2008	Established R&D Center for Machine Tools
	Acquired Moxy, a Norwegian large size dump truck company
	Completed establishing wheel loader manufactory in China
2010	Constructed Gunsan Construction Equipment Plant
2011	The Industrial Vehicle division was spun off from the company – launched as Doosan Industrial Vehicle Co.
	Incorporated into Dow Jones Sustainability Index (DJSI) Asia-Pacific
	Constructed Doosan Infracore Suzhou Co., Ltd. in China (Doosan Infracore Suzhou Co., Ltd)
2012	Began construction on wheel loader R&D Center in China
	Began construction on the Integrated R&D Center in Incheon
	Incorporated into Dow Jones Sustainability Index (DJSI) Asia-Pacific for 2 Consecutive Years
	Completed establishing Small-Sized Diesel Engine Plant in Incheon

Doosan Infracore manufactures the construction equipment, machine tools, and engines that support infrastructure construction and operation, helping to improve the quality of people's lives and improving the future. The company remains committed to achieving economic success while fulfilling social responsibilities and protecting the environment.

The Doosan Way, a set of core values for the next century, is the foundation for Doosan Infracore to develop fundamental technology and quality competitiveness, and make people the top business priority.

The goal is to work in harmony and grow together with diverse stakeholders, including customers, shareholders, employees, suppliers, and local communities, thereby earning trust and respect as a leading global player.

#### Our Story, Our Vision

- 02 CEO's Message
- 04 Vision & Strategy
- 06 Annual Business Highlights
- 08 Global Network
- 10 Product Highlights
- 14 Business Review:

Construction Equipment / Machine Tools / Engines

20 Bobcat is Successfully Sparking Growth



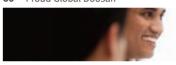
24 Elevating Our Stature in Advanced Markets



26 Our Compact Diesel Engine Will Sharpen Our Competitive Edge



30 Proud Global Doosan







**34** A Virtuous Circle of Partnership with Suppliers



**36** Dream School: Supporting the Growth and Self-reliance of People



#### **Building Value**

- **42** Sustainable Business Process and Distribution of Economic Value
- 44 CSR Management / Materiality Test
- **48** Accountable Corporate Governance
- 50 Transparent and Ethical Management
- **51** Risk Management
- **52** Enhancement of Customer Value and Quality Competitiveness
- 56 Improvement of Employee Value
- **60** Establishment of the Integrated EHS System
- **66** Mutual Growth through Win-Win Cooperation
- **70** Development of Local Communities through Social Contribution

#### **Appendix**

- **74** Consolidated Financial Statements
- 78 Independent Auditors' Report
- 80 CSR Facts & Figures
- 82 Independent Assurance Report

# We are proud Doosan people who will strive to achieve our vision and write our story for success

First, let me extend my deep gratitude to you for your unwavering support for us. Backed by your interest and patronage, we have dealt with the rapidly changing business environment preemptively and aggressively, enabling all our operations to keep growing. We are on a proud mission to enrich people's lives and add value to the world through our involvement in the infrastructure support business. In the process, we are again rising rapidly to become one of the world's top-tier machinery makers.

In 2012, we experienced the greatest uncertainty since the financial crisis of 2008. However, our Bobcat Company ("Bobcat") and Machine Tools units achieved meaningful results despite the unfavorable business conditions. Meanwhile, the ongoing fiscal crisis in Europe and delayed economic recovery in the U.S. caused hardship for many global enterprises during the year. Making matters worse, Chinese economic growth slowed, while the Korean Won appreciated in value.

Our people came together in solidarity, exerting multifaceted efforts that strengthened the entire company amid the difficult conditions. As a result, Bobcat and the Machine Tools Business Group performed well, enabling U.S. to earn KRW 362.4 billion (USD 338.3 million) in operating profit on sales of more than KRW 8.16 trillion (USD 7.62 billion), on a consolidated basis. Importantly, Bobcat's North American sales and operating profits showed strong growth. In addition, we completed the development of high-efficient and eco-friendly compact diesel engines that satisfy the latest exhaust emissions standards in the U.S. and Europe. In October, we also completed a state-of-the-art factory that is capable of producing 100,000 of these new compact diesels a year, laying the groundwork for a future growth driver.

We also were aggressively engaged in activities for raising stakeholder value. We expanded the scope of our support for direct suppliers in the interest of shared growth, and we began to offer support to secondary suppliers. Our partnerships are thus more solidly grounded on a virtuous cycle. In addition, we continued to fulfill our responsibilities as a mature corporate citizen, launching an important new CSR program for teens called "Dream School."

A paradigm shift in management is needed to cope with the era of low growth. The world economy is not experiencing a temporary downturn but has settled into a phase of persistent low growth. Most of the European economies are in negative growth, while economic growth in the U.S. is lower than what was forecasted. Relatively high growth has been maintained in China and India, but the growth rates here, too, are expected to slow. This indicates that the time has come for a robust strategy for shifting the management paradigm to low growth over the long term.

We will aggressively implement the Doosan Way to realize our vision of ranking among the Global Top 3 by 2020. Our goal is to secure the underlying competitiveness that will allow our business to remain unshaken in any global economic slowdown scenario. To this end, we are pursuing three major principles stated in our set of core corporate values known as the Doosan Way. That is, we are focusing on: (1) nurturing fundamental competitiveness, (2) upgrading work methods, and (3) cultivating people who are both strong and caring about others. The action plans for achieving these aims are as follows:



First: build the solid business structure that can endure in a low-growth market environment. A top priority in 2013 is to establish the business structure that allows for growth and prosperity amid the prevailing low economic growth thoughout the world. To this end, we will develop region-specific products that can maximize revenue generation in the short term, further our price and quality competitiveness, and raise the amount of sales in China and emerging markets to at least 50% of total sales by 2017.

Second: expand the growth platform by strengthening underlying competitiveness in product quality, technology and operational costs. Product quality, technology and operational costs are fundamental factors of competitiveness and we will elevate ours to the highest levels in the global industry, thereby building a platform for sustainable growth. Quality targets will be set according to the customers' perspective, and a companywide quality control system will be firmly established. At the same time, we will acquire the R&D system and competencies necessary for developing the world's best products, while process innovation efforts and cost control programs will be put in place companywide to lower operational costs and maximize profitability.

Third: improve the organizational fabric and culture for sustainability over the long term. Advanced, scientific work methods will reduce unnecessary business expenses. In other words, we will promote efficiency at work by doing our jobs with greater focus, communicating openly, and thinking systematically. The ultimate goal is to have the organizational fabric and culture that allows U.S. to prevail over the competition and grow under any circumstance.

Last: bolster CSR for a better future. We are well aware that sustainable corporate growth is only possible when we fulfill our responsibilities as a corporate citizen. We have established a solid foundation for operating as a socially responsible enterprise. Starting in 2013, Doosan Infracore created and implemented the CSR Committee, composed of the top executives in charge of specific areas such as human rights, labor, shared growth, environmental protection and social contributions. In addition, we support the ten principles of the United Nations Global Compact, and all of our employees are urged to be actively involved in CSR activities.

Let me close by asking for your support as we take on the great challenge to make Doosan Infracore one of the world's Top 3 machine manufacturers, standing proud on the global stage.

Yongsung Kim, President and CEO

Yas Ku

#### 2020 GLOBALTOP3 MACHINERY

#### Rank among the Global Top 3 Machine Manufacturers

The mid-to long-term vision for Doosan Infracore is to be ranked among the world's Top 3 machine manufacturers by 2020.

We aim to be at the top in both construction equipment and machine tool sectors, boasting the stature and competencies of a major world player.

# Doosan Infracore

**Our strategy** 

will allow us to

achieve our vision of

ranking among the

**Global Top 3** 

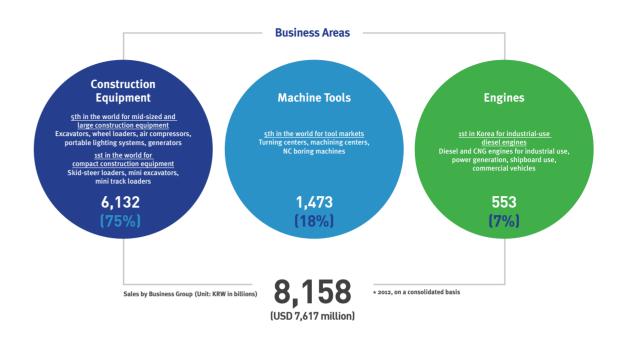
by 2020

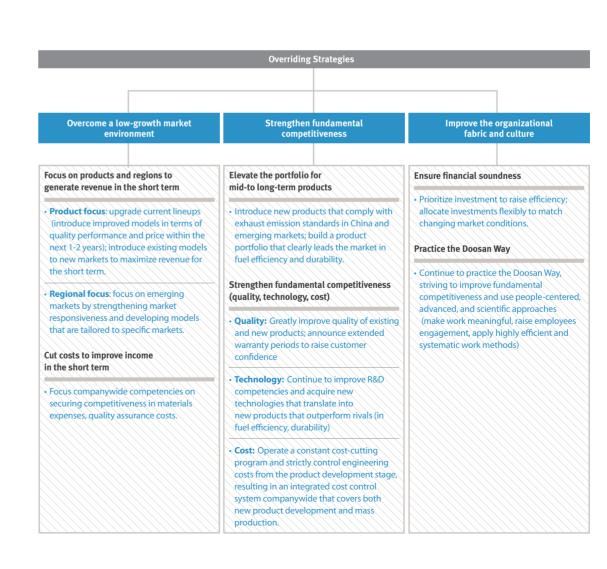
#### a global ISB leader with solid competitiveness

Doosan Infracore is a leader in the infrastructure support business (ISB), manufacturing the construction equipment, machine tools, and engines that support infrastructure construction and operation, which helps to improve the quality of people's lives and raises the future value of the world's cities. We started out in 1937 and established our prominence by becoming Korea's largest machine manufacturer. Our drive into overseas markets increased in the 1990s, and we continue to strengthen our position in global markets. In 2005, we started out anew as a member of the Doosan Group, and we have selectively focused our resources on ISB-related areas to accelerate our growth. Our subsequent acquisition of worldclass brands such as Bobcat and Moxy has taken our global competitiveness to the next level. More recently, our attention has been focused on generating synergy as we advance rapidly toward the top of our industry, armed with some of the world's highest competitiveness.

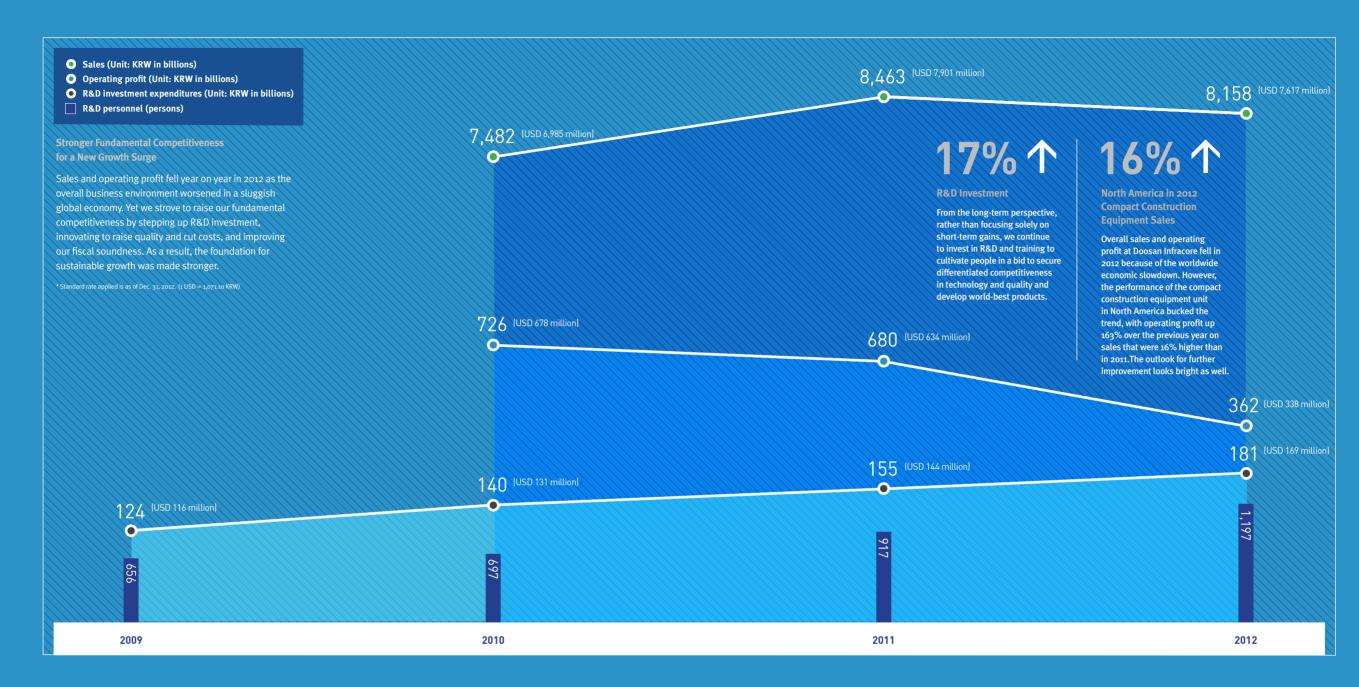
#### Strategies

Doosan Infracore has established three overriding strategies for achieving the company vision of ranking among the Global Top 3 machine manufacturers: (1) overcome the low-growth market environment, (2) strengthen fundamental competitiveness, and (3) improve the organizational fabric and culture. Detailed strategies and action plans have been set and are being implemented to secure global competitiveness in terms of quality, technology and cost. We are also following the precepts of the Doosan Way to ensure that our company has the solid organizational fabric and culture needed to grow steadily, undeterred by any external business environment.





# **Annual Business Highlights**



Increase in R&D Personnel (%)

30.5 个



The R&D team has been greatly reinforced in order to secure fundamental competitiveness by having the world's best products and technologies.

Increase in Female Employees (%)

17.9 个



The groundwork has been laid for increased workforce diversity and greater involvement in the organization by women.

Training Support to Boost Supplier Capabilities (no. of trainees)

3,519



Support is provided for 74 training programs, including courses for supplier executives and courses offered in cooperation with local universities.

Minimal Release of Contaminants into the Environment

1/10



Each worksite extensively treats environmental pollutants, releasing quantities that are not more than one-tenth the legal limit. Industrial Accident Rate (%)

0.28

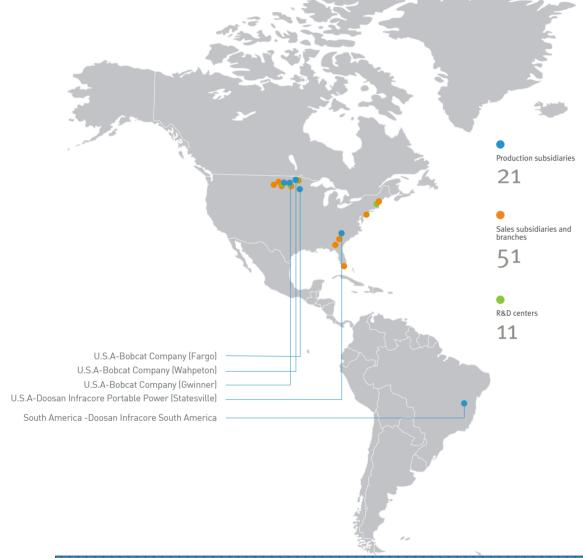


Reinforced safety training and safety management lowered the accident rate significantly from the 0.44% figure posted in 2011. (Korean industrial average stood at 0.59%) CSR Expenditures Compared to Sales Revenue (%)

0.35



Average CSR spending by large Korean enterprises as a percentage of sales: o.24% (source: 2012 White Paper on Social Contributions by FKI) Doosan Infracore accommodates diverse customer needs by operating 21 production subsidiaries, 51 sales subsidiaries and branches, and 11 research centers around the world. The dealer network spans more than 4,000 locations in more than 140 countries, and more than 15,000 people are employed by Doosan Infracore's Construction Equipment, Machine Tools and Engine Business Group in 22 countries, providing customers with top quality products and services.









Higher fuel efficiency based on work output (%)

# High-performance, Eco-friendly Excavator with Excellent Productivity & Fuel Efficiency, Optimal Operating Environment

Doosan Infracore's brand-new DX38oLC-3 is a 38-ton excavator built with innovative D-ECOPOWER technology to create an electronically-controlled hydraulic pump that delivers the required hydraulic flow and power. As a result, this machine significantly outperforms existing models in terms of productivity and fuel efficiency. The levels of operability, control and operator comfort are all judged to be superior, and the DX38oLC-3 is expected to attract much attention in the marketplace as a highly efficient, eco-friendly excavator.

Higher fuel efficiency based on work hours (%)

increased lifting capacity and greater forward reach at full lift height. The newly improved cab-forward design places the operator closer to the attachment while the much attention in the marketplace as a highly providing a better vantage point in all directions. In addition to the loader's enlarged cab door opening — the largest on the market — additional windows increase visibility, creating a clearer view of the machine's wheels or raised attachment. Simple check points make it easier to perform maintenance correctly at the proper intervals.

**Skid-steer Loader** 

with Cab-forward Design

and Increased Visibility

Larger front view (%)

Less noise and dust in the cabin (%)

The Bobcat S590 skid-steer loader is part of the new M-Series line of compact loaders

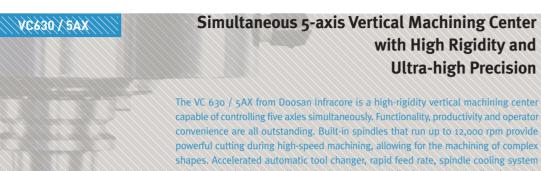
featuring durability and performance enhancements that provide operators increased uptime, improved visibility and a more comfortable cab. The vertical lift path provides

Bobca

11

D24

13



capable of controlling five axles simultaneously. Functionality, productivity and operator convenience are all outstanding. Built-in spindles that run up to 12,000 rpm provide powerful cutting during high-speed machining, allowing for the machining of complex shapes. Accelerated automatic tool changer, rapid feed rate, spindle cooling system and micro-boring bar are all standard equipment, while the automatic pallet changer is optional, allowing new work-pieces to be set up even while the machine is in operation. Customer satisfaction is maximized with convenience features such as the thermal displacement compensation on the "Z" axis and automatic measuring system.

Repeat purchase rate (%)

Maximum output (rpm)



#### **Eco-friendly Compact Diesel Engine** with Top Performance & Efficiency, **Rugged Durability**

The compact diesel engines developed by Doosan Infracore are designed to deliver high output while lowering fuel and lubricating oil consumption. Technology innovations remove more of the pollutants from the exhaust without having to add a diesel particulate filter. Exhaust, smoke and toxic substances have all been lowered by more than 99%, enabling this model to comply with the U.S. EPA's Tier 4 Final and EU's Stage IIIB & IV emission standards. The compact diesel engine with high fuel efficiency and better eco-friendliness is the product that will satisfy demand going forward, and the D24 is sure to enjoy great competitiveness in the world's most advanced markets.

Latest emission regulation compliant

ler4 Final

Reduction in harmful emissions (%)



# **Construction Equipment**

# Construction Equipment



Doosan Infracore's Construction Equipment
Business Group has been supplying highquality large excavators and loaders to
construction sites since 1977, contributing to the
advancement of infrastructure around the world.
We acquired Bobcat (compact construction
equipment) in 2007 and Moxy Engineering
(heavy-duty articulated dump trucks)
the following year, helping to fill out our
construction equipment portfolio from compact
to large-sized models.

14

Doosan Infracore solidly remains on top in the Korean construction equipment market and the global reputation for excellence is helping to make Doosan Infracore one of the world's leaders in construction equipment, attachments, air compressors, lighting systems and generators.

Doosan Infracore operates factories in Korea, China, the Americas, and Europe, while the brand portfolio includes such globally renowned names as Doosan, Bobcat, Montabert, Tramac and Geith.

#### Market Conditions and Business Results in 2012

Weakened overall economic performance in the U.S. and Eurozone heightened a sense of crisis in the global construction equipment market in 2012, while sluggish growth in the Chinese economy exacerbated the market contraction, which was 31% smaller than it had been a year earlier. Breaking down the numbers by region, construction equipment sales actually were up 19% from the previous year, but excavator demand in China was flat, causing excavator sales there to fall 38% from the previous year. Performance was also lower in Europe, India and Latin America. The market in Korea was also tough, as the overall construction industry was slow. These factors weighed on Doosan Infracore's Construction Equipment Business Group, where sales dropped 6% from the previous year to just over KRW 6,132 billion. Sales were lower in China, but rose 19% in North America and 4% in Europe during the period.

#### **Efforts to Raise Global Competitiveness**

In 2012, the Construction Equipment Business Group launched its own Corporate Research & Design Division, dedicated to advancing sophisticated technology and elevating product quality. Cooperation with the Quality has stepped up; greater investment is now being made in platform and cutting-edge technologies; and a supplier system has been established with the Engine Business Group. Product management is also being integrated globally to raise the competitiveness of midsized and heavy-duty models, and an Innovation Center is to be established in North America to bolster the competitiveness of compact construction equipment. Meanwhile, overseas production will continue to expand. An excavator factory with an annual production capacity of 1,500 units was completed in Brazil in 2012 and is now in regular operation. In addition, a new organizational unit was formed to offer an integrated solution to customers' after-sales service and parts needs, thereby elevating customer satisfaction. The percentage of parts supplied locally continues to rise around the world.

## **Business Review**

#### Business Outlook for 2013

The Chinese construction equipment market continued to be lackluster in 2012, but activity in the housing market and the macroeconomic picture have begun to pick up in 2013. Consequently, the demand for construction equipment is expected to recover in the second half of the year. Sales of construction equipment in the North American region showed growth from 2011 and this growth is expected to continue in 2013, although at a more modest rate. The aftereffects of the fiscal crisis will persist in Europe, where risk will ease somewhat but the general slowdown will continue without a dramatic turnaround. Southeast Asia, South America and the Commonwealth of Independent States (CIS, which includes Russia) were all slow in 2012 with the downturn on raw material exports. However, a stronger economy in China, a major importer of minerals, should lead to steadily improving market conditions in these regions in the second half of the year.

#### **Key Action Plans for 2013**

The Construction Equipment Business Group intends to achieve 9% year-on-year sales growth in 2013. To this end, efforts will focus on (1) creating a business structure capable of responding rapidly to the sluggish global market and (2) improving internal fundamentals. More specifically, market share will increase in China by rearranging the sales network to secure solid sales channels and by bolstering the product lineup. New excavator and wheel loader models will continue to be developed to accommodate user requirements in specific new markets such as Brazil, Indonesia, the Middle East, Africa and Russia. Dealer networks will expand in the most important of these regions, while dealer sales and after-sales service capabilities will improve to increase sales performance. In North America. meanwhile, upgraded product models will be introduced and production capacity expanded to maintain market leadership and raise profitability.

#### Brazil Plant Completed with Annual Output Capacity of 1,500 Units

Doosan Infracore has increased activities in Brazil, a market with strong growth potential. The company began exporting excavators to Brazil in 2006, and established a local branch the following year. Doosan Infracore South America (DISA), a local production subsidiary, was launched in 2011, and ground was broken for an excavator factory in Americana, Sao Paulo, in May 2011. After one year and eight months of construction, Doosan Infracore's first production facility in Latin America was completed, and regular operation started up in the second half of 2012. Initial annual output capacity is 1,500 units. The project is highly significant because all the related processes, from site purchase to construction completion, were carried out exclusively with internal resources. The excavators made here are currently being sold in Brazil and three other Latin American countries, and they will help to advance the local infrastructure support business.

Importantly, the World Cup will be held in Brazil in 2014, followed by the Olympic Games in 2016. Preparations for these events are expected to drive local demand for construction equipment, and Doosan Infracore is now in a position to supply excavators locally. In addition, a local parts distribution center operates a delivery network 24 hours a day for greater customer satisfaction. The goal is to rank DISA among the Top 3 excavator makers in Latin America with a 20% market share. The annual output capacity of the Brazil factory will be increased in stages to reach 2,500 units.

- Total investment: KRW 60 billion
- Site area: 116,000m²
- Annual production capacity: 1,500 excavators



Sales Performance (Unit: KRW in billions)

6,132

 2010
 5,963

 2011
 6,487

 2012
 6,132

# **Machine Tools**

## **Business Review**



The Machine Tools Business Group at Doosan Infracore started out with the completion of a factory in Changwon in 1976. Through ongoing R&D investment and great sacrifice, the Business Group has managed to secure proprietary technologies and deliver superb product quality. Today, the world-class machine tools from Doosan Infracore are contributing to the advancement of industry at home and abroad. Importantly, Doosan Infracore boasts some of the world's most sophisticated technologies for turning centers and machining centers, which are mainstay product lines.

The Business Group is also on the cutting edge of the industry, developing advanced, value-added models that are essential in eco-friendly automobile production, aerospace, IT, bioengineering, and components for medical machines. Moreover, the product lineups continue to be diversified from the customers' perspective. Not only is engineering tailored to individual needs, but the global sales and after-sales network and number of technology support centers continue to expand to maximize customer satisfaction.

#### Market Conditions and Business Results in 2012

The global economic downturn slowed most regional markets for machine tools, but the U.S. was an exception. The machine tool industry is swayed by investments in manufacturing facilities, and the Machine Tools Business Group has addressed this issue by implementing marketing strategies that vary according to the market conditions in specific regions. Overseas, marketing is being strengthened at the local level. Marketing activities are conducted on a regional basis; the sales network is being expanded, and the Business Group is participating in all the major trade shows. Domestically, meanwhile, we have marketed aggressively by taking advantage of superior competitiveness in order to increase sales and maximize profits. The concerted efforts inside and outside Korea enabled the Business Group's sales to surpass KRW 1,473 billion in 2012, up 3.3% from the previous year.

#### Differentiated Growth Strategies by Region

In 2012, the Machine Tools Business Group followed growth strategies designed for each major geographical region and diversified the product portfolio as part of a region-specific marketing approach, thereby minimizing the effects of changing market conditions. This concerted effort boosted Doosan's international stature and brought significant business results, including the Business Group's largest single order for machine tools ever, which was received from China's Jianghuai Automotive Group, Meanwhile, the Business Group continued to introduce new models and elevate the brand image, hosting the China Doosan Infracore Machine Tools Fair (DIMF) in Yantai, and taking part in the Seoul International Manufacturing Technology Show (SIMTOS) in Korea and the International Manufacturing Technology Show (IMTS) in the U.S. Prominently on display was the Global Standard Turning Center (GT2100), an upgraded Puma P240 version that is setting new trends in the turning center segment. The GT2100 represents the first model in the new G Series, which is boosting Doosan Infracore's global product competitiveness.

#### **Business Outlook for 2013**

The persistent fiscal crisis in the Eurozone will be a drag on new facility investments in 2013, adversely affecting the machine tool market. Indeed, growth is generally expected to slow in both the advanced and emerging markets. Economic recovery in the U.S. will be delayed, but new investments in manufacturing and other sectors should spur machine tool demand. On the other hand, the Western European automobile industry is contracting, which will lower the need for new machine tools. In China, demand is switching over from a volume of low-end machines to a smaller volume of higher-end models, which will lower the overall growth rate. Meanwhile the markets in Eastern Europe, Turkey, Russia, Southeast Asia, and Latin America are forecasted to register high growth as governments invest in infrastructure, the internal markets expand, and global companies are induced to invest in local manufacturing facilities. In Korea, activity will remain sluggish in all industrial sectors except automobiles and some mold and dye making segments during the first half of 2013, which will intensify competition among machine tool makers. However, overall demand should recover somewhat in the second half of the year.

#### **Key Action Plans for 2013**

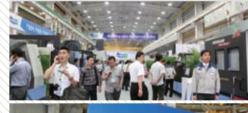
Doosan Infracore aims to increase sales by focusing differentiated marketing strategies on China and emerging markets, where significant growth is expected. Sales networks will be reinforced in advanced markets in anticipation of the market turnaround, and marketing strategies will be devised for each region to reflect local characteristics. Product lineups will also be built to accommodate changing customer needs. Additionally, global competitiveness will be raised and an integrated quality control system will be put in place to bolster the growth platform for the machine tool and factory automation business. The Machine Tools Business Group will also open the in-house product fair (DIMF\*) in Korea and attend the EMO show in Germany to elevate global recognition of Doosan's outstanding new technologies and brand. At the same time, aggressive marketing will be aimed at the medical, energy, IT, aerospace and defense industries, where demand for machine tools is expected to continue rising. The goal is to achieve a steady increase in the sales of high-end (valueadded) models, thereby improving overall profitability. Internal competencies will be improved through process innovation activities, an upgraded market sensing system, and better product support functions, which will lead to higher customer satisfaction.

\* DIMF (Doosan International Machine Tools Fair)

#### **China DIMF Held to Bolster China Business**

Doosan Infracore entered the Chinese machine tool market in 2002, and marked the 10th anniversary of this event by hosting the China Doosan Infracore Machine Tools Fair (DIMF) at the Doosan Yantai factory on May 18-19. This was the third annual event, which was also held in 2006 and 2008. More than 650 people from customers, dealers and the Chinese government attended the twoday show. The Machine Tools Business Group displayed 25 new models, including 11 turning centers, 13 machining centers, and one electrical discharge machine. Also introduced was the SMART-i System, which enables customers to monitor machine tool status remotely by smartphone. The dealer and customer representatives at the show were also briefed on plans to greatly expand local R&D and production capacities (doubling the Yantai factory output) by 2016, and their response was enthusiastic.

- Event location: DIY factory, Yantai, China
- Event dates: May 18-19, 2012
- Products on display:
- 25 models, including turning centers,
  machining centers, and electrical discharge machine





Sales Performance (Unit: KRW in billions)

2010 1,022 2011 1,426 2012 1,473

1,473

18

# **Business Review**



The Engine Business Group started making Korea's first diesel engines in 1958 and has been expanding its business ever since. Today the Business Group supplies global customers with diesel and compressed natural gas (CNG) engines for buses and trucks, industry, power generators, and ships. The R&D team has been devoted to developing eco-friendly engines to meet ever-stricter exhaust emission standards, and has come out with Euro IV- and Euro V-compliant diesel engines for vehicles as well as the GK12 CNG engine for power generation. In 2012 the **Business Group completed development of** sophisticated compact diesels that satisfy the tougher U.S. Tier 4 Final and EU Stage IIIB & IV standards, and these new models are now in mass production.

#### Market Conditions and Business Results in 2012

The adverse business environment continued in 2012: Low economic growth in China caused demand for construction equipment to plummet, and the market for commercial vehicle and generator engines was sluggish, sparking fierce price competition. However, steps were taken to minimize the drop in sales amid the market downturn, including an aggressive drive in the North American generator market that resulted in a strategic alliance with North America's largest maker of gas engines and a new partnership with a maker of firefighting pump engines. These contracts will translate into some KRW 100 billion in new sales through 2015. In addition, the major earthquake that struck Japan in 2011 sparked demand for emergency power generation equipment, and Doosan has aggressively gone after this market, concluding supply agreements with leading local generator makers. Doosan's stature in Japan has been strengthened as a result, and the Business Group's sales for the year came to KRW 553 billion, up slightly from 2011.

#### Laying the Groundwork for Global Leadership

In 2012, the Engine Business Group bolstered the platform for advancing rapidly toward global leadership by raising technology and quality competitiveness and by developing and initiating mass production of eco-friendly compact diesel engines. Various efforts were made to further global competitiveness through improved product quality and operational productivity: Old production facilities were either replaced or retrofitted; Six Sigma activities were extended; support was provided for activities to bolster suppliers' competitiveness; and new testing and measuring equipment has been brought in. Of special note, the Business Group applied advanced combustion and exhaust after-treatment technologies to develop compact diesel engines with outstanding environmental performance. A hightech factory capable of turning out 100,000 units a year was completed in October, and mass production has begun.

#### Business Outlook for 2013

The business environment is expected to worsen in 2013, as the slowdown in Korea's construction industry and the fiscal crisis in Europe continue. Demand will also be lower in China, where economic recovery is delayed. On the other hand, demand for clean-burning gas engines and high-output diesels continues to rise, and overall demand should recover, led by the emerging markets of the Middle East and South America. In addition, the various opportunity factors are not small, including the potential purchasing power of large-scale operators and the expanding base of regular customers. The possibility exists for securing growth momentum for the mid-to long-term. At the same time, government-led economic stimulus packages are helping the construction industry to recover and are promoting new infrastructure projects, which should mean sales growth for Doosan Infracore as well. The domestic market for commercial vehicle engines is likely to grow modestly, led by demand for mid-sized trucks. The generator engine segment is maturing and growth will slow. Continued growth in demand for CNG engines, however, is seen over the mid-to long-term with the increase in shale gas extraction.

#### Key Action Plans for 2013

The focus in 2012 was on improving short-term profitability and bolstering fundamental competitiveness in preparation for the market turnaround, and these activities will continue in 2013. Sales capabilities are being reinforced in the key regions of North America, the EU, and China. The sale of CNG engines and value-added models will be promoted to generate more revenue. In addition, a new generator engine scheduled for release will deliver 10-20% more output than existing models. Multifaceted efforts will be made over the mid-to longterm to elevate fundamental competitiveness in the areas of product quality, technology and cost. At the same time, new construction equipment engines in the small and new-midsized range will be launched globally to great success; the markets will be expanded for generator and marine diesels as well as CNG engines; and the feasibility and commercial viability of investments in new product development will be ensured.

#### State-of-the-art Factory for Compact Diesel Engines

Doosan Infracore completed a plant for high-efficiency, eco-friendly compact diesel engines that completely satisfy the strict exhaust emission standards recently put into effect in the U.S. and Europe. The plant, which went into regular mass production in October 2012, is located on a 14,000m² site on the premises of the Incheon manufacturing complex. It is equipped with the latest facilities and is scheduled to produce 10,000 units in 2013. Annual production will reach 100,000 units a year by 2016 and will eventually double to 200,000 units.

The greatest feature of this plant is the advanced production system that checks the engines in real time, adjusts valve clearance automatically and employs Vision Check robots and other automated robotics on the assembly line. An advanced manufacturing environment with real-time monitoring is in place to ensure consistent product quality. Moreover, features such as the digital picking system and on-screen assembly work orders help prevent human error, while the state-of-the-art production control system, which is equipped with advanced features such as RFID\* and MES\*, provides the competitiveness and quality of a world-leading engine manufacturer. This new factory will contribute significantly to the realization of Doosan Infracore's ultimate goal: to be ranked among the world's top three machine manufacturers.

- \* RFID: radio frequency identification
- \* MES: manufacturing execution system
- Site area: 14,000m²
- Annual capacity: 100,000 units
- Facilities: production building, warehouse
  Main systems:
- main systems: automatic vision checks, digital picking, RF



Sales Performance (Unit: KRW in billions)

553

2010 497 2011 550 2012 55





This growth has been fueled by the recovery in the U.S. construction equipment market since 2010 and increased demand for replacement equipment in North America. At the same time, Bobcat has reduced fixed costs and implemented various strategies to maximize returns on investment for improved operational efficiency. Another important factor driving sales growth has been the introduction of the new M-Series, which has major performance improvements over other models sold by Bobcat as well as by competitors.

#### **Bobcat Technology and Products Trusted Worldwide**

Dominant brand power and integrated solutions encompassing product design, production, distribution and technical support are why Bobcat products are so eagerly sought and thoroughly trusted worldwide. Bobcat operates a unique system for new product development through 12 R&D centers around the globe, and the Company's impressive R&D competencies and core parts production technologies are evidenced by more than 2,000 technology-related patents. In addition to technological superiority, robust attachment solutions boost Bobcat's product utility, while operator convenience features raise productivity. Bobcat machines are also built to comply with ever-stricter emissions regulations, including Tier 4 Interim and Tier 4 Final. Taken together, these benefits add up to higher customer satisfaction.

The quality of Bobcat's customer service is also among the best in the business. Ten plants are in operation around North America and Europe, and products are delivered to customers through a global network that spans more than 900 locations. As a result, customers can quickly receive the products and after-sales services they need.

213 (2,580)

#### Growth in North America, Greater Inroads into Emerging Markets

Activity returned to the U.S. housing market in 2012, and it is expected to carry over to 2013, along with growth in the market for construction equipment. The housing market index and new housing starts are both on an upward trend, and growth is now forecast to continue for the next 2-3 years. Construction equipment replacement demand is also rising steadily while the housing market is returning to life, and these factors should add resiliency to Bobcat's own growth.

In addition to the steady growth in the North American market, the growth projected for emerging markets over the mid-to long-term will have a positive effect on Bobcat's performance. In the early stages of their economic development, nations mainly require heavy-duty construction equipment to build the basic infrastructure. However, once such infrastructure is in place and requires maintenance and repair, demand for compact equipment rises. In addition, when GDP reaches a certain level in developing countries, then work that was traditionally performed by hand is increasingly done by compact machines. These factors will most likely translate into additional growth opportunities. Such rising demand for skid-steer loaders, mini excavators and other compact construction equipment types will enable Bobcat to expand its presence from advanced markets to include emerging markets.

#### **Bobcat's Unique Strengths**

The second second

#### **Robust attachment solutions**

Bobcat offers the most attachments in the industry to maximize construction equipment utility .

#### **Great operator convenience**

Performance: More powerful hydraulics boosts excavation performance, and the machine can do more while consuming less fuel. Work can be completed faster and more efficiently.

**Stability:** Adjustments in cabin positioning and increased cabin size have enlarged the operator's field of vision to the front, while the interior is roomy and the operator's seat is comfortable.

**Serviceability:** The transversely-mounted engine facilitates inspection of all routine maintenance points (oil, various fluids, oil filter, air cleaner, and battery). Bobcat's patented belt drive system has been applied, reducing fuel consumption and providing better accessibility to the engine.

#### Eco-friendliness (Tier 4)

Doosan Infracore is committed to keeping the air clear and protecting public health. A new line of diesel engines has been developed that satisfies Tier 4 Interim and Tier 4 Final exhaust emission standards, minimizing the amounts of particulate matter, nitrogen oxides and other substances that are released into the air.

#### Market Share of Skid-steer Loader by Region

#### North America

2011	37.2%
2012	40.1%

#### EMEA (Europe / Middle East / Africa)

2011	47.0%
2012	49.5%

Bobcat's Operating Profit for North America (Sales) (Unit: KRW in billions)

#### **Bobcat®:** the World's Top Name in Compact Construction Equipment

Bobcat has been in the business of making compact construction equipment for more than half a century and now is the premiere brand in this product segment. The company started out in Gwinner, North Dakota, in 1958, introducing the world's first skidsteer loader. The Bobcat brand was launched in 1962, and the company began exporting its products in 1970, after which its business grew rapidly. In addition to skid-steer loaders, Bobcat continued to be first to bring new product categories to market, including mini excavators, utility vehicles, and mini track loaders. For decades, Bobcat has maintained the largest share of the world market for skid-steer loaders, all-wheel steer loaders, mini track loaders and utility work machines (the Toolcat<sup>TM</sup>) and the second largest share for mini excavators and compact track loaders. The company holds a 40% share of the compact construction equipment markets in North America and Europe.

Approximately 1,000 independent dealers in more than 100 countries as well as more than 3,000 salespeople provide services to Bobcat customers. Bobcat provides its dealers with professional training and management to ensure the best customer service, and the resulting longstanding trust is the basis for an excellent relationship with customers.

#### A Major Global Brand at Doosan Infracore

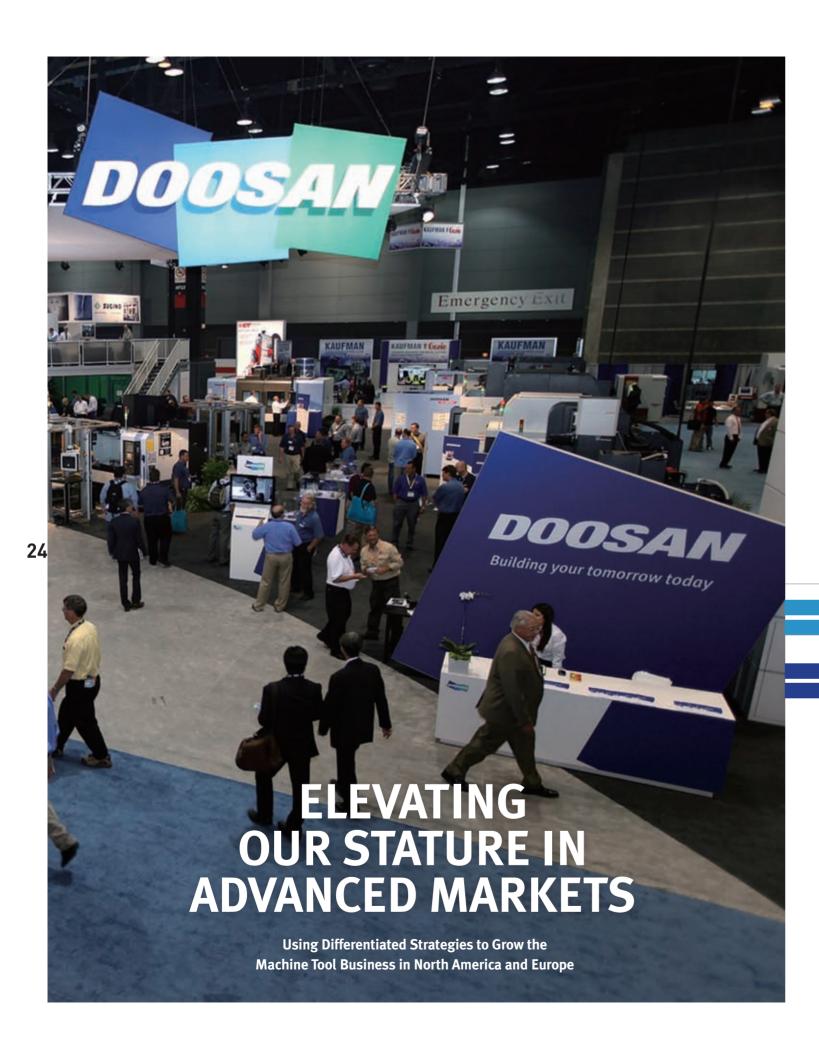
The acquisition of Bobcat by Doosan Infracore in 2007 served both companies well, laying the groundwork for a new round of rapid growth. On the one hand, Doosan Infracore secured new production and sales networks in North America, Europe and China, while the product portfolio also achieved better balance with the addition of compact construction equipment to its existing lineups of mid-sized and heavy-duty models. Now Doosan Infracore is able to address the volatility in both emerging and advanced markets more effectively.

248 (2,520)

Bobcat is releasing new models with significant improvements to fuel efficiency and performance, thereby bolstering its market leadership. Major profitability gains will also be achieved after Doosan's compact diesel engines

are mounted in Bobcat machines

81 [2,232]



#### **Increasing Sales and Elevating Stature** in Advanced Markets

The Chinese economy continues to grow, making China the world's largest market for machine tools. The economic slowdown may have caused machine tool demand to contract in Europe and the U.S., but they still remain the second- and third-largest machine tool markets. The advanced markets are not only vast in themselves, they are very important when marketing to new customers in emerging economies. Such customers have experience in purchasing machine tools from suppliers in the advanced markets and they are very sensitive to brand reputation. In step with this reality, the Doosan Infracore Machine Tools Business Group is employing differentiated business strategies and they are paying off.

Demand in the U.S. machine tool market grew by about 20% in 2012, as the economy started to rebound and automakers and other manufacturers increased their investments in new facilities. The Machine Tools Business Group faced a severe slowdown in business activity from 2009, but did not sit idly by waiting for things to improve. Rather, aggressive steps were taken to bolster local sales organizations and technical support capabilities, and as a result multiple large project orders from leading auto parts makers such as TRW, Valeo and Linimar have been received and delivered. At the same time, many more heavy-duty machine tool models have been sold to customers in the oil & gas and construction industries. As a result, the Business Group's annual sales were up 51% year on year.

Of special note, the Machine Tools Business Group participated in the International Manufacturing Technology Show (IMTS) in September 2012, and the Doosan Infracore booth was right in front of the main booth area, where the world's top five firms displayed their wares. The IMTS is one of the world's leading trade shows for manufacturers of all kinds (more than 100,000 industrial decision-makers in attendance), and it served as an important opportunity for Doosan Infracore to promote its rising global stature.

The European machine tool market, meanwhile, contracted 4% from 2011 due to the ongoing slowdown in business activity overall. However, the Machine Tools Business Group managed to increase regional sales by 6% year on year. To make this happen, marketing resources were focused on Eastern Europe and Russia—where demand for machine tools was the strongest. At the same time, aggressive marketing along with corrective actions in underperforming sales channels helped to raise market share in Western Europe.

The regional headquarters in Germany was relocated to a larger facility, and both the workforce and marketing apparatus were expanded and reinforced significantly. The Machine Tools Business Group also engaged in robust sales promotions at regional trade shows such as EMO (Exposition mondiale de la Machine Outil), the largest European event for machine tools. The net result was a stronger brand and position for Doosan Infracore in the European machine tool industry.

Sales by Region (Unit: KRW in billions)

2011
228.9
2012
345.4

2011
303.0
2012
303.0
303.0

#### The Innovative SMX, a Next-generation Multitasking Machine Tool

Regarding the Innovative SMX, a Next-generation Multitasking Machine Tool, to establish its unique machine tool product identity with the aim of innovating our product design, Doosan Infracore established the design spirit of "strength with sensitivity." We thus gathered ergonomic data by element such as accessibility to the main axis, and developed a solid design geared toward being user-friendly and stable performance, thus further bolstering our product competitiveness. Based on such innovation efforts, our newly unveiled SMX product achieved a visible directional combination structure, thus highlighting strength and dynamics. We applied metallic blue to the product, shedding the existing pastel-tone soft and warm feeling, and giving it a strong image suited to the spirit of strength. The Machine Tool Division's innovative design renewal strategy is expected not only to minimize the technical gap with advanced competitors, but also to help realize our vision of becoming one of the Global Top Three Infrastructure Support Businesses.





30.5%

Reduction in harmful particulate matter emitted

24%

**SUSTAINABLE** 

Improvement in fuel efficiency based on

Comparison with other Doosan equipment

excavator work output

# **INNOVATIVE**

#### Stronger Technology Competitiveness through Stronger R&D Integration to Increase the R&D Organization's Efficiency:

Changes were initiated at Doosan Infracore's R&D organization in 2012. In April, the R&D units at the Institute of Technology, Engine Business Group, and Construction Equipment Business Group were brought together to form the new Corporate R&D Division to devote companywide resources on innovating quality, developing new products, and acquiring the original technologies. The Corporate R&D Division, with its centralized R&D capabilities and strong project execution capability, will quickly construct the new R&D infrastructure as well as attract and nurture the necessary personnel. The Division will be able to supply, at the right time, construction equipment that is the most competitive in terms of the market requirements for quality, price, and performance. At the same time, a global R&D system will be put in place, along with the capabilities to develop models that serve global markets. In the process, Doosan Infracore can achieve its corporate vision at the earliest

Robust Design Capabilities and Price Competitiveness for Construction Equipment: The Corporate R&D Division is engaged in various efforts to create robust product designs and raise price competitiveness. In the design area, the Division is bolstering analytical competencies and applying virtual gates. These new processes thoroughly examine the operability and productivity of the new models to be developed, which is expected to halve the time needed to create the prototype and reduce design changes from the pilot stage onward by up to 90%.

Meanwhile, the Division will work to ensure that preset costs are maintained at every stage, from planning to mass production, by tightening design cost controls and employing cost prediction processes. With the adoption of DFSS (Design For Six Sigma) to ensure the design quality, quality problems will be faster resolved and problems will be further prevented.

Systematic Development of R&D Personnel: The Division has developed and implemented the R&D Functional Competency Program to systematically cultivate R&D personnel. This process is designed to cultivate "specialist-generalists," while taking into account researchers' technology specialization and career advancement paths, and to respond flexibly to future requirements for technology changes and upgrades.

Expansion of Advanced R&D Infrastructure: In June 2012, Doosan Infracore broke ground for an integrated R&D center on the site of the Incheon Plant to concentrate personnel and functions at one location. The KRW 56 billion project, scheduled for completion in September 2014, includes a 12-story structure with two underground levels that accommodates some 1,000 R&D personnel. In addition to office and research areas, the center will provide a "Town Hall Meeting Space" and "Idea Rooms" for fostering communication and cultivating creative ideas. Meanwhile, a state-of-the-art wheel loaders R&D center was completed at the production complex in Yantai, China, in January 2013. The new center will strengthen technology expertise and work on the development of new models designed specifically for China.

#### Major R&D Achievements in 2012 Construction Equipment

VBO system for 34- / 38-ton excavators

VBO control and other fuel-saving technologies for excavators

Hybrid excavator prototype

Improved spindle speed control Technology for high-deceleration travel system

Unmanned process manufacturing system Technology for auto-transmission of process program

Sensorless heat displacement correction

Tier 4 Final-compliant engines

ULPC combustion

Low-temperature combustion

Climate change and other environmental issues are now recognized as global problems, and countries around the world continue to tighten their regulations governing exhaust emissions. Persistently high oil prices are also accelerating the need to develop new technologies and alternative fuels. Doosan Infracore is responding aggressively to these changes in business conditions, devoting R&D resources on finding ways to improve machine operability and fuel efficiency as well as to reuse and recycle resources. These efforts are paying off in numerous ways.

Effort to Develop Eco-friendly Technologies and Results

Construction Equipment Business Group: Priority research projects at the Construction Equipment Business Group include reducing hydraulic fluid consumption and developing hybrid excavators. In order to enhance hydraulic fluid efficiency, the D-ECOPOWER technology was applied. The technology is designed to sense the hydraulic fluid and power necessary for the operation of the excavator, thus controlling the hydraulic pump and supplying as much fluid and power as necessary. As such, compared with the Company's existing model, the fuel efficiency per excavator work was enhanced by 24%. The technology has already been installed on the 34- and 38ton excavators, and its use will be steadily expanded to other models in the future. Moreover, other control technologies will be applied to cut fuel consumption still more. Development work began in 2007 on a sophisticated hybrid excavator. In 2012, the prototype under development proved to be more fuel efficient, and now durability is being improved and production costs reduced in order to achieve commercial viability. Currently. the Business Group is focused on developing ways to reduce the production cost of this breakthrough technology.

Machine Tools Business Group: The Machine Tools Business Group has dedicated to the development of the technologies for energy and resources saving and successfully developed Lubrication Adaptive Spindle Motor Control technology. This technology, implementing control linked with spindle operation. can minimize lubricant consumption using an oil injection system in accordance with the spindle operation. Minimization of lubricant use leads to minimization of waste oil from the shop and environment protection.

Engine Business Group: The Engine Business Group has developed the eco-friendly, high-efficiency compact diesel engines that comply with the tougher Tier 4 Final exhaust emission standards for industrial-use equipment now in force in the U.S. and Europe. The new models are made possible by intensive application of advanced design methodologies and know-how, and they are recognized for having a great competitive advantage over rival products. In January 2013, the Korean government conferred its Jang Yeong-sil Award, the highest honor for industrial technology, on Doosan Infracore for its breakthrough product. A key feature for minimizing emissions is Doosan's Ultra-low Particulate Matter Combustion (ULPC) technology, which optimizes the combustion of harmful particulate matter by optimizing the combustion bowl shape, injector nozzle, cylinder head swirl, and exhaust gas recirculation mix. As a result, the engines can satisfy Tier 4 Final without having to install a diesel particulate filter, and fuel efficiency is improved as well. Meanwhile, various technologies have been applied to optimize the performance of 8- and 11-liter CNG engines so that they meet Euro VI standards.



Excavators (34- and 38-ton models) with VBO system



Compact diesel engines



Hybrid excavator



Our story. Our vision.

Doosan has grown rapidly while overcoming a series of economic crises. Recently, we have acquired or merged numerous companies as part of our business expansion. As a result we began to formulate the Doosan Way based on our traditional concern for people. In early 2004, while getting ready to acquire Doosan Infracore, we started to define in detail our corporate philosophy, values, and ways of thinking and acting. After extensive preparation, we finally launched the Doosan Way in 2012. The Doosan Way is the philosophy that will lead our organization for the next century.

#### The Doosan Way

We refined and codified the management philosophy and business practices that have been employed at Doosan over the past 100 years to create the Doosan Credo, which lists our aspirations and details nine core values. These core values serve as the basis for how all decisions are made and what actions are taken at Doosan. In the process, we will achieve our ultimate aspiration.

#### Aspiration

To be the "Proud Global Doosan" is our ultimate aspiration. This means that our stakeholders including employees, feel pride and satisfaction through their relationship with Doosan. For employees, this pride comes from being part of the organization; for customers, from using the high-quality products and services that Doosan provides; and for shareholders, from the fair and substantial returns that they may get from their investment.

#### ore Values

Doosan people around the world practice the nine core values stipulated in the Doosan Credo with the aspiration of realizing the "Proud Global Doosan ideal." These core values, which cover the ways we do business, treat one another and work with partners, are as follows:

People	Cultivating People	Integrity & Transparency
Inhwa	Customers	World-class Technology & Innovation
Profit	Social Responsibility	Safety & Environment

#### Doosan Employees (Doosan People)

Doosan employees, or "Doosan people," constantly strive to improve themselves and to continuously increase their capabilities and willingness to contribute to the company, no matter how talented they may be. Also, Doosan people cherish fundamental values and desirable qualifications and practice what they believe. The characteristics of Doosan people are as follows:

#### **Employee Consensus and Internalization**

We decided that the Doosan Way is meaningful only when employees voluntarily participate in it. Therefore, we disseminated the idea of the Doosan Way to our employees in a totally new way. In order to build understanding of the Doosan Way, the Doosan Way Workshop was conducted for all employees in 2012, starting with the top management at all group affiliates, including Doosan Infracore. Through the workshop, employees had opportunities to understand and build a consensus on the Doosan Credo and desirable qualifications of the "Doosan employee." At the workshop, in-depth discussions were held on each item and related practices were shared. As such, the participants embraced the Doosan Way through enhanced understanding of it, and exploring the future direction of the company through open communication.

In 2012, all employees came to understand and develop a consensus regarding the Doosan Way's 6 Traits and 9 Core Values through the official launch of the Doosan Way implementation and the subsequent workshop. We intend to make 2013 the first year in which the true Doosan Way is practiced. To that end, we have been conducting Doosan Way Time, in which teams discuss the Doosan Way regarding their own work and explore and review measures for internalization of the Doosan Way. In addition, employees regularly share successful practices of the Doosan Way on the website.

The purpose of these activities is the realization of the Doosan Way while at work. Doosan people are making a significant difference by sharing opinions on the Doosan Way freely, and devising creative ideas on the job based on the Doosan Way. Doosan Infracore will continuously grow, reinforcing fundamental competitiveness by making the Doosan Way the standard of decision-making and realizing the genuine Doosan Way during the performance of work duties.

The Doosan Way Workshop was a valuable opportunity for U.S. to think about and reach agreement on the important values that we tend to forget during our busy work schedule day to day. Among the explanation on core values, the concept of "harmony," or *inhwa* (人和), touched me the most deeply. "*inhwa*" at Doosan is the true meaning of teamwork grounded in human dignity and warmth. Doosan employees express their individual characters and personalities through *inhwa*, which is revitalizing our organization by bringing people more closely together in solidarity and increasing organizational transparency. I believe that what we're really talking about when we say "growth through the Doosan Way" are constant training and open communication side by side.

CHINA
Manager Haedong Lee,
Planning Team IT

The most impressive subjects discussed at the Doosan Way Workshop were communication and Inhwa, for they represent the excellent corporate culture that I have experienced first-hand since I joined the Doosan organization after having worked at a different company. I also remember well "Our Pledge" to practice the Doosan Way on the final day of the workshop. The Doosan Way stresses that individual growth is part of corporate growth. As I practice this credo, I would like to see not only my own capabilities advance but also to assist my colleagues in their growth.

KOREA Asst. Mgr. Seungwook Chung, Engine Parts Quality Team

I found the concept of *Inhwa* in the Doosan Way to be the most interesting and inspiring concept. True teamwork, based on fairness, openness and contributions toward the progress of the team, is a trait we should all strive to embody, both at Doosan and in the world at large. Right from the start, the leadership in Atlanta demonstrated openness to the process and input from their team members. I hope to see that continue as we implement the Doosan Way. It is not a goal that can be achieved and then forgotten about. It's a way of thinking and acting that needs to guide U.S. every day.

NORTH AMERICA
Jason Mayberry, Corporate Counsel Law Department



to their aspirations

constantly setting

higher goals.

32







They achieve strong teamwork in the truest sense of the word, one that is firmly grounded based on fairness and camaraderie.



in communication.



They have deep-seated tenacity and drive to make the hardest things possible.



They truly focus and prioritize what matters most.

# The Doosan Way





# A VIRTUOUS CIRCLE OF PARTNERSHIP WITH SUPPLIERS

Doosan Infracore is realizing shared growth with suppliers by building a system that allows a virtuous cycle of partnership. Under this arrangement, we move away from the conventional practices of simple purchasing and subcontracting to include suppliers in our system of proprietary technologies, quality assurance and management.

By doing so, we aim to improve our competitiveness in production and the overall supply chain and share the benefits with suppliers, thereby establishing an even stronger partnership.

#### **Systemic and Strategic Support for Suppliers**

Doosan Infracore runs a company-level Shared Growth Promotion Team that is dedicated to building partnerships that are based on a virtuous cycle. The winwin ties with suppliers are being bolstered on multiple fronts, to include greater openness and communication with suppliers, as well as additional support for raising their competitiveness, providing funds, advancing overseas with Doosan Infracore, and helping them with compliance programs. Importantly, interaction between Doosan Infracore and suppliers is being expanded voluntarily (i.e., beyond the government's requirements). The CEO and division chiefs now visit suppliers regularly to promote onsite operations and support shared advancement. The Shared Growth Council meets whenever necessary to discuss the shared growth initiative with the executives from supplier companies. Meanwhile, cooperative committees are also run at the division level.

#### **Shared Growth Program Expanded to Secondary Suppliers**

Doosan Infracore's support for shared growth is being extended beyond primary suppliers to include secondary suppliers, as their role is also important for ensuring that the virtuous cycle of partnership is solid. The primary suppliers internalize Doosan Infracore's shared growth program, establish cooperative committees with their own suppliers, conclude shared growth agreements and engage in other practical shared growth initiatives with them. Doosan Infracore's support for secondary suppliers as well includes improving the precision of their equipment, checking and calibrating their testing and inspection machines, evaluating their technologies, assisting with their overseas marketing and benchmarking activities, and providing their executives with regular health checkups. The Company's general support for the activities between the primary and secondary suppliers is also being expanded to include production, quality control, and EHS.

#### **Supplier's Day for Promoting Harmony and Openness**

Doosan Infracore hosted Suppliers' Day on February 21, 2012, to ensure smooth communication. The event was attended by representatives of 171 primary suppliers and executives of Doosan Infracore. Awards were handed out to the top-performing suppliers; new initiatives for improving quality and lowering costs were announced, and the participants discussed their mid-to long-term operational plans. We set common goals, including a 60% reduction in defective parts by 2015 and cost structure improvements. To that end, Doosan Infracore agreed to support Six Sigma activities at suppliers, transfer cost-cutting methods to them and build a system for performance sharing.

106% 1

Financial Support (Unit: KRW in billions, excluding indirect support)

(Compared to the previous year)

2 22.2



#### **Growing into a Leader with Technological Competitiveness through Close Cooperation**

Sungwoo Co., Ltd.

Sungwoo Co., Ltd. is a leading supplier for Doosan Infracore, equipped with strong competitiveness driven by advanced technologies. This solid partner was designated as "Preferred Supplier" in 2006, received the Award of Excellence for Innovation Activities in 2009, and then won the Doosan Award of Excellence for Shared Growth for two straight years, in 2011 and 2012. Sungwoo mainly produces machine tools and attachments, including auto-tool changers (ATCs). Notably, the company is a technology and quality leader in the ATC area. Doosan Infracore has been providing Sungwoo with various types of support to improve its competitiveness. For example, Doosan provides Sungwoo with specialized technical training, helps to recruit new engineers, offers technical guidance, shares booths

at trade shows and stations permanent inspectors on site. As a result, Sungwoo has managed to completely localize the production of ATCs and chip conveyor turning centers, improve OEM process quality by 166%, receive globally-recognized technology certifications and reduce production costs. In addition to the win-win cooperation with Doosan Infracore, the company has improved its performance by working closely with its own suppliers. Sungwoo has been recognized for its achievements with an award from the Minister of Knowledge Economy at an event on the occasion of Shared Growth Week held by the Commission on Shared Growth. In addition, the company was introduced in the book of best practices for shared growth in 2011-2012 released by the Small and Medium Business Administration and Large & Small Business Cooperation Foundation.



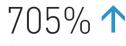
#### Growing into a Small But Powerful Machine Manufacturer through Cooperation

S Steel Co., Inc.

S Steel started out in 1986 as a maker of heavy parts for construction equipment, including excavator counterweights, buckets, blades, and loader arm levers. The company started to supply its products to Doosan Infracore in 2000, and since then, has grown into a world-class company that is competitive in price, quality and technology by successfully participating in various shared growth programs. The development of an excavator counterweight can be called a "Best Practice" in shared growth. Doosan Infracore dispatched a team of experts to S Steel to help develop a new counterweight and boost the Company's competitiveness. They transferred inspection methods, tailored production process technologies, provided the molds and related equipment required for production and helped

recruit and train the needed personnel. With Doosan Infracore's support, S Steel was able to develop a new excavator counterweight with an improved surface quality than conventional versions, while taking less time and costing 79% less to make. S Steel is now sharing the experience of cooperating with Doosan Infracore with its own suppliers. In recognition of these efforts, Doosan Infracore made S Steel a "preferred supplier" in 2011. In 2012, the company was awarded the Korean government's bronze tower industrial medal at an event on the occasion of Shared Growth Week held by the Commission on Shared Growth.





Training Support (Unit: persons)

(Compared to the previous year)

2011 435

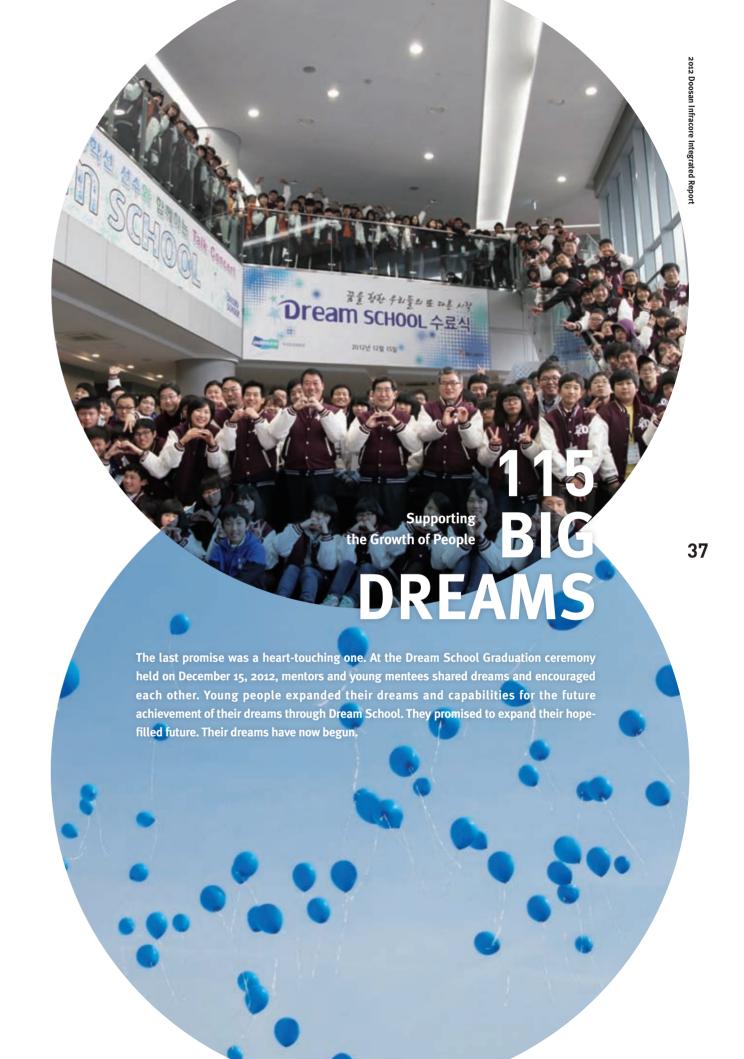
2012

<sup>\*</sup> For more details on shared growth initiatives, please turn to Page 66.



My first encounter was thrilling. On March 31, 2012, mentors and young mentees gathered together for the launching of Dream School. They looked at each other happily and vowed to look for their dreams. At Dream School, young people will foster their capabilities for exploring and expanding their dreams throughout the year.















#### **Dream School Based on Doosan Management Philosophy**

Dream School, a program to help people develop their talent for economic independence, originates from the Doosan philosophy, which stresses that people represent the future of the world. We believe that an individual's future begins during the process of searching out and expanding upon their dreams. Dream School was planned as a CSR program that embodies Doosan's corporate values. The project aims to help marginalized children realize the importance of their ambitions and create a social atmosphere for them to foster dreams both small and large. In particular, young people from low-income homes lack role models and experience, thus limiting the extent of their future potential and their dreams for it. Thus, they need more help. Against such a backdrop, we, together with the social welfare corporation World Vision, launched Dream School to help youth explore their dreams and foster their capabilities for realizing them.

#### **Launching Dream School for Young People**

To realize their dreams, young people need to bolster their capabilities, build up their experience, and have a strong support system. Thus, Dream School has programs that allow the students to explore themselves, receive professional mentoring (including from Doosan employees), and talk to experts. Parents and teachers can also receive training at Dream School. The first students were selected from among seventh and eighth graders in the vicinities of our workplaces in Seoul, Incheon, Gunsan, and Changwon. On March 31, 2012, the official opening of the first Dream School class was held at the Doosan Leadership Institute. Attending the event were 127 young mentees and 93 Doosan Infracore employee mentors. The ceremony began with the oath taking by mentor and mentee representatives, and the Dream School curricula consisted of recreation, lectures by invited celebrities and other programs. Mentors and mentees were inspired to pursue the one-year program with diligence.

#### **Mentors and Mentees Share Precious Dreams**

Dream School is a process in which young mentees explore their dreams with their mentors. The dream mentors were selected after an in-house briefing. The employee response was enthusiastic, and more people were selected to be mentors

than had been originally planned. Mentors and mentees continued their activities throughout the year by meeting once a month. Participating in diverse programs, the mentors became the intellectual and emotional supporters for the mentees, and the mentees were inspired to initiate changes in their lives. Mentors and mentees became true dream partners through the Dream School experience.

Amid the scorching summer Day 1, World Vision's former

publicity ambassador announcer Narim Park gave a lecture on professional mentoring, followed by programs about selfinitiated learning methods and self-confidence enhancement.

and mentees presented a talent show, and a good time was had by all. In the last moments of the enjoyable night, the mentors handed gifts along with hand-written letters to their mentees, impressing them deeply and moving them to tears. On Day 2, Doosan Infracore President and CEO Yongsung Kim

Dream Expedition Squad

Mentees experience their

future occupations and make

their dreams more specific

by mingling with experts in

relevant sectors. In the process,

mentors help mentees design

their future and support them

emotionally.

gave a lecture on professional mentoring, followed by a Q&A session in which he replied to the young mentees' frank questions, making the meeting very meaningful. The last session of the camp had mentees and mentors move to the Korea Job World in Bundang, Gyeonggi Province in Korea, where they could experience what their future jobs could be like.

#### **Professional Mentoring by Experts in Various Sectors**

Dream School became more meaningful as experts in various professions gave talks on mentoring. Yuntaek Im from the music group Ulala Session; producer Jinman Kim, famous for directing the documentary entitled Tears of the Amazon; South Korea's first astronaut Soveon Lee; Korea publicity expert

Gyeongdeok Suh; cooking specialist Hyejeong Lee; comedian Jongchul Jung; announcer Narim Park; Olympic gold medalist Haksun Yang; and sand artist Hajun Kim were among the celebrity broadcasters, athletes, entrepreneurs, and artists who volunteered to be guest lecturers from the March launching ceremony to the December graduation. Their success stories greatly helped young mentees shape their own dreams.

#### **Endless March Toward Precious Dreams**

The year-long Dream School steadily transformed marginalized young people for the better. Their dreams were diverse, such as becoming a crime detective, food stylist, zoologist, World Vision branch manager, astronomer, teacher, professor, entrepreneur, designer, entertainer, and cook. On December 15, 2012, the first Dream School graduation ceremony was held at the Changwon Plant R&D Center, making it more meaningful with such diverse dreams. The 115 young mentees produced and displayed Dream News about their dreams. Our Story Zone featured activities by region. Twenty-one mentees and 16 employee mentors were selected as best performers, and were provided with an opportunity to participate in volunteer community service in the Philippines. Diverse programs were conducted by mentors and mentees by region. President and CEO Yongsung Kim delivered a speech to the effect that "dreams never have a graduation ceremony," and as the message implies, the young people were encouraged to carry on their dreams. The first Dream School graduation ceremony was thus finished.

#### **Looking Further for New Dreams**

Doosan Infracore will review and evaluate the 2012 Dream School activities to plan for a better Dream School in 2013. In 2013, we will focus more on individual mentees to increase their experiences suited to their dreams. We will also use employee mentors' resources and networks to create a new story of both mentors and mentees growing together. Dream School, anchored in our management philosophy of "people are the future," will certainly serve as a catalyst for young people in our society to dream, realize good dreams and create a better world.

\* For details of corporate social responsibilities, please see page 70.

#### **Summer Dream Camp**

heat, from August 13-14, 2012, Dream Camp, part of the Dream School program, was opened at Nurigul Culture Village in Anseong, Gyeonggi Province in Korea. A total of 118 young mentees and 80 mentors attended. On

At the night campfire, mentors staged a surprise performance,

Self-exploration

**Dream School's young** 

mentees identify their

passionate development

training, self-initiated

learning training, and

positive mind training.

aptitude through

#### "The shared time at Dream School will surely be instrumental in mutual growth!"

First Dream School

**Mentor Inchul Park** (Researcher at Doosan Infracore Engine Development)

As one of the first Dream School mentors, I felt a lot of things. At first, I thought mentees were merely childish middle school students. But, I came to realize that my every word and deed became their measure of me. This made me reflect on my speech and behavior. Above all things, I never forget about a gift from my mentee. A cup engraved with a photo of the two of U.S. and the mentee's diary letter prepared for months were really impressive. I was grateful when he accepted what I said to him as precious lessons and not as meddlesome lecturing. I believe that the shared times were of great help for our mutual growth.

#### "Dream School made me a dreamer. I'll recommend it to my friends!"

First Dream School

Mentee Eunkyung Kim (false name / 3rd grader in middle school)

At the Dream School launching ceremony, I met my "Uncle Mentor," which made me very happy because I thought that I would have an advisor. At first I felt awkward, but as I participated in Dream School programs each month, we became close. We were picked as one of the best mentor and mentee groups, and were honored to have an opportunity to participate in the volunteer service in the Philippines in January 2013. My mentor did not leave me out of his thought process, but rather always put my position first. He helped me with challenging mathematical problems, and advised me when I quarreled with my friend. I have now become a more outgoing person. My dream is to become an elementary school teacher. I wish to recommend Dream School to my friends who have yet to have dreams.

# 2 Doosan Infracore Integrated Report

#### 41

# BUILDING VALUES

Doosan Infracore's CSR activities are focused on the creation and promotion of value for customers, shareholders, investors, employees, suppliers, communities and other stakeholders. The systematic and strategic importance of these activities is enhance by our building a sound corporate governance, implementing transparent and ethical management practices, and adopting an effective risk management system. These efforts help U.S. satisfy customers, offer greater profits to shareholders and investors, provide employees with higher rewards and compensation, and share the benefits of growth with suppliers. In addition, we remain committed to preserving the environment in our operations inside and outside Korea, contributing to the development of communities, and fulfilling our responsibilities as a corporate citizen.

- 42 Sustainable Business Process and Distribution of Economic Value
- 44 CSR Management / Materiality Test
- 48 Accountable Corporate Governance
- 50 Transparent and Ethical Management
- 51 Risk Management

#### 52 Enhancement of Customer Value and Quality Competitiveness

- Establish a Real-Time System to Report, Share and Respond Quickly to Quality Complaints
- Prevent Chronic Quality Problems from Recurring by Thoroughly Analyzing the Causes
- 3 Make a Breakthrough in Parts Quality
- Strengthen Advanced Quality Management Capability to
   Assure New Product Quality
- 5 Strengthen the Enterprise-wide Quality Management System

#### 56 Improvement of Employee Value

- 1 HR Management
- 2 HR Development
- 3 Win-Win Labor Relations

#### 60 Establishment of the Integrated EHS System

- 1 Integrated EHS Management System
- 2 Climate Change Response and GHG Reduction Management
- 3 Management of Environmental Impacts
- 4 Prevention and Management of EHS Risks
- **5** Promotion of Employee Safety and Health

#### 66 Mutual Growth through Win-Win Cooperation

- 1 Improvement of Communication with Suppliers
- 2 Enhancement of Suppliers' Competitiveness
- 3 Expansion of Financial Support for Suppliers
- 4 Joint Entry into Overseas Markets
- **5** Expanded Fair Trade Voluntary Compliance Program

#### 70 Development of Local Communities through Social Contribution

- 1 Systemization and Institutionalization of Social Contribution Activities
- 2 Enhancement of Employee-Participatory Volunteer Activities
- 3 Activation of Internal and External Communication

**Tighten customer information security** 

Provide for manuals and labels for

better customer safety

# SUSTAINABLE BUSINESS PROCESS & DISTRIBUTION OF ECONOMIC VALUE

42

Continue to expand R&D investment

Develop eco-friendlier small engines

Improve the energy efficiency of hydraulic systems

Establish an NPD process that reflects cu stomer needs

Doosan Infracore distributes economic value created from business activities to various stakeholder groups, including shareholders and investors, employees, suppliers, local communities, the government and municipalities, thereby fulfilling the economic responsibilities of a business. We distribute the value fairly through the integrated management of all business processes, from research and development, purchase, production, and sales and marketing to use, disposal and recycling. Our business activities are also directed toward continued growth of stakeholder value. We aim to achieve growth based on the aggressive expansion of sales and pursue stability by strengthening profit-making bases and sticking to sound financial principles. Doosan Infracore will keep developing through efficient management with an accompanying balance between growth and stability and sharing greater value with more stakeholders.

Run a support team for improving supplier competitiveness **Expand production sites** Expand training, technology and EHS support for suppliers Build an integrated management system for quality information Provide suppliers with financial support Run an enterprise-wide energy reduction task force Run a fair transaction voluntary compliance program PROCUREMENT PRODUCTION 1,099 Salaries, retirement benefits, welfare cost, etc. (412)Government and municipalities Division of created direct economic value Cost of taxes, public charges, and income tax based on the financial statement \* North America and Europe income tax profit due to deferred income tax being recognized as assets (Unit: KRW in billions) 6,439 SALES & MARKETING Cost of products and services purchased by the company for sales and marketing 15 Value excluding other and depreciation costs from the economic value created through sales and Cost of corporate social responsibility activities other revenue 382 Investors (stocks, bonds) Cost of interest paid to creditors 403 Future reinvestment fund and retained earnings WASTE & RECYCLING USE

· Carry out Doosan REMAN in China and North America

· Donate test engines after overhaul

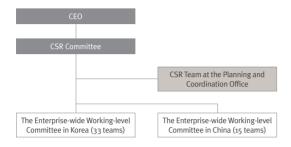
Run an integrated customer feedback management system

 Use the technology support system for video communication services

• Strengthen the capabilities of designated maintenance centers

#### **CSR MANAGEMENT / MATERIALITY TEST**

#### **Structures to Execute and Manage CSR Activities**



Doosan Infracore's CSR activities are managed by the CSR Team that was established in 2011 under the Planning and Coordination Office, which reports directly to the CEO. The Working-level Committee, which consists of the leaders of 33 teams throughout the entire organization, encourage enterprise-wide practices and involvement in CSR activities in conjunction with the CSR Committee, which assumes the role of the highest-level body for making CSR-related decisions. Our CSR activities are integrated into our business strategies, products and services. The CSR Team covers broad aspects of CSR-related work ranging from evaluating the performance of stakeholder engagement initiatives and CSR activities, establishing enterprise-wide CSR goals and strategies' monitoring performance, and publishing the integrated report.

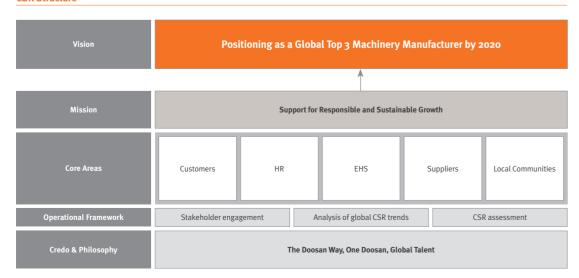
#### **Doosan Infracore CSR Committee**

Chairman: CEO					
					Secretariat: CSR Team
					,,
Customers	HR	EHS	Suppliers	Local Communities	Advisory Group
Marketing, quality, R&D	Human resource management, technological HR	Management support (EHS), R&D	Legal affairs, compliance, mutual growth, purchase	Social contributions, external cooperation, public relations	Finance, strategies, Doosan Way

We instituted the CSR Committee consisting of the CEO and key management directors in 2013. The committee is the highest decision-making body regarding the CSR activities of Doosan Infracore. The work scope ranges from establishing enterprisewide CSR strategies and policies and reviewing the performance

of individual programs to assessing business risks and seeking opportunities arising from the changes in the CSR environment. We will pursue world-class CSR activities by forming a CSR advisory group in the five sectors of customers, human resources, employee health and safety, suppliers and local communities.

#### **CSR Structure**





#### **External Assessments**

- · Listed on the DJSI Asia Pacific for the second year in a row (2011, 2012)
- $\boldsymbol{\cdot}$  Awarded a top grade and named the best company in the environment,
- society and governance (ESG) assessment by the Korea Corporate Governance Service
- $\cdot$  Gained the highest ("AAA") grade by Eco-Frontier's sustainability assessment
- $\boldsymbol{\cdot}$  Gained the best grade from Sustinvest and ranked first in the machinery sector
- · Selected as one of the 2012 Korea CSR 30 by Hankyoreh Economic Research Institute



#### **CSR Operational Structure (Annual Process for Major Tasks)**

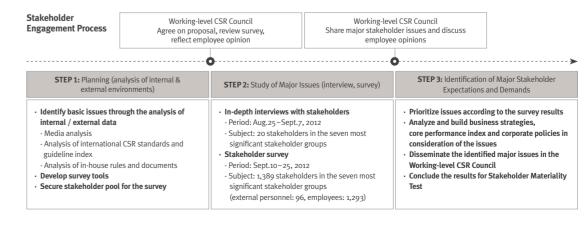


#### **CSR** Assessment

Doosan Infracore developed an in-house CSR assessment tool which allows the company to deal preemptively with assessments inside and outside Korea. The tool is also used to identify CSR issues the company is required to respond to in the future and develop related action plans. The assessment tool consists of 356 evaluation items in the nine groups of customer value, technology & innovation, corporate governance, eco-friendliness, HRD, corporate culture / human rights / labor relations, corporate ethics, mutual growth, and social contributions. The working-level CSR Council discussed and determined the annual improvement targets and mid-to long-term directions. Starting from 2012, the same tool was applied to Chinese worksites and helped implement improvement activities.

#### **Stakeholder Engagement**

Doosan Infracore's stakeholder engagement process includes three phases. In the first phase, media, international CSR standards and guideline index, and the external environments and internal conditions are analyzed to identify latest CSR issues and the levels of social consciousness. In the second phase, in-depth interviews and surveys are conducted on key stakeholders. These efforts to listen directly to stakeholders help U.S. raise the usefulness and relevance of stakeholder engagement initiatives.



#### Stakeholder-oriented CSR Activities

Stakeholder engagement supported by effective communication with stakeholders represents the single most important phase in determining the CSR strategies at Doosan Infracore. The expectations and demands of the seven most significant 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 reflected when making management decisions and the results of the CSR activities are publicly open, creating mutually beneficial relationship with stakeholders.

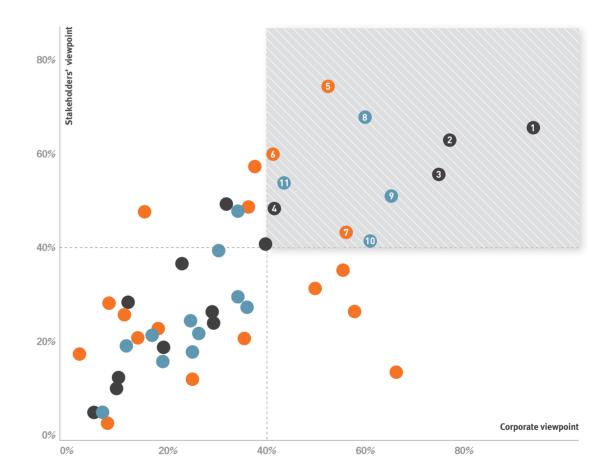
Classification	Customers / dealers	Suppliers	
	Customer monitoring	Suppliers' Day	
Communication	VOC, call center	Suppliers' Council	
channel	Joint workshop	Education & training for suppliers	
	Customer satisfaction survey	Consulting services /	
	Integrated customer management system	technological support for suppliers	
Major expectations and demands	Strengthen CS activities by dealing with customer complaints quickly Manage customer feedback systematically Improve product quality, performance, safety and convenience Protect customer information thoroughly Expand R&D investment and sharpen technological edge Distinctive customer services	Expand idea exchange and the scope of information shared with suppliers     Expand support for suppliers to raise competitiveness and capabilities (finance, technology, training, environment, ethical management, etc.)     Provide support for suppliers to enter into overseas markets and open overseas worksites together with suppliers     Strengthen fair transaction practices	
Employees	Local communities (environment / NGOs)	Shareholders / investors	
Labor-Management Council,	Meetings with communities	Shareholders' meeting, public announcement	
grievance handling tools	Social contributions	IR homepage	
intranet, company newsletters, SNS	Ties with communities	Conferences	
Internal communication programs	Develop eco-friendlier products     Enhance the environment in and around	Ad-hoc IR meetings	
Employee satisfaction survey		Enhance profitability	
Fair evaluation and compensation     Enhanced support for HR development     (training and capability development courses)     Work-life balance and family-friendly management practices     Harmonious labor relations     Effective intra-organizational communication	worksites and prevent pollution  - Establish environmental management system and strengthen public communications  - Dialogue with local communities  - Engage in various social contribution and volunteer activities  - Facilitate local economies	Manage risks     Adopt a high payout ratio policy     Strengthen communications     Maintain sound corporate governance     Manage business opportunities and risks	
Local / central governments Participation in standardization programs	Media Press release		
Participation in government-operated projects	Press conference		
Joint cooperation programs	Ad-hoc meetings		
Compliance with rules and regulations	Company visits (guided tours)		
Private-government cooperative partnership	· Share accurate information quickly		

44	CSR Management / Materiality Test	<
48	Accountable Corporate Governance / Transparent and Ethical Management / Risk Management	
52	Enhancement of Customer Value and Quality Competitiveness	
56	Improvement of Employee Value	
60	Establishment of the Integrated EHS System	
66	Mutual Growth through Win-Win Cooperation	
70	Development of Local Communities through Social Contribution	

#### **Materiality Test Results**

The materiality test was conducted with the main goals of identifying CSR issues and promoting stakeholder engagement. The results were analyzed according to business impact from the corporate viewpoint as well as the level of concern from the perspective of stakeholders, and identifying major issues in the economic, social and environmental areas. Four major economic issues were identified, including improvement of product quality

and performance, and better CS activities, while three issues stood out in the social sector, including mutual growth with suppliers and effective communication within the organization. In the environment area, four issues were extracted, including the development of eco-friendlier products and compliance with environmental regulations.



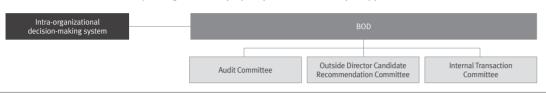
#### **Major Issues**



# ACCOUNTABLE CORPORATE GOVERNANCE

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

Doosan Infracore has raised value for the company and shareholders by implementing accountable and transparent management practices. As the 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. In addition, management positively collects and incorporates the expectations and demands of shareholders, investors, customers and other stakeholders into the decisions concerning investment and other major events. We make positive and transparent IR activities and announcements on major changes in the company and performance with our priority placed on trust.



#### **Composition of BOD**

The BOD of Doosan Infracore consists of two inside and four outside directors as of March 2013. Directors are elected at the Company's General Shareholders' Meetings. The candidates for outside directors are recommended by the Outside Director Candidate Recommendation Committee after evaluating their expertise and their relationship with the company to ensure they have no interests in the company. In 2013, a former vice chairman of the National Competitive Council was appointed an outside director to promote reasonable decision-making processes in the financial and economic aspects.

#### The Operation of the BOD

The BOD deliberates on, makes resolutions on, and verifies key management decisions. It also decides upon items specified under laws and company bylaws, items that the 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 transmitting audio and video data simultaneously, which demonstrates attendance at the meeting. Directors may not delegate their authorities to a proxy, and directors with a vested interest in a particular agenda item may not vote on it. Three committees—the Audit Committee, Outside Director Candidate Recommendation Committee, and Internal Transaction Committee—are established under the BOD. They are guaranteed transparency in the decision-making processes by maintaining independence from major shareholders and executives. In 2012, it deliberated on and approved the financial performance report, the report on the performance of the fair transaction voluntary compliance program for the first and second halves, transactions among affiliated companies, liquidation of an overseas subsidiary, acquisition of shares and other important items. Starting from 2013, CSR activities will be reviewed semiannually by the Board.

		Name	Current position / Role within the Board	Attendance rate
1		Yongsung	President and CEO of Doosan Infracore Co., Ltd. /	_
1	nside	Kim	Chairman of the Board	
	lns	Okyoo Lee	President and CEO of Doosan Infracore Co., Ltd. / Director	_
		Sairee Yun	Representative Lawyer of Yulchon LLC. / Chair of the Internal Transaction Committee, member of the Outside Director Candidate Recommendation Committee	89%
	Outside	Jaehoon Lee	Advisor to law firm Kim & Chang / Chair of the Audit Committee, member of the Internal Transaction Committee	89%
	Outs	Kijong Hong	Lawyer at Kim Chang & Lee / Chair of the Outside Director Candidate Recommendation Committee, member of the Audit Committee, member of the Internal Transaction Committee	91%
1		Taeshin	Member of the Audit Committee,	Newly
1		Kwon	member of the Outside Director Candidate	appointed on
			Recommendation Committee	Mar. 29, 2013

#### **Committee Activities**

ittee	All of the Audit Committee members are outside directors, guaranteeing the transparent and independent auditing processes. The main duties of the Audit Committee is to supervise the transparency and fairness of the Company's accounting and business practices. It also monitors the operations of the internal accounting management system, which was instituted for creating and announcing reliable accounting information. The Committee is bestowed the authority to require the BOD to submit reports on the Company's business operations and to review the status of the Company's financial assets. To this end, the committee members can attend BOD meetings and other important meetings, receive updates on management and business operations from directors, if needed, and request the BOD to review the company's certain reports on major business issues and to supplement the documents.
	The company bylaws stipulate that "[the Committee]

#### The Outside Director Candidate Recommendation Committee

**Audit Comm** 

The company bylaws stipulate that "[the Committee] shall consist of three or more outside directors." Thus, the Outside Director Candidate Recommendation Committee is composed of three outside directors. It nominates candidates for directors who are subject to election at the General Shareholders' Meeting.

#### The Internal Transaction Committee

The committee, composed of three or more outside directors as stipulated by the company bylaws, is tasked with enhancing the Company's management transparency by establishing a framework for complying with fair trade regulations. The committee evaluates and approves any transaction equivalent to KRW 5 billion or more with affiliated companies and has the authority to investigate internal transactions and propose corrective measures.

44	CSR Management / Materiality Test	
48	Accountable Corporate Governance / Transparent and Ethical Management / Risk Management	<b>←</b>
52	Enhancement of Customer Value and Quality Competitiveness	
56	Improvement of Employee Value	
60	Establishment of the Integrated EHS System	
66	Mutual Growth through Win-Win Cooperation	
70	Development of Local Communities through Social Contribution	

2012 BOD Activities: In 2012, 11 Board meetings were held on 52 agenda items. Board meeting attendance for outside directors stood at 94%.

Date	Agenda item	No. of attending outside directors (total)
Feb. 16, 2012	Approval of the 2011 report on the operations of the internal accounting management system,	6 (6)
	liquidation of overseas subsidiaries (DIBE and DIUK), and 8 other items	
Mar. 9, 2012	Approval of the 2012 Audit Report, and the call for the 12th Regular General Shareholders' Meeting	6 (6)
	and the meeting objectives, and 2 other items	
Mar. 30, 2012	Appointment of the CEO, appointment of a member of the Outside Director Candidate Recommendation	3 (4)
	Committee, appointment of a compliance supporter, and 6 other items	
Apr. 26, 2012	Report on financial statements for 1Q12 (provisional) and 1 other item	4 (4)
May 21, 2012	Approval of providing guarantee on the loan of DISA, and 3 other items	4 (4)
Jun. 28, 2012	Report on the performance of the Compliance Program for 1H12 ·	3 (4)
	appointment of a compliance officer, and 5 other items	
Jul. 27, 2012	Appointment of a compliance officer · Establishment of compliance standards and 2 other items	3 (4)
Aug. 23, 2012	Report on financial statements for 1H12 and 1 other item	4 (4)
Sept. 24, 2012	Approval of issuing offshore securities and 3 other items	4 (4)
Nov. 12, 2012	Approval of acquisition of common stocks of DII&DHEL due to the exercise of FI's put options ·	4 (4)
	Approval of raising loans collateralized with shares, and 2 other items	
Dec. 17, 2012	Approval of internal transaction with Doosan Inc., and 1 other item	4 (4)

#### **Evaluation and Remuneration**

Remuneration for both inside and outside directors is determined within the limits approved at the Shareholders' Meeting. The company also has a performance salary system which links executive compensation with the business performance. Accordingly, the directors are given basic salary for their pay grade as well as a performance bonus based on the organization's management results. In 2012, a total of KRW 270 million were paid to outside directors.

#### **Effective Communication with Shareholders and Investors**

Doosan Infracore's IR activities are organized with trust as the top priority. In the past, financial risks related to the acquisition of Bobcat Company, the sales of shares in DICC (Chinese construction equipment manufacturer), and other major issues that may have a potential impact on the company's share prices were subject to preemptive and responsive IR activities, earning trust from investors. As a result, the company received the Grand Prize in the 2011 IR Awards by Money Today, a Korean financial newspaper, in the heavy industry sector. Moreover, we engage in IR activities transparently and preemptively, raising the corporate image further as a company worth receiving continued trust from investors. In order to offer reliable information to as many investors as possible, we are engaged in quarterly investment roadshows inside and outside Korea, conferences for securities companies, and about 400 company visits a year. Our CEO and CFO have continued to hold unofficial meetings with investors to collect their opinions. In 2013, we plan to ensure that these IR activities help investors recognize the stature of the company, which has come to be a truly global player. Going forward, we will remain committed to building strategically important business relationship with investors by leveraging the trust-based IR activities.

#### Detailed Explanations about the Initiatives to Protect Minority Shareholders

We allow shareholders to vote in a General Shareholders' Meeting by letter to protect the voting rights of minority shareholders. The company attaches ballot paper for individual items to the General Shareholders' Meeting notification so that minority shareholders can express their opinions by letter without having to physically attend the meeting. Shareholders can exercise their voting rights by completing the ballots and sending them back to the company at least one day before the meeting date.

#### **Public Announcements**

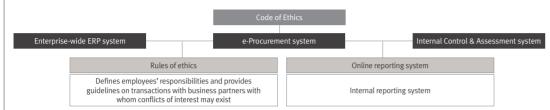
Provisional business performance
Quarterly and semiannual reports, business reports
Regular and ad-hoc General Shareholders' Meetings
Disposal of equity shares
Changes in equity structure
Statements as required to a large business group declared
by the Fair Trade Commission
Voluntary compliance program for fair transactions
Environmental management
Roadshows for investors
Decisions on the acquisition of shares or securities of other
business entities

Doosan Infracore abides by the rules and regulations on public announcements prescribed by relevant law. The company is committed to ensuring balanced announcements between financial and nonfinancial performances by voluntarily disclosing information on environmental management and the voluntary compliance program for fair transactions.

# TRANSPARENT AND ETHICAL MANAGEMENT

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

All affiliates of the Doosan Group, including Doosan Infracore, adhere to the same Code of Ethics. 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 with higher work efficiency. In addition, the Audit Committee is operated under the Board of Directors, and the Audit Team is tasked with promoting, reviewing and assessing transparent and ethical management practices.



#### Main Achievements in 2012

#### Communicating and Promoting the Ethical Management Policy

CEO's Letter on the Code of Ethics: 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 suppliers. The letter is written to remind readers of how important ethical conduct is and encourages them to comply strictly with the company Code of Ethics. In this way, the letter has contributed to preventing problems that can occur during the conduct of business transactions.

Expanded Training on Ethical Practices: Each year, all employees are required to attend a training session on professional ethical conduct. This program, provided by the team leader, helps to raise their awareness of potential problems that they may encounter in the course of doing business. The content of the training covers the Code of Ethics, ethical principles, employee responsibilities and guidelines on transactions with suppliers with whom conflicts of interest may exist.

#### **Audit and Monitoring**

Audit Offices in North America and China: In March 2013, audit teams were newly established in North American and Chinese subsidiaries. As the expansion of overseas operations and the implementation of IFRS resulted in the increased responsibilities and risks for the parent company, audit teams needed to be established at overseas subsidiaries. They are aimed at assessing the status of overseas subsidiaries and assuring transparent accounting practices, while respecting their own management responsibilities, which include regular or ad-hoc audits for the integrity of financial reporting, financial fraud, compliance, operations and other significant issues. We will constantly monitor the audit process and results of overseas subsidiaries and conduct joint audit sessions, if needed.

#### Processes for Reporting and Investigating Non-ethical Conduct

An online reporting system is in place, whereby acceptance of money, unfair work operations, irregularities and other unethical practices conducted by employees can be reported.

The reporting can be made anonymously and the details remain confidential to protect the whistleblower from any discrimination or disadvantage. Once a report is made, it is quickly investigated and handled according to established processes. The results of investigation are reported to the whistleblower and shared throughout the company as well, raising the sense of ethics to prevent the recurrence of the same problems.

#### Internal Control Evaluation System

To realize ethical management, Doosan Infracore operates an internal controls evaluation system, established in 2006. The company follows the Act on External Audit of Corporations, reporting the results of regular, company-wide evaluations of finance, sales, purchasing, and production operations to the CFO / CEO, and then to the audit committee and executive board.

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

Doosan Infracore aims to be a compliance program (CP) global leader. To this end, we expand the CP to suppliers, provide suppliers with CP training courses, monitor the performance before and after the CP is implemented, expand rewards for CP best practices, update the CP handbook regularly, and cultivate CP experts in each business group. In 2010, we provided 13 suppliers that adopted the fair trade CP with consulting expenses for contracting services. In 2012, twelve first-tier suppliers completed the implementation of the CP. We held training courses on fair trade and subcontracting laws for 88 key suppliers. In 2012, no case was reported in violation of the laws managed by the Fair Trade Commission.

#### Improvement Plan in 2013

In 2013, we will reflect Doosan Way in the Code of Ethics, and further systematize the compliance system by reorganizing the internal reporting programs, disciplinary processes, and the publication of the white book.

#### **RISK MANAGEMENT**

44	CSR Management / Materiality Test		
48	Accountable Corporate Governance / Transparent and Ethical Management / Risk Management		
52	Enhancement of Customer Value and Quality Competitiveness		
56	Improvement of Employee Value		
60	Establishment of the Integrated EHS System		
66	Mutual Growth through Win-Win Cooperation		
70	Development of Local Communities through Social Contribution		

#### **Risk Management Directions**

We prepare risk management plans in order to respond to internal and external management crises that may occur due to changes in the business environment. A risk management process has been established so that executives and employees can promptly recognize and respond to any signs of problems.

#### **Risk Reporting System**

We put together and operate a risk management and reporting framework in response to various risk possibilities that may reduce company value or cause economic loss. Risk factors are analyzed and managed for possibility of occurrence and the impact it may have on the company. When any sign is detected, it is reported to the CEO so rapid decision-making and an early response can take place.



#### **Key Risks and Relevant Responses**

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

#### **Financial Risk Avoidance and Management**

**Exchange risk:** Doosan Infracore is exposed to risks arising from changes in currency exchange rates, which may affect the forecast of future deals, perceived assets and liabilities, and net investment in overseas operations. As such, our basic strategies call for U.S. to manage exchange late risks and reduce exchange rate-driven profit fluctuations in accordance with foreign exchange regulations.

Interest rate risk: Interest rate risk is often associated with variable-rate deposits and loans. Our efforts to cope preemptively with these risks include minimizing external borrowings, reducing high-interest-rate loans, improving borrowing structure, and maintaining the ratio between fixed-rate and variable-rate loans.

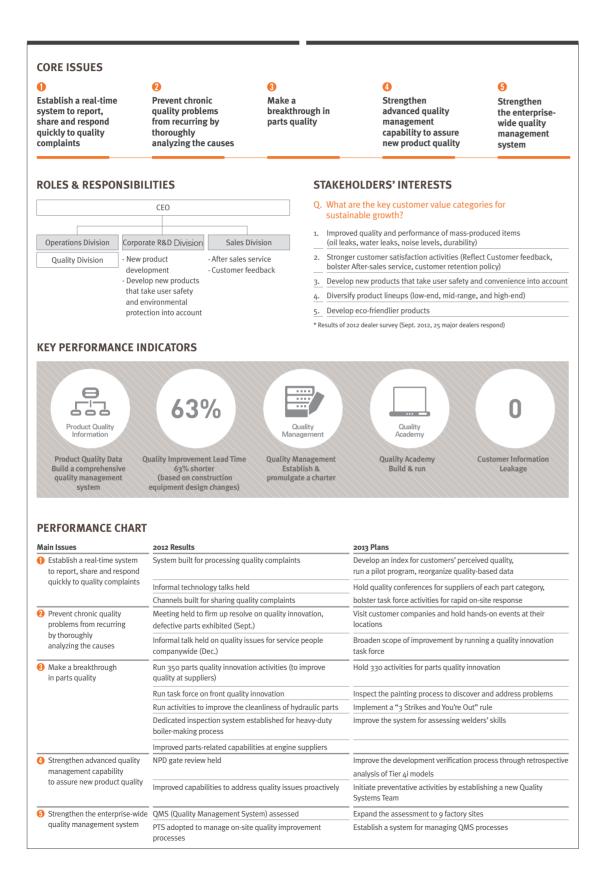
**Price risk:** Quoted equity instruments are exposed to price fluctuation risks. Therefore, management regularly assesses the risk of market price changes affecting fair value or future cash flow.

**Credit risk:** Credit risk arises from ordinary transactions or investment activities when a customer or business partner does not follow the conditions of business agreements. To manage the credit risks, we regularly asses the financial credit ratings of customers and business partners by taking into account their financial status and track records. We set different credit limits for individual customers and business partners.

**Liquidity risk:** We establish the three-month and annual financial balance plans, which allow U.S. to forecast monetary balance affected by business, investment and financial activities. The forecasts help U.S. secure and maintain sufficient liquidity in preparation for possible liquidity risk in the future.

**Capital risk:** We adjust dividend payouts to shareholders and repay capital reserves in order to maintain or modify capital structure, while issuing new shares and selling assets to reduce debts.

# ENHANCEMENT OF CUSTOMER VALUE AND QUALITY COMPETITIVENESS



44	CSR Management / Materiality Test	
48	Accountable Corporate Governance / Transparent and Ethical Management / Risk Management	
52	Enhancement of Customer Value and Quality Competitiveness	$\leftarrow$
56	Improvement of Employee Value	
60	Establishment of the Integrated EHS System	
66	Mutual Growth through Win-Win Cooperation	
70	Development of Local Communities through Social Contribution	

#### 2012 SPECIAL ACTIVITY

Announcement of Quality Management Directive

Our employees are all dedicated to achieving the same goal: make Doosan Infracore one of the world's Top 3 machinery makers, competing head to head with the industry's very best companies who are backed by experience and technology built up over many decades. This goal must be achieved amid a global economic downturn and sharply intensifying competition in emerging markets such as China. To realize our ambition, we have made customer satisfaction a top priority. We announced a set of six main quality management directives in September 2012 as a pledge to leverage our technology competitiveness and secure unsurpassed quality from the customers' perspective. Detailed action plans have been devised and implemented so that all employees are practicing the quality directives by 2017 and providing customers with clearly discernable quality improvements. In addition, the six following pledges will be fulfilled to the letter so that we gain the strong trust required from customers and the marketplace to join the ranks of the world's Top 3.

- We shall quickly address any complaint that is submitted from our customers.
- **2.** We shall get to the root cause and correct any critical problems.
- 3. We shall greatly improve the quality of our parts.
- **4.** We shall achieve unsurpassed quality from the product development stage onward.
- **5.** We shall reinforce our quality-related infrastructure companywide.
- 6. We shall extend our product warranty periods.

#### **Build a System for Handling Quality Complaints**

Domestic	Overseas		
Call Center receipt	Dealer receipt		
PS measures & inputs	Overseas subsidiaries / PS inputs		
<b>\</b>	•		
Sensing Point	Sensing Point / ERP registry		
Claim ju	Claim judgment		
Claim	Claim data		
Assign weighte	Assign weighted value (S1, S2)		
₩			
Major claim	Notify the concerned unit, share the information		

<sup>\*</sup> S1 (equipment downtime), S2 (general claims)

#### Establish a Real-Time System to Report, Share and Respond Ouickly to Quality Complaints

Our customer-oriented quality management approach calls for U.S. to expedite the sharing of quality complaints received from customers with all concerned persons, including members of top management. When attention is raised companywide, quality problems can be resolved quickly, thus minimizing customer dissatisfaction.

#### **System for Handling Quality Complaints**

A system was built to share in real time all information related to the processing of customer complaints (from time of Call Center receipt to PS service steps taken, and claims filed). This provides the basis for focusing on corrective action and shortening the time required to complete the job. Information on product quality issues have also been made more transparent and response accelerated. The lead time for addressing the quality problem was cut by 63% (based on changes in construction equipment design).

#### Channels for Sharing Information on Various Quality Issues

Quality-related information is shared through a variety of settings. Whenever an important quality related issue is raised in the marketplace, it is reported immediately to the CEO via the chief executive at the office in charge and registered in the CEO's issue pool for corrective action to be initiated. Informal technology discussions are called with the President and CEO, technology advisors, President of Corporate R&D Division, President of Operation Division, and VP of Quality all in attendance, and a companywide integrated quality meeting is held each month for top management to make the final decisions. Weekly market quality meetings convene to review the product quality improvement processes.

#### Prevent Chronic Quality Problems from Recurring by Thoroughly Analyzing the Causes

Total Quality Management (TQM) activities that apply Six Sigma methods are being stepped up and quality and technical training is provided to all employees, including those at suppliers, according to organizational rank and job position. Engineering capabilities are being improved while the focus is on eradicating critical and chronic quality problems and ensure they do not recur.

#### Greater Use of TQM (Total Quality Management)

Chronic quality problems are being selectively and innovatively addressed through TQM improvement processes. A total of 48 different tasks have been initiated to (1) improve production quality and eliminate the root cause for recurring and chronic quality problems, (2) improve production processes to increase output volumes and production efficiency, and (3) improve procurement procedures to ensure consistent quality at suppliers and meet delivery deadlines. As a result, the daily boom production output was raised 27%, and the incidence of faulty starters was reduced by 90%. These results lowered costs and greatly improved production efficiency.

Doosan Infracore took advantage of strong execution capabilities to build a system for responding rapidly to customer and market demands. In addition, companywide competencies have been brought together to eradicate the root causes of chronic quality problems. Quality competitiveness is being leveraged to secure maximum quality from the customers' perspective.

#### Informal Discussion for Companywide Service Personnel (December)

A total of 110 people, including the CEO, gathered to discuss the feedback received from customer sites by the Customer Service people with the people from the R&D, Production and Quality control units. The event elevated understanding of steps to address current quality issues and new customer needs, while people throughout the company were encouraged to participate in the quality improvement effort.

#### Make a Breakthrough in Parts Quality

Warehouse acceptance inspection standards and methods as well as supplier selection and assessment standards have been overhauled to prevent defective parts from entering the production process and to greatly improve parts quality overall. Many efforts have also been made to improve the capabilities at supplier companies.

#### 350 Parts Quality Innovation Activities

We conducted quality improvement activities targeting 17 suppliers with low process quality. Notably, quality goals were allocated to poor-performing suppliers for boosting their sense of responsibility. Faulty results were checked weekly and improvement meetings were held with poor performers. With these efforts, 52% quality improvement was achieved.

#### Activities to Improve the Cleanliness of Hydraulic Parts

Contamination by foreign substances can debilitate hydraulic systems, and processes improvements have been made to prevent this from happening. Purity of hydraulic fluid and cleaning fluid and the cleanliness of parts are regularly assessed, and damage from foreign substances on the factory floor and in the field have been greatly reduced. The cleanliness inspects were conducted 48 times at 14 companies during 2012, and a clean process improvement rate of 95% was achieved.

#### Strengthen Advanced Quality Management Capability to Assure new Product Quality

Rigorous inspections are conducted to ascertain whether the quality targets set for each stage of new product development (NPD) are met. Moreover, NPD processes are rigorously performed according to the legal, safety and quality perspectives to ensure that quality problems found in current models do not recur in new models.

#### **NPD Gate Audit**

"NPD gate" audits are conducted to identify quality-related risks and that transparency enhancement activities are being carried out. In the process, corrective actions are taken on quality issue categories that surface during the NPD pilot program and early warning period, when advanced product quality control is in effect. Correction rates of 99% (for midsized and heavy-duty construction equipment) and 97% (for engines) have been achieved.

#### Reinforced Competencies for Advanced Product Quality Control

To secure the capabilities for performing advanced product quality audits, data is collected on excavator and engine NPD quality targets regarding the actual performance and history of problems encountered during NPD. This database provides the capability to anticipate quality problems.

#### Strengthen the Enterprise-wide Quality Management System

Our companywide quality-related infrastructure is being reinforced as we hire trained engineers to quality control positions as well as inspect and invest aggressively into utilities that influence quality. All worksites, including those in China, will be equipped with the ISO / TS16949 quality standards system by 2016, and assessments will be made continuously to ascertain whether those standards are being strictly met. Thus the groundwork will have been laid for our quality management to proceed on the basis of regulations and policies.

#### **New Quality Academy**

The newly-built Quality Academy has developed a training system and is now running its first year of instruction. Better quality competitiveness will be secured by organizing the training programs by work position, thereby elevating specialization. At the same time, the Quality Academy operation is structured to integrate core competencies and achieve connectivity among various job functions. Training contents are segmented according to work position and training year as well as by expectation level. Currently twenty courses are available for office employees, and twelve for technical employees. Specific courses cover the principles of TQM and lean production, Six Sigma, adopting a quality mindset, and taking corrective action on the factory floor.

#### Quality Management System Assessment

The maturity levels of the QMS were evaluated at all Korean and five Chinese work sites, and corrective steps were subsequently taken. To achieve meaningful quality gains, an optimized quality management assessment scheme was created and a system was simultaneously established to evaluate the quality of the supply chain, to include suppliers. In the future, a Quality Systems Team will be newly formed; quality assessment specialists will be secured; the number of subject worksites will be increased, and a QMS task management system will be established to make the tasks more viable.

44	CSR Management / Materiality Test	
48	Accountable Corporate Governance / Transparent and Ethical Management / Risk Management	
52	Enhancement of Customer Value and Quality Competitiveness	4
56	Improvement of Employee Value	
60	Establishment of the Integrated EHS System	
66	Mutual Growth through Win-Win Cooperation	
70	Development of Local Communities through Social Contribution	

#### Safeguard Communication with Customers and Customer Data

Doosan Infracore is creating a system that puts customer opinion first in all processes at customer contact points, including new product development, production, sales, and after-sales service. Importantly, a new product development (NPD) process has been built that reflects customer feedback in NPD during the development and production stages. Company representatives visit major customers directly at least once per quarter and listen carefully to what they have to say. These opinions are then reflected in NPD.

#### **NPD for Customer Safety**

All new product development processes are approached with the safety and health of machinery operators and mechanics in mind. During new product planning, careful studies are made of various national safety regulations and international standards governing technologies for overall product safety, exhaust emissions, fires, explosions, noise, operator field of vision, vehicular rollover, electromagnetic radiation, and toxic chemical substances. Based on these findings, plans are drawn up for developing and inspecting products. The guidelines for the construction equipment standards in Korea, the Machinery Directive in the UE, the OSHA and MSHA rules in the US, and the GB Standards in China are reflected in the NPD targets. The proposed designs are examined to confirm their conformity to the established NPD targets during the new product design stage. The testing and accreditation by a certification authority during the verification stage confirm whether targets are reached regarding those performance areas that have a direct bearing on product safety.

#### Provision of Accurate Product Information

Doosan Infracore regulates everything from the design of manufactured products to their sale and after-sales services. These rules govern the work scope and approaches for each function regarding product liability and related product safety activities. In addition, customers receive information on the safe use and servicing of these products, and every effort is made to communicate with the customer most effectively and clearly. Safety labels bearing the words "Caution," "Warning" or "Danger," depending on the risk level, are provided as reminders so that the machine is operated and serviced safely. In addition, the product manual preface clearly presents and emphasizes what users must bear in mind for safe operation and servicing. The safety labels affixed on the machines are made in strict accordance with ISO 9244, while the product manual and accompanying operator's manual are prepared according to ISO 6750 guidelines.

#### After-sales Service

A Voice-of-the-Customer (VOC) Center is in regular operation to receive and process customer complaints rapidly. Training on product maintenance and repair, and methods for dealing with customers is provided three times a year to develop the customer service mindset in service representatives at designated after-sales service centers and parts dealers. The designated after-sales service centers are inspected and evaluated annually to prevent mistakes in maintenance and repair services. Field service engineers and the Call Center maintain real-time contact via smartphone to provide various after-sales services rapidly at the customer's location, to include correcting machinery malfunctions, solving software problems, and assisting with parts and machine operation.

#### **Safeguard Customer Data**

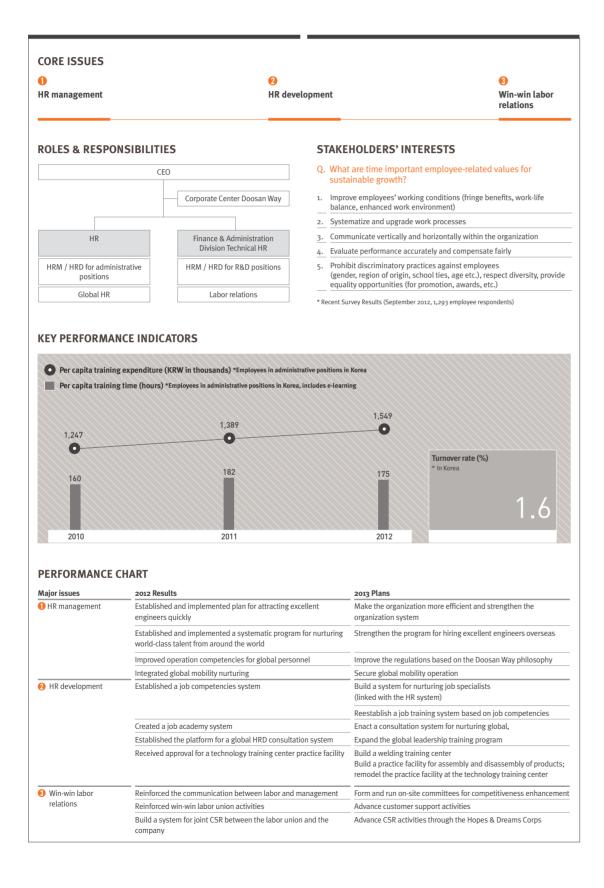
The Data Security Team was newly established in 2012 with a Chief Privacy Officer and staff who run the personal data protection system at the corporate level. Each division also designates a working-level data protection officer. In September 2012, personal data protection regulations, internal data control plans, an encryption guide and written pledge were announced. Then data protection briefings were given to all employees in Korea and China. In addition, encryption has been completed for the database that stores citizen ID numbers and other personal information. Access to the database is strictly controlled and a log monitoring system has been installed. All units in the company that handle person information are monitored and inspected. No personal data leaks or law violations regarding personal data have occurred during the past three most recent years, starting from 2012. Comprehensive monitoring is also conducted to detect suspicious behavior regarding data leaks, or misuse, to include reading the data outside work hours, or accessing the data excessively. Systematic training and guidelines are provided to the people who work in Human Resources, Marketing, Customer Service, ICT and other units that handle personal data. Training is also provided at delivery companies, training centers and other outsourced service providers that are provided with personal data. Personal data processing systems such as e-HR and ERP now minimally store citizen ID numbers and access to these systems is monitored.

#### **Accountable Sales and Marketing Activities**

Doosan Infracore complies with laws regarding false or misleading advertising. We strictly follow the laws in this regard, offering only transparent and honest information in our sales and marketing activities.

<sup>\*</sup> Products are made and delivered to customers that satisfy the safety regulations and accident prevention activities in their region, such as the European safety regulations, Chinese safety regulations and product liability laws.

## IMPROVEMENT OF EMPLOYEE VALUE





## 2012 SPECIAL ACTIVITY

#### **Job Competencies System**

A job competencies system was put into full effect in 2012 to address strong demands and requirements for a mechanism that nurtures specialists in balance with the Doosan Infracore HR philosophy. As a result, employee capabilities can now be continuously enhanced.

Progress in 2012

System established to model and manage job competencies

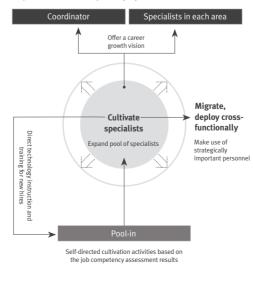
#### Significance

The pool of employees with specialized skills has been expanded, and employees have been given the option of aspiring to grow in their careers as specialists. Various diagnostic and competency-related programs are being made to enable robust self-development activities.

#### Anticipated Effects

The new system strengthens the specialist training track in-house and improves the job competencies-based career development plan (CDP) system. It is expected to build systematically an environment for nurturing job competencies so that the Company's hiring competitiveness is strengthened and newly hired personnel are brought up to speed more quickly.

#### **Objectives of Job Competency System**



#### **HR Management**

#### **Create Jobs and Realize Diversity**

Our workforce of 15,206 consists of people from all over the world and drives the growth and advancement of Doosan Infracore. Of this total 5,764 work inside Korea, and 9,442 are outside Korea. The number of regular hires in Korea is 5,577 (96.8%), while 191 persons (3.3%) are on a temporary contract. As stipulated by the Doosan Way, no employee should suffer discrimination on the basis of gender, religion, race, or age with respect to hiring, performance assessment or compensation. In Korea, persons who have served in the military are afforded preferential treatment in hiring under the law.

#### Family-friendly Management Policies

The quality of employees' lives improves when the proper balance is struck among work time, family time and leisure time. To this end employees in Korea are provided at least two weeks' summer vacation, while Family Day is in effect to allow employees to leave work early and spend quality time at home. In addition, a fringe benefit package helps Korean employees with home loans, maternity leave, childcare, health checkups, medical treatment, and children's education. Childcare centers and nursing stations are being installed at worksites to assist women employees who are mothers of infants. Childcare centers were put in place at the Incheon factory, Seoul head office and Changwon factories in 2012. In addition, employee families in Korea are encouraged to join in various volunteer community service programs such as picking up litter from mountains and streams, providing a helping hand to rural communities, and delivering charcoal briquettes to low-income families. Family togetherness is reinforced while practicing the tenets of the Doosan Way. In 2013, employee families are invited to attend briefings on company operations, helping family members to better understand their employer and to communicate freely with other employee families.

#### Fair Performance Assessment and Compensation

The Doosan Infracore employee competency assessment is based on the concept of the Doosan employee ideal and conducted in an objective and fair manner. The assessment identifies individual strengths and areas that need further development, and then the appropriate opportunities for growth and nurturing are provided. In 2012, the personnel management system was upgraded to reflect visibly in performance assessments the growth of the individual in step with the Doosan Way. Performance assessment is carried out according to MBO (Management By Objective) methodology in a one-on-one discussion with feedback between the evaluatee 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.

Employee growth leads to business growth, and part of the increased revenue is reinvested in employees in a virtuous cycle that fosters the core competencies of the company. In other words, this is the Doosan Group's "2G strategy" (Growth of People, Growth of Business) for all-around success.

#### **HR Development**

#### Job Academy System

The job training system is organized by work function, to include R&D, procurement, quality assurance, sales & marketing, finance, and human resources. The academy system is being revamped around job-specific competencies. Job competencies are cultivated from the time the employee enters the company to grow him or her into a specialist systematically. The Corporate R&D Division and Choong-Ang University jointly run the Academy of Innovative Technology, a program that cultivates R&D specialists. Program participants receive three weeks' instruction from Choong-Ang University faculty members and use the R&D facilities on campus to conduct experiments and acquire hands-on experience, thereby developing their individual capabilities while honing job-related competencies.

#### **Global HRD Consultation System**

Doosan Way workshops serve as the starting point for building a network linking the HRD units at overseas subsidiaries. A regularly-held global HRD conference provides the venue for discussing and sharing views on the training systems and core training programs in each geographical region.

HRD Directio



#### The EDU System (e-Doosan University)

A process has been established that serves as a joint HRD index among individual business divisions, setting and managing division targets for foreign language proficiency levels, learning credits, and training plans. In addition, EDU has gone online as an e-HRD portal at the group level, helping to stimulate activities to hone all employees' work-related competencies. To realize Doosan's unique HRD philosophy going forward, a system will be established for managing the standardization of the HRD index allowing effective monitoring of all HRD activities.

#### **Expanded Leadership Training**

The Insight Program is designed to help all Doosan employees, inside and outside Korea, understand and acquire the essential

leadership skills for each organizational rank. It is being introduced in stages, starting with executives and team leaders. In addition, all employees will be offered "Strategic Thinking Enhancement through Problem Solving" (STEPS), a course based on Mckinsey's 7-step problem-solving theory, to assist them in adopting better work methods.

#### Reinforced Program for Cultivating R&D Personnel

In 2012, employees working in R&D were invited to attend Leadership School, Job School, Organizational Vitalization School, or Career Development School, and each person received an average of 28 hours of instruction during the year. The number of training hours per year, annual training expenditures and other HRD indicators have been rising and improving steadily since 2008. Importantly, the Machine Tool College (MTC) has been established to hone the technology skills of new hires in technology positions inside the Machine Tools BG. The diverse curricula cover machine tool scraping, machining operation, and basic assembly. Doosan Way workshops were held for all R&D employees in 2012, providing the opportunity to learn and share the values stipulated in the corporate philosophy of Doosan. In 2013, a Welding Training Center opens inside the Incheon factory to hone work skills, and the Technology Training Center is being remodeled to be more effective in imparting an understanding of product mechanisms and manufacturing processes. The job training programs will be expanded with new courses being developed to accommodate the needs of employees in technology-related jobs. In addition, programs will be offered to hone the skills needed to fulfill the role at each rank according to the revised personnel system for employees in technology positions.

#### Training for Upcoming Retirees

Doosan Infracore holds training each year for employees who are reaching their 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 years.

#### Win-Win Labor Relations

During 2010, various labor-management cooperation programs were run together, while a consensus between both sides was built on the basis of mutual trust and respect. These developments have spawned a new labor-management partnership that marks the beginning of "win-win" cooperation. The launch of this "win-win" labor union has led to some unprecedented developments: a declaration of no more

44 CSR Management / Materiality Test
48 Accountable Corporate Governance /
Transparent and Ethical Management / Risk Management
52 Enhancement of Customer Value and Quality Competitiveness
56 Improvement of Employee Value
60 Establishment of the Integrated EHS System
66 Mutual Growth through Win-Win Cooperation
70 Development of Local Communities through Social Contribution

strikes, recognition of the Company's right to set wage increase for minimal collective bargaining, and labor-management agreement on the improved personnel system for employees in technology positions. The competitiveness of technology-related jobs at Doosan Infracore has been strengthened, and the groundwork has been laid for win-win cooperation going forward.

Channels for Dialogue between Labor and Management

Labor-Management Council	Committee on Musculoskeletal Disorders	Grievance Committee
Welfare Committee	Joint Safety Inspections	Industrial Safety and Worker Health Committee

#### Reinforced Communication between Labor and Management

Labor and management at Doosan Infracore are engaging in candid and open dialogue in an effort to improve labor relations. The company gives quarterly performance briefings to the labor unions at the Operations Division and each BG, while the President and CEO leads a briefing for each one in a constant effort to ensure managerial transparency. The Labor-Management Council, round-table conferences between labor and management, and working-level councils to improve policies all serve as channels for dialogue. In addition. "workplace competitiveness improvement committees" are being formed consisting of labor and management representatives along with front-line supervisors to discuss all pending issues. These committees further expand the scope of discussions between labor and management, and act as effective deliberative bodies. (Seven committees met a total of 51 times in 2012.)

was made to build a new labor- management culture based on cooperation and mutual trust.	management communication has been created, discarding conflict and confrontation and building on the basis of mutual trust and respect.
The year 2012 marked the beginning of a new era in win-win labor relations, with a consensus formed between labor and management on how to realize the corporate vision.	Outside consultants came in to survey and analyze the current state of labor relations, establish a direction for future improvement and find a plan for strengthening competitiveness.

The decision to never call a strike

An opportunity for genuine labor-

#### System for Joint CSR between Labor Unions and the Company

Labor and management now seek to be partners with local communities and are expanding communication with the disadvantaged in society. The Hopes and Dreams Corps was established as a CSR body supported by both labor and management, and their intention to engage in community service was publicly announced. The groundwork was also laid for local communities to join the effort and for better communication with local communities. A pact was signed with the Central Region Bureau of Employment and Labor, under the Ministry of Employment and Labor for labor and management to fulfill social responsibilities together, broadening the consensus for shared growth with local communities. The efforts in 2012 were recognized by Ministry of Employment and Labor, which designated Doosan Infracore as an "excellent enterprise for labor-management social responsibility."

CSR Activities Jointly Organized by Labor and Management

Deliver charcoal briquettes for heating to low-income families and make kimchi for charity	2x a year
Stage athletic events for persons with disabilities	1x a year
Organize volunteers programs to help the needy	2x a year

#### **Addressing Employee Grievances**

The Grievance Committee, which consists of three representatives each from labor and management, receives grievances and opinions from employees, reaches a consensus on action, and helps to raise employee morale. Thus employees are able to concentrate better on their work. From 2013, free legal advice is being provided to employees to help them resolve any grievances they may have.

\* Compliance with ILO: Doosan Infracore complies with
the International Labor Organization (ILO) conventions that ban discrimination
child labor and forced labor, and allow freedom of association.

### Global — Support for Diversity and Equal Treatment, Protection of Human Rights

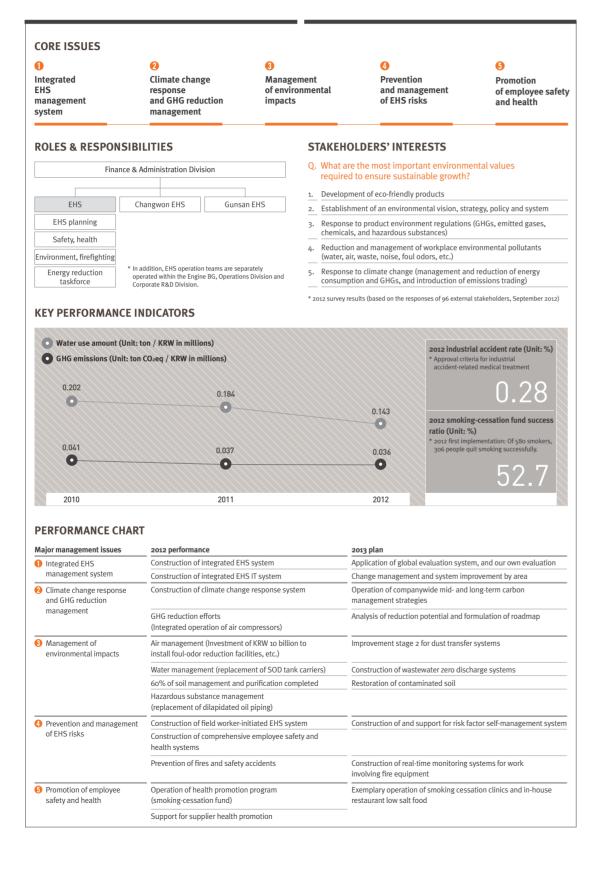
In North America, Doosan Infracore International, Inc., Bobcat Company and Doosan Portable Power carry out activities aimed at fostering respect for diversity and creating a workplace free from discrimination. We operate diverse recruitment systems in tandem with support activities to allow women, minorities, soldiers discharged from the army, and the disabled to be admitted to the company, thereby guaranteeing diversity among our employees. We also post newsletters, policies and efforts under the name of an executive officer

to support diversity and ban discrimination in our workplaces

As a part of such efforts, the employees of our Atlanta Office, marking Martin Luther King Day, conducted volunteer services at the Atwood Community Garden, together with the community organization Handon Atlanta. They made chests of drawers in classrooms along with the provision of stationery for students entering a new semester and organized the classrooms and school surrounding.

Zoom-in

## ESTABLISHMENT OF THE INTEGRATED EHS SYSTEM



# 44 CSR Management / Materiality Test 48 Accountable Corporate Governance / Transparent and Ethical Management / Risk Management 52 Enhancement of Customer Value and Quality Competitiveness 56 Improvement of Employee Value 60 Establishment of the Integrated EHS System 66 Mutual Growth through Win-Win Cooperation 70 Development of Local Communities through Social Contribution

## 2012 SPECIAL ACTIVITY

Overseas medical support service for overseas staff and employees dispatched on business trips

In 2012, to ensure the health and safety of our overseas staff and employees dispatched on business trips, we implemented the safety management program of the world's top medical and security support service company on a companywide basis. Under this program we began providing a comprehensive safety, healthcare and health management service in 2013 to 2,800 employees around the world including overseas staff and their family members, employees dispatched on business trips (as of 2012), and all domestic employees dispatched on overseas trips.

#### 1. Overseas medical support service

This service includes the provision of medical information in each country, emergency medical transfer and rescue services, 24-hour medical counseling, and outpatient diagnosis booking and management.

#### 2. Overseas security support service

This service includes the provision of travel security information, the operation of a security situation room, and the provision of transfer support for security situations.

#### 3. Trip support service

This service comprises legal service support and an emergency translation and interpretation service.

#### **Integrated EHS Management System**

#### Construction of the Integrated EHS System

Doosan Infracore determined twelve strategic tasks to be carried out in conjunction with the following four strategic directions: establishment of a voluntary safety protection system; improvement of EHS management excellence; enhancement of EHS manpower leadership and professionalism; and improvement of efficiency via implementation of the integrated EHS system. As such, we have built and implemented the integrated EHS management system across the company, and have ensured that the four EHS strategies and twelve key tasks are thoroughly in all operations at home and abroad by our EHS teams and professional employees represented by the planning team. These efforts form the basis for creating eco-friendly workplaces, and for establishing a voluntary safety management culture.

## Bolstering of EHS Capabilities and Securing of Professionalism (training system and performance)

Based on a systematic EHS training system, from 2013 we will begin operating the EHS Academy to bolster the capabilities of the EHS employees and to foster experts. We will analyze EHS jobs, survey education demands, introduce yearly curricula, and establish the required credits by rank, thereby operating credit-based courses. We will also integrate the operation of the existing EHS training system by individual and team through a professional training system, thereby significantly enhancing educational levels and fostering EHS experts.

#### **Holding of Global EHS Seminars**

Since 2011 we have held EHS seminars once every half year to enhance our companywide EHS manpower capabilities, to share information and to actively communicate. The relevant personnel present the technical trends in and advanced practical application measures for various EHS areas such as safety, environment, healthcare and climate change, and awards are presented based on fair evaluation. In 2012, we held a global seminar to which our Chinese subsidiary staff members were invited, and future seminars will be expanded to include participants from European and other overseas workplaces.

#### **Building and Operation of the Integrated EHS IT System**

We have built the integrated EHS IT system to bolster the EHS management process in a bid to establish a solid basis for responding to diverse domestic and overseas regulations. This has enabled U.S. to share EHS information in real time, to monitor ongoing situations, and to analyze system operations along with the totaling of analysis results, thereby enabling rapid decision-making and work advancement, shortening work times, and consequently maximizing our work efficiency. 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 system consists of ERP-based EHS (SAP) for EHS managers, EHS portal (Web) for field staffers, and mobile EHS (smartphones, table PCs) for field use.

Doosan Infracore recognizes EHS as an important CSR issue and uses it as a new business opportunity, positively responding to the issue. In particular, we see climate change response, pollutant management, safety and healthcare as important issues from the perspective of business operations and stakeholders, and are committed to comprehensively improving and managing them.

#### **Climate Change Response and GHG Reduction Management**

#### **Construction of the Climate Change Response System**

To effectively respond to the major global issue of climate change, we have formed an exclusive team and staff. We thoroughly manage and verify GHG emission inventories in our workplaces, beginning with the 2004 data. Also, based on our mid- and long-term climate change strategies and yearly business plans, we manage our GHG reduction goals and conduct various response activities. In 2013, we began operating a companywide energy saving task force to systematically respond to climate change. Furthermore, to diagnose our Chinese operations' climate- change response activities, from this year we will calculate GHG emissions in four Chinese workplaces and analyze their GHG management system.

Basically, our companywide GHG emission management is assessed and analyzed based on the EMS (Energy Monitoring System) and the GHG management system within the EHS IT system. The consumption amounts of electric power, LNG, and other major forms of energy are automatically entered into the system by gauges, and the consumption amounts of other less widely consumed forms of energy such as diesel are managed by the relevant personnel. This management process is implemented according to the in-house "Rules on Energy and GHG Management", which continue to be updated according to the prevailing laws and trends.

## Efforts for GHG Reduction: Emissions by Major Emission Source and Performance vs. Reduction Goal

Our GHG emission pattern is such that, due to the characteristics of our assembly processes, indirect emissions by purchased electric power account for over 70% of the total, followed by heating LNG and diesel used for product test operation and the transfer of vehicles. The Incheon plant (HQ), which runs the largest scale operation, is the largest GHG emitter, followed by the Changwon and Gunsan plants respectively. The Incheon plant, which in 2011 became the first plant to be the target of GHG emission goal management, was allotted an allowable emission amount of 134,474t CO2 for 2012 following our negotiation with the government, although its actual emissions amounted to a lower figure of 106,373t CO2 due to the successful implementation of various reduction activities.

\* For details, see Appendix page 8o.

Establishment of Integrated Operation Management System for Air Compressors: The Incheon plant, which experienced considerable energy loss due to the operation of individual

air compressors, applied the integrated operation system to its air compressors to better control their load. This system enables integrated control of the air compressors, operates multiple air compressors as one, and controls their load, thus minimizing waste during operation. A total of KRW 400 million was invested in the construction of the integrated operation system, which helps save an estimated 14 million kWh of electric power and KRW 139 million in costs each year, as well as reducing annual GHG emissions by 671t CO2.

Improved Air Compressor Efficiency Achieved through Resizing: An analysis of compressed air at the Incheon South plant revealed that the 450HP air compressors caused a significant amount of operational losses; thus, 250HP air compressors were adopted, and conversion-type and fixed-type air compressors were operated together. This dual system, in consideration of the then load change characteristics of the south plant, uses the conversion-type air compressors to supply compressed air on a constant basis, and activates the fixed-type compressors during sudden load occurrence. This resizing, which required an investment of KRW 500 million, saves 1,527Kwh in electric power and KRW 148 million in costs each year, and reduces GHG emissions by 712t CO2.

#### Management of Environmental Impacts

#### Air Management

Performance through odor treatment technology: Doosan Infracore does its best to create pleasant workplaces and to minimize environmental impacts on the local communities concerned. Regarding the reduction of odors at foundries, there was a general lack of domestic technological power and the application thereof, but we eventually improved the existing facilities' treatment of mixed odors (including organic solvents, ammonia, and sulfur). In 2012, we reviewed the odor reduction technologies of advanced companies in Germany and Japan, and applied technologies and facilities capable of removing mixed odors by material. This enabled U.S. to lower the odor discharge concentration to under 50% (150 times) of the enhanced legal standard (500 times  $\rightarrow$  300 times).

Investment in and improvement of facilities: In order to formulate an improvement plan including two-phase investment in environmental improvement, adopt a fundamental approach to odors, and carry out effective facility investment, we formulated stages 1 and 2 of the master plan for the two years from 2010 - 2011. Under stage 1, we installed odor reduction facilities at our foundry casting lines and dissolution facilities, and used ventilation systems and constructed a top dust collection structure. Under stage 2, we redeployed the layout for enhancing the performance of existing foul-odor reduction facilities, and invested a total of KRW 10 billion in improving the odor reduction facilities at our heavy material manufacturing facilities. To improve the molten metal injection systems, and to prevent fumes created during injection, we applied automatic damper systems. To boost air exhaustion during the pouring of molten metal, we installed molten metal injectors designed to automatically adjust the wind amount

We are continuing with our facility investment and improvement activities so as to continue to comply with the relevant regulatory laws (under 50% of the regulatory level). However, in line with the influx of residents into the community and everrising expectations about the surrounding environment, we will decrease our foundry production volume and relocate the plants gradually in a drive to ensure more fundamental improvements and reduce the overall generation of odors. We will also build odor monitoring systems (real-time monitoring of discharge outlets and management of site borderline odor concentration through automatic gauge sensors), thus ensuring permanent odor management.

#### Management of Dust

To improve our working environment and the community residential environment, we are continuing to invest in facilities and improvements aimed at reducing the dispersion of dust into the local atmospheric environment. We have improved the environment where scattering dust is created in the processes of transferring dust through dust collectors equipped with filters and where waste molding sand is loaded onto vehicles. To improve the process of transferring dust collectors with filters, instead of using the existing fork lift transfer method, we have built a dust sealing system designed to transfer and collect dust through sealed pipes by using air injection. Also, we have remodeled waste molding sand storage into a closed structure, installing rooftop dust collectors to prevent dust from being dispersed outside, and ensuring fundamental improvement. Furthermore, to reduce the dispersion of dust caused by vehicles moving within the plant, we have installed automatic wheel and car washing facilities to thoroughly monitor dust dispersion.

To continue to improve the issue of dust dispersion, we will use sealed pipes, as well as building dust transfer sealing management systems in all our major processes. We will also build dust monitoring systems (i.e. real-time monitoring of discharge outlets and management of site borderline foul-odor concentration through automatic gauge sensors), thus ensuring permanent management.

CSR Management / Materiality Test	
Accountable Corporate Governance / Transparent and Ethical Management / Risk Management	
Enhancement of Customer Value and Quality Competitiveness	
Improvement of Employee Value	
Establishment of the Integrated EHS System	<b>←</b>
Mutual Growth through Win-Win Cooperation	
Development of Local Communities through Social Contribution	
	Accountable Corporate Governance / Transparent and Ethical Management / Risk Management Enhancement of Customer Value and Quality Competitiveness Improvement of Employee Value Establishment of the Integrated EHS System Mutual Growth through Win-Win Cooperation

#### Water Management

To continue to comply with the total permissible level of nitrogen emission, a cause of water eutrophication, we have replaced our Green Center SOD tank carriers. We have injected new microbe-contained carriers to enhance the efficiency of wastewater treatment, and improved our facilities for managing pollutants to under 40% of the legally permissible level.

#### Soil Management

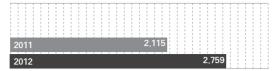
Starting in 2009, the Incheon plant conducted a two-year precision survey of its entire premises site to identify the scope of soil quality resulting from its long-term business operation, and for a period of three years (2011-2013), we voluntarily improved the quality of the soil. By 2012, with an investment of KRW 3.5 billion, we had improved 60% of the contaminated soil. In 2013, we will complete soil purification by fundamentally improving soil quality and creating an ecofriendly plant.

#### Management of Hazardous Substances

Oils: In 2012, the Incheon plant began to replace oil pipes to improve its oil leakage management. We are able to operate speedy response systems by installing existing buried pipes on the ground and double pipes. We 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 legally required number of 8), thereby bolstering our human resources inspection management. Furthermore, we are constructing a system whereby DGR safety personnel can inspect hazardous substance via EHS IT mobile systems to conduct companywide integrated management of non-conformances.

Gas: To prevent explosions caused by gas leaks, we implemented various production gas facility improvement measures including the replacement of gas containers and breakers. We removed unused and idle gas facilities from the plants, thereby minimizing the number of gas facilities and greatly reducing the risk of explosion and other dangers. We also educated gas handlers and appointed licensed personnel in order to strengthen our human inspection management, and established gas installation and operation safety standards by reviewing the gas safety management rules.

Improvement overview based on safety observation system (Unit: No of cases)



#### **Prevention and Management of EHS Risks**

#### Construction of the Field Manager-Led EHS System

Construction of voluntary safety inspection system of machines and facilities: To build a field-led voluntary safety inspection system, Doosan Infracore has prepared pre-work inspection lists and specific inspection standards, and produced the corresponding manuals for the personnel concerned.

Voluntary safety inspection system of machines and facilities

Inspection time	Before work (once daily)	
Inspector	spector Relevant worker	
Inspection method Visual inspection according to checklist and ma		
Targets of inspection	Ten legally required types (21 items), nine types outside those legally required (21 items)	

\* Legally required targets: High-location work benches, air compressors, internal carriage vehicles, robots, lifts, mobile cranes, forklifts, conveyors, cranes, presses. Other targets (not legally required): Gas facilities, local exhaust facilities, painting facilities, battery chargers, oxygen cutters, pressure containers, acetylene welding devices, dangerous goods storages, and nositioners.

Safety observation system and safety keepers: To secure the effectiveness of EHS management, we have implemented a safety observation system by unit to eliminate any risks or dangers, to raise employees' awareness of safety issues, and to strengthen our manpower capabilities under a virtuous-cycle safety management system.

Campaigns for the enactment and observance of "my" workplace safety rules: The safety rule enactment / observance campaign by unit aims to identify potential risks associated with "my" work processes, and to voluntarily enact, educate, and observe the safety rules by unit in a bid to fundamentally prevent safety accidents under EHS awareness reform activities. In 2012, we enacted 158 safety rules across the entire company and used them in our risk prevention education.

Self-management of risk factors: Doosan Infracore will build a management system with which we will be able to apply systematic, scientific methods of pinpointing risk factors when identifying and evaluating risk factors and assessing risks to allow all employees to participate in these safety activities. This will ensure field-oriented safety management, enhance field workers' capabilities, and secure the organization's fundamental competitiveness.

#### Fire Prevention Activities

The Incheon plant won the Excellent Firefighting Award organized by the National Emergency Management Agency and awarded by the Minister for Home Affairs. This award aims to promote the workplace's firefighting and safety capabilities and professionalism, and to build a voluntary private-sector safety management system. The review of the candidates for the award was conducted for eight months from March 2012 based on document and onsite investigations. We earned a high score in the firefighting safety management area, largely for our enhanced monitoring of fire equipment work before, during and after work led by our disaster prevention center, which we established in 2011, and for our enhanced wintertime management of heating devices. Winning this award exempts our company from firefighting inspections, as well as attracting economic incentives worth around KRW 50 million and promoting our corporate image to the public.

#### Win-Win Program

Doosan Infracore implements safety and healthcare winwin programs together with its suppliers: we evaluate the suppliers' risks and provide them with technical support for their safety and healthcare initiatives. These efforts enable suppliers to secure safety and healthcare management capabilities by themselves, while allowing U.S. to build a collaborative system to continuously improve our safety and healthcare systems. This program is applied to 500 large companies in terms of sales (ranked 78th) and their suppliers. In 2012, we implemented the safety and healthcare win-win program with the focus on our Incheon, Changwon and Gunsan plants and their 76 suppliers. We earned an "A" grade for all three workplaces.

## Global — North America's EHS Activities

North America's 2012 EHS activities were focused on reducing accident rates as Doosan Infracore International experienced 79 accidents across the USA in 2011. In 2012, we aimed to reduce the accident rate by 10%, but we actually reduced it by well over 50%, recording only 31 accidents. Our 2012 accident reduction activities included the implementation of an action-based safety procedure (delegating authority to employees), auditing of compliance with safety norms, monthly safety education for operating lines, analysis of causes of accidents, monitoring of fulfillment of

improvement tasks, and analysis and evaluation of the ergonomic aspects of workplaces.

Zoom-in

aspects of workplaces.

Thus, the Wahpeton plant in North Dakota posted 487,000 hours of uninterrupted, accident-free operation for two consecutive years. Also, Bobcat Gwinner plant recently replaced paints used in the manufacturing process with paints containing no hazardous air-pollutant substances, thereby transforming the Gwinner plant - an achievement certified by the U.S. Environmental Protection Agency's North Dakota office.

#### Early detection of high-risk patients

2010 4	(3 people treated)	
2011	21 (16 people treated) treated)	

44	CSR Management / Materiality Test	
48	Accountable Corporate Governance / Transparent and Ethical Management / Risk Management	
52	Enhancement of Customer Value and Quality Competitiveness	
56	Improvement of Employee Value	
60	Establishment of the Integrated EHS System	<b>←</b>
66	Mutual Growth through Win-Win Cooperation	
70	Development of Local Communities through Social Contribution	

#### **Promotion of Employee Safety and Health**

#### Operation and Results of the Smoking Cessation Fund

In 2012, to promote our employees' health and to create a non-smoking environment, we launched a companywide smoking cessation fund. As a result, 580 employees participated in the program, of whom 306 (i.e. 52.7%) successfully quit smoking. Under the smoking cessation fund, individuals and the company each added KRW 50,000 per month to a pool: after six months, those employees who have succeeded in quitting smoking receive KRW 600,000 and have their success stories publicized across the company, while those who have failed donate the money for use in social responsibility activities of their choice and in their name.

#### **Expansion of Health Examination**

In 2011, Doosan Infracore conducted comprehensive employee health examinations, expanding the targets from employees over 40 years old to those aged 35 years old and over. After 2011, we discovered 29 cancer and high-risk patients, of whom 20 were cured. (cure rate: 69%)

# Enhanced Management of Employees with Examination Findings (implementation of the health management program)

We carry out a health management program, including doctor counseling and blood examination, every four months following the yearly health examination, targeting employees who require follow-up care. Such employees are classified into 4 classes, and are prevented from engaging in overtime and nighttime work to ensure that they take proper care of their health.

#### Management of Physical,

#### **Chemical Hazardous Factors at Workplaces**

Pursuant to Article 42 of the Industrial Safety and Healthcare Act, we assess the working environment of our plants with regard to hazardous work processes (noise, dust, heavy metal, organic solvents, etc.) twice a year. We take improvement measures such as the adoption of low-noise electronic tools, installation of local exhaust ventilators, and closure of the relevant sources. As a result, we have reduced the exposure process by 30% compared with 2010.

#### Management of Hazardous Factors of Musculoskeletal Disease

Pursuant to the industrial safety and healthcare criteria rule Article 657, under the Industrial Safety, Healthcare Act – Article 24, we conduct a biannual survey of hazardous factors related to musculoskeletal disease, identify vulnerable work, and take the appropriate measures, such as the improvement of jigs (manufacture of jigs and installation of nut runners) and the adjustment of work points, thereby improving the work environment.

## Vaccination Support for Employees and Their Family Members

To protect the health of our employees, we provide vaccination services for six common major diseases (yellow fever, cholera, malaria, typhoid, A-type hepatitis, and tetanus) to employees prior to dispatching them on business trips to vulnerable overseas regions. We have vaccinated all our employees for water-borne A-type hepatitis. We provide a medical examination to new employees, and vaccinate those who test negative in the antibody test before assigning them to their departments. We also provide cost support for influenza vaccination for employees and their family members, on a request basis.

#### Support for Suppliers' Employee Health Management

Under our supplier health promotion program, to be run for six months from March to September, we will implement cerebroand cardio-vascular disease programs in a bid to manage the health of our suppliers' employees and to realize shared growth. The programs include smoking cessation, abstention from drinking, and work stress management targeting our suppliers' workers requiring follow-up care (274 people from ten companies), along with customized disease counseling and management programs.

#### **Bolstering of Preventive**

#### Personal Health Habit Improvement Program

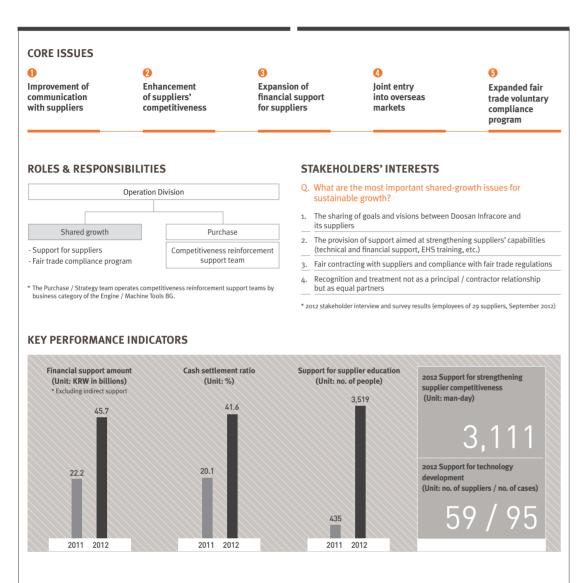
Smoking cessation clinic: Under this program, run in association with regional public health centers, employees wishing to quit smoking receive counseling and guidance for six months. From February 2013, the program is being conducted companywide with the participation of 211 employees.

Provision of low-salt food: From March 2013, we began a trial run of the "low-salt corner" (serving foods whose sodium content is reduced by 25%) at the in-house cafeteria to reduce the incidence of hypertension, obesity and other adult diseases among our employees. We plan to further expand this program in the near future.

"119 healthy drinking" campaign: To prevent employees from developing liver complaints and other adult diseases, we are conducting the 119 healthy drinking campaign as part of a drive to establish a healthy drinking culture and a sound afterwork social culture.

\* 119 campaign: Finishing an after-work party with one just round, and one type of liquor, and before 9 p.m.

# MUTUAL GROWTH THROUGH WIN-WIN COOPERATION



#### PERFORMANCE CHART

66

Major issues	2012 results	2013 plan	
1 Improvement of communication with suppliers	Supplier communication activities	Suppliers' Day / shared growth policy working-level consultative meetings / Shared Growth Day / CEO's visits to suppliers	
Enhancement of suppliers' competitiveness	Operation of a supplier competitiveness reinforcement team	Continue operating the supplier competitiveness reinforcement team	
	Support for suppliers' parts development efforts	Localized development of parts (10 cases) / joint development of new machine models (35 cases) / OEKM and module support (5 cases) / Support for molds and related equipment (KRW 20.5 billion) / Technology escrow system (25 cases)	
	Support for health examinations for suppliers' employees	Over 200 people	
3 Expansion of financial	Operation of supplier shared growth fund	Raising of KRW 40 billion	
support for suppliers	Operation of various financial support programs	Facility investment worth KRW 3 billion / 3-time payment / Indirection support worth KRW 165 billion	
Joint entry into overseas markets	Support for suppliers' entry into overseas markets	Entry into overseas markets through joint development of parts	
Expanded fair trade voluntary compliance program	Enhancement of the fair trade compliance program	Support for supplier operation / Education about the Subcontracting Act / Support for adoption of the fair trade compliance program	

# 44 CSR Management / Materiality Test 48 Accountable Corporate Governance / Transparent and Ethical Management / Risk Management 52 Enhancement of Customer Value and Quality Competitiveness 56 Improvement of Employee Value 60 Establishment of the Integrated EHS System 66 Mutual Growth through Win-Win Cooperation 70 Development of Local Communities through Social Contribution

## 2012 SPECIAL ACTIVITY

#### Expansion of Secondary Suppliers for Shared Growth Activities

In a bid to build trustworthy relationships and realize shared growth through win-win collaboration, Doosan Infracore is expanding its shared growth scheme to include not only primary suppliers but also secondary suppliers. As well as bolstering support for our primary suppliers, we are establishing compliance programs for secondary suppliers. To strengthen the competitiveness of our secondary suppliers, we supported their observation tours of advanced overseas enterprises, thereby expanding direct and indirect support activities for them.

- Supporting twelve primary suppliers' adoption of the fair trade compliance program in 2012, thus establishing fair trade compliance for secondary suppliers
- 2. Expanding support for comprehensive medical examination to secondary suppliers Support amount: KRW 47.4 million

  138 people in 75 primary suppliers /
  20 people in eleven secondary suppliers
- 3. Shared growth with secondary suppliers / presenting and sharing policies, and gathering opinions 96 people from secondary suppliers were invited
- 4. Supporting secondary suppliers' observation tours of advanced overseas enterprises to enhance their competitiveness

  Support provided to 16 people from secondary suppliers with a fund of KRW 24 million on three occasions
- Large and Small Business Cooperation Foundation support provided to five consultative councils of primary and secondary suppliers-commissioned enterprises
- 6. Enhancing the precision of secondary suppliers' machining facilities via the Machinery Industry Shared Growth Promotion Foundation Provided financial support totaling KRW 217 million over 33 occasions / provided calibration support six times for tests and test devices / provided technical diagnosis four times

#### **Improvement of Communication with Suppliers**

#### **Communication with Suppliers**

Doosan Infracore bolsters its field management and shared growth activities by having its CEO and BG Heads visit the suppliers on a regular basis. Also, through the official channel of the Shared Growth Association, we discuss shared growth measures with the association's executives from time to time, and pursue shared growth by voluntarily engaging in exchanges. From 2012, celebrating Suppliers' Day, we further expanded the scope of our communication with suppliers, invited the CEOs of 171 suppliers in order to award prizes to the best suppliers, share our vision, and present shared growth strategies and programs. In addition, through the Shared Growth Day and other activities, we gather the opinions of suppliers and explore shared growth strategies.

Furthermore, we positively communicate with our suppliers in order to gather their opinions and reflect them in diverse shared growth programs with the aim of achieving true shared growth. We also operate a supplier hotline consisting of online and phone channels in an effort to establish a fair trade culture.

Major channels and communication activities

Suppliers' communication channels	2012	
Suppliers' Day	200 people from 171 suppliers	
Working Consultative Council for Shared Growth	238 people from 210 suppliers	
Shared Growth Day	175 people from 155 suppliers	
No. of CEO visits to suppliers	6	

#### ${\bf Establishment\ of\ Shared\ Growth\ Corporate\ Culture}$

To deliver the management's vow to drive forward shared growth, and to bolster action power, executives are evaluated for their shared growth performance as reflected in the evaluation by MBO (Management By Objective). Doosan Group's holding company each year evaluates group affiliates' shared growth performance and provides additional stock options to CEOs and executives who are the best achievers.

Process of gathering of supplier opinions and reflection thereof in business activities



To ensure enhanced global competitiveness and shared growth, Doosan Infracore embraces the establishment of virtuous-circle partnerships with suppliers under the shared-growth motto, bolstering suppliers' technical capabilities, and upgrading supplier business systems, thus expanding and exporting our own technology, quality and management systems into all our suppliers.

#### **Enhancement of Suppliers' Competitiveness**

#### **Operation of Competitiveness Reinforcement Team** for Suppliers

To enhance supplier competitiveness and stabilize supplier management, we operate a support team comprising of 50 in-house experts and technical engineers who continuously visit suppliers, expanding their guidance and support activities for a period of six to twelve months. To bolster supplier manufacturing competitiveness and innovate supplier quality, we provided key technical support such as welding, material manufacturing, and non-destructive inspection, as well as innovation support on 3 R 5S\*, Lean\*, DTC\*, Single PPM\*, quality guidance and problem solving. In 2012, we provided 3,111 daily supports.

- \* 3 R5S: 3 Jeong (right position, right product, right quantity) 55 (arrangement, cleanup, cleanliness, and habituation) activities \* Lean: Activities to minimize inventories and to innovate work processes,
- thus reducing costs and enhancing productivity
- \* DTC: Design to Cost innovation \* Single PPM [Parts Per Million]: Activities to set a quality management goal of reducing faulty products to under 100,000 per 1 million products produced, and to require all members to participate in this campaign

#### **Education Support for Suppliers**

To bolster suppliers' competitiveness and improve their management, Doosan Infracore operates a diverse range of educational support programs. In 2012, we operated 74 courses, including university-linked courses, with a total of 3,519 participants. Furthermore, to help suppliers with human resources, we offered them university-linked employment education, helping them to secure HR in manufacturing, assembly, electricity and electronics.

2012 Supplier Education Support Program Performance

University-linked education	22 courses	218 suppliers	294 people
Government and other agencies-linked education	2 courses	2 suppliers	2 people
Doosan education (quality, FTA, etc.)	38 courses	1,933 suppliers	2,626 people
Supplier CEO education	7 courses	441 suppliers	456 people
Education by visiting suppliers	3 courses	3 suppliers	123 people
Employee candidate education	2 courses	12 suppliers	18 people
Total	74 courses	2,609 suppliers	3,519 peopl

#### Support for Supplier Technology Development and Protection of Their Technology

We support suppliers in development of technologies, helping them bolster business competitiveness and increase earnings. We supported 59 suppliers in development of technologies in 2012, helping them to develop parts with local technologies, OEM products and modules, and also jointly developing new machine models, helping them post KRW 13.5 billion in sales. Furthermore, we spent KRW 23.5 billion supporting molds and related equipment, and supported suppliers in filing patents for new technologies. We also adopted a technology escrow system in order to protect suppliers' technology. As a result, in 2012, we supported 21 cases of technologies of 16 suppliers under the

2012 Support for Supplier Technology Development and Performance

Local development of parts	26 suppliers	29 cases	KRW 5.3 billion in sales
Joint development of new machine models	8 suppliers	38 cases	KRW 6.8 billion in sales
OEM and modules	25 suppliers	28 cases	KRW 1.4 billion in sales

#### Support for Suppliers' Employee Medical Examination

We operate a free medical examination program for supplier CEO spouses. In 2012, 158 people from 86 suppliers benefited from this program, and we will expand this program from primary suppliers to secondary suppliers.

Support for Suppliers' Free Medical Examination

2011	80 suppliers	163 people
2012	86 suppliers	158 people

A Shared Growth Success Story from SMBA's Best Practice Collection

This is a shared growth success story involving Doosan Infracore and its machine tool supplier Sirjin Tech Co., as introduced in SMBA's Small R&D Seed Making Big Economy, a success story collection of new product development business with the condition of purchase, published in January. The new product development business with the condition of purchase is a program by which the government, large companies, and small companies work together to help small firms with R&D efforts, thus allowing them to remain viable and to provide them with opportunities multi-tasking machining centers, worked together with Sirjin to company.

develop a comprehensive multi-tasking ATC & Magazine (40-Tool). This collaboration, the first of its kind for the domestic machine tool industry, drew the attention of the industry. As a result, the tool type used mainly for a multi-tasking machining center led to the successful development of the newly applied tool magazine and ATC system, and enabled the exchange of precision tools and the structural simplification of cam boxes. This also helped to secure the assembly technology competitiveness and supply good-quality products at affordable prices, thus cutting costs. This to explore markets. Under this program, Doosan Infracore, in developing is a model case of collaboration between a large company and a small \* For details, see page 35.

44	CSR Management / Materiality Test	
48	Accountable Corporate Governance / Transparent and Ethical Management / Risk Management	
52	Enhancement of Customer Value and Quality Competitiveness	
56	Improvement of Employee Value	
60	Establishment of the Integrated EHS System	
66	Mutual Growth through Win-Win Cooperation	+
70	Development of Local Communities through Social Contribution	

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

Doosan Infracore provides financial support to suppliers in in four different directions, namely, direct support, indirect support, mixed support and special support. In particular, under the mixed support program, we raise and operate a special fund for shared growth, based on an escrow in an association of banks to support suppliers' operating fund at low interest rates. In 2012, we deposited KRW 10.5 hillion. and raised a fund of KRW 40 billion, and supported suppliers with a total operating fund of KRW 36 billion. Furthermore, to help suppliers stabilize their operations, we provided KRW 170 billion worth of financial support, including equipment purchase support, network loans, family corporate loans, and investments in the Machinery Industry Shared Growth Promotion Foundation. Starting from 2012, we improved our settlement practice by increasing monthly settlement frequency from 2 to 3, and increased the cash settlement ratio from 20% to 40%.

#### Joint Entry into Overseas Markets

#### Supplier Support Program for Joint Overseas Market Entry

We implemented 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 small size of their operations and / or lower visibility. Under this program, we are supporting excellent suppliers to bolster their competitiveness. In association with the Korea EXIM Bank, we will increase its local network support, obtain local loans, and help suppliers effectively respond to exchange

#### Support for Joint Participation in Exhibitions and for Global Benchmarking

To help suppliers bolster their competitiveness and enter overseas markets, we operate a support program for participation in domestic and overseas exhibitions. In 2012, we invited 28 people from 27 suppliers to observe Intermat in France, and to visit Bobcat plants in the Czech Republic, thus allowing them to learn about advanced technological trends. We also expanded the advanced companies' observation program to secondary suppliers, supporting their global competitiveness enhancement.

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

#### **Bolstering of Supplier Participatory Compliance Program**

To establish a supplier fair trade culture, we are pushing the support of CP adoption and compliance with the Subcontracting Act. In 2012, we introduced CP to twelve primary suppliers, and offered education on the fair trade and Subcontracting Act to 88 major suppliers, thus consolidating the ground for fair trade compliance. In particular, according to the fair trade and shared growth agreement between large and small-sized companies, signed in January 2012, we encouraged our primary suppliers to sign the said shared growth agreement with our secondary suppliers, thus promoting shared growth (support for 156 primary suppliers).

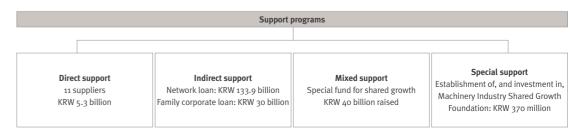
#### Report of CP Performance to the Board of Directors

Starting from 2012, once biannually, we research our own fair trade performance and monitor any possible violations of laws, reporting such fair trade CP activities to the board of directors, along with the public disclosure thereof. We thus declare our yow for fair trade compliance to both internal and external stakeholders, and promote our CP practice.

#### Dissemination of Ethical Management and **Bolstering of Action Power**

To promote ethical management to suppliers and promote its practice, we have opened a page on our website to share information about illegal transactions of employees and suppliers, and established a cyber-audit team in a bid to establish internal reporting system regulations. In particular, we operated an unfair trade report center for improprieties of employees and suppliers, and a supplier hotline (online, exclusive phone). We require not only individual employees but also suppliers (when registering with us) to submit an oath on ethical management practice, thus continuing to promote ethical management.

2012 Performance of Financial Support for Suppliers



# DEVELOPMENT OF LOCAL COMMUNITIES THROUGH SOCIAL CONTRIBUTION



## 2012 SPECIAL ACTIVITY

#### CSR Base Building and Implementation

In 2011, we established the CSR Team and formulated the activity direction and mid-term roadmap, In 2012, we laid the groundwork for strategic CSR activities, and built infrastructures for representative projects.

1. Implementation of hallmark CSR programs

Dosan Infracore's CSR activities are in step with the Group's CSR theme of HR growth and self-help, focusing on the three following areas: (1) support for future generations, (2) support for local communities, and (3) support using our work capabilities. Importantly Dream School was launched in 2012 to support the development of future generations, a key area of concern.

#### 2. Building of CSR infrastructures

Doosan Infracore has built infrastructures for pursuing CSR activities in terms of institutional and operational aspects. We created a CSR work-report evaluation code, built club support and CSR information systems and established an awarding system for best participants.

44	CSR Management / Materiality Test			
48	Accountable Corporate Governance / Transparent and Ethical Management / Risk Management			
52	Enhancement of Customer Value and Quality Competitiveness			
56	Improvement of Employee Value			
60	Establishment of the Integrated EHS System			
66	Mutual Growth through Win-Win Cooperation			
70	Development of Local Communities through Social Contribution	<b>←</b>		

#### Systemization of Social Contribution Activities (3 major areas)

#### **Support for Future Generations**

Dream School: The Dream School, our representative CSR program for supporting future generations, embraces the concept of "when one has a dream for the future and makes efforts towards a goal, he or she can succeed," targeting first and second graders of middle schools. The program aims to allow participants to respect their dreams, as well as others', and to create a culture fostering a diverse set of dreams. The program targets mainly children from low-income and single-parent homes with less experience in role models. It helps the participants bolster their skills and have experiential activities, fostering a positive confidence in the future and their potential occupations. In particular, employees serve as mentors, advising and emotionally supporting student mentees in exploring their dreams.

In the 2012 Dream School, the first year of the program, 127 students were selected from four regions nationwide (Seoul, Incheon, Changwon and Gunsan), with 115 completing the course. Of 93 employee mentors, 87 worked through the course. Through ten professional mentoring programs involving experts in various areas, mentees learned about the right attitude and information about occupations, engaging in occupational experience, occupational interviews, and school visitations together with employee mentors, thus making their dreams more specific. After the one-year course, mentees will be provided with follow-up support.

#### **Support for Local Communities**

Dream Communication Day: We hold companywide Volunteer Day twice a year. Celebrating the company anniversary day (June 4) and World Volunteer Day (December 5), each workplace conducted community outreach activities, such as making stationery boxes and kimchi for the communities' elderly people and children.

Dream Start Support Project: We participate in the Dream Start project led by the Ministry of Health and Welfare to support children from low-income homes to grow up as healthy members of the society. Under this program, volunteer employees in our five workplaces nationwide engage in providing opportunities for elementary school students in their respective communities to have culture experiences.

Community Volunteer Activities: We positively engage in community volunteer activities to achieve win-win benefits. In their respective communities, our five workplaces provide free meal dispensing services, support disabled people marathon competitions, and conduct one-company, one village support campaigns.

#### Support Using Our Work Capabilities

Junior Technical School: Under this program, our researchers, mostly specializing in natural sciences and engineering, supported elementary school students in nearby community children centers for one year in making hands-on-kits together and learning about scientific principles. Started in 2008, the 2012 program was conducted for students in the Osan community children center.

Equipment Donation: We improve test engines, and donate them to universities near our workplaces for the purpose of practicing assembly and disassembly, thus helping students improve their skills.

#### **Institutionalization of Social Contribution Activities**

#### Improvement of Work-Report System

#### for the Activation of CSR

Doosan Infracore embraces CSR, and to further increase employees' participation in and access to CSR, we have established a CSR work-report code in the evaluation system.

#### Establishment of an Awarding System

#### for the Activation of CSR

We established the CSR Awards to raise employees' interest in CSR and to reward the best participants. We have institutionalized an awarding system for three categories, namely, the Dream School, individuals, and clubs, thus rewarding the best participants and raising employees' interest in CSR

## Building a Volunteer Club Support System for the Activation of CSR

We built a support system involving a fund of KRW 1 million for volunteer employee clubs, thus encouraging employee volunteer activities.

#### **Enhancement of Employee-participatory Volunteer Activities**

#### Volunteer Groups & Volunteer Clubs

Employees actively participate in companywide CSR activities such as the Dream School and Community Day, and about 90% of all employees participate in the campaign of donating a portion of their salary to raise CSR funds. 15 volunteer clubs in each workplace also engaged in a free meal dispensing service at child protection facilities, while studying how they can support for children.

#### 2012 Volunteer Groups' Activities

Volunteer club members in our various workplaces engage in a free meal dispensing service, serving at children protection facilities, and study how to support the children, making their activities meaningful. In particular, in 2012, 87 employees engaged in the companywide CSR Dream School as mentors, serving as advisors for children from low-income homes, inspiring them with dreams and fostering their skills.

Participation in the campaign to donate a portion of salary

Item	No. of participants	Participation ratio	2012 total fund raised (KRW 1,000)
Results	4,895	89.7%	182,327

#### Our volunteer clubs

Region	Club name				
Companywide	Winning Team Chorus				
Seoul	Sharing Club (Machine Tools), Together Club (CE), HR Volunteer Club Mangwoni				
Incheon	Hope Dream, Field Manager Association, Celper-E, Sharing Plus, Throbbing				
Suji	Sharing Junior Technical School				
Ansan	Hanaro Club				
Changwon	Warm Air 2006				

#### Activation of Internal and External Communication

#### **CSR Education**

Starting from the second half of 2011, in the introduction course for new employees and career employees, we provided education on CSR and Doosan Infracore's CSR activities. We presented the CSR concept, the Doosan CSR direction, and our CSR outline and method. (In 2012, we offered eight courses with a total of 500 participants.)

#### Presentation of CSR

Along with the launch of the 2012 Dream School, we presented our CSR direction, new programs and participation methods in workplaces nationwide, thus raising employees' consensus on CSR. (6 times: 220 people participated from Seoul, Suji, Incheon, Ansan, Gunsan and Changwon)

#### **Sharing of CSR News**

To share CSR news, Doosan Infracore published nine newsletters from November 2011 to December 2012. (Major CSR activities, participating employees, and funds raised)

## Global

Global CSR

Zoom-in

Doosan Infracore conducts CSR activities based on people and communities. In our global operation communities, we established elementary schools, supported emergency rescue activities, and assisted in the remodeling and repair of community facilities, thus positively participating in community growth. Through the establishment of the CSR Committee, we encourage employees to engage in volunteer activities. Our overseas employees also raise diverse funds for socially alienated members including children and young people, provide free meals, improve roads, and repair institutes' facilities using our company machines. As such, we positively engage in CSR activities.

Development Fund Association, establishing 33 Doosan Schools of Hope across China. Our dealers serve as honorary principals for the 26 schools as part of support activities, and we hold summer camps 2012, we were awarded the United Way Contribution Prize. each year by inviting students and teachers. In recognition of our CSR activities, in January 2012, DICC was awarded the Best CSR Prize by the Yantai Development Zone Economic Work Committee.

conducted CSR activities suited to their respective communities.

Employees in North Dakota auctioned off sports match tickets and electronic products, sell parking tickets, and sell gift certificates of community stores, thus helping the communities. We also hold male employees participated in the campaign.

Movember boosts the awareness about prostate cancer and raises donation funds for supporting patients as participants must grow a mustache during the month of November. Most of our Dublin office male employees participated in the campaign. events of preparing and sharing foods, Casual Day for donating USD

China – In China, under the slogan of Constructing a Beautiful,
Happy China, we invest in public-interest businesses and endeavor to develop together with the local communities. From 2001 to 2012, we donated a total of CNY 9.85 million to the Chinese Youth
Development Fund Association, establishing 33 Doosan Schools of Schools of China, we invest in public-interest businesses and endeavor a bid to raise donation funds, thus establishing a voluntary CSR culture. We raised a total fund of USD \$46,945, and donated the fund to United Way to be used for the development of local communities. Employees feel proud to participate in the development of Employees feel proud to participate in the development o communities. In recognition of such activities, in North Dakota, i

By the rantal Development Zone Economic Work Committee.

North America – In North America, we work together with the U.S. charity organization called the United Way of America that supports community education, income stabilization and health. Our offices in Bismarck, Fargo, Gwinner, and Wahpeton in North Dakota have conducted CSR activities suited to their respective communities.

Employees in North Dakota auctioned off spects.

# **APPENDIX**

Doosan Infracore pursues a harmonious realization of economic performance, CSR and environmental values. We make a concerted effort to provide world-best products and services and to bolster fundamental competitiveness, thus laying a solid groundwork for creating economic performance. We strive to build a virtuous-cycle partnership with a view to growing together with partners, and to conduct CSR activities. We exert ourselves to respond to climate change and to conserve the environment, while endeavoring to ensure the safety and healthcare of employees and communities to improve environmental values. Doosan Infracore vows to conduct more systematic, strategic CSR activities to realize our vision as a global leading corporation and to open up a better future for all stakeholders.

- 74 Consolidated Financial Statements
- 78 Independent Auditors' Report
- 80 CSR Facts & Figures
- 82 Independent Assurance Report

# CONSOLIDATED FINANCIAL STATEMENTS

#### CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

FY2012 from January 1, 2012 to December 31, 2012 / FY2011 from January 1, 2011 to December 31, 2011

(Unit: KRW)

Description	FY2012	FY2011
Assets		
I. Current assets	3,861,994,577,716	4,232,530,064,182
Cash and cash equivalents	462,494,292,429	624,031,624,968
Short-term financial instruments	222,294,825,630	118,138,828,715
Short-term investment securities	-	1,200,000,000
Trade receivables and other receivables	1,309,109,422,991	1,569,429,050,863
Derivative assets	73,437,207,075	19,307,871,952
Inveantories	1,662,008,926,258	1,782,004,735,816
Assets intended for disposal	2,645,196,457	2,645,196,447
Other current assets	130,004,706,876	115,772,755,421
II. Non-current assets	7,690,846,046,311	7,471,144,567,281
Long-term financial instruments	2,011,500,000	11,500,000
Long-term investment securities	9,244,959,753	2,461,782,534
Long-term trade receivables and other receivables	8,374,860,523	6,648,162,487
Non-current derivative assets	4,525,583,392	-
Tangible assets	2,023,666,222,683	1,907,310,779,496
Intangible assets	4,754,639,097,102	5,038,112,718,225
Investment properties	27,871,356,394	29,032,623,853
Investments in joint ventures and affiliated companies	145,002,625,289	163,787,811,240
Deferred income tax assets	597,141,831,491	189,780,215,316
Other non-current assets	118,368,009,684	133,998,974,130
Total assets	11,552,840,624,027	11,703,674,631,463
Liabilities		, , , ,
I. Current liabilities	3,539,078,481,832	4,473,166,145,503
Trade payables and other payables	1,067,423,350,749	1,918,021,666,401
Short-term borrowings	1,325,079,857,757	616,572,690,475
Current bonds payable	469,592,187,972	232,824,289,736
Current long-term borrowings	270,380,842,054	1,149,062,279,887
Current income tax debts	31,856,682,031	121,456,321,048
Derivative debts	831,659,485	22,851,007,390
Provisions	146,441,019,324	171,514,008,843
Other current debts	227,472,882,460	240,863,881,723
II. Non-current liabilities	5,017,049,613,095	4,945,307,457,212
Bonds payable	1,585,861,248,159	1,594,857,576,069
Long-term borrowings	2,508,227,472,114	2,451,412,211,189
Other non-current debts	27,504,331,079	2,287,962,219
Allowance for severance and retirement benefits	773,747,548,161	758,148,077,218
Non-current derivative debts	7,707,578	286,042,423
Deferred income tax debts	3,561,696,033	45,568,743,327
Non-current provisions	7,370,145,747	4,430,255,524
Other non-current provisions	110,769,464,224	88,316,589,243
Total liabilities	8,556,128,094,927	9,418,473,602,715
Stockholders' equity	0,000,120,074,727	7,410,470,002,710
I. Equity ownership of controlled entity	2,446,500,738,076	1,845,065,836,099
Capital stock	843,290,170,000	842,779,420,000
Capital surplus	14,254,797,512	8,288,339,555
Hybrid bonds	508,259,603,649	0,200,337,333
Other capital	(30,403,879,853)	94,339,619,629
Other capital  Other cumulative comprehensive income	[30,403,677,633]	
Earned surplus	1,288,381,468,016	(42,494,821,600) <b>942,153,278,515</b>
II. Non-controlling interests	550,211,791,024	
Total stockholders' equity	2,996,712,529,100	440,135,192,649 2,285,201,028,748
	<del></del>	11,703,674,631,463
Total liabilities and stockholders' equity	11,552,840,624,027	11,703,074,031,463

#### CONSOLIDATED STATEMENTS OF INCOME

FY2012 from January 1, 2012 to December 31, 2012 / FY2011 from January 1, 2011 to December 31, 2011

(Unit: KRW)

Desc	ription	FY2012	FY2011
l. :	Sales	8,158,350,959,705	8,463,085,724,023
II.	Cost of sales	6,478,129,915,411	6,615,691,255,830
III.	Gross profit	1,680,221,044,294	1,847,394,468,193
	Selling and administrative expenses	1,317,803,816,096	1,167,779,498,194
IV.	Operating income	362,417,228,198	679,614,969,999
	Financial income	249,570,319,161	175,052,455,482
	Financial cost	570,352,372,508	601,234,228,163
	Other non-operating income	35,901,618,689	84,440,796,526
	Other non-operating cost	79,589,210,926	55,602,159,820
	Equity method-based investment income (loss)	[18,393,850,149]	4,845,287,022
	Gain (loss) on equity method-based investment asset disposition	704,719,182	(6,771,471,314)
	Gain on disposition of stocks invested in subsidiaries	-	4,907,819,621
٧.	Pretax income (loss) from continuing operations	(19,741,548,353)	285,253,469,353
	After-tax income (loss) from continuing operations	[423,761,523,933]	78,313,983,623
VI.	Income from continuing operations	404,019,975,580	206,939,485,730
VII.	Income from discontinued operations	<u> </u>	103,870,554,756
VIII.	Consolidated net profit	404,019,975,580	310,810,040,486
	Controlling interest	349,803,841,202	298,223,624,003
	Non-controlling interest	54,216,134,378	12,586,416,483
IX.	Earnings per share of controlling interest		
	Basic ongoing operating income per share	2,075	1,153
	Diluted ongoing operating income per share	2,074	1,153
	Basic earnings per share	2,075	1,769
	Diluted earnings per share	2,074	1,769

#### CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

FY2012 from January 1, 2012 to December 31, 2012 / FY2011 from January 1, 2011 to December 31, 2011

(Unit: KRW)

De	scription	FY2012	FY2011
l.	Net profit	404,019,975,580	310,810,040,486
II.	Other comprehensive income / loss	[178,398,265,596]	(97,733,726,945)
	Actuarial gain and loss under the defined benefit retirement pension	[841,308,862]	[156,771,019,333]
	Gain and loss of valuation of financial assets available for sale	[61,673,396]	[42,746,482]
	Capital changes not under the equity method	[1,195,628,629]	2,523,942,012
	Gain or loss on overseas operations translation	[266,406,054,959]	72,531,233,167
	Gain or loss on valuation of derivative instruments for cash flow hedge	90,106,400,250	[15,975,136,309]
III.	Total comprehensive income	225,621,709,984	213,076,313,541
IV.	Beneficiaries of total comprehensive income		
	Controlling interest	211,441,589,853	222,416,812,834
	Non-controlling interest	14,180,120,131	[9,340,499,293]

74

#### CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

FY2012 from January 1, 2012 to December 31, 2012 / FY2011 from January 1, 2011 to December 31, 2011

(Unit: KRW)

Description	Capital	Capital surplus	Hybrid bonds	Other capital item	Other cumulative comprehensive income	Retained earnings	Non-controlling interests	Total
January 1, 2011 (the beginning of the previous term)	842,242,420,000	5,298,993,755	-	[73,759,338,761]	[107,243,585,324]	784,485,229,405	306,514,098,989	1,757,537,818,064
Consolidated net income		-		_		298,223,624,003	12,586,416,483	310,810,040,486
Actuarial gain and loss under the defined benefit retirement pension	-	-	-	-	-	[140,555,574,893]	[16,215,444,440]	[156,771,019,333]
Exercising and expiration of stock options	537,000,000	2,989,345,800	-	(1,319,305,800)		-		2,207,040,000
Share-based payment				4,146,126,117				4,146,126,117
Gain and loss of valuation of financial assets available for sale	_		-	_	[42,746,482]	-		[42,746,482]
Capital changes not under the equity method		-	-	-	2,523,942,012			2,523,942,012
Gain or loss on overseas operations translation			-	-	78,242,704,503	-	(5,711,471,336)	72,531,233,167
Gain or loss on valuation of derivative instruments for cash flow hedge	-	-	-	-	(15,975,136,309)	-	-	(15,975,136,309)
Paid-in capital increase in subsidiaries		-	-	[16,218,695,915]	_		16,218,695,915	-
Partial disposition of stock investment in subsidiaries		-		200,781,992,715	-		107,451,738,311	308,233,731,026
Business transfer between consolidated companies		-		[13,259,336,389]	-		13,259,336,389	-
Interest transfer between consolidated companies		-	-	[6,031,822,338]			6,031,822,338	-
December 31, 2011 (end of the previous term)	842,779,420,000	8,288,339,555	-	94,339,619,629	[42,494,821,600]	942,153,278,515	440,135,192,649	2,285,201,028,748
January 1, 2012 (the beginning of the current term)	842,779,420,000	8,288,339,555	-	94,339,619,629	[42,494,821,600]	942,153,278,515	440,135,192,649	2,285,201,028,748
Consolidated net income				=		349,803,841,202	54,216,134,378	404,019,975,580
Actuarial gain and loss under the defined benefit retirement pension	-	-	-	-	-	(3,575,651,701)	2,734,342,839	[841,308,862]
Exercising and expiration of stock options	510,750,000	5,966,457,957	-	[4,934,464,091]	-	-		1,542,743,866
Share-based payment	-	-	-	3,446,189,499	-	-	-	3,446,189,499
Gain and loss of valuation of financial assets available for sale	-	-	-	-	(61,673,396)	-	-	(61,673,396)
Capital changes not under the equity method		-	-	-	[1,195,628,629]	-		[1,195,628,629]
Gain or loss on overseas operations translation	-	-	-	_	[223,635,697,873]	_	[42,770,357,086]	(266,406,054,959)
Gain or loss on valuation of derivative instruments for cash flow hedge			-	-	90,106,400,250	-	_	90,106,400,250
Paid-in capital increase in subsidiaries	-	-	-	(215,750,926)	-	-	215,750,926	
Conversion of convertible preferred stocks	-	-	-	[94,499,680,439]	-	-	94,499,680,439	
Business transfer between consolidated companies	-	-	-	[1,181,046,879]	-	-	1,181,046,879	
Issuance of hybrid bonds			508,259,603,649					508,259,603,649
Others (income tax effect)		-		[27,358,746,646]				(27,358,746,646
December 31, 2012 (the end of the current term)	843,290,170,000	14,254,797,512	508,259,603,649	(30,403,879,853)	[177,281,421,248]	1,288,381,468,016	550,211,791,024	2,996,712,529,100

#### CONSOLIDATED STATEMENTS OF CASH FLOWS

FY2012 from January 1, 2012 to December 31, 2012 / FY2011 from January 1, 2011 to December 31, 2011

(Unit: KRW)

De	scription	FY2012	FY2011
I.	Cash flows from operating activities	(432,791,142,239)	117,185,373,031
	Cash from operations	455,983,304,342	526,735,894,251
	Net profit	404,019,975,580	310,810,040,486
П	Adjustment	234,753,936,999	646,834,882,386
	Net changes in assets and liabilities resulting from operations	[182,790,608,237]	[430,909,028,621]
	Receipt of interest	27,692,389,440	24,096,530,961
	Payment of interest	[782,514,855,762]	(325,021,059,608)
	Receipt of dividends	9,599,997	-
	Payment of income tax	(133,961,580,256)	[108,625,992,573]
II.	Cash flows from investments	(544,638,275,661)	(290,228,057,596)
	Cash inflow from investments	130,677,843,934	386,014,724,115
	A decrease in short-term investment securities	-	23,622,412,492
	A decrease in short-term loans	37,934,761,916	-
	Disposition of long-term investment securities	244,033,153	27,650,000,000
	Disposition of tangible assets	90,913,565,877	62,144,082,589
	Disposition of intangible assets	731,406,051	499,670,002
	Disposition of investments in real estate	854,076,937	-
П	Cash inflow from the transfer of business	-	272,098,559,032
	Cash outflow due to investments	[675,316,119,595]	[676,242,781,711]
	An increase in short-term financial instruments	104,155,996,915	57,942,571,960
	An increase in short-term loans	-	51,041,054,443
	Acquisition of stocks invested in affiliated companies	6,410,284,877	73,393,989,467
	An increase in long-term financial instruments	2,000,000,000	-
П	Acquisition of long-term investment securities	7,095,495,328	1,544,411,586
	Acquisition of tangible assets	460,076,971,556	426,060,429,897
	Acquisition of intangible assets	95,577,370,919	66,260,324,358
III.	Cash flows from financial activities	811,064,576,961	328,608,601,748
	Cash inflow from financial activities	2,181,526,256,158	3,596,096,434,579
	An increase in borrowings	1,152,738,130,513	2,159,864,980,230
П	An increase in private loans	496,658,603,591	1,125,790,683,323
	Exercising of stock options	1,594,320,000	2,207,040,000
	Disposition of stocks invested in subsidiaries	-	308,233,731,026
	Issuance of hybrid bonds	530,535,202,054	-
	Cash outflow due to financial activities	(1,370,461,679,197)	(3,267,487,832,831)
	Redemption of borrowings	1,137,461,679,197	2,832,487,832,831
	Redemption of private loans	233,000,000,000	435,000,000,000
IV.	Effects of exchange change on cash and cashable assets	4,827,508,400	(8,273,578,753)
٧.	Increase (decrease) in cash and cashable assets (I+II+III+IV)	(161,537,332,539)	147,292,338,430
VI.	Cash and cashable assets at the beginning of the term	624,031,624,968	476,739,286,538
VII	. Cash and cashable assets at the end of the term	462,494,292,429	624,031,624,968

76

### INDEPENDENT AUDITORS' REPORT

**78** 

To the Shareholders and 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, 2012 and 2011 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, 2012 and 2011. 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 positions of the Company as of December 31, 2012 and 2011 and the results of its operations and its cash flows for the year ended December 31, 2012 and 2011, 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

March 21, 2013

This report is effective as of March 21, 2013, 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, 2012. 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, 2012 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 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.

CEO,

Deloiite Anjin LLC

Deloitle Amin LLC

March 21, 2013

2012 Doosan Infracore Integrated Report

## CSR FACTS & FIGURES

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

Notes Notes
_
From January 1, 2010, shifted to K-IFRS.
17
<u>19</u>
21
A Provided by Korea Investors Service
94
27
06
0
.4 Once per year / person
Excluding dispatched employees (E-HR based on December 31, 2012)
06
70
94
Contracted jobs (commissioned jobs, commissioned technical jobs, outside directors, advisors, consultants, and externally commissioned jobs)
.3 Non-regular / Total (domestic)*100
21 Based on E-HR; national disabled classification (Levels 1~6)
Based on E-HR; national merit recipients (Merit no. or approved people)
33 Elderly: 55 and over (based on total-domestic)
39
75
.6 Monthly employee turnover / monthly total no. of employees*100
75 Including online training
31
49
39
Maternity leave ending in 2012
Users of their childcare leave and employees exempted from the leave in 2012 / employees with their childcare leave ending in 2012
.5 Technical employees in the production category
Employees dispatched overseas and resident employees have not completed education.
, and the second
*2011 performance totaling criteria was changed.
57
.6
nly
`
25
21
21  9 *2011 performance totaling criteria was changed.
21 9 *2011 performance totaling criteria was changed. 11 *2011 performance totaling criteria was changed.
*2011 performance totaling criteria was changed.  *2011 performance totaling criteria was changed.
*2011 performance totaling criteria was changed.  *2011 performance totaling criteria was changed.  *2011 performance totaling criteria was changed.
*2011 performance totaling criteria was changed.  *2012 2011 data covers the period of July 1 to December 31, 2011 due to the establishment of internal standards and introduction of I
*2011 performance totaling criteria was changed.  *2012 2011 data covers the period of July 1 to December 31, 2011 due
3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

							d
Category 1	Category 2	Category 3	Unit	2010	2011	2012	Notes
Employee participation in "Salary Fraction Donation"	No. of participants		No. of people	-	4,552	4,895	
campaign	Participation		%		91.8	89.7	performance entered from 2011.
F3	ratio				71.0	07.7	
Annual fund raised by Salary			KRW 1,000	-	33,625	182,327	Beginning in October 2010,
Fraction Donation campaign							performance entered from 2011.
Environmental investments			KRW 100 million	164	151	200	
and operating costs			No of works large				
ISO 14001 (EMS) certification	Domestic		No. of workplaces	3	3	3	All domestic workplaces certified (Gunsan plant certified since 2010)
Energy usage volume	Companywide,	Total	TJ	2,981	3,018	2,978	(Gunsan plant certified since 2010)
(Including direct and indirect	domestic	LNG	TJ	443	468	382	
usage)		Power	TJ	2,324	2,339	2,396	
		Diesel	TJ	162	180	179	
		Others (LPG, kerosene,	TJ	52	31	21	
		etc.)					
- 1		Basic unit	TJ / KRW million	0.00077	0.00068	0.0007	Basic unit calculated based on yearly sales.
Fuel usage volume	Incheon	Steel plate	ton	30,115	20,452	20,131	
		Steel plate basic unit Scrap metal	ton / KRW million ton	0.008	0.005	0.005	Basic unit calculated based on yearly sales
		Scrap metal basic unit	ton / KRW million	<u>49,640</u> 0.013	52,000 0.012	44,500	Basic unit calculated based on yearly sales
		Sand (molding sand)	ton	30,734	42,000	32,000	All molding sand is recycled.
		Sand basic unit	ton / KRW million	0.008	0.009	0.008	Basic unit calculated based on yearly sales
Water usage volume	Companywide,	Water	ton	784,365	813,254		Including use of service water and underground water
	domestic	Water basic unit	ton / KRW million	0.202	0.184	0.143	Basic unit calculated based on yearly sales
Reduction of service water	Incheon		ton	800 (use of grey	800 (use of grey	800 (use of grey	Total service water reused and recycled
usage				water)	water)	water)	
Greenhouse gas emissions	Companywide,	Total	tonCO2eq	158,513	164,257	153,441	
(including indirect and direct	domestic	Basic unit	tonCO2eq /	0.041	0.037	0.036	Basic unit calculated based on yearly sales
emissions)			KRW million				
	Incheon	Total	tonCO2eq	111,110	111,699	106,373	
	Changwon	Total	tonCO2eq	18,782	19,950	19,198	
Wastewater volume	Gunsan Companywide,	Total	tonCO2eq ton	15,909 107,035	19,658 109,848	16,606	
wastewater volume	domestic		ton	107,033	107,040	114,047	
	Incheon		ton	93,716	89,439	95,420	
	Changwon	-	ton	12,362	11,989	10,959	
	Gunsan	-	ton	957	8,420	7,670	
Water pollutant emissions	Incheon	BOD	mg / L	16.3	8.2	2.5	Legal limit: 120mg / L. Company limit: 48mg / L
volume		COD	mg / L	10	11.6	10.2	Legal limit: 130mg / L. Company limit: 52mg / L
		Suspended solids	mg / L	7.0	8.3	2.0	Legal limit: 120mg / L. Company limit: 48mg / L
	Changwon	BOD	mg / L				No BOD
		COD	mg / L	2.0	7.5	5.6 2.0	Legal limit: 130mg / L. Company limit: 52mg / L
	Gunsan	Suspended solids BOD	mg / L	133	2.0	90	Legal limit: 130mg / L. Company limit: 52mg / L  Legal limit: 400mg / L, Company limit: 160mg / L
	Guilsaii	COD	mg / L mg / L	113	121	110	Legal limit: 400mg / L, Company limit: 160mg / L  Legal limit: 400mg / L, Company limit: 160mg / L
		Suspended solids	mg / L	8.9	10.9	18	Legal limit: 200mg / L, Company limit: 80mg / L
Air pollutants	Incheon	NOx	ppm	1.6		2.5	Legal limit 200ppm, Company limit 80ppm
		SOx	ppm	0.8	4.2	0	Legal limit 400ppm, Company limit 160ppm
		VOCs	ppm	8.5	13.8	11.7	Legal limit 200ppm, Company limit 32 / 160ppm
		Dust	mg / m³	3.3	3.2	2.6	Legal limit 5 omg / m³, Company limit 8 / 2 omg / m³
	Changwon*	VOCs	ppm	15			Legal limit: 200ppm, Company limit: 160ppm
	(No NOx, SOx)	Dust	mg / m³	3	3		Legal limit: 50mg / m³, Company limit: 20mg / m³
	Gunsan	NOx	ppm	0.3	0.3	0.14	Legal limit: 200ppm, Company limit: 80ppm
		SOx	ppm	1.2	0.9	1.15	Legal limit: 400ppm, Company limit: 160ppm
		VOCs Dust	mg / m <sup>3</sup>	2.3	2.4	2.73	Legal limit: 4oppm, Company limit: 32ppm  Legal limit: 5omg / m³, Company limit: 2omg / m³
Waste emissions and	Companywide,	Total volume of waste	ton	61,973	63,431	54,932	Legal limit: 50mg / m², Company limit: 20mg / m²
recycling rate	domestic	Recycling rate	%	94	94.4	87	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Incheon	General waste	ton	56,936	57,681	49,872	
		Specified waste	ton	2,971	3,340	2,637	
		Recycling rate	%	96	96	88	
	Changwon	General waste	ton	869	932	1,077	
		Specified waste	ton	800	618	496	
		Recycling rate	%	41	57	56	
	Gunsan	General waste	ton	251	668	669	
		Specified waste	ton	146	192	181	
Industrial assidant mea	Componental	Recycling rate	%	76		71	Pagad or treatment or
Industrial accident rate	Companywide		%	0.41	0.44	0.28	Based on treatment approvals

#### To the management of Doosan Infracore

We have been engaged by Doosan Infracore (the "Company") to perform an independent assurance engagement in regard to the following aspects of Doosan Infracore's 2012 Integrated Report (the "Report").

#### Scope and subject matter

The information for the year ended December 31, 2012 (hereinafter, collectively referred to as the "Sustainability Information") on which we provide limited assurance consists of:

- The Company's conclusion on meeting the principles of Inclusivity, Materiality and Responsiveness in the AA1000 AccountAbility Principles Standard 2008 ("AA1000APS");
- The "CSR results" information on page 80 and 81 in the Report (except for the GHG emissions Scope 1, Scope 2 data and Energy consumption data, the "CSR Data") which is based on the reporting principles set out on "About This Report" (the "Reporting Principles").

We read the other information included in the Report and consider whether it is consistent with the Sustainability Information. We consider the implications for our report if we become aware of any apparent misstatements or material inconsistencies with the Sustainability Information. Our responsibilities do not extend to any other information.

#### Assurance work performed

We conducted our engagement in accordance with ISAE 3000 (1) and AA1000AS (2). The term "moderate assurance" used in AA1000AS (2008) is designed to be consistent with "limited assurance" as articulated in ISAE 3000. Our assurance is a Type II assurance engagement as defined in the Guidance for AA1000AS (2008).

(1) International Standard on Assurance Engagement 3000 (Revised) - "Assurance Engagements other than Audits or Reviews of Historical Financial Information" issued by ernational Auditing and Assurance Standards Board (2) AA1000 Assurance Standard (2008), issued by AccountAbility

Our work involved the following activities:

- 1. Interviews with the personnel responsible for internal reporting and data collection to discuss their approach to stakeholder inclusivity, materiality and
- 2. Visits to the Company's headquarter (Inchon plant) and Seoul office: to understand the systems and processes in place for managing and reporting the CSR Data.
- 3. Review of a sample of internal documents relevant to output from the risk assessment process, CSR-related policies and standards, the CSR Materiality Assessment Matrix and other documents from stakeholder engagement activities.
- 4. Evaluating the design and implementation of the key processes and controls for managing and reporting the CSR Data.
- 5. Limited testing, through inquiry and analytical review procedures, of the preparation and collation of the CSR

#### Respective responsibilities of the management of the Company and Samil PricewaterhouseCoopers

The management of the Company is responsible for establishing assessment criteria that meets the principles of Inclusivity, Materiality and Responsiveness in the AA1000APS, measuring performance based on the "Assessment Criteria", and reporting this performance in the Report.

Our responsibility is to provide a conclusion based on our assurance procedures in accordance with ISAE 3000 and AA1000AS

This report, including the conclusion, has been prepared for the management of the Company as a body, to assist the management in reporting on the Company's CSR performance and activities. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the management of the Company as a body and the Company for our work or this report save where terms are expressly agreed and with our prior consent in writing.

#### Inherent limitations

Non-financial performance information is subject to more inherent limitations than financial information, given the characteristics of the subject matter and the methods used for determining such information. Qualitative interpretations

of relevance, materiality and the accuracy of data are subject to individual assumptions and judgments.

A limited assurance engagement is less in scope than a reasonable assurance engagement under ISAE 3000. Consequently, the nature, timing and extent of procedures for gathering sufficient, appropriate evidence are deliberately limited relative to a reasonable assurance engagement. In particular:

- We did not attend any stakeholder engagement activities. Therefore our conclusions are based on our discussions with management and staff of the Company and our review of selected documents provided to U.S. by the Company.
- The scope of our work was restricted to 2012 performance only, as set out in the scope and subject matter section above. Information relating to the year ended December 31, 2011 and earlier periods have not been subject to assurance by us.

#### Conclusion

Based on the results of the assurance work performed and the Assessment Criteria, our conclusion is as follows:

On the AA1000APS principles;

#### Inclusivity

- The Company has collected concerns and opinions through stakeholder communication channels that include customers/dealers, suppliers, employees, local communities (environment/NGOs), stockholders/investors, the local/central governments and media.
- Nothing has come to our attention to suggest that material stakeholder groups were excluded in these channels.

#### Materiality

- The Company has identified most relevant and significant CSR issues through process for identifying material issues.
- Nothing has come to our attention to suggest that material issues were omitted in this process.

#### Responsiveness

- The Company has included in the Report its response to the material CSR issues which are defined through process for identifying material issues.
- Nothing has come to our attention to suggest

that there were material deficiencies in the issue management system.

• Nothing has come to our attention that causes U.S. to believe that CSR Data for the year ended December 31. 2012 are not fairly stated, in all material respects, in accordance with the Reporting Principles.

#### Recommendations

As a result of our work, we have provided the following recommendations to the management.

 Policy relating to the human rights, labor and environmental issues of the suppliers which are under the significant influence of the Company needs to be established and communicated. In the medium and long term, a management system to ensure compliance of these suppliers with the Company's policy needs to be established through periodic review of the suppliers' activities.

83

- It is recommended to continuously improve its performance measurement system such as the measurement of the financial impact of non-financial indicators, in order to facilitate the understanding of the users of the information, regarding the Company's short, medium and long term value generating business model and strategies.
- The economic performances including the overseas business sites are being reported; however, the key social and environmental performances are being reported mainly on the domestic sites. Therefore, a discrepancy on the range of reporting exists. In order to provide more meaningful information for the decision making of the main users of the full report such as the shareholders and investors, reporting boundaries of the key social and environmental performances need to be aligned with those of the financial information.

Samil PricewaterhouseCoopers Seoul, Korea June, 2013

#### 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.

#### **Environment**

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

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 2012 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	Doosan Tower, 275 Jangchungdan-ro, Jung-gu, Seoul		
Incheon Plant	489 Injung-ro, Dong-gu, Incheon		
Changwon Namsan Plant	40 Jeongdong-ro 162beon-gil, Seongsan-gu, Changwon-si, Gyeongsangnam-do		
Changwon Daewon Plant	101 Samdong-ro, Uichang-gu, Changwon-si, Gyeongsangnam-do		
Gunsan Plant	185 Dongjangsan-ro, Gunsan-si, Jeollabuk-do		
Asan Parts Service Center	48 Yongdam-ro, Sangnok-gu, Ansan-si, Gyeonggi-do		

Date Published June 2013

**Publishing Team** CSR Team, Corporate Center, Doosan Infracore

Tel: 82-2-3398-2117 E-mail: infracore.csr@doosan.com

**Designed by** HoneyCommunications Tel: 82-2-325-9889

Printed by Geumgang Printech Tel: 82-2-2275-5641