

# BUILDING YOUR TOMORROW TODAY

DOOSAN CORPORATION Corporate Social Responsibility Report 2014

**Developing People** 

Reliable Operating

**Responsible Engagement** 

# BUILDING YOUR TOMORROW TODAY

### About this report

**Purpose of the Report I** Each year, Doosan Corp publishes an annual corporate social responsibility(CSR) report that addresses the interests and demands of the company's key stakeholders. In the 2014 Doosan Corporation CSR Report, Doosan Corp shares its CSR vision and performance on. This report will also be used as a communication channel to reflect the opinions of internal and external stakeholders.

**Structure of the Report I** The 2014 Doosan Corporation CSR Report presents the important issues related to the three pillars of Doosan Corp's CSR strategy and Doosan Corp's performance on those issues to highlight the key interests of stakeholders. The major policies and processes designed to meet those needs are outlined in the Management Report.

This report consists of three parts: The first part includes an overview of Doosan Corp's CSR management and materiality assessment. The second part focuses on the three pillars of Doosan Corp's CSR strategy, namely, "Developing People," "Reliable Operating," and "Responsible Engagement," and Doosan Corp's specific activities under the CSR strategy in connection with the material issues identified through a materiality assessment. Doosan Corp's CSR strategy and its correlation with the material issues contained in the report are further detailed on pages 16 to 17. Lastly, the Management Report describes Doosan Corp's CSR strategy and system, and its economic, social, and environmental performance related to the material issues.

**Reporting Period and Scope I** This report covers the period from January 1, 2014 to December 31, 2014, and it provides partial quantitative performance data of the past three years to follow the latest trends. The report also includes Doosan Corp's activities during 2015 when necessary and these are marked separately. The reporting scope of this report encompasses the domestic locations of Doosan Corp's each business, including its headquarters.

**Reporting Principles I** This report was prepared in accordance with the GRI(-Global Reporting Initiative) G4 Guidelines. <u>The status of the reporting standards</u> is included on pages 78 to 81.

Third Party Verification I This report has been audited through <u>a third-party</u> verification assessment by Lloyd Register Quality Assurance, and the verification statement can be found on pages 76 to 77.



# BUILDING YOUR TOMORROW TODAY

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Building Your Tomorrow Today

The cover expresses the core values of "Proud Global Doosan" using the company's CI logo design and color variation. The central dynamic and futuristic image of overlapping squares embodies Doosan Corp's commitment to realize its vision. The gradual color variation surrounding the squares represents Doosan Corp's aspiration to become Proud Global Doosan and its commitment to social responsibility and open communication with its stakeholders, including employees, customers, local communities, and shareholders. At the bottom are the three pillars of Doosan Corp's CSR strategy, through which we will carry out its CSR activities from now on. This is our today and tomorrow, and the sustainable world that Doosan Corp strives to build.

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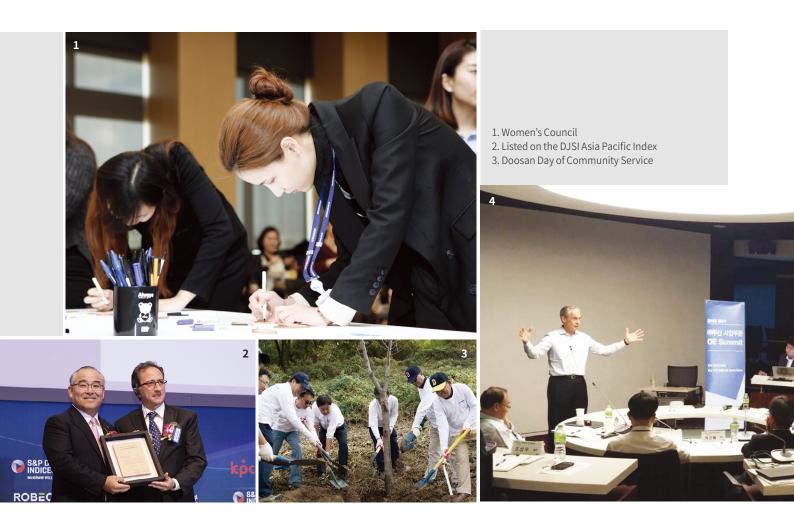
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# **CSR Highlights**



#### Creating a Women-Friendly Work Environment

Doosan Corp has adopted and operated a variety of women-friendly programs, including the W Project, Women's Council, and Mom's Caring Program, to create a female-friendly corporate culture and offer female employees a vision for growth.

#### Promoting External CSR Communication

By first publishing the 2013 Doosan Corporation CSR Report, Doosan Corp pledged that it would abide by its economic, social, and environmental commitments towards its stakeholders, and actively responded to evaluation demands. As a result of its efforts, we were listed on the DJSI Asia Pacific Index for the first time and recognized as a competent and sustainable company.

#### Developing Greenhouse Gas Inventory for All Business Groups

To actively engage in government-led responses to climate change and fulfill its environmental responsibilities, Doosan Corp developed a greenhouse gas inventory for all of its businesses.

#### **Doosan Day of Community Service**

In October 2014, Doosan Corp attended a Corporate Community Involvement(CCI) Day event held group-wide and had CCI activities carried out simultaneously at its business locations worldwide.

#### More Advanced and Scientific Operations through the OE Summit

Doosan Corp held an OE(Operational Excellence) Summit to check the progress of ongoing projects at major business groups and discuss future tasks. During the summit meeting, executives shared issues facing each business group and tried to work out solutions. The summit will contribute to creating synergy through enhanced collaboration among business groups and ultimately maximizing profit.





#### Green Business Using Fuel Cells

Doosan Corp began a fuel cell business by acquiring and merging with leading South Korean and American fuel cell manufacturers. Through the new business, we created a platform for sustainable growth and development and will use it to produce environmentally-friendly fuel cell systems and thus fulfill its environmental responsibilities.

#### Increasing Customer Satisfaction across All Processes by Acquiring CFL

Doosan Corporation Electro-Materials business group acquired Circuit Foil Luxembourg(C-FL)-which had enabling technologies for copper clad laminates- and successfully internalized related materials and technologies to systemically provide raw materials and customer services.

#### Creating a Supply Chain CSR Implementation System

Doosan Corp created a supply chain CSR management system for the company's supply chain encompassing a wide range of business areas. Doosan Corp's supply chain CSR includes establishing a company-wide policy and strategy, building an integrated management system, and adopting standard processes.

#### Embarking on Internal CSR Communication

To improve CSR-related internal communications, Doosan Corp holds CSR Committee meetings and operates each subcommittee. In addition, we provided CSR training tailored to the needs of business operations to increase employees' awareness and understanding of CSR.

#### Creating a Training System to Cultivate Professionals

Doosan Corp created a Functional Specialty Education system to enhance the capabilities of employees in specialized jobs like R&D and technical positions, and strengthen our competitive edge. We opened the R&D Academy and Data Scientist training programs linked to the functional competency system. These programs have led to positive results which include R&D and quality innovations.

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# **CEO Message**





# Doosan has greatly contributed to the growth of Korean society over the past century, and will continue to grow with society in the coming century.

Doosan, Korea's first modern company, has undergone massive change over its past 119 year history. In 2014, in particular, the company completed its transformation into an ISB(Infrastructure Support Business) provider by moving away from retail operations in food and beverage and publishing businesses. Doosan will continue to work hard and explore a wide range of opportunities for successful innovation. The company is also always scanning the globe for important trends, new technologies, and developing markets, and will drive innovation and change more successfully by diversifying its customer base.

Companies grow within and together with society. Therefore, companies are facing growing demand at home and abroad to become more socially responsible. Doosan's management philosophy has long advocated corporate social responsibility, which has been solidified and embodied in the "Doosan Way," which the company announced in 2012. To become a truly global leader, Doosan has reinforced its social responsibility policy across all business operations through the "Doosan Way." Employees at Doosan are also committed to thinking and acting in the "Doosan Way" in their own specialty areas.

Doosan not only pursues the growth of its own businesses but also maintains open communication with its stakeholders for the company and society to grow together. Doosan's communication culture, in which the company is always open to communication and discussion based on the Doosan Way, has been extended across and outside the organization. Through this culture, Doosan has become more attentive to the needs of various stakeholders including its shareholders, customers, business partners, and environmental and community organizations. The needs of the changing community and environment have been incorporated into the company's business operations. Doosan never forgets the importance of its position as the oldest company in Korea, and will fulfill its social responsibilities and roles to become not only a respected company, but a company that creates shared value on the basis of communication with stakeholders.

Doosan will create a solid foundation for managing its corporate social responsibility so that the company can grow together with society. Doosan's CSR management is the company's commitment to growth over the next 100 years. Doosan will fulfill its commitment by sharing the value of growth with all its stakeholders.

We greatly appreciate your unwavering support.

Thank you.

Chairman of Doosan and CEO of Doosan Corp Yongmaan Park



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# Letter to Stakeholders





Doosan CSR Report 2014

# Doosan Corp. will continue to fulfill social responsibilities as a global corporate citizen on the basis of communication with stakeholders.

#### Dear Valued Stakeholders,

Companies around the world are constantly faced with demands for continuous change and innovation despite the global economic downturn. Since 2009, Doosan Corp has been working on transitioning its business portfolio towards one centering on the infrastructure support business(ISB). As a result, Doosan Corp entered the fuel cell business in 2014 as the company's major future growth driver and as a means to contribute to clean energy for society. Each business of Doosan Corp has also continuously explored opportunities and worked hard to utilize its capabilities and resources. As a participant in the UN Global Compact, Doosan Corp is committed to the UNGC 10 Principles and has fulfilled its role and responsibilities as a corporate citizen that creates value for its stakeholders.

Particularly, Doosan Corp has developed a framework for its CSR strategy, which neatly incorporates all the CSR activities that have been implemented thus far. Furthermore, in 2013, through the publication of its first CSR report, the company disclosed its performance on CSR to its stakeholders. Its efforts led the company to be listed on the DJSI Asia Pacific Index. The company was thus internationally recognized as a competent and sustainable company. We are sincerely grateful to all our stakeholders, including shareholders, customers, business partners, communities, and employees, for their support of our CSR activities. From now on, Doosan Corp will concentrate its CSR activities on the following three areas:

#### Creating a Sustainable Future through People

Securing and developing human resources that form the basis of a sustainable company is a vital activity for any company in a rapidly changing economic environment. Doosan Corp creates a culture that encourages employees to make development plans and pursue professional growth on their own, and provides activities and opportunities for employees to openly communicate regardless of position or gender. In addition to making business operations more efficient, the company also implements streamlining activities according to the "Doosan Way". Safety and health management is applied not only to employees but also to business partners outside the organization, so that all members within the company's sphere of influence can work in a safer and healthier environment. Doosan Corp is a company that puts people first.

#### Implementing Responsible Business Operations

A variety of regulatory requirements, such as environmental regulations, have become tighter around the world, restricting business operations at home and abroad. In these circumstances, Doosan Corp has not only responded to such regulatory requirements, but has also fulfilled its social responsibilities across all business operations. First of all, the company is strengthening its programs and systems designed to effectively fulfill its environmental obligations in relation to climate change and environmental contaminants. Furthermore, Doosan Corp acknowledges that growing together with its business partners will help fulfill its social responsibilities and enhance its capabilities. Thus, Doosan Corp makes sure to comply with fair trade laws and expand support for its business partners. Through its efforts, Doosan Corp will set an example for other companies and contribute to creating a positive culture in the industry.

#### **Creating Value Needed by Communities**

Doosan Corp is constantly exploring options for its Corporate Community Involvement(CCI) activities to maximize benefits for communities. Doosan Corp is implementing strategic CCI activities driven by voluntary participation of employees, particularly in the communities where the company's facilities are located. More specifically, the company celebrates the "Doosan Day of Community Service" and has contributed to the growth of communities through employees' active involvement across all facilities. Doosan Corp will continue to contribute to building a brighter future by finding the best possible solutions to social issues.

#### Respected shareholders,

Through its 2014 CSR Report, Doosan Corp would like to share its CSR strategy and 2014 business performance with its shareholders. Doosan Corp will continue to fulfill its social responsibilities and role as a global corporate citizen through open communication. Doosan Corp will also continue its growth to create value for all our stakeholders.

Your continued support and involvement will be greatly appreciated.

James B. Bemouster.

Doosan Corp CSR Committee Chairman, Vice Chairman James B. Bemowski



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# **Overview**

# **Doosan Group**

Korea's Oldest Enterprise Doosan, Korea's first modern company, has undergone massive changes over its 119-year history. The company's long history began in 1896 when Park Seung-Jik opened the country's first modern store in Baeogae(currently Jongno 4-ga in Seoul). Since then, Doosan has been constantly changing and growing in the past century.

Transition to an ISB-driven Business Portfolio

In 1995, one year before its 100th anniversary, Doosan decided that it needed a fundamental transformation through "selection and focus" to become a global company and embarked on business reforms. Doosan sold off its flagship affiliates and assets including OB Beer that were the company's key flagship businesses, increased profitability through integration of its affiliates, and adopted advanced management systems.

Doosan has accomplished remarkable change and growth since 2000 by exploring new growth engines and transforming its retail-driven business portfolio into one centering on infrastructure support business(ISB), which encompasses industrial infrastructure, construction equipment, energy, national defense, and production equipment.

#### An ISB Leader Recognized Worldwide

Doosan has emerged as a global leader in various ISB sectors including power, seawater desalination, construction equipment and marine diesel engines. We are internationally recognized as the world's foremost builder of seawater desalination plants now entering the Multi-Effect Distillation(MED) sector, thereby furthering our market dominance. We are ranked first in the world for Skid Steer Loaders(SSL) and Attachments and second in the world for low speed marine engines. The Korean government selected our steam generators for commercial nuclear plants and forged backup rolls for plate rolling mills as the World's Best Products.

#### New History as a Top-Tier Global Enterprise

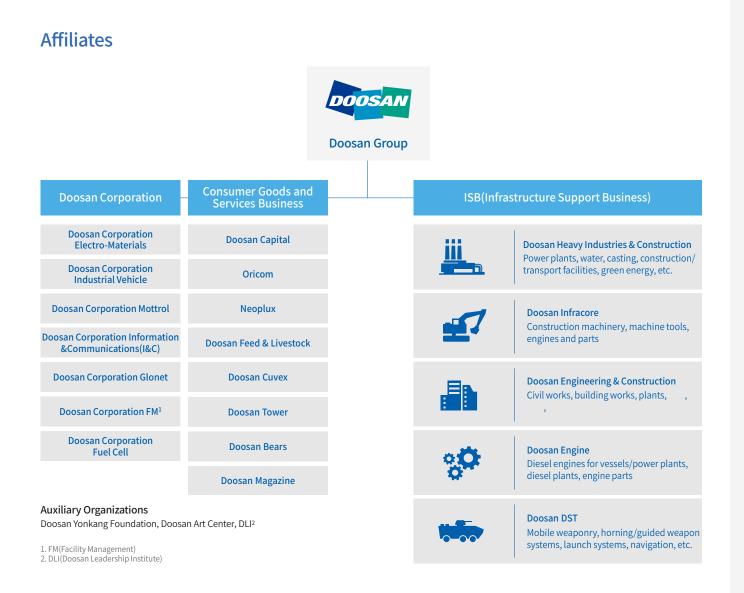
Doosan operates 23 domestic affiliates and 118 overseas subsidiaries. Although we have already achieved significant changes, we will continue to pursue further reforms to provide exceptional products and services that inspire trust and pride among our customers.



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Unit:100 million KRW

# 2014 Group Financial Highlight





# The Doosan Way

# The Doosan Way is our unique belief and philosophy to create "Proud Global Doosan." After quickly transition-The Doosan Way? ing from a consumer products supplier into a global provider of ISB industrial products, Doosan aims to become a company working with a generous and competent group of people, unique ways of developing people, and commitment through the Doosan Way. We are creating an organization where members find their sense of purpose and a company where people are at the center of business. We believe that our company can be sustainable and can become the cornerstone for developing more talented people. The Doosan Credo is a set of principles that represent Doosan's philosophy and its unique way of doing business. The Doosan These principles have been the foundation of Doosan's success for the past century. The Doosan Credo con-Credo tains nine core values. These core values are points of reference by which Doosan makes all types of decisions. Through this Credo, Doosan accomplishes its ultimate goal. The Credo consists of Doosan's "Aspiration" and "Core Values". **Doosan Credo System Proud Global Doosan** Aspiration Core Values Unique Values that Drive Our behavior and Our Business Aspiration: Doosan's ultimate goal is to create 'Proud Global Doosan'. 'Proud Doosan' means each of our employees and all of our stakeholders are 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 high but fair levels of profit. Core Values: Doosan People live by the nine core values of the Doosan Credo every day. Doosan People live by the nine core values of the Doosan Credo everywhere we conduct business to build '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.

## Traits of Doosan People

After reflecting on the structural reforms that Doosan completed through its expertise, change and innovation during its 100-year operation, Doosan found six distinctive traits that Doosan People shared. All members of Doosan abide by the Doosan Credo and carry out their six distinctive traits as Doosan People in their jobs.













Limitless Aspiration

Cultivatuing People

Inhwa

Open Communication

Tenacity & Drive

Prioritization & Focus



the DoosanWay Our story. Our vision.				<ul> <li>Doosan Way Contents</li> <li>Doosan Way Implementation and Practice</li> <li>Doosan Way Programs and Systems</li> </ul>		
Doosan Way Day Doosan Way week 2014. 4.23	Doosan Way week 2014.4.21~25	2014. 4~	2014. 5~7	2014. 7	2014.10	
0	Held Credo Remind Session	Chairman Park Yongmaan held dialogue with technical employees	<ul> <li>Held Doosan Way CA development for 380 CAs across the Group</li> <li>Held CA Workshop</li> </ul>	Announced supplementary policies of the Code of Conduct	Doosan Day of Community Service	
2014. 2~3	2013. 12~	2013.7~12	2013.7	Doosan Way week	2013. 7. 3	
Rolled out Doosan Way Survey to 17,000 technical employees worldwide	Issued of the Doosan Way FAQ brochure	Held team-based Doosan Way Workshops for strengthening of competitive edge	Upgraded Group portal 5.0 on the basis of the Doosan Way change model	Held Leadership Perspective Session	<ul> <li>Announced improvements of the <u>Code of Conduct</u>, the whistle-blowing policy, and the disciplinary policy, and introduced the white paper policy.</li> <li>Announced of technical em- ployee development programs</li> </ul>	
2013.3~	2013. 3	2013.3	2013. 4~5	2013.6	Doosan Way Day Doosan Way week 2013. 7. 3	
Began to regularly hold seasonal concerts with chairman Park Youngmaan	Completed lobby renovation and the Media Wall at Doosan Tower in Seoul	Established a CSR strategy system	Rolled out Doosan Way Survey to 21,000 office employees worldwide	Converted 700 contract- based employees to full- time employees	Held Doosan Way Awards (Doosan Way Award, Doosan Technology Award) ceremony	
2013.3	2013.3~	2013.2~	2013. 2	2013.1	2013.1	
Improved of perfor- mance management system and established of a financial policy and guidelines	Launched the WHY campaign: Think- Explain-Ask "Why"	All teams Group-wide regularly Doosan Way Time meetings	Implemented <u>a new HR</u> evaluation system	Openned Doosan Way Hall on the 9th floor of Doosan Tower in Seoul	Presented icons that represent traits of Doosan People	
2012. 5. 7~9	2012. 5~2013. 4		2012.6~	2012.8	2012.10~2013.3	
0	Held about 830 sessions Workshop for 45,600 em		Provided Insight Programs and coaching to executives and team leaders worldwide	Held the Change Agent(CA) Workshop	Held a town hall meeting hosted by Chairman Park Yongmaan	
2012. 4 ~		2011.6~	2010. 5	2005.3	2004	
Implemented the Smart ( 1. Smart Office: Activity unde which eliminate inefficienc business practices more ac	rtaken to enhance capabilities cies with the goal of making	Held Doosan Way- related discussions and a regular meeting of the decision-making body DWC(Doosan Way Council)	Credo and the distinctive traits of Doosan People	Completion of the Doosan Credo draft	In the spring of 2004, Chairman Park Yongmaan starts writing the Doosan Credo	

DOOSAN

# **Doosan Corporation**

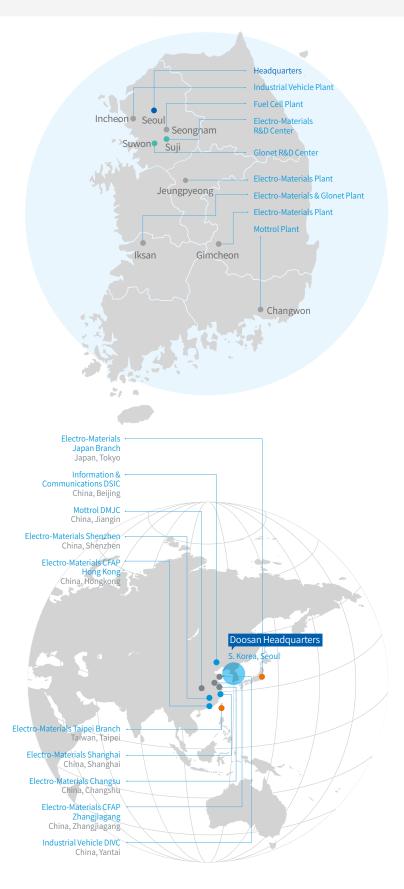
We utilize our capabilities in various businesses on the basis of advanced corporate governance.

In 2009, Doosan Corporation adopted a holding company structure to create a more ethical and advanced corporate governance. Through a three-year preparation process of restructuring and resolving cross ownership issues, we established a sustainable management structure that meets global standards.

#### We create value as a trailblazing operating-holding company.

Doosan Corporation is an operating-holding company capable of making profits by conducting its own businesses in addition to brand royalties and dividend payments. As Doosan Corp became a holding company, it not only strengthened the competitiveness of its existing businesses, but it has also pushed ahead with M&As and investments, including the acquisitions of Doosan Corp Mottrol(formerly Tongmyung Mottrol) and Doosan Corp Industrial Vehicle and the 2014 acquisitions of Doosan Corp Fuel Cell(ClearEdge Power(USA) and Fuel Cell Power(Korea)), in order to create sources of revenue. Currently, Doosan Corp operates 5 business groups—Electro-Materials, Industrial Vehicle, Mottrol, Glonet, and Fuel Cell—and 2business units, Information & Communications and FM.

Company Name	Doosan Corporation
Date of Establishment	December 18, 1933
CEO and COO	Park Yongmaan, Lee Jaekyung
Major Business Areas	Electronic components, hydraulic parts, engine and electric forklifts, etc.
Countries of Business	Korea, China, US, UK, etc.
Location of Headquarters	275, Jangchungdan-ro, Jung-gu, Seoul, Korea
Total Assets	3.51 trillion KRW
Total Sales	1.825 trillion KRW
Operating Income	256.4 billion KRW
No. of Employees	3,929



Headquarters & Production Plants Production Plants

R&D Center Local Subsidiary Branch

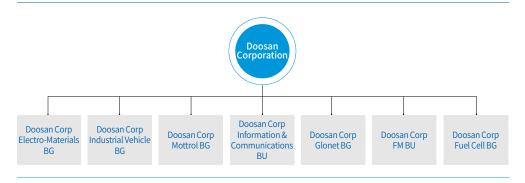


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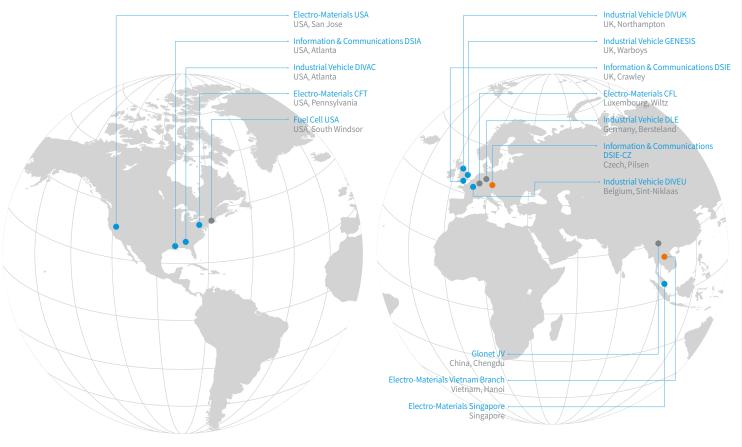


Organizational Chart Doosan Corp consists of 5 business Groups(BG) and 2 business units(BU).



### Doosan Corp Global Management

Doosan Corp operates 16 production plants, 14 Local subsidiaries, and 4 branch offices in 12 countries around the world. Doosan Corp will strengthen global operations by recruiting and developing global talent and expanding its global business network, and will also continuously develop global standards such as accounting standards to become the world's leading company.



Headquarters & Production Plants
 Production Plants
 R&D Center
 Local Subsidiary
 Branch



Doosan CSR Report 2014

# **Business Areas**



Based on domestic sales by business group



Doosan Corp Electro-Materials BG produces and distributes printed circuit CCL(copper clad laminate) for PCB(printed circuit board), an essential part of digital devices and home appliances made with copper foil, glass fabrics, epoxy and polyimide resins for worldwide customers. The process industry requires large-scale equipment investments and produces high-tech products by combining polymer chemicals and electronic materials. In July 2014, Electro-Materials BG acquired Circuit Foil Luxembourg(CFL) based in Luxemburg, which has been producing copper foil, a key raw material of CCL professionally. Through the acquisition, Electro-Matrials internalized CFL's materials and technologies, reduced costs, and bolstered its European network. Also, Electro-Materials BG vertically integrated the manufacturing of copper foil, a key raw material, which allowed the company to respond systematically in the materials, manufacturing, and customer service areas.

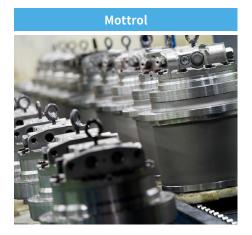
Total Sales 5,946

Industrial Vehicle



Doosan Corp Industrial Vehicle BG has been a leading manufacturer of engine and electric type forklifts in Korea. Since 1968 when it became the first forklift manufacturer, Industrial Vehicle BG has exported forklifts to about 100 countries worldwide. After being acquired by Doosan Corporation, Industrial Vehicle BG established a growth strategy and pushed ahead with continuous operational reforms, green product development, and networking capabilities enhancement. In 2014, despite tough business conditions due to shrinking emerging markets, Industrial Vehicle BG achieved sales growth based on initiatives for brand awareness enhancement, sale capability reinforcement of key dealers and reliable product quality.

Total Sales 5,955



Doosan Corp Mottrol BG conducts business in the hydraulic parts and defense industries. In the hydraulic parts industry, Mottrol BG has a competitive advantage in global markets particularly for specialized hydraulic parts, such as travel and swing devices, hydraulic pumps, and main control valves(MCV) for excavators. Mottrol BG will expand its sales in developed and emerging markets(India, Turkey, etc.) through continuous new product development and product diversification. In the defense industry, Mottrol BG develops and provides hydraulic devices and electronic-hydraulic systems for weaponry applications, thereby playing a central role in the modernization of military equipment. Mottrol BG is looking forward to expand its sales by expanding into global defense markets while continuing operations in the domestic market.







#### Information & Communications(I&C)



Doosan Corp Information&Communication(I&C) BU provides comprehensive IT services including IT consulting, system integration, application systems, and IT infrastructure to Doosan's subsidiaries around the world, using its far-flung network of IT service partners in and outside Korea. Furthermore, I&C BU developed IT services capabilities in the manufacturing and contract industries through "selection and focus", and focuses on laying the groundwork for new growth businesses centering on IT infrastructure cloud services and ICT.





Doosan Corp Glonet BG manufactures and supplies functional biomaterials and with its built-in research and development capability, it has supplied various advanced materials including pharmaceutical, cosmeceutical and functional foods ingredients to the industry. Glonet BG has focused and established a stable business infrastructure in China based on its specialities in lipid technology for pharmaceutical emulsions and now is expanding its business coverage to the leading and emerging market through partnering with credited global companies.

Total Sales 321



Doosan Corp Facility Management(FM) BU operates integrated building maintenance and management as its key business. FM BU is leading changes in the existing facility management market by expanding into the disaster response system deployment and application, fire prevention and electricity consulting services, renovation of aging building fire protection and mechanical equipment businesses. With advancements in construction technology; cutting-edge skyscrapers and industrial facilities are growing in numbers, leading to further market expansion in which FM BU will play a pivotal role.

Fuel Cell



Doosan Corp Fuel Cell BG offers a comprehensive product lineup from power generation to residential applications using its fuel cell original technologies. Fuel cells are energy supply devices that produce electricity and heat without relying on combustion. Fuel Cell BG provide green energy generation solutions since they also reduce carbon emissions, air pollution and noise levels. In the domestic market, Fuel Cell BG is extending the supply of fuel cells to large-sized electric utilities under the government's renewable energy distribution policy. Fuel Cell BG will also continue to implement the home fuel cell distribution project.

1. Sales reported from September to December 2014



Total Sales Unit:100 million KRW



# **CSR Strategy and Materiality Assessment**

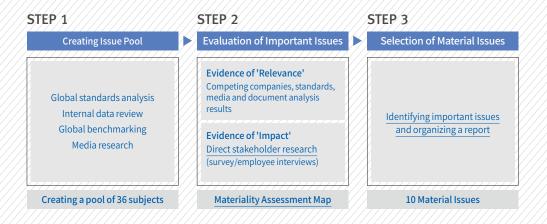
### **CSR Strategy**

In 2012, Doosan Corp defined the Doosan Way to create "Proud Global Doosan" and affirmed its commitment to corporate social responsibility. Furthermore, Doosan established the CSR Strategy system consisting of CSR goal, mission, 3 CSR pillars, 7 CSR priorities, and the enabler to proactively respond to various CSR needs and evaluations. Doosan Corp implements CSR management under the group's CSR strategy. To execute CSR management more effectively, Doosan created a dedicated organization in 2013 and also an operating system for implementing strategic tasks.

CSR Goal	2020, Global CSR leading Company: Become one of ten Fortune World's Most Admired Companies						
	and the second						
CSR Mission	Supporting Responsible and Sustainable Growth						
	Growth of People	Growth of Business					
CSR Pillars	Developing People	Reliable Operating	Responsible Engagement				
CSR Priorities	1. Strenthen people development within the Group influence sphere	3. Minimize environmental footprints through green management	Participation				
	2. Build Great Workplace with focus on Human Respect	<ol> <li>Reinforce Fair Operations</li> <li>Improve product &amp; service accountability</li> </ol>	<ol> <li>Develop Strategic Community Involvement &amp; Development</li> </ol>				
		<b>A</b>					
Enabler	Development strong CSR governance (Execution system and Employee's Commitment)						
	▲						
Demand of Society	Global Initiative: ISO 26000/UN Global Compact/GRI						

## Materiality Assessment Results

Doosan Corp conducted a materiality assessment to address the key interests and issues of stakeholders. First, Doosan Corp created a pool of 37 issues by taking into consideration various global guidelines like GRI G4, benchmarks, and industrial issues. Then a materiality assessment was performed in the Relevance aspect in terms of Doosan Corp's business and CSR operations, and in the Impact aspect that influences key stakeholders. Finally, 10 material issues were selected.



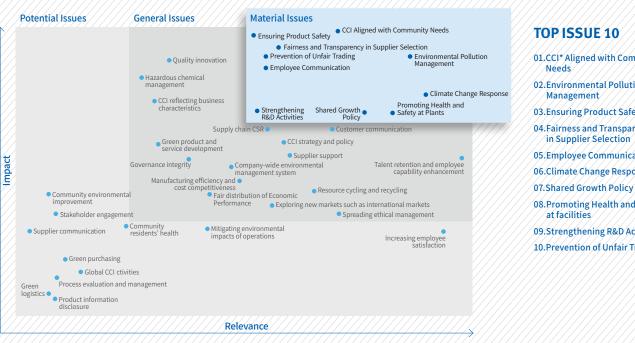


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### Material Issues and Internal and **External Impacts**

Doosan Corp links its CSR strategy to the preparation of a CSR report centering on the material and general issues identified through a materiality assessment. These issues are selected after taking into account their internal and external impacts. We then manage impacts after defining stakeholders related to each of those issues.

		Material Issue	Page	Customers	Suppliers	Employees	Communities	Shareholders & Investors	Aspect
	Talent Recruitment and Employee Capability Enhancement		25-27						Training and Education
Developing People	Promoting Health and Safety at Plants		23-24						Occupational Safety and Healthttw
	Improving Employee Communication		20-22						Labor Practices Grievance Mechanisms
	Green Product Development (Strengthening R&D Activities)		31-32						Products and Services
	Execution of Green Management		66						
	Climate Change Response		30-32						Energy, Emissions
	Environmental Pollution Management		33, 68						Water, Wastewater, and Waste
	Resource Cycling and Recycling		33, 68						water, wastewater, and waste
	Prevention of Unfair Trading		39, 59						Unfair Competition
Reliable	Fairness and Transparency in Supplier Selection		39						Anti-Corruption
Operating	Shared Growth Policy		36-38						
	Supplier Support		38						
	Spreading Ethical Management Activities		58						Anti-Corruption
	Ensuring Product Safety		43						Customer Safety, Product and Service Labeling
	Maximizing Customer Value through Quality Innovation		41-42						
	CS through Customer Communication		43						Marketing Communication, Information Security
	Manufacturing Efficiency		41,64						-
	CCI* Strategy and Policy		46-47						
Responsible Ingagement	CCI* Aligned with Community Needs		48-50						
Engagement	Community Residents' Health		50						Local Communities



#### **TOP ISSUE 10**

- 01.CCI\* Aligned with Community
- 02.Environmental Pollution Management
- 03.Ensuring Product Safety
- 04.Fairness and Transparency in Supplier Selection
- 05.Employee Communication
- 06.Climate Change Response
- 08.Promoting Health and Safety
- at facilities 09.Strengthening R&D Activities
- 10.Prevention of Unfair Trading

Direct Impacts



# Developing People

"Faith in People" is the source of competitive advantage that has led Doosan for the past 100 years and that will continue Doosan's sustainable success for another 100 years and more.

## Build Great Workplace with focus on human respect

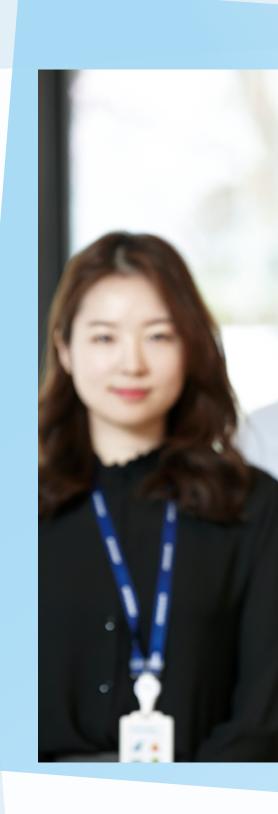


Doosan Corporation strives to create a positive work environment by continuously improving its business practices and organizational culture and systemically manages employee health and safety.

# Strengthen people development <sup>o</sup> within the Group influence sphere



Doosan Corporation provides specialized training programs by function and level aimed at maximizing the capabilities of employees.



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# 1.1

Build Great Workplace with focus on Human Respect



#### **BUSINESS & SOCIAL CONTEXT**

Creating a great workplace increases employee commitment and allows the organization to make the best use of its abilities. Improved open communication among employees helps accelerate decision-making for both leaders and members, and facilitates an understanding and agreement among employees, thereby streamlining business processes across the organization. Furthermore, government policies, including policies for women's career management and work-life balance programs, are demanding companies to take the initiative in creating a great workplace.

#### **OUR APPROACH**

By emphasizing teamwork on the basis of inhwa, one of the core values of the Doosan Way, Doosan Corp is building a happy workplace where employees feel a sense of pride, belonging, and accomplishment.

- $\overline{\mathbf{1}}$  Strengthen connections between the Doosan Way and business operations, and internalize the values of the Doosan Way
- 2 Open communication at all levels and realization of inhwa
- **3** Respect the lives of employees and stakeholders through safety and health management, including risk improvement, disaster prevention activities, compliance, and daily safety training

#### **FUTURE ACTION**

Doosan Corp will continuously improve employees' quality of life by strengthening a culture where human rights are respected.

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- **1** Enhance employee satisfaction through company-wide activities to uphold human rights
- 2 Create a positive work environment through Ombudsperson Program
- 3 Improve safety and health levels through expansion of safety and health leadership practices and improvement of management and support systems



#### ously improving its business practices and organizational culture and

**OUR EFFORTS** 

systemically manages employee health and safety.
 Realize an organizational culture in which employees work wisely by strengthening connections between the Doosan Way and key business

Doosan Corp strives to create a positive work environment by continu-

- operations 2 Reinforce activities through which female employees achieve
- work-life balance
- $\overline{\mathbf{3}}$  Build a world-class safety and health management system

Manager Son Bo-Hyeon

Doosan Corporation Electro-Materials Business Group



Working women generally experience hurdles in their long-term professional development, such as being excluded from important businesses and child-related career interruptions. Doosan Corp established the Women's Council to resolve these issues and help women grow professionally on their own. This year, a wide range of activities will be carried out under the slogan of women's professional development and happy home life. While we are still at the stage where we try to get the entire company's attention to these activities, we intend to maximize the strength and competencies of female employees through cultural improvements and help female leaders play a central role within the organization. Doosan Corp will also commit itself to reinforcing an organizational culture where the company demolishes environmental barriers to women's growth like maternity leave and childcare, along with systems that support the traditional culture. Hopefully, women will understand their own strengths and explore ways in which they can make contributions to the organization by utilizing their strengths, while leaders will spread Doosan Corp's organizational culture where the diversity of women and minorities is respected.



Realization of the Doosan Way to Work Wisely Leader's Action Plan, Doosan Way Council & Leader's Self-Directed Change Doosan Corp conducts the Doosan Way Review Survey targeting all employees to ask about what their current leaders are like so that leaders among the employees reflect on their own leadership behavior as perceived by their members and ultimately drive change. Based on the survey results, the leaders created and implemented the "Leader's Action Plan" including 'People Development through 1:1 meetings' and 'prompt responses to pending issues' to work on the areas in which they need to make changes to their behavior. Aside from changes in leadership, the leaders are driving positive changes, such as open communication across the organization and streamlining business operations. Furthermore, the leaders of business groups/units and invested companies meet every other month to share the progress of their Doosan Way-related activities and issues and discuss the areas they can improve upon. Particularly, among the opinions of responsible employees and the organization's current status, the leaders come up with a "Doosan Way Council Agenda" and discuss issues that require strong leadership, such as the 2014 Direction for the Doosan Way Implementation and <u>EHS Upgrade Plan</u>.

**Extending the Doosan Way Survey to Technical Positions** To realize the Doosan Way, Doosan Corp conducts an annual Doosan Way Survey to identify and meet the demands of employees. Based on the 2014 survey results, we established the 7 Improvement Tasks directed at technical positions, including <u>'Improv-ing communication for Doosan Way activities</u>' and 'Enhancing job and cultivation systems'. In implementing the tasks, Doosan Corp works with related teams to improve working conditions at plants. We also conduct interim surveys regarding the tasks undertaken by each business group to make changes in order to review the effectiveness and progress of those tasks. Additionally, Doosan Corp consistently improves process and system by examining areas for improvement.

**Best Practices of the Doosan Way** Doosan Corp focuses on enhancing the organization's operational efficiency and competitiveness through more effective communication and strives to help all of its employees accomplish their shared goals.



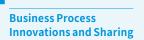
Operation of the Cost Reduction Committee: Doosan Corp Electro-Materials BG effectively carried out cost reduction tasks by operating the Cost Reduction Committee. Under the supervision of I-FA Team and the Chief Operating Officer, the Cost Reduction Committee was created to engage all employees in production, procurement, production control, control, quality, equipment, logistics, and HR operations. The committee also organized an ideal pool that allowed fast decision-making and company-wide cost reduction. The committee maximized its effectiveness through collaboration among business units and reduced costs by 38.6 billion KRW in 2014.



Voluntary Information Sharing : Through voluntary information sharing, Doosan Corp Industrial Vehicle BG helped global sales officers broaden their perspectives on global markets and increased operational efficiency. In the past, global sales officers did not have enough information to get comprehensive views on global markets, even if they were well informed about the territories in which they were working. To resolve this issue, the scheduling officer of each sales team led efforts to bring regional data up-to-date and share current details of global sales. As a result of such efforts, global sales officers were able to increase their understanding of global markets and reduce redundancies at work.



Streamlining Data Management through MES: Doosan Corp Mottrol BG improved efficiency in data management and developed more advanced and scientific business practices by upgrading its Manufacturing Execution System(MES). Mottrol BG improved conveniences in manufacturing and production processes to enable the automatic entry of process and quality data. To utilize the data created, Mottrol BG also allowed delivery and coating process priorities and assembly plans to be displayed on screens at business sites. Mottrol BG was thus able to develop a system for tracking and analyzing quality problems in the process, and eliminate the root causes of problems.





Doosan Corp seeks to transform its business processes and lead innovation by sharing best practices for innovation. The Doosan Corporation Best Practice(BP) Conference provided its businesses to reflect on cases of innovation in operations and exchange thoughts. To propagate the best practices shared during the conference and to internalize and promote the business groups' operational innovations, the Operational Excellence(OE) Portal was opened. The OE Portal enabled the business groups to freely communicate news about innovation, including BP sharing and open communication, as well as "Operational Innovation News," where they share various innovations made within the groups. Through this web portal, Doosan will promote exchange of more various best practices and thoughts. C

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Improving Organizational Culture for Open Communication across All Levels Learning Organizational Culture Doosan Corp operates the Learning Credit program to support the cultivation of talents equipped with leadership skills and expertise. Through the Learning Credit program, learners will develop their own learning plans, carry out learning activities according to the plans, and earn credits for their performance. Besides the formal curricula, the learners will be motivated to engage in "self-directed learning" through which they can explore learning methods and take control of their own learning. By combining a variety of sustainable and practical cultivation methods, employees will be able to achieve the balanced enhancement of their capabilities. Furthermore, Doosan Corp operates the CoP(Community of Practice), a form of self-directed learning, and uses it as the place where employees share their knowledge and experience with each other. In 2014, Doosan Corporation Information & Communications reported high CoP participation rates, with each employee taking part in at least one CoP among a total of 62 CoPs(46 professional and 16 global CoPs). Each business group of Doosan Corp operates CoPs in a variety of areas, including R&D and manufacturing technology, and helps its employees gain first-hand knowledge and experience related to management activities and develop problem-solving skills under the various business-related themes.

**Strengthening Foundations for Female Leaders' Growth** Female employees often experience career interruptions and barriers to professional growth due to a number of reasons, despite their increasing labor force participation and their remarkable performance across various fields. To resolve these issues, Doosan Corp launched the W Project in 2013 as part of its efforts to create a women-friendly corporate culture, provide a systemic foundation to suggest professional growth visions for women, and ultimately enhance the competitiveness of its businesses. As a result of the W Project, the Women's Council was established in 2014. The Women's Council holds meetings that female employees voluntarily attend as agents of change, and it is working to accomplish three goals: Strengthening the foundations for female professional growth as leaders, ensuring the effectiveness of women support programs and a culture that promotes work-family balance, and creating communication channels and a network within the organization. Currently, there are eight active female members who represent Doosan's business areas and invested companies. In 2015, the council will expand their scope of engagement and continue its activities, such as giving guest lectures and building communication channels.



: Doosan Corp operates the Mom's Caring Program aimed at resolving concerns about low fertility rates and helping employees balance work and family life. The Mom's Caring Program includes basic guidelines to pregnancy and birth for female employees to help adjust to work life during and after pregnancy. Through the Mom's Caring Program, pregnant employees can get detailed information about the applications necessary at each stage of their pregnancy, and team leaders provide support so that pregnant employees stay healthy until they give birth and pursue successful careers.

**Providing Various Communication Opportunities** Doosan Corp organizes a wide range of activities to facilitate company-wide open communication. Using the Doosan Way Time, we holds meetings to enhance communication and increase efficiency at work. The Doosan Way Time meetings also allow employees at various levels to freely discuss ways to drive innovation. It contributes to the creation of a communicative organizational culture. we also operate other opportunities of communication, such as "Winning Doogather Team Workshop" to enhance team communication and "Winning Doogather Junior Workshop" to receive junior employees' suggestions and increase their satisfaction with the organization. Other various activities include "Talk Concert & Suggestion," "In-depth Conversation through Executive Workshop," and "Informal Meetings by Level and Position."

Innovative Idea Contest: An Activity to Enhance Fundamental Competitiveness and Spread a Culture of Innovation



Doosan Corp Information & Communications(I&C) BU held an Innovative Idea Contest for all its employees and those of its suppliers to spread a culture of innovation across the organization and strengthen competitive edge in the ICT industry. Divided into the new technology and new business categories, the contest was intended to help employees strengthen their capabilities through active participation and discover advanced services and business items. I&C BU received a total of 530 ideas i.e. 174 in the new technology category and 356 in the new business category. After the ideas were screened through a 2-step process in view of "customer needs," "why Doosan Corp I&C competency," and "innovativeness and economic evaluation," 12 ideas were selected as Excellence Prize winners and runner-ups. I&C BU is working with related business units and teams to realize and commercialize these ideas. I&C BU will firmly establish a culture of innovation and continue to carry out activities like new business development workshops by linking the ideas to its businesses.



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## Creating a Safe and Healthy Workplace

**Building a World-Class Safety and Health Management System** Since the Sewol Ferry disaster and hazardous material spills in 2014, there has been a growing concern about safety and health. Employee safety is also one of the core values of Doosan Corporation. Based on an in-depth analysis and review of leading global EHS<sup>1</sup> companies' best practices, Doosan Corp developed the EHS Upgrade Plan and aims to build an EHS system at a level comparable to those of global leaders until 2020. Centering on three topics, which are establishing a corporate culture of EHS, strengthening organizational capabilities, and creating and enhancing programs and systems, the EHS Upgrade Plan contains long- and short-term implementation plans. In addition, Doosan Corp is spearheading efforts to lay a cornerstone for change and continuously increase levels of quality. Such efforts include the reinforcement of expertise through internal and external collaborative relationships, the creation of an organization equipped with the necessary workforce and EHS execution capabilities, and the creation, revision, and observance of standards to which all employees can adhere. 1. EHS:Environment, Health, and Safety



EHS Training and Cultivation of Professionals : Doosan Corp provides education and training on a regular basis to help all of its employees abide by laws and the safety and health management system. we have also expanded training for office employees to whom less attention was paid than to technical employees. Mandatory online training courses are provided to increase employees' understanding of EHS and to disseminate knowledge about safety and health requirements in daily life. Furthermore, Doosan Corp trains specialized EHS instructors to develop safety and health professionals. In 2014, 3 EHS instructors and 8 general instructors received training and were deployed to provide systemic and specialized EHS training. We also produced high-quality learning materials and courses to prepare cross training among business groups and units.



Sharing Best Practices: To spread and apply best practices across all businesses, Doosan Corp shares EHS Best Practices and rewards best practices on a half-yearly basis. We also make sure that cases of accidents are shared by the entire organization and provide training to improve upon similar processes and to prevent recurrences of similar accidents.

**Supplier Safety and Health Management Process Using IT Systems** Doosan Corp created a safety management process for its suppliers to control health and safety risks that may arise starting the stage of supplier selection until the termination of contract. In 2014, we streamlined the management process by incorporating IT systems. Doosan Corp Mottrol BG is at the forefront of a push to make smarter preliminary EHS impact assessment and safe work permit processes. Through these initiatives, Doosan Corp is streamlining interdepartmental communication and related data management.

#### EHS Upgrade Roadmap

			Make Upgrades and Improvements	Create World-Class Management System	
Lay Foundation for Change		Lay Foundation for Change	2017~2018	2019~2020	
		~2016		- Extend practice programs to external	
	Establish Compa- ny-wide EHS	<ul> <li>Enhance CEO and executive officer leadership practice programs</li> <li>Assess EHS awareness levels and develop improvement plans</li> </ul>	<ul> <li>Implement practice programs across all areas and internal suppliers</li> <li>Carry out specialized EHS consciousness-rais- ing activities by BG</li> </ul>	suppliers - Individual EHS awareness assessment and improvement activities	
	Culture	- Identify/operate mandatory EHS items	- Create an internal/external expert pool and a	<ul> <li>Develop/implement professional development programs</li> </ul>	
	Strength- en Orga- nizational	<ul> <li>Fulfill staffing requirements and create an Functional Competence system</li> <li>Integrated operation of EHS units across business areas</li> </ul>	<ul> <li>- Collaborative system</li> <li>- Hold regular exchange of EHS practices with leading companies</li> </ul>	- Cultivation of global professionals	
	Compe- tence	- Create an external expert group support system		- Establish an EHS review process at design	
		- Build a network with leading companies	<ul> <li>Adopt cutting-edge disaster control systems</li> <li>Establish/operate a preventive maintenance</li> </ul>	and purchasing stages - Provide EHS training for voluntary employee	
	3 Improve Process and Systems	<ul> <li>Improve underperforming facilities/equipment</li> <li>Computerize business operations through IT systems</li> <li>Strengthen training implementation capabilities</li> <li>Re-establishment and implementation of audit/</li> </ul>	<ul> <li>- Establish/Operate a preventive framematice and experiment</li> <li>- Establish/Upgrade an EHS performance management system</li> <li>- Provide EHS training infrastructure by position and duty</li> </ul>	participation	
		monitoring systems	- Establish common standards at global levels		
	Create	- Improve MBO KPI items - Create a BCM <sup>1</sup> (emergency response) system	- Create a performance evaluation system linked to EHS		
4 Process and Systems			- Expand EHS support for internal/external suppliers	1. BCM: business continuity management	



Create World-Class Management System

In the wake of recent major accidents and disasters affecting society as a whole, Doosan Corp is improving the organization's crisis response capabilities. We provide all employees with first aid and CPR training, and those responsible for important duties receive specialized training through independent agencies. We also regularly provide fire/flood response and evacuation training so that potential damage can be minimized by prompt response in crisis situations.

An estimated 3,200 employees and sales representatives working at Doosan Tower received disaster response training and three sessions of Doosan Tower evacuation training. Evacuation training that simulated real-world situations was conducted with an average attendance of 819 employees (91% participation), and video analytics helped find out traffic flow and vulnerabilities during evacuation. Doosan Corp aims to improve on these results and minimize injury and property damage if any disaster occurs.

Health Promotion Activities To promote employee health, Doosan Corp supports enhanced health-care for high-risk groups and provides health check-ups and physical therapy programs to prevent cardiovascular and musculoskeletal diseases. Other health promotion efforts include lifestyle improvement programs such as and Anti-Obesity Program.



Doosan Corp Electro-Materials BG : Electro-Materials BG organizes short- and long-term health promotion activities early each year and ensures the systemic implementation of various activities to promote employee health, including training and programs. As a result of its efforts, in December 2014, the business group was awarded an Employee Health Promotion Activity Certificate from the Ministry of Labor, which gives recognition to great workplaces for employee health.



Doosan Corp Mottrol BG : In July 2014, Doosan Corp Mottrol BG received an Excellence Prize at the Employee Health Promotion Best Practices Conference organized by Korea Occupational Safety&Health Agency(KOSHA), as a result of its comprehensive health promotion efforts, such as "GO GO Program." In December, Mottrol BG again received recognition as a great workplace in six categories, including health promotion activity system.

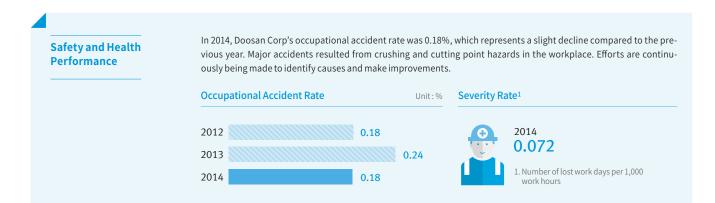


Doosan Corp Glonet BG : Glonet BG and Korea Occupational Safety&Health Agency entered into a funding agreement for 'Labor-Management-Led Health Promotion Activities'. Glonet BG accordingly provided training and practices on cerebrovascular disease prevention and pre-work warmup exercises, with which employees expressed high satisfaction.



Doosan Tower Emergency Evacuation Training

Disaster Control Training in case of Hazardous Spills





# 1.2

Strenthen People Development within the Group Influence Sphere



#### **BUSINESS & SOCIAL CONTEXT**

The pace of technological change is accelerating in a rapidly changing global economic environment. As flexible responses to such changes, global companies adopt the strategies of recruiting top talents and maximizing employee capabilities. Fair talent recruitment processes and the development of essential employee capabilities such as specialized skills, leadership, communication skills, and a global mindset are considered vital to companies' sustainable growth.

#### **OUR APPROACH**

Doosan Corporation needs "people" for sustainable growth while employees need professional development to realize their personal values. From talent selection to professional leader development processes, Doosan Corp continues to invest in talent cultivation.

- $\overline{\mathbf{1}}\;$  Cultivate all employees to become 'Doosan People' by sharing values and culture
- 2 Cultivate professionals to enhance business execution capabilities
- **3** Cultivate next generation leaders who will lead change and innovation

Doosan Corp provides specialized training programs by function

1 Improve leadership and coaching capabilities in the workplace

2 Develop training programs centering on R&D and cultivation of

3 Expand training programs to improve employees' problem-solving

4 Cultivate talent who will play leading roles in global businesses

#### **FUTURE ACTION**

Doosan Corp will create a firmly established culture of training to cultivate talent that will drive sustainable performance and growth.

- Create a culture of talent cultivation through the reinforcement of leaders' coating capabilities
- 2 Develop new training courses and monitoring existing training courses to improve employees' competencies
- 3 Enhance professional development programs to serve as a strategic partner



Assistant Manager Kang Sung-A Doosan Corporation Glonet Business Group

skills and strategic thinking skills

As a mid-level member of the team, I was looking for ways to improve my capabilities and finally applied for the Jr. MBA program. The Jr. MBA program consisted of online and in-class lectures by professors and instructors who specialize in strategic management, marketing, HR organization, finance/accounting, and leadership. The program was not merely about knowledge dissemination, but it involved discussions about actual working practices at Doosan Corporation for seven months. In particular, the program was very helpful for researchers and engineers, who accounted for the majority of the class, in acquiring basic knowledge about business management and comprehensive business analysis skills. In addition, I was able to apply what I learned to my job by coming up with ideas for process improvement. I applied what I learned to my current job, which is heavy metals analysis, and came up with an improvement plan for automating the repetitive tasks that had been manually handled. In 2015, I am looking to improve efficiency at work and reduce manufacturing costs. As long as my colleagues voluntarily attend and enjoy Doosan Corporation's excellent training programs, I am sure that the company and individuals can grow together.



**OUR EFFORTS** 

professionals

and level.

Strengthening Capabilities through Leadership and Coaching Programs Specialized Leadership Reinforcement Programs Doosan Corp operates training programs aimed at strengthening the organization's common capabilities aligned with job functions at various levels. For employees to enhance their leadership skills at early stages of their careers, we created the New Assistant Manager course. Doosan Corp also operates the program aimed at strengthening new executives' leadership skills and the Management Leadership program designed to develop managers' leadership skills. The Management Leadership program comprises the Influence and Coaching modules. In 2014,2 sessions were carried out and attended by 39 employees.

Leadership Development Programs for On-Site Technical employees Doosan Corp operates the New Recruit OT, Production Leadership Training(Parts I and II), and Counselling programs to help technical employees strengthen their capabilities. For new technical employees, we provide a program designed to instil a sense of pride and belonging in the employees as Doosan People. For on-site managers who play a pivotal role in the internalization of the Doosan Way, we provide training on organizational management and leadership skills needed for work. Through the Grievance Counselling program created in 2014, on-site technical managers learned the basic principles and skills of counselling and applied them while managing conflicts and improving teamwork within the organization. Doosan Corp will open a variety of programs aimed at developing technical leaders who understand our internal and external environments and link Doosan Corp's strategies to on-site performance improvement.

**On-Site Coaching Capability Improvement Training** To practice the Doosan Way, Doosan Corp provides Coaching Sharing Workshops and organizes activities such as sharing on-site coaching practices and tips to develop employees' coaching skills. Doosan Corp held 7 sessions throughout 2014 and 156 employees attended. Doosan Corp Glonet BG also conducts coaching sessions for business leaders every other week to promote open communication and enhance individual capabilities. Glonet BG operates the programs as a communication channel where employees select session topics by level, share tips for efficient coaching, and explore ways to strengthen individual capabilities and provides suggestions for professional growth. A total of 11 sessions were held and members of the organization were able to share concerns about their professional growth through tailored coaching for 4 groups(employee/assistant manager, manager, deputy general manager/General manager, team leader). These programs contribute to promoting open communication and establishing a culture of quick and accurate coaching across the organization.

Development of Training Programs for R&D and Professionals **R&D Academy** Doosan Corporation Mottrol deployed internal instructors and operated 4 courses(cost estimation for machined parts, contamination control, programs and design, hydraulic excavation system) linked to the Functional competency system to strengthen the competitive edge of R&D employees. Through the R&D Academy, researchers were able to improve their design and quality verification and casting material development capabilities. In 2015, Doosan Corp will expand the R&D Academy and operate 15 courses.





R&D employees' communication skills are now essential to collaboration in business operations and to the development of products that meet customer needs. R&D employees are strengthening their capabilities for effective reporting and information disclosure processes through tiered development programs by level. The entire program consists of 3 stages(preliminary tasks, basics, and follow-up) and the stages are interconnected to improve the effectiveness of learning. The program was subdivided by each business and by level to accommodate different communication skills. It focuses on strengthening junior-level writing, manager-level reporting, and team leader-level coaching capabilities. The R&D Biz. Communication Program will be extended from Mottrol BG to all the business groups of Doosan Corporation, such as Electro-Materials BG and Industrial Vehicle BG.



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ICT-based Professional Development Program To implement Doosan ICT, Doosan Corp Information & Communications BU operates a variety of training programs aimed at developing professionals in IT trend analysis to data management.



Data Scientist Development Program: Doosan Corp I&C BU focuses on developing Data Scientist who will support decision-making on process innovation and new business(products and services) development based on their data analytics skills. I&C BU defined the required skills for a data scientist under the PI&IT Functional system and developed the Data Scientist Development Program in which Functional Leaders, HR, and internal experts participated. The Data Scientist Development Program includes practices in specialty areas to successfully develop professionals and the program has been extended to the entire corporation and its affiliates after I&C BU ran the test program. In 2014, 2 sessions of training were conducted. 20 people attended the first test program at I&C BU, and 24 people attended the second program trial at I&C BU and Doosan Group.



IT Trends for Junior Program: Doosan Corp I&C BU opened the IT Trends for Junior Program to develop IT professionals based on training on IT industry and technology trends and on learners' IT trends research related to their jobs. In 2014, the first session was conducted and attended by 32 people, consisting of 22 assistant managers and 10 employees.



Smart Working Academy : Doosan Corp I&C BU operates the Smart Working Academy to develop IT professionals capable of identifying customers' problems and needs and suggesting efficient solutions. I&C BU provides training that consists of logical thinking, document preparation, organizing meetings and presentations. In 2014, 3 sessions were held and attended by 58 people.

## Enhancement of Doosan Corp's Own Distinctive Strategic Thinking Skills

STEPS™ Doosan Corp operates the STEPS(Strategic Thinking Enhancement through Problem Solving) Pro-
gram to help employees enhance their problem-solving and strategic thinking skills. Consisting of STEPS
Basic, STEPS Junior, STEPS, and STEPS Executive, the STEPS Program aims to improve employees' strate-
gic thinking and problem-solving skills through tiered training by level. In 2014, 6 sessions were held and 26
employees, 20 assistant managers, 39 managers, and 3 executives completed STEPS. Doosan Corp tries to
incorporate their enhanced problem-solving skills into the entire organization's business practices.

STEPS Completion	ð
employees	26
assistant managers	20
managers	39
executives	3



"How to Pack" Program to Improve Presentation Skills Doosan Corp Electro-Materials BG provides the "How to Pack" program aimed at improving report-writing skills based on strategic and systemic thinking. Through this program, employees can learn templates and reporting practices and minimize waste in the data preparation, interpretation, revision, and gathering processes. The program does not merely provide instructions on how to operate PowerPoint, but it also helps employees identify key details and effectively incorporate them into their reports through the 7 Steps. Dissemination training is being carried out in sessions at manager, employee and assistant manager levels. Members of the staff whose report-writing skills were recognized by Strategy and New Business Planning Team are working as in-house instructors. In 2015, Doosan Corp will add report-writing process and report-writing practice courses, and extend training to researchers and engineers.





# Reliable Operating

As a corporate citizen, Doosan Corporation is committed to minimizing environmental impact through green management, reinforcing Fair Operations for shared growth with suppliers, and improving product & service accountability.

# Minimize environmental footprints<sup>•</sup> through green management

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Doosan Corporation responds to climate change by increasing energy efficiency across all processes and developing green products and systemically manages on-site pollution.

# Reinforce Fair Operations



Doosan Corporation continues its commitment to sustainable supply chain management through shared growth support activities and a fair supplier selection process.

# Improve Product & Service accountability



Doosan Corporation drives quality innovation and stability across various product lines through continuous R&D and enhances communication with customers to increase their satisfaction.









# 2.1

Minimize Environmental Footprints through Green Management



#### **BUSINESS & SOCIAL CONTEXT**

Climate change has been a growing concern worldwide. The South Korean government is also tightening environmental regulations to respond to climate change through the Greenhouse Gas and Energy Target Management System and the Greenhouse Gas Emission Trading System. Climate change response is thus considered an integral part of business management, and companies carry out climate change activities to help them adhere to global regulations and reduce energy costs. In addition, there has been a growing interest in the disposal of pollutants in local communities due to recent incidents of environmental pollution. The government is also tightening environmental regulations in many ways, for instance, by announcing its plan to legalize an integrated environmental management system.

#### **OUR APPROACH**

Doosan Corp created a green management system to minimize environmental impact and provides systemic responses to a variety of environmental issues, such as climate change, pollution control, and chemical management.

- 1 Strengthen the green management strategy system and promoting employee engagement
- 2 Build green management infrastructure including climate change response, green product development, reducing pollution, and IT systems.
- 3 Enhance external communication through disclosures and engagement in global initiatives

#### **FUTURE ACTION**

Doosan Corporation will minimize the environmental impact of its business operations at all stages-from product development to on-site waste management-in order to respond to climate change and control pollution.

- 1 Climate change response by reinforcing activities under the Greenhouse Gas Emission Trading System
- $\overline{\mathbf{2}}$  Chemical accident prevention and compliance with laws by creating a chemical management system
- **3** Efforts to minimize environmental impact through development and monitoring of environmental performance indicators
- 4 Identify and responding proactively to the latest trends in environmental laws

#### **OUR EFFORTS**

Doosan Corporation responds to climate change by increasing energy efficiency across all processes and developing green products and systemically manages on-site pollution.

- **1** Expand energy efficiency activities to all processes
- $\overline{\mathbf{2}}$  Enhance energy efficiency through green product development
- **3** Strengthen chemical and waste management systems





Responding to climate change is an integral part of a company's business. Governments around the world agreed that limitless burning of fossil fuels was impossible and have since taken measures to limit fossil fuel use by companies. In such circumstances, Doosan Corp should respond proactively to climate change and fulfill its environmental responsibilities to set an example for other companies and local communities. The company should therefore expand the scope of disclosures of greenhouse gas emissions. Doosan Corp has so far reported Scope 1 and Scope 2 GHG emissions. The company should consider including Scope 3 emissions into its disclosures. For example, Doosan Corp should disclose GHG emissions from using products, in addition to GHG emissions from production. Through such disclosures, consumers can monitor energy use and savings, while the company's responsible officers will actively explore plans to increase energy efficiency. Through the publication of its first CSR report, Doosan Corp fulfilled its GHG disclosure obligations with integrity and transparency. The company will hopefully continue its leading role in responding to climate change.



OVERVIEW DEVELOPING PEOPLE RELIABLE OPERATING RESPONSIBLE ENGAGEMENT MANAGEMENT REPORT APPENDIX Minimize Environmental Footprints through Green Management | Reinforce Fair Operations | Improve Product & Service Accountability

Responding to Climate Change through Energy Efficiency

#### **Energy Efficiency Activities in Processes**

**Reducing Energy Use by Replacing Equipment** Doosan Corp analyzed production processes at all businesses, identified areas with excess energy consumption, and organized energy efficiency activities to work on the problem. Doosan Corp Electro-Materials BG reduced energy use by about 25% by installing an anti-backdraft damper in the incinerator duct and controlling airflow, which led to annual savings of 180 million KRW. Electro-Materials BG also conducted energy conservation projects like incinerator economizer replacement and transformer connection, saving a total of 1.36 billion KRW in 2014.

**High-Efficiency LED Replacements** Doosan Corp replaced light bulbs at plants and offices with LEDs to reduce energy use and improve poor working conditions. Doosan Corp FM BU replaced 13,000 low-efficiency light bulbs with 22,300 LEDs. Without any change in energy consumption after the construction, FM BU increased the illumination in the workplace by about 20%. The use of LEDs in various colors will also increase the value of products at the shopping building of Doosan Tower. The LED replacements will contribute to more savings on electricity bills.



### Enhancing Energy Efficiency through Development of Green Products

**Innovative Pump Control System to Improve Fuel Efficiency** Doosan Corporation has a responsibility to reduce fuel usage since our products are parts of construction equipment that uses fossil fuels, the major source of carbon dioxide emissions. Doosan Corp Mottrol BG improved the pump control system used in excavators and contributed to reducing carbon dioxide emissions. Unlike existing pump control systems<sup>1</sup>, Mottrol BG removed bypass flow from this pump control system to improve its fuel efficiency. Through the improvement, the system's fuel efficiency increased, and is at least 12% higher than the industry's highest level, while the system maintained outstanding control performance. Hydraulic products typically generate the most carbon dioxide emissions during the in-use phase of the product life cycle. Doosan Corp will continue to develop green products to reduce carbon dioxide emissions.

**Forklift with Increased Energy Efficiency** Doosan Corp Industrial Vehicle BG continues to carry out activities aimed at reducing fuel consumption through the optimization of engines and front ends, which are the key components of the forklift. The new 2-ton engine forklift model employed the multi-torque feature<sup>2</sup>. The 4-ton and 7-ton engine forklifts were divided into heavy-duty and light-duty so that customers could choose any operating mode or forklift type according to their working conditions, thereby increasing energy efficiency<sup>3</sup>. Industrial Vehicle BG also changed the rail shape of the 2-ton forklift to reduce the front-end weight<sup>4</sup> by about 10%. The new rail will be first applied to electric forklifts that will be developed in 2015, and will then be extended to enginedriven forklifts.

**Fuel Cells fueled by methane gas captured from Food Waste** Doosan Corp Fuel Cell is developing an environmentally friendly fuel cell system that can generate energy from waste energy sources like food waste(bio fuels). In December 2014, Intergrated Fuel Cell system was successfully operated in initial test in real field place. The integrated fuel cell system was composed of fuel treatment unit, fuel processor, cell stack, m-BOP<sup>5</sup>, e-BOP<sup>6</sup>, and control HW/SW. After further technical improvements, Doosan have a plan to launch commercial fuel cells that create energy(electricity and heat) in the locations where the food waste are available such as apartment complex, industrial parks, and public buildings.

2. Multi-torque feature: Allows users to operate forklifts by choosing among STD, ECO, and drive modes according to their working conditions 3. As for the 5.5-ton tier-4 forklift model, the fuel consumption of the light duty forklift increased 8%, compared with the heavy-duty forklift

- As for the 5.5-ton tier-4 forklift model, the fuel consumption of the light duty forklift increased 8%, compared with 4. On the basis of the weight of the 4,805mm full free triple mast and carriage.
- 5. m-BOP : Mechanical Balance of Plant
- 6. e-BOP : Electrical Balance of Plant



Doosan CSR Report 2014

<sup>1.</sup> Existing pump control systems: Refer to open center negative flow control or open center positive flow control systems

# **FUEL CELL**

Doosan Corporation conducts its business as a socially responsible corporate citizen that cares about increasing social and environmental value in the long term. The fuel cells business will play a central role in producing future energy solutions, since fuel cells not only create electricity but also produce highly efficient green energy, which will replace conventional power plants consumed by fossil fuels. Under the Renewable Portfolio Standard (RPS), companies in the South Korean power industry are required to use new and renewable energy at a certain ratio or higher of total energy generation, and 10 states in America also impose the same regulation. As the RPS is more widely applied, electric utilities are forced to adopt the method of generating power that guarantees high efficiency at lower cost. Therefore, the companies are utilizing fuel cells that are easier to install than PV and wind energy systems. Fuel cells also lead to lower prices through the continuous improvement of manufacturing technologies, which will help expand the fuel cells market.

#### Solution Fuel Cells for Power Generation, Buildings, and Residential Use

Fuel cells produce electricity and heat energy (CHP, combined heat and power) as the hydrogen contained in fuel steam reacts with oxygen in the air through the electrochemical reaction, without relying on combustion. Doosan Corp Fuel Cells provides eco-friendly, high-efficiency power generation solutions that can be used in distributed power generation and residential power applications.



Energy

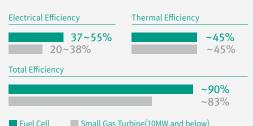
Costs

#### Effect Reducing Greenhouse Gas Emissions and Energy

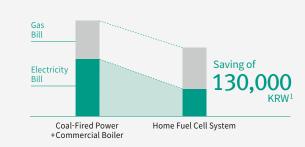
Reducing GHG Emissions

Fuel cell systems can reduce CO2 emmision by 45% as compared with greenhouse gas emissions from existing coalbased power generation. Fuel cell systems also provide distributed generation, reducing energy losses arising from power transmission and distribution. Since fuel cells can use heat produced during generation, they offer higher

overall energy efficiency than existing systems<sup>1</sup>.

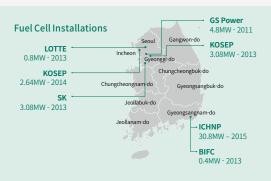


Small Gas Turbine(10MW and below) 1. Small gas turbine that uses turbines and engines as power sources Reducing Fuel cell systems can be connected to boilers and produce energy with heat and power(CHP), electricity and hot water. The fuel cell system can save utility cost at each residential house more than 130,000 KRW because of its high efficiency.



1. Monthly electricity use of 600kWh, areas where Seoul city gas is supplied, as of March 2015

Doosan Corporation Fuel Cell was founded in July 2014. During 2014, Doosan Corp acquired America's Clear Edge Power, a leading global fuel cell manufacturer located in Connecticut, and merged with Fuel Cell Power in September 2014. Fuel Cell Power led the South Korean polymer electrolyte fuel cell(PEMFC) market in the field of residential power generation for over 10 years. With its facilities at Bundang Techno Park in Gyeonggi-do and at Doosan Tower in Seoul, Fuel Cell Korea has about 70 employees and Fuel Cell America, based in Connecticut, has about 170 employees. Fuel cells produced by Doosan Corp Fuel Cell have been installed in over 400 facilities worldwide, including Europe, Japan, and the U.S., and they are also used in seven plants in Korea.

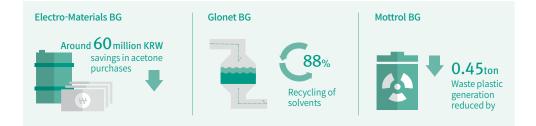




# Reducing Pollutant Emissions

Doosan Corporation worked hard to create a company-wide chemical management system to prevent recurring chemical accidents and to comply with laws regarding the use and management of fortified chemicals. In 2014, we organized a consultation meeting about developing a chemical inventory, and identified verification and regulatory measures for chemicals retained by each business. In 2015, Doosan Corp will come up with critical control areas for capability reinforcement, legal support, and internal activity assessment and improvement and create and implement improvement plans. As proactive responses, Doosan Corp's businesses provided officers working at their R&D centers and plants with training on the Chemical Registration and Evaluation Acts and Chemicals Control Acts. Doosan Corp's businesses will also provide systemic responses to applicable laws by creating guidelines for chemical management guidelines.

**Resource Conservation and Waste Reduction Activities** Doosan Corporation saved resources and reduced waste generation by streamlining its business processes. Doosan Corp Electro-Materials BG reduced acetone use and waste acetone generation by replacing harmful acetone for industrial uses with reverse osmosis(R/O) treated water in the magnetic filter cleaning process at Jeungpyeong Plant, saving about 60 million KRW in acetone purchases. Doosan Corp Glonet BG is operating freezers and condensers to recover and recycle solvents, which are the most commonly used materials in business processes. As a result of its efforts, Glonet BG is recovering and recycling over 80% of solvents each year. Glonet BG also recycled 88% of materials(solvent) in the PL95 process. Furthermore, Glonet BG conducts environmental impact assessments, creates plans for material environmental issues, and makes necessary improvements. Doosan Corp Mottrol BG overhauled the part packaging process before supplying parts to its suppliers. By replacing disposable plastic packing materials with recyclable exterior plastic covers, Mottrol BG reduced waste plastic generation by 0.45 ton each month. Furthermore, Mottrol BG reduced working hours and increased efficiency by allowing containers for part packaging to be directly used at facilities.



**Effluent Quality Improvement Activities** Doosan Corp strives to minimize the impacts of effluents released from local plants on the neighbouring ecosystems. Doosan Corp Industrial Vehicle BG installed oil water separators and emergency shutoff systems in 5 effluent outlets to prevent wastewater releases into local communities. Industrial Vehicle BG also identifies and works on sources of pollution by increasing the frequency of wastewater quality analysis to twice a year. Mottrol BG replaced the existing oil-water separate process with an activated carbon adsorption process and reduced normal hexane(n-hexane) emissions, which cause water pollution, by 47%. Mottrol BG's efforts also led to 40% cost savings(20,000 KRW per ton) per ton of wastewater treated. Glonet BG strengthened wastewater management by adopting additional effluent quality analysis systems and installing a pollutant removal system in the final settling tank.

Soil Recovery Activities



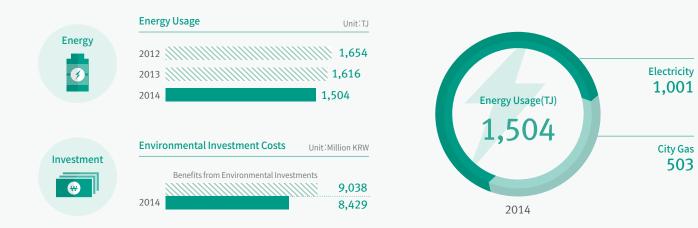
Doosan Corp carried out soil recovery activities to fulfill its responsibilities as a corporate citizen towards local communities. In 2010, Mottrol BG began the clean-up operation in the areas affected by soil pollution at its plants and completed the clean-up in August 2014. Soil recovery was performed after conducting in-depth pollution surveys at waste collection sites and their surroundings. Then, Mottrol BG organized voluntary clean-up activities on soils of 3,000m3. Contaminated soils were purified and their TPH\* levels were drastically reduced to 75% of the legal standard. Soil recovery activities are voluntarily conducted at other facilities affected by contamination. Mottrol BG is committed to protecting local ecosystems.

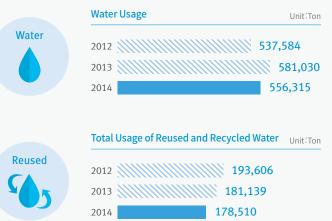
1.TPH(Total Petroleum Hydrocarbon): Used to determine whether soil is contaminated by kerosene, diesel, jet oil, and bunker C oil.

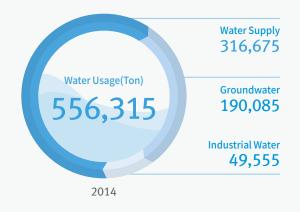


# MASS BALANCE

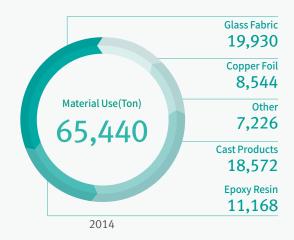
INPUT





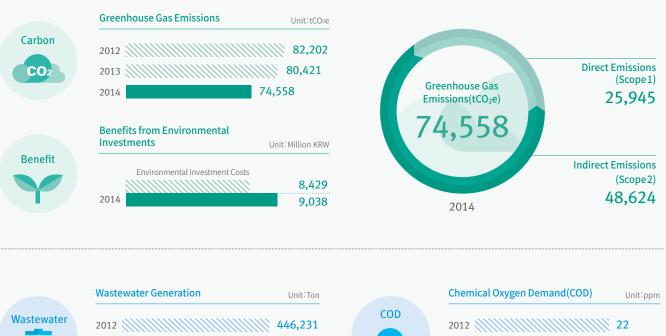








# OUTPUT



431,169

405,768

02

BOD

02

2014

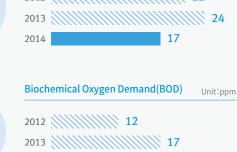
Doosan Corp makes sure that water pollutants generated from its operations are properly treated through continuous management and maintenance of wastewater treatment systems. Other efforts include treat-

ment system improvements so that pollutant releases are below 50% of

the legal standards under the Discharge of Water Pollutants Act.

2013

2014



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2.2 Reinforce Fair Operations

#### **BUSINESS & SOCIAL CONTEXT**

With the expansion of partnerships and the increasing importance of intercompany networking in global markets, there is a growing demand for shared growth with suppliers and customers. The South Korean government highlights shared growth as a top policy priority and continues to demand collaboration between large and small/medium companies under the Fair Trading Act and the Subcontracting Act. Shared growth is not only a matter of voluntary engagement but has become the cornerstone of business management. In an increasingly complex business environment, ethical awareness is particularly emphasized among companies and their members. Companies are also facing society's growing demand for ethics in business through compliance programs(CP).

#### **OUR APPROACH**

**OUR EFFORTS** 

selection process.

evaluation system

By working and growing with its suppliers, Doosan Corporation enhances the competitiveness of its systems across production and supply processes and reinforces fair trade operations through a new monitoring system.

- $\overline{\mathbf{1}}~$  Gain competitive advantage by strengthening a Supplier Relationship Management system
- 2 Increase collaboration by enhancing communication channels for suppliers

Doosan Corp strives to develop a sustainable supply chain

based on partnership support activities and a fair supplier

 $\overline{1}$  Create a sustainable supply chain management system

Develop suppliers communication and support programs
 Establish a fair and efficient suppliers selection and

**3** Strengthen the CSR capabilities of suppliers

#### **FUTURE ACTION**

Doosan Corp will continue its commitment to Sustainable Supply Chain.

- 1 Expand a Sustainable Supply Chain management system
- **2** Operate CSR support programs for suppliers
- 3 Enhance selection and evaluation processes by extending supplier CSR assessments



President Ryu Man-Yeol



Dongpyung Tech is a key supplier for Doosan Corp and chairs Mottrol Suppliers cooperative council. Cooperative council are attended by business group leaders, procurement executives, and representatives of suppliers to discuss plans for collaboration through personal interaction, and support shared growth. Since Mottrol BG relies on its suppliers for 75 to 85% of the parts used in its products, the quality provided by its suppliers is closely related to the quality of products made by Doosan Corp. Doosan Corp should, therefore, serve as the go-between among suppliers to promote activities carried out by the cooperative council, strengthen communication and improve quality. In actuality, Doosan Corp organizes meetings where the cooperative council shares business situations to enhance communication with its suppliers. Through Doosan Corp's efforts, the suppliers will be able to develop plans responsive to business conditions. Additionally, I hope that Doosan Corp understands the role and importance of its suppliers and reinforces partnership activities, including financial support. Hopefully, Doosan Corp will take a more aggressive approach to communicating with its suppliers.



Establishment of a Sustainable Supply Chain Management System **Strategy for Sustainable Supply Chain Management** Supply chain CSR is not merely an effective management approach to preparedness for risks that may arise from business operations. It is also an essential requirement for the shared growth of large, small and medium businesses, which is the country's policy priority. Doosan Corp created the Standard Supply Chain CSR Process to establish strategies and systems aimed at facilitating CSR activities in the supply chain. The process is a platform for integrated company-wide supply chain CSR activities that Doosan Corp can implement by taking into consideration the supply chain environment in which Doosan Corp's various business area are included.



Tasks under Strategies: To implement supply chain CSR, Doosan Corp selected 15 tasks in the categories of "Strategy and Policy," "Communication," "Supply Chain Risk Management," and "Program and System Operations," on the basis of various global CSR standards such as GRI G4 and ISO 26000. These 15 tasks include 6 tasks in Strategy and Policy, 1 in Communication, 6 in Supply Chain Risk Management, and 2 in Program and System Operations. Doosan Corp created a mid-/long-term implementation plan based on priorities.

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Governance for Systematic Supply Chain Operations: Doosan Corp established the Supply Chain CSR Council in April 2014 to build governance for systematic supply chain CSR activities and enhance communication among its businesses. The council consists of seven business groups and units and one invested company and inspects activities conducted by Doosan Corp's businesses at quarterly council meetings. In 2014, three council sessions(two staff-level and one executive-level meetings) were held, during which 12 detailed implementation guides and a long-term strategy roadmap were discussed as key agenda items.



Supply Chain CSR Guide to Effective Implementation: To effectively establish and implement supply chain CSR, Doosan Corp distributes the Supply Chain CSR Guides and assists each business in executing the specified tasks. Through the Supply Chain CSR Guides, the organization was able to form a common understanding of supply chain CSR implementation and laid the foundation for process improvement and development. The guide has been linked to the business plans of Doosan Corp's businesses and individuals and incorporated into performance measurements, providing more motivation for responsible officers to conduct their jobs.

		CSR Office	e(CC CSR)		CSR	Team(Adm	inistration Cer	iter)
Supply Chain CSR Operating System				Supply Chain	CSR Counc	il		
System	Electro- Materials BG	Industrial Vehicle BG	Mottrol BG	Information & Communi- cations BU	Glonet BG	FM BU	BS Division of Administra- tion Center	DST

#### Supply Chain CSR Activity Plan

Doosan Corp strives to build a sustainable supply chain on the basis of supply chain CSR connected with Doosan Corp's CSR Vision, "Responsible and Sustainable Growth." The 12 short-term tasks identified by Doosan Corp will be implemented across the organization in 2015.

2       Policy and Strategy       Applying and executing the policies/strategies estin 2014.       Strengthening the system for establishing a sustainable supply chain CSR to overseas subsidiaries, affiliates       Implementing the supply chain CSR activities linked to internate become control and external collaboration across the supply chain         2       Supply Chain Risk Management       Applying and promoting detailed task implementation guides       Internalizing detailed guides for supply chain CSR policies to stakeholders implementing and applying and promoting detailed tasks implementation guides       Internalizing detailed guides for supply chain CSR policies to stakeholders implementing 12 detailed tasks       Internalizing detailed guides for supply chain CSR policies to stakeholders implementing a risk management model based on business characteristics       Oreating supply chain CSR tablishing a sustainate stress implementing a risk improvement cycle system         3       Communication channels       Providing two-way communication channels       Promoting two-way communication channels       Promoting two-way communication channels       Suppliers         • Operating business group websites and purchasing systems       • Operating supply chain CSR training and consulting services on stores on subling services on stores on subling services on technologies and business startegies       • Sharing supply chain CSR certification program         • Program of perating long-term programs and an implementation for mework       • General training & consulting services on technologies and business startegies       • Providing supply chain CSR training and consulting services on technologies and business			2017~2018	2019~2020
2       Supply Chain Risk Manage- ment       Applying and promoting detailed task implementa- tion guides       Internalizing detailed guides for supply chain CSR Developing and applying a risk management model based on business characteristics       Certaing supply chain risk self-assessment systems for suppliers       Certaing supply chain risk self-assessment systems for suppliers         3       Commu- nication       Providing two-way communication channels · Operating business group websites and purchasing systems · Operating supply chain CSR training and consulting services for suppliers       Promoting two-way communication channels · Sharing supply chain CSR results of top-performing suppliers       Providing training & consulting services on anti-corruption, safety and environment Developing long-term programs and an implementa- tion framework       Providing training and consulting · Supporting supply chain CSR certification program       Providing carting for key suppliers		Applying and executing the policies/strategies set in 2014 • Disclosing supply chain CSR policies to stakeholders	Strengthening the system for establishing a sustain- able supply chain Expanding supply chain CSR to overseas subsidiaries/	with CSR objectives Supporting supply chain CSR activities linked to inter-
a       Program formation       Providing supply chain CSR training and consulting services on suppliers       Providing training & consulting services on suppliers       Providing training for key suppliers       Providing training for key suppliers       Providing canced/specialized training for key suppliers       Providing ca	Supply Chain Risk	guidelines agreement Applying and promoting detailed task implementa- tion guides Implementing 12 detailed tasks	Developing and applying a risk management model based on business characteristics • Applying and implementing a risk improvement	for suppliers Economic, social, and environmental performance
4 Program Opera- tions 4 Program	Commu-	implementation Providing two-way communication channels Operating business group websites and purchasing systems	Establishing a performance measurement model in economic, social and environmental aspects Promoting two-way communication channels • Sharing supply chain CSR implementation results	business side Sharing ideas, suggestions for improvement, performance, and technologies Suppliers' self-assessments and sharing feedback on
	Program 4 Opera-	Providing supply chain CSR training and consulting services for suppliers • General training & consulting services on anti-corruption, safety and environment Developing long-term programs and an implementa- tion framework	suppliers Providing training & consulting services on differentiatio Providing advanced/specialized training for key suppliers Supporting suppliers' independent CSR activities (pilot) Developing a supply chain CSR certification program	<ul> <li>Providing business consulting services for key suppliers</li> <li>Providing consulting services on technologies and business strategies</li> <li>Leading CSR operations for respective suppliers</li> </ul>



# Strengthening Communication with Suppliers

Doosan Corp oper-

ates open and formal grievance channels to enhance communication with its suppliers. In 2014, Doosan conducted a VOS among 103 key suppliers and incorporated the results into the establishment and implementation of its supply chain CSR strategy. We also share the results with each business to support their Supplier Relationship Management. Furthermore, we will create and operate a formal two-way communication channel on its website.

**Regular Communication through Suppliers Association** Doosan Corp operates the suppliers cooperative council for key suppliers and organizes communication enhancement activities including regular assembly and quarterly meetings. The suppliers cooperative council accepts suggestions for supplier support through business briefings and sharing of examples of improvement at suppliers and Doosan Corp incorporates feedback into its business operations. Doosan Corp Industrial Vehicle BG held a general assembly of suppliers where it presented plans for shared growth and supplier support and awarded recognition plaques and rewards to top-performing suppliers. More specifically, Industrial Vehicle BG held the Quality Innovation Declaration ceremony to renew determination to enhance the quality competitiveness of parts made by suppliers. Doosan Corp Mottrol BG also held a general assembly and quarterly meetings and shared best practices to promote shared growth and sustainable Supplier Relationship Management. Mottrol BG also held a business briefings to increase partners' understanding of one another and share their visions.

**Promoting Communication with Global Suppliers** Doosan Corp carries out a range of activities to enhance communication with global suppliers as well as domestic ones. Doosan Corp Industrial Vehicle BG, for instance, holds an annual business presentation for high-performing Chinese suppliers. In 2014, Industrial Vehicle BG gave a presentation about business results; an outlook and a long-term vision before 22 companies; handed out rewards to 3 high-performing partners in quality, price, and delivery categories; and shared best practices. Through these activities, Doosan Corp is motivating suppliers to continuously improve their operations to ensure quality stability.

# **Operating Programs for Shared Growth**

**Realizing Shared Growth through Financial Support** Doosan Corp provides various forms of financial support to suppliers for their financial and management stability. Doosan Corp Industrial Vehicle BG increased the ratio of cash payments up to 3.6 billion KRW to ensure the financial health of suppliers facing financial difficulty. Industrial Vehicle BG also helped its partners maintain cash flow through advance payments of 35.4 billion KRW. Doosan Corp Mottrol created a Network Loan of 45 billion KRW to finance the operations of its suppliers and helped its suppliers ensure cash flow through advance payments of 5.7 billion KRW. Moreover, Industrial Vehicle BG and Mottrol BG offered 2.6 billion KRW for development and improvement of production equipment<sup>1</sup>.

**Supplier CSR Support** Doosan Corp strives to raise awareness of CSR across its supply chain by offering suppliers training and consulting services on labor, human rights, anti-corruption, health and safety, and environment to its suppliers. Through these efforts, Doosan Corp is committed to building sustainable and mutually reinforcing partnerships. In 2014, Doosan Corp expanded the scope of training and consulting to more companies and during the first half of 2015, it will provide training and consulting services on the fundamentals of supply chain CSR for suppliers.

Joint Tours for Benchmarking against Global Leaders To strengthen the capabilities of its suppliers, Doosan Corp Industrial Vehicle BG embarked on a joint tour with its suppliers to leading companies in Germany and Japan. 12 employees from five suppliers accompanied Industrial Vehicle BG to visit ZF and BOSCH REXROTH in Germany and learned about their advanced operations and quality control systems. The trip helped attract equipment and human resources investments for the suppliers to enhance their competitiveness. Furthermore, Industrial Vehicle BG visited Toyota's forklift plant in Japan with 5 employees from three suppliers and benchmarked their operations against Toyota's production operations. Doosan Corp will continue its support for suppliers in strengthening their capabilities through joint tours abroad and sharing of advanced technologies.

1. Production equipment : Equipment or machinery used in production

Network Loan 45 billion KRW Advance Payments for Public Holidays 36 billion KRW G

\*For Electro-Materials BG, Industrial Vehicle BG, and Glonet BG

Development and Improvement Grants





Establishment of Fair and Efficient Supplier Selection and Evaluation Processes **New DooBuy: A Systematic and Fair Supplier Selection Process** Doosan Corp is connected to a wide range of suppliers through a complex value chain. To select and evaluate suppliers more systematically in such an environment, Doosan Corp operates New DooBuy, an updated version of the pre-existing purchasing system. New DooBuy has been applied to Doosan Corp Electro-Materials BG, Information & Communications BU, Glonet BG and will be extended to other business groups and units.



Systematic Supplier Management through Sourcing Groups : Doosan Corp constructed Sourcing Groups(SG)<sup>1</sup> to ensure systematic management of suppliers that provide similar products and businesses. Doosan Corp also created a supplier review system, which allows Doosan Corp to classify and manage suppliers by SG, from registration to regular evaluation processes, on the basis of SG characteristics. By classifying suppliers by SG and by providing underperforming suppliers with capability reinforcement programs, Doosan Corp laid the foundation for effective supplier support.

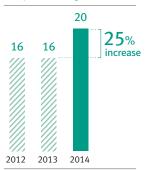


**Fair Supplier Selection through Auto Screening and Registration/Evaluation :** Doosan Corp allows its suppliers to register with DooBuy and screens suppliers that fail to meet the requirements through the Auto Screening process. In addition, Doosan Corp conduct an evaluation of registered suppliers on the basis of purchasing criteria on an item-by-item basis and review their qualifications. Through these selection mechanisms, Doosan Corp ensures transparency and fairness in the supplier selection process.

1. Basic unit of supplier management by which suppliers that supply similar products are classified

**Creating a Supplier Evaluation System Incorporating CSR** Doosan Corp incorporates CSR items into supplier selection and evaluations to motivate its suppliers to fulfill CSR. In 2014, Electro-Materials BG, Industrial Vehicle BG, Mottrol BG, and Information & Communications BU incorporated 20 CSR items such as anti-corruption, labor, human rights, environment, and health/safety into their evaluation checklists. Depending on whether partners fulfilled the items, bonus points are given during regular evaluations. Doosan Corp will also add CSR items to new supplier selection and evaluation checklists.

#### Number of Prior-Consultation regarding compliance Program





# **Operating the Compliance Program(CP)**

**Reinforcing Communication Activities to Establish a Culture of Fair Trade and Compliance** Doosan Corp has operated the Compliance Program since 2004 to fulfill its social responsibilities, and establish a culture where businesses are conducted ethically and legitimately, and rules are fairly observed. In 2014, Doosan Corp's Compliance Program was focused on communication activities to increase employees' understanding of subcontracting and unfair trading, which have recently gained a lot of attention. Through this, we reinforced the culture of fair trade and compliance.

Doosan Corp established the Fair Trade Council consisting of Complianc officers from Complianc team and its businesses to share Compliance performance and work on areas for improvement. To increase employees' understanding of fair trade and their voluntary participation in anti-violation activities, we promoted the the Prior Consultation regarding compliance Program process between each team of our businesses and Compliance Team to prevent violations of the Fair Trading Act that may arise during working in the Doosan Corp.

<u>Doosan Corp updated the Fair Trade section of its website</u> and added annual Compliance results and fair trade FAQ so that compliance officers and external stakeholders can understand Doosan Corp's Compliance activities at a glance.

Fair Trade and Compliance Training Doosan Corp provides annual training on fair trading for employees who engage in fair trade-related operations. In 2014, Doosan Corp increased participation and the application of training to actual work by offering intensive training on subcontracting and unfair trading, which learners found to be most necessary. Doosan Corp also increased the online training program so that employees could easily participate. Through continuous training, Doosan Corp will help employees apply their knowledge about fair trading to their jobs and prevent any legal violations related to fair trading.



2.3

Improve Product & Service Accountability



#### **BUSINESS & SOCIAL CONTEXT**

In global markets, competition has intensified and customers have also become more demanding. In response to such difficulties in the business environment, global companies are aggressively investing in R&D to develop new technologies and enhance their quality competitiveness. R&D comes with long-term payoffs and continuous R&D investments in electronics and ISB businesses that depend on advanced technologies particularly lay the cornerstone for sustainable growth.

#### **OUR APPROACH**

Doosan Corporation's businesses are conducting continuous quality innovation and R&D operations to develop superior technologies to those of competing companies, and works towards improving product safety to keep customers healthy and safe in the following ways

- $\overline{\mathbf{1}}$  Build infrastructure to gain quality competitiveness
- 2 Conduct R&D to develop high-quality and unique products
- 3 Boost product accountability to ensure customer convenience and safety
- 4 Increase customer satisfaction with products and services

#### **FUTURE ACTION**

Doosan Corporation will commit itself to strengthening quality competitiveness through continuous investment in R&D and product safety and stability.

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- $\overline{\mathbf{1}}$  Implement product and production process reforms through data analytics
- 2 Organize quality enhancement activities for suppliers
- 3 Increase customer satisfaction by providing more product and service information

#### **OUR EFFORTS**

Through continuous R&D, Doosan Corporation is driving quality innovation and safety improvement across various product lines and enhancing customer communication to increase customer satisfaction.

- 1 Strengthen quality control capabilities in the product development process such as on-site quality control and quality audits
- $\overline{\mathbf{2}}$  Develop products that take customer health and the environment into consideration
- 3 Ensure product safety across all processes, from new product development to service management

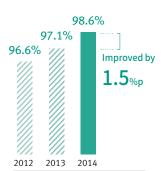
400 ß people per year 684 cases Number of service employees who of sharing quality participated in product information safety training (For Doosan Corp Mottrol) (For Doosan Corp Ratio of R&D Industrial Vehicle investment costs compared with sales



I believe that the strength of Doosan Corporation Electro-Materials lies in its quality control capabilities. At Electro-Materials BG, Quality Team conducts its own quality analysis and controls quality problems using the data accumulated through long-term collaboration. If any quality problems occur, Electro-Materials BG collaborates with Daedeok GDS to effectively analyze the causes and come up with solutions. In addition, top management meetings are held annually to ensure open communication, and periodic technical staff meetings will also be organized. Electro-Materials BG also localizes expensive parts that were previously imported and supplies them at reasonable prices, which helps Daedeok GDS ensure the price competitiveness of its products. I hope that Doosan Corp Electro-Materials BG grows to become the industry's leader by strengthening its ability to cope with the rapidly changing market, and continues to collaborate with Daedeok GDS to achieve shared growth.



# Maximizing Customer Value through Quality Innovation



Rate of Leaking Defects during

Commissioning

Data collection range : Industrial Vehicle BG **Strengthen Quality Control Capabilities** Doosan Corp develops quality control professionals and helps employees strengthen their capabilities to ensure consistently high product quality and to continuously improve quality.

Doosan Corp Mottrol BG provides training to develop quality professionals who specialize in different areas, including excavator hydraulic systems, bearings, casting materials, heat treatment, gears, and rubber materials. Mottrol BG also provides ISO 9001(Quality Management System) internal auditor training for internal quality auditors. Key professionals trained to become QMS<sup>1</sup> professionals in their teams are driving continuous improvements in quality control operations in their respective areas. Mottrol BG's efforts led to increased scores on the external QMS maturity assessment by 20% each year, from 2011 to 2014, and the score improvements demonstrated Mottrol BG's level of quality control capability enhancement.

Doosan Corp Glonet BG is strengthening management system operations capabilities including quality management by providing system operating and internal auditor training for ISO 9001 and ISO 14001 officers of each team.

**In-line Quality Control Activities** Doosan Corp is improving product reliability by strengthening the quality inspection all production process. Industrial Vehicle BG conducts inspections of production processes and finished products. Through the inspections, Industrial Vehicle BG keeps track of product quality and incorporates amendments into products. In 2014, Industrial Vehicle BG's faultless vehicles without leaks accounted for 98.6%, which represents a 1.5%p increase from 97.1% in 2013.

Mottrol BG collects quality-related data from all processes and analyzes the process capability to prevent quality defects.

Glonet BG strengthens monitoring of manufacturing sites, warehouses, and laboratories and regularly performs calibrations and corrections of manufacturing/supporting equipment and quality control test equipment in order to create a product quality control system that meets the GMP<sup>3</sup> of pharmaceutical raw material.

Fuel Cell BG maintains the process quality of products through a two-way inspection process for key parts that have been produced. During the first stage, the parts are inspected for performance and during the second stage, module performance is determined to ensure higher stability and reliability. Through continuous improvement of manufacturing processes, Fuel Cell BG has eliminated redundant processes, increased yield, and reduced costs.

#### Various Quality Information Sharing System Doosan Corp

through a vari-

ety of channels to increase satisfaction levels and inspects company-wide improvement strategies and customer service results. Through a range of meetings, such as team leader meetings, site managers, business parts and R&D center and Chief Operating Officer-led meetings, Doosan Corp regularly discloses current details of supplier quality, manufacturing quality, the customer quality, and development processes. Doosan Corp organizes meetings where causes of problems are analyzed and solutions and improvement plans are discussed. Doosan Corp Electro-Materials BG and Mottrol BG analyze and share the quality status that arise from the production line and performance test results by daily and on a monthly basis, and then shares the results. Furthermore, Doosan Corp's businesses analyze subdivided quality issues regarding process progress results, OTD(on time delivery), production line stops, and loss based on the overall production results that are automatically counted, and shares the results.

1. QMS(Quality Management System): Quality Management System

2. MES(Manufacturing Execution System): Manufacturing Execution System

3. GMP(Good Manufacturing Practice): Standard for manufacturing and management of good drugs to ensure the safety and effectiveness of drugs

# Conducting Process Quality Audits



Mottrol BG implements process quality audits to improve preventive management and competitiveness of process quality. Mottrol adopted the method of proactively managing factors that influence quality, by which the business group identifies and inspects all 4M+1E<sup>1</sup> factors from control plans, work standards, inspection criteria, previous quality problems, and feedback from previous audits, which affect process quality. Nonconformities identified during an audit are incorporated into improvement tasks and the progress of such tasks is checked until improvements are completed. In addition, through the MES, Mottrol is preparing to operate a notification system, which sends text message notifications to responsible officers if any problems arise from processes beyond control limits. The real-time process control system will contribute to computerized prevention and unified quality control.

1.4M+1E:4M(Man, Machine, Material, Method), 1E(Environment)

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**Supporting Process Stability for Suppliers** Doosan Corp provides support for upgrading quality management systems of suppliers, which not only helps strengthen partners' capabilities but also improves quality stability through the uniformity of products received by Doosan Corp. Industrial Vehicle BG, for instance, carries out the Single PPM<sup>1</sup> initiative in which the BG works with the Korean Chamber of Commerce & Industry to ensure the stability of suppliers' quality management systems by appointing independent quality control advisors. In 2014, Doosan Corp conducted 15 sessions of Single PPM at each of 7 suppliers, and 5 suppliers among them will carry out related activities to establish their own management systems. Furthermore, Doosan Corp holds monthly quality meetings with key suppliers under supervision, to analyze root causes of quality problems arising from processes each month and discuss improvement plans. Through these activities implemented by the key suppliers have reduced process defects by 64%, compared with the previous year at 7 suppliers, and has contributed to higher customer satisfaction.

# **R&D** Activities

Doosan Corp is strengthening R&D capabilities by developing unique technologies through external collaboration with a wide range of industrial, academic, and research organizations. Doosan Corp committed to providing customers with desired products through process and product innovation resulting from continuous R&D activities.



**Product Release for DDR4 Memory:** Electro-Materials BG released a product for DDR4 memory applications to meet the rising demand for materials aimed at transmitting and processing big data on mobile devices and servers. By reducing electric loss and increasing memory capacity and allowed consumers were able to use thinner products. The product was also made eco-friendly, without containing halogen. Doosan Corp continues R&D activities to develop convergence products that combine multiple features and to expand its product line-up.



**Improving Abnormal Wear on Safety Valves through Joint R&D**: Mottrol BG conducted joint R&D with the Korea Institute of Machinery & Materials' Reliability Test Center to improve product quality. Mottrol BG encountered the problem that, when a relief valve, a key component of a swing motor produced by Mottrol BG, was used for a long time in equipment powered by highly contaminated working fluids, abnormal wear occurred on the valve, deteriorating the equipment's performance. However, even after conducting an audit to identify the cause, Mottrol BG had difficulty providing proper test conditions. To recreate the same type of wear, Mottrol BG conducted joint R&D with KIMM for a year and three months, successfully reproduced the wear during a bench test process, and came up with a solution to the problem arising.



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**Developing New Forklift Model**:Industrial Vehicle BG develops diesel engine forklifts suitable for regulations for hazardous substances, such as carbon monoxide(CO), nitrogen oxides(NOx), and particulate matter(PM) from exhaust gases, and launches the products in domestic and international markets. During the second half of 2013, Industrial Vehicle BG began to export the 2.5-ton diesel engine forklift featuring the tier-4 engine. Using these qualified technical skills, Industrial Vehicle BG aims to develop 4-ton, 7-ton, 16-ton, 18-ton, and 25-ton Tier 4 diesel engine forklifts and launches them in 2015. In 2014, Industrial Vehicle BG also developed the stand-up electric forklift for the North American market and added it to the product lineup. Currently, it is developing a next-generation electric forklift and planning to release it in 2015.



**Functional Food Launch :** Using the phosphatidylserine ingredient developed through R&D investment, Glonet BG launched a functional food product called "Vivid perception 1899" As a food material that helps neurotransmitter activation by protecting brain cells when eaten, the ingredient has been recognized by US Food and Drug Administration(FDA) for its effectiveness in preventing Alzheimer's disease. The ingredient has already been widely recognised and used. The phosphatidylserine developed by Glonet BG, in particular, became the first material in Korea to obtain an "Individual authorization2" from the Ministry of Food and Drug Safety allowing its effectiveness to be indicated on the product. It was also registered as a New Resource Food in China and will reach global markets soon.

1. PPM(Parts Per Million): Number of defects per million pieces

2. Individual authorization: a regulation of funcional food newly recognized by MFDS through safety and functional testing for new ingredients

Stand-Up Electric Forklift for North

America Market(BR18SP-7)



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Ensuring Product Safety across All Processes Activities to Ensure Product Safety Doosan Corp carries out a wide range of activities to ensure product safety across all processes, from product development to customer purchase. Doosan Corp Industrial Vehicle BG performed product inspections in advance through Before Service. Through the service, Industrial Vehicle BG prevented accidents that might have occurred during product use by inspecting about 600 vehicles for 2 months in 2014, and has helped customers use their products in the best possible condition. Furthermore, in 2014, Industrial Vehicle BG provided 25 sessions of training to 400 service employees to improve the techniques of customer interface service employees. By providing the best technical services, Industrial Vehicle BG ensured product safety and satisfied customer needs.

Doosan Corp Glonet BG performs inspections on hazardous substances used in products. By conducting inspections based on the legal requirements and the company's quality requirements for received materials, Glonet BG selects materials with high levels of hygiene and safety. Glonet BG also prevents cross-contamination in products through visual inspection and swab test of manufacturing equipment, regular environmental monitoring in the clean room, and hygiene control of workers. Glonet BG inspects products and determines whether they contain hazardous materials like microorganisms, heavy metals, or residual solvents, thereby strengthening product safety management until the products are delivered to customers.

Doosan Corp Fuel Cell BG received certification for product performance and safety after developing new products through testing by product certification bodies Korea Gas Safety Corporation(KGS) and the Korea Institute of Energy Research(KIER). Fuel Cell BG also makes sure that the safety and performance of products have been assured inspections carried out by KGS at the production stage. Fuel Cell BG leads such activities aimed at ensuring product safety and increasing customer satisfaction.

**Product Technology and Safety Disclosures** Doosan Corp discloses technical and safety information on all products to customers in order to prevent accidents that may arise in connection with products. Electro-Materials BG discloses its business functions, from new product development to service management, as well as its safety inspection procedure to customers and provides technical data of all products and information about regulated substances under international standards. Such disclosures allow customers to access technical data annually updated for substances subject to environmental regulations used in all products, and check the safety of products in the latest version of a brochure containing technical information about new products. Furthermore, Electro-Materials BG attends annual domestic and international

and gives presentations about its proprietary and new technologies as part of its efforts to improve communication with customers. Fuel Cell BG provides advance one-on-one training and presentations to customers when installing products. Glonet BG prepares material safety data sheets(MSDS) containing product safety information, from the stage of new product development and makes them available to customers so that products can be used more safely.

Customer Communication during Product Development Doosan Corp increases customer satisfaction and improves product value by incorporating customer feedback into product development. Doosan Corp organizes annual technical review meeting inviting customers and determines the quality requirements of customers. Doosan Corp also conducts quality inspection to evaluate customer satisfaction, and improve on inspection results through customer satisfaction surveys.

Electro-Materials BG held about 40 sessions of technical review meeting in 2014, through which participating companies shared business results, future development trends, and new development projects.

Industrial Vehicle BG incorporates VoCs into its quality and user convenience improvement activities, and provides high-quality products that meet customer needs. In 2014, Industrial Vehicle BG incorporated 73 VoCs into its quality improvements(79% of VoCs incorporated), which represents an increase from 59 VoCs incorporated into quality improvements in 2013(73% incorporated). Through a variety of channels, Doosan Corp receives customer feedback, identifies customer needs thoroughly, reflects them in its product quality requirements, and ensures development and production quality that satisfies customer needs.

		59 incidents 80 incidents
Reflected ratio for quality improvement	2013	73%
Received     Completion	2014	79%
🤍 Received 📕 Completion		73 incidents 92 incidents





# Responsible Engagement

Doosan Corporation is sharing warmth, fostering hope, and building a sustainable society that everyone dreams of.

# Strategic Community Involvement and Development

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Doosan Corporation carries out educational, cultural, and sharing activities to fulfill its duties as an exemplary member of society and contribute to enhancing the future capabilities of local communities through the "Growth of People."













Growth and Independence of people







# 3.1

Strategic Community Involvement and Development



#### **BUSINESS & SOCIAL CONTEXT**

Recent Corporate Community Involvement(CCI) activities carried out by companies have provided support to donations and volunteering activities in local communities and have contributed to resolving social problems. More specifically, companies utilize their technologies and capabilities to make contributions to society in the best way they can.

#### **OUR APPROACH**

Doosan Corporation develops and operates strategic Corporate Community Involvement(CCI) programs to acquire a sustainable competitive advantage and to contribute to the growth of local communities, in addition to caring and sharing activities for socially disadvantaged groups. Based on objective measurements of CCI performances, Doosan Corp tries to create programs that can provide tangible support to local communities. Doosan Corp is also expanding stakeholder engagement from employees, government, local governments, and residents thereby increasing their understanding and sympathy of CCI.

- 1 Develop and operating programs that utilize Doosan Corp's core capabilities
- 2 Build internal and external stakeholder engagement infrastructure and process
- **3** Create a corporate CCI performance management system

#### **OUR EFFORTS**

Doosan Corporation carries out educational, cultural, and sharing activities to fulfill its duties as an exemplary member of society and contribute to enhancing the future capabilities of local communities through the "Growth of People."

- **1** Provide education to support the healthy growth of future generations
- 2 Support arts and cultural education and arts organizations
- **3** Community volunteering led by employees





Since 2013, Seoul Scholarship Foundation has operated the Youth Growth Scholarship Project since 2013, with financial support from the Social Contribution Fund created voluntarily by Doosan Corporation's employees. Doosan Corp's employees are actively involved in the selection of eligible recipients and volunteering activities. Students receiving scholarships are also experiencing positive changes. I personally think that Doosan Corp's Corporate Community Involvement(CCI) process is well established and, particularly, employee participation in CCI activities is highly commendable. Most of all, Doosan Corp's future generation educational programs that reflect its philosophy, "People are the Future," helped me trust Doosan more as a company. I believe that Doosan Corp will continue to operate its outstanding CCI programs that reflect its value system and will strengthen educational activities such as a creativity program for children. I hope that Doosan Corp will continue its commitment to corporate social responsibility activities on the basis of the UN Global Compact Principles.



#### **FUTURE ACTION**

Doosan Corporation will provide tangible support to changes in local communities by developing strategic programs that help establish its unique Corporate Community Involvement(CCI) identity reflecting Doosan Corp's business philosophy and characteristics and that can be continuously expanded.

- **1** Establish Doosan Corp's own CCI philosophy and strategic direction
- 2 Operate strategic CCI programs from long-term perspectives
- 3 Build infrastructure for active voluntary employee participation

# Corporate Community Involvement Direction and Performance

**Corporate Community Involvement Strategy and Principles** To achieve its vision, "2020 Global Social Responsibility Management Leader," Doosan Corp defined its mission as "Improvement of Community Competitiveness and Company Value through Strategic Corporate Community Involvement(CCI)" and carries out systematic CCI activities. Doosan Corp focuses on supporting activities aligned with the needs of communities, and strive to find tangible solutions that can contribute to the shared growth of the company and society, by identifying social issues and looking for ways to make the best use of its resources. Doosan Corp also operates CCI programs to spread shared beliefs about social responsibility and recruits genuine support by increasing voluntary employee participation. In 2014, Doosan Corp overhauled the performance management system of existing CCI activities , to continuously monitor its CCI activities and objectively analyze the effects of those activities thereby enhancing the rationale and value of CCI activities.



Cost of Investment in CCI Unit: Million KRW

		8,078
6,971	7,972	
<i>(</i> , <i>)</i> /1		
2012	2013	2014

**Corporate Community Involvement Performance** Through future-generation educational support, cultural growth support, and community sharing activities, Doosan Corp provided a total of 8.1 billion KRW in 2014 and continues to increase funding for CCI each year. Employees' donations and volunteering have also grown steadily. Throughout 2014, 2,371 employees participated 10,379 hours of volunteering and the activities are being extended to include talent sharing and mentoring.





"Doosan Time Traveler," Doosan Corp's leading CCI program since 2012, was selected as the Exemplary Contribution to People's Happiness by the South Korean government. Doosan Time Traveler is an excellent CCI program where, a privately owned enterprise collaborates with the government to contribute to people's happiness. The program was recognized for its contribution to supporting the emotional development of teenagers and to help them grow as healthy adults. During a discussion with the President about best practices, a participating student in Doosan Time Traveler remarked, "Through Doosan Time Traveler, I was able to develop a positive worldview and increase self-confidence," adding, "I hope that more teenagers have the same opportunity as I did." Doosan

Corp will organize a wide variety of CCI activities in addition to Doosan Time Traveler and help our future generations to have a good life.



# Corporate Community Involvement



#### Donations to the Single Mom's Independence Support Project



# Education

**The Youth Growth Scholarship Project: University Student Academic Support Program** Since 2013, Doosan Corp has provided funding to Seoul Scholarship Foundation through the Matching Grants program by which the company and employees contribute an equivalent amount of money to a fund drive created by employees. Youth Growth Scholarship Project provides support to university students facing financial difficulties even after being offered admission. In 2014, Doosan Corp raised funds of 120 million KRW and handed out scholarships to 28 university students. Furthermore, employees serve as mentors to give scholarship recipients advice on campus and social life and encouragement. Doosan Corp also offered a variety of exchange opportunities such as opportunities to watch baseball games and recommendations on good books to help the students in their overall growth to become good adults.

The Single Mom's Independence Support Project : Single Mother Independent and Child Care Support Program The Single Mom's Independence Support Project has been implemented jointly with the Babonanum Foundation since 2013. Along with the Youth Growth Scholarship Project, the project is financed using the funds created by employees and the company. This project provides employment training and personalized counselling services to teenagers and single mothers who are struggling for financial and social independence so that they do not give up on their academic and career ambitions and build better futures. Moreover, the project also provides special independence grants to single mothers who have performed well during employment training. In 2014, Doosan Corp gave donations of 110 million KRW to 9 single mother child centers and 77 single mothers participated in employment training and counselling services.

**Dadokgeorim: Reading Education Program** Doosan Corp Information & Communications BU launched "Dadokgeorim" a program aimed at treating internet addiction and developing the intellectual and social growth of children through reading. Since February 2014, 22 sessions of reading education were provided to elementary school students who attend the childcare facility, Eden Children Ville. Under the supervisor of a reading expert, 66 employees participated in the program. By helping the students make their own books, the program changed their reading habits and boosted their self-esteem.

**Educational Environment Improvement Activities** Doosan Corp is helping improve educational environments by providing educational equipment and materials so that socially disadvantaged children receive education in better environments and grow up healthy and strong. Doosan Corp Information&Communications BU established a sisterhood relationship with Seongnam Hyeeun School, a public special needs school to sponsor graduation ceremonies and the Day of People with Disability events and provide educational equipment. Doosan Corp Industrial Vehicle BG provided textbooks to Boramae Childcare Center located near its Incheon plant and opened learning rooms to offer learning instructions.

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The Youth Growth Scholarship Project

The Single Mom's Independence Support Project



# Culture

**Doosan Time Traveler:Teenager Emotional Development Program** Doosan Time Traveler, Doosan Corp's leading CCI program since 2012, has offered education on emotional development in which humanities studies are provided for middle and high school students using photographs. Students participating in Doosan Time Traveler attended a variety of activities such as lectures, photo trips, camps, and exhibitions, under the supervision of culture and arts and humanities professionals, including photographer Bae Byeong-Woo, photographer Kim Jung-Man, choreographer Ahn Eun Me, professor Yang Byeong-Yi, professor Shin Byeong-Ju, and professor Ahn Dae-Heo. The program helped the students to broaden their horizons and provided a boost to their self-esteem and sense of belonging. During the third session of Doosan Time Traveler in 2014, 94 students participated under the themes of Gaining Knowledge and Sharing Hearts, and held a year-end exhibition of 300 photographs and essays created over the past 8 months.

Art Meets Business: The Mécénat Arts & Business Collaboration. Since 2014, as a participant in the The Mécénat Arts & Business Collaborationorganized by Korea Mecenat Association, Doosan Corp has provided support to the growth of the classical music industry and the development of qualified arts organizations. Seoul Tutti Ensemble that entered into an alliance with Doosan Corp is a competent orchestra with a 26-year history. Through the alliance with Doosan Corp, the orchestra has made a variety of cultural contributions, including the Hope Concert for patients at Chung-Ang University Hospital, and culture and arts education support for children at local child care centers. The alliance has also led to continuous activities aimed at enhancing the capabilities of organizations, including regular concerts at Seoul Arts Center.

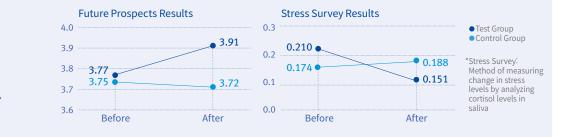
**Culture and Arts Education Program for Local Child Care Centers** Since 2013, Administration Center has supported culture and arts education to improve the creativity and social skills of children at local child care centers. Students engage in a wide range of culture and arts activities such as choir, dance, and shadow puppet play, and showcase their acquired skills through presentations at the end of the year. Employees also participate in culture and arts programs, motivate children to engage and improve their morale.



Doosan Time Traveler Exhibition

Hope Concert

Evaluation of the Effectiveness of Doosan Time Traveler To evaluate the social performance of Doosan Time Traveler, Doosan Corp's leading CCI program, we worked with a research team at Chung-Ang University to measure changes in participating students. Students who attended Doosan Time Traveler exhibited higher levels of self-efficacy, social skills, future prospects, and emotional empathy than when compared to other students under similar conditions, and there was a significant decline in the stress levels of participants as well. The attendees also showed increased interest in learning and improved relationships with their families and friends. Doosan Corp will conduct follow-up surveys, continuously analyze program performances and make improvements to the program.





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# Sharing

Sending Tea with Love



:Renovation Program for Social Service Centers Using its employees' techniques and expertise, Doosan Corp FM BU implements the Making Stepping Stones program aimed at improving the education and living conditions at social service centers. In 2014, FM BU provided renovation services at 4 local childcare centers and 1 single mother child facility in Jung-gu, including wallpapering, floorboard and window replacements. In addition, FM BU installed fire protection systems to improve safety preparations. Doosan Corp will continue its activities aligned with the needs of local communities by making the best use of its capabilities.

**Sending Tea with Love** For the past 24 years, Doosan Corp has sent 36,250,000 cups of tea to 348 military units through the Tea with Love service to boost the morale of soldiers serving on the front line and to express appreciation for their services. Doosan Corp also provided instant coffee products and consolation money to soldiers through visits to military units that formed alliances with Doosan Corp. We also supported cultural activities of soldiers by sending books, PDPs, and TV sets to help establish libraries.

#### **Community Volunteering**



**Doosan Day of Community Service:** In 2014, Doosan Corp began to engage employees in sharing activities at all global locations to show its commitment to social responsibility and encourage their voluntary participation. On October 24, 1,232 employees at 19 locations participated in community services such as planting trees, cleaning-up activities, renovations at local child care centers, and interacting with senior citizens. In 2015, Doosan Corp aim to organize 2 volunteering sessions in March and September, respectively.



Sisterhood Relation with Local Child Care Center: Doosan Corp Mottrol BG established sisterhood relations with Eunsung Child Care Center, a facility for socially disadvantaged children from low-income families, grandparent-headed families, and single-parent families, and organized a range of activities including after-school education, art museum tours, botanical garden tours, play therapy counselling, sexual harassment prevention training, and year-end presentations.



**Blood Donation and Briquette Sharing**: Each year, Doosan Corp Industrial Vehicle BG collaborates with Chung-Ang University Blood Donation Center to carry out the Blood Donation of Love service, and practice modest but greatly helpful sharing. Information&Communications BU organizes the Briquette Sharing of Love as part of its year-end activities. In 2014, the BU sent 2,400 briquettes to 8 households in a tent village near Jeolgaeji in Changsin-dong, and a total of 10,000 briquettes were sent in a year.



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Sending Tea with Love



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Governance

# Composition and Operation of the Board of Directors

**Composition of the Board of Directors** The Board of Directors is Doosan Corporation's highest-level decision-making body that oversees deliberations and voting on fundamental management issues and makes important decisions on laws and the company's by-laws, matters delegated by general shareholders' meetings, and the company's basic management policies and operations. The board consists of 9 members, 3 inside and 6 outside directors, and operates the Audit Committee, the Internal Transaction Committee, and the Outside Director Nominating Committee to ensure efficient decision-making.

Independence of the Board of Directors Doosan Corp appoints 6 outside directors to enable the board to make balanced and objective decisions through checks and balances between the company's top management and outside directors. Doosan Corp also imposes restrictions on the voting rights of directors who have personal interests in certain issues. The board also operates 3 committees including the Audit Committee, and each committee consists exclusively of outside directors to ensure independence and transparency in decision-making by separating itself from major shareholders and top management. In particular, for the Audit Committee to perform audits effectively, each committee may request reports on operations and examine the company's financial statements at any time; may request the attendance of related employees and outside auditors whenever such attendance is necessary to perform an audit; and may seek advice from experts at the company's expense if deemed necessary.

**Transparency and Expertise in the Selection of Directors** Inside and outside directors are appointed at a general shareholders' meeting pursuant to applicable laws and corporate by-laws. Inside directors are nominated by the board and outside directors are nominated by the Outside Director Candidate Nominating Advisory Panel comprising 5 outside personnel and by the Outside Director Candidate Nominating Committee comprising 3 outside directors. Furthermore, Doosan Corp appoints experts from different fields to enhance the board's expertise. Currently, the board retains 3 professors, 1 expert in administration and diplomacy, 1 legal expert and 1 tax expert, who respectively provide expertise in each specialty area.

#### Inside directors

Yongmaan Park Chairman and CEO of Doosan Group Chairman of the Board Jeong won Park Chairman of Doosan Corporation Jae kyung Lee Vice Chairman of Doosan Corporation

#### **Outside directors**

#### **Daewon Seo**

Chairman of Internal Transaction Committee Current Chairman of International Cooperation Subcommittee of Presidentail Council on National Branding

#### Junki Kim

Member of Audit Committee Current Professor & Dean at Graduate School of Public Administration, Seoul National University

#### Hi-taek Shin

Chairman of Audit Committee Chairman of Outside Director Candidate Nominating Committee Current Professor of Law at Seoul National University

#### **Gwang-su Song**

Member of Outside Director Candidate Nominating Committee Current Advisory at Kim & Chang

#### Ickhyun Nam

Member of Internal Transaction Committee

Member of Outside Director Candidate Nominating Committee Current Professor of Business Administration at Seoul National University

#### Chang-hwan Kim

Member of Audit Committee Member of Internal Transaction Committee Former Director of Busan Regional Tax Office



**Operation of the Board of Directors** Through the Board of Directors, Doosan Corp votes on important issues, incorporates into decision-making shareholders' opinions and employees' suggestions received through general shareholders' meetings and IR sessions, and shares data before the board meets to make deliberations more effective. Pursuant to laws, Doosan Corp allows all directors to participate in decision-making using means of real-time voice communication, and directors so attending are deemed present at the present board meeting. The board may hold special meetings as often as may be necessary. The board also delegates some of its responsibilities to any of its committees for fast and efficient decision-making so that thorough reviews of the issues at hand can be conducted. The affirmative vote of a majority of the directors present is required to convene board meetings and approve resolutions, and if a quorum with weighted voting is required by laws or policies, such a quorum is observed. Directors cannot vote by proxy and directors with personal interests in certain issues cannot vote. In 2014, 12 board meetings were held and 28 agenda items were addressed. Moreover, the attendance of outside directors was 85%.

Evaluation and Compensation Directors receive compensation subject to the compensation limit approved at a general shareholders' meeting and inside directors receive performance-related pay calculated based on the organization's performance in addition to the base salary in the amount calculated individually. Outside directors only receive salaries, while compensation for inside directors includes salary, incentive pay, and severance pay. Directors are compensated fairly and transparently in accordance with the executive management policy.

**Communication with Stakeholders** The Board of Directors communicates with stakeholders through internal and external communication channels including disclosures and IR sessions. The board makes the highest-level decisions at a general shareholders' meeting and immediately discloses important decisions made in relation to management to promptly provide shareholders and stakeholders with management-related information.

Independence of Outside Directors Doosan Corp established criteria for judging the independence of outside directors based on the Commercial Code so that the Board of Directors can properly perform checks and balances.

#### Criteria for Judging Independence

- IDirector, executive officer, or employee engaging in the company's business operations, or director, auditor, executive officer, or employee who has engaged in the company's business operations in the past 2 years
- 2 Majority shareholder, spouse, or direct-line ancestor/descent
- I Director, auditor, executive officer, or employee of the company if the company is a majority shareholder
- 4 Spouse and direct-line ancestor/descent of a director, auditor, or executive officer
- 5 Director, auditor, executive officer, or employee of the company's parent company or subsidiary
- **6** Director, auditor, executive officer, or employee of the company who has special interests such as a business relationship with the company
- Director, auditor, executive officer, or employee of another company where the company's director, executive officer, or employee serves as a director or executive officer

	Committees	under the Board of Directors	
	Audit Committe	Internal Transaction Committee	Outside Director Candidate Nominating Committee
Members	Hi-taek Shin, Chang-hwan Kim, Junki Kim	Daewon Seo, Chang-hwan Kim, Ickhyun Nam	Hi-taek Shin, Gwang-su Song, Ickhyun Nam
Role	Auditing the company's accounting and business operations and inspec- tion of the operations of the internal accounting control system	Deliberating on and approving internal transactions under fair trade laws	Proposing outside director can- didates
Activities	Review of accounting results by outside auditors, consultation on non-audited services, and inspection of the operations of the internal accounting control system	Approval of transactions with Doosan Tower	Proposing outside director candidates, etc.



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Listed on the DJSI Asia-Pacific Index

MEMBER OF Dow Jones Sustainability Indices In Collaboration with RobecoSAM ()

Grade A on ESG Evaluation by Korea Corporate Governance Service



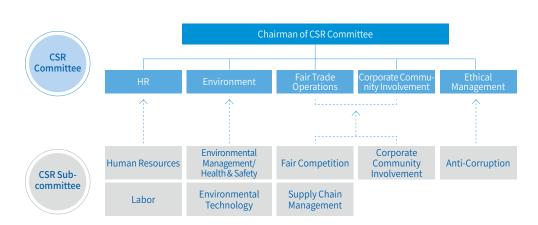
# **CSR** Committee

**Composition and Operation of the CSR Committee** The CSR Committee, Doosan Corporation's highest-level decision-making body regarding CSR, establishes Doosan Corp's CSR pillars(strategic direction), examines CSR business operations, identifies improvement tasks and reviews implementation plans. Doosan Corp's CSR Committee consists of representatives of our businesses and Administration Center and key executives from 5 subcommittees. The 5 subcommittees , HR, EHS, Fair Trade Operations, Ethics, and Corporate Community Involvement, are chaired by representative of Doosan Corp's all business areas and overseen by key executives in related areas. Representatives of our businesses also serve as members of the CSR Committee to ensure that CSR activities are reinforced by our businesses. Members of the 5 subcommittees are authorized by the CSR Committee to carry out improvement tasks in their respective subcommittees and provide half-yearly reports on performance and future plans through the CSR Committee.

**CSR Implementation System** Doosan Corp's CSR Team oversees CSR operations. CSR Team conducts an annual CSR assessment on the company's business operations to identify economic, environmental, and social risks and opportunities and reports the results to the Chairman of the CSR Committee and representatives of Doosan Corp's businesses. CSR Team then defines improvement tasks and creates implementation plans through subcommittee comprising the staff of Doosan Corp's businesses. Members of the 5 subcommittees monitor the progress of the subcommittees and report implementation plans to the CSR Committee. In addition, Doosan Corp <u>publishes an annual CSR report</u> to communicate yearly results and plans briefed at CSR Committee meetings to internal and external stakeholders and makes sure the report is reviewed and approved by the CSR Committee before publishing it.

**Communicating CSR to Employees** While the creation of the CSR Implementation System and the CSR Committee in 2013 helped raise related staff's CSR awareness, ordinary employees at Doosan Corp were still unfamiliar with CSR. CSR Team therefore held a presentation about CSR to spread awareness and understanding of CSR to employees. Training consisted of content for office and technical employees aligned with the relevant business characteristics nd was held in 42 sessions at Doosan's business locations across the country. The CSR presentation greatly assisted participating employees in increasing their awareness and understanding of CSR. Furthermore, as part of its ongoing promotional efforts, Doosan Corp distributed UNGC posters and CSR reports to all business locations so that employees could familiarize themselves with CSR activities.

**External Evaluations** Since the creation of the CSR operations system in 2013, Doosan Corp has continuously upgraded CSR activities by conducting CSR level assessments and identifying improvement tasks. As a result of its efforts, Doosan Corp became the country's first company to be listed on the DJSI Asia Pacific Class in the Industrial Conglomerates category in 2014. Particularly, the company scored high on environmental policy and management, health and safety, labor practices and human rights. Moreover, Doosan Corp earned Grade A on Korea Corporate Governance Service's ESG evaluation that assesses the country's listed companies and selects socially responsible and sustainable companies.



#### CSR Implementation System

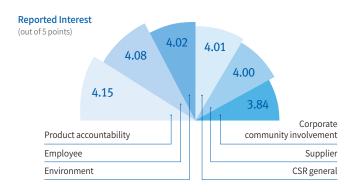




**Stakeholder Engagement** Doosan Corporation classifies stakeholders into groups that directly and indirectly affect and are affected by the company's business operations. Doosan Corp's stakeholder groups include shareholders, customers, suppliers, employees, local communities, and government. We operate communication channels to incorporate various stakeholders' feedback into our business operations. Doosan Corp is developing a system for the integrated management of stakeholder engagement which has been individually carried out by our businesses. Doosan Corp will increase the effectiveness of its CSR management through open communication with its stakeholders and disclose stakeholder engagement performance in a CSR report each year.



Stakeholder Survey Results Doosan Corp conducted an online survey<sup>1</sup> to identify stakeholders' interests and significance by topic. The survey consisted of questions about stakeholders' interests and significance in the 6 areas of CSR general, employees, suppliers, product accountability, corporate community involvement, and environment, and the comments section. Internal and external stakeholders responded that product accountability should be considered as a top priority and activities related to employees and the environment should be strengthened as well. More specifically, "Ensuring product safety," "Maximizing customer value through quality innovation," "Fairness in supplier selection," "Environmental pollution management," and "Employee communication" emerged as important issues, and the stakeholder survey results were incorporated into the materiality test.



**Reported Feedback Research Results** Doosan Corp conducted reported feedback research to receive stakeholders' feedback on the first CSR report and incorporate the feedback into the preparation of the next CSR report. 45% of the respondents said they had read the previous report and all the respondents showed generally high satisfaction with the 2013 CSR report. It was found that to further increase satisfaction levels, improvements should be made to a report's structure, design elements, and accessibility. Doosan Corp will incorporate these considerations into the publication of its future CSR reports.

#### Satisfaction with the report<sup>2</sup>

Very satisfactory	<b>→ 51%</b>
Satisfactory	- 25%
Neutral	
Unsatisfactory	- 23%
	→ 1%

1. Survey period: January 7 to 13, 2015; survey method: Online survey 2. There were no unsatisfactory responses



#### **Risk Management**

**Risk Management Approach** To effectively respond to a variety of financial and non-financial risks that may arise as a result of business operations, Doosan Corp manages core potential risks. In addition to financial risks like market and credit risks, the company focuses on managing environmental and safety risks occurring in processes, and fair trade and internal control risks arising from internal and external transactions.

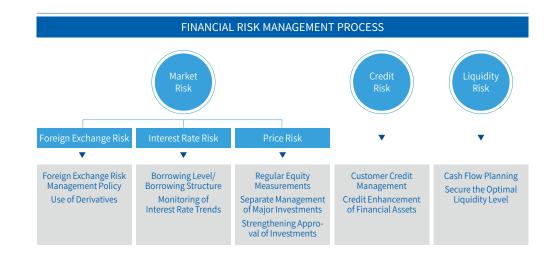
**Culture of Risk Management** Doosan Corp strives to create a culture of risk management across the organization to prevent and minimize risks in all of its business areas through voluntary employee engagement. Doosan Corp has created a system for managing risks that arise from financial and operational processes, conducted regular inspections through internal controls, tried to make the Code of Conduct more specific, and shared examples of recurrence prevention through ethical management training. The Doosan Way, Doosan's management philosophy, places emphasis on "Integrity and Transparency," based on which the company's performance evaluation process operates. Furthermore, during an annual Doosan Way Day event, the company rewards best practices in environmental changes and contributions to Doosan based on "Integrity and Transparency," among several components of the management philosophy. Through the rewards, Doosan Corp is extending a culture of integrity and business ethics and managing potential risks.

Major Risks and Management System Doosan Corp focuses on managing financial risks and other various social and environmental risks. In particular, environmental, safety and health, and fair trade risks characteristic of the industry are classified as "emerging risks" that may potentially affect the company's business operations, and the company strategically responds to the risks through systematic analysis.

**Financial Risk Management** In managing financial risks, Doosan Corp focuses on improving its capital structure and increasing efficiency in financial management to ensure steady and continuous performance despite a variety of financial risks, such as market, credit, and liquidity risks. Doosan Corp's Treasury Team oversees financial risk management and collaborates closely with other related teams on activities like establishing a financial risk management policy, identifying, evaluating, and hedging financial risks. In addition, through regular monitoring, the team commits itself to minimizing the impact of financial risks.

**Environmental Risk Management** Doosan Corp develops EHS technologies and conducts an environmental impact assessment to reduce the environmental impacts of its business processes and the business risks caused by such environmental impacts. Doosan Corp also continuously monitor compliance with applicable regulations and policies to respond to policy and economic risks arising from domestic and international environmental regulations and incorporate the results into its business. In 2014, Doosan Corp developed a chemical inventory at each plant to prevent chemical accidents and lay groundwork for systematic management aimed at providing responses tailored to individual chemicals.

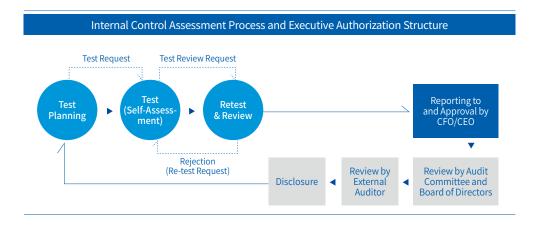
**Fair Trade Risk Management** Doosan Corp manages fair trade risks to ensure fair and transparent business operations. Through self monitoring and subcontracting monitoring, Doosan Corp heads off any possible violations of applicable laws. In 2014, Doosan Corp strengthened internal transaction monitoring and began to monitor the compliance of inter-affiliate transactions with law. Doosan Corp also continuously monitor whether inter-affiliate transactions are carried out through a fair process and whether they constitute violations of applicable laws.





Safety and Health Risk Management In the wake of many major accidents and disasters affecting society as a whole, Doosan Corp is striving to manage safety and health risks occurring to its employees and outsiders like visitors. Doosan Corp offers itsemployees and on-site suppliers equal access to training and health care support and provide inspection and facility improvement services so that employees can work in a safe and clean environment. Doosan Corp prevents accidents and spreads its EHS culture to its contract construction suppliers by applying preliminary risk assessments and safety management costs and providing safety training and inspections. Doosan Corp created its Safety and Health Management System to manage related risks and regularly performs advance detection of risks at plants.

Internal Control Assessment System In response to growing demand for the reinforcement of internal accounting and internal controls in and outside the organization, Doosan Corp created its own internal control system aimed at enhancing transparency in information and reliability. An internal control system is used to define business processes and assess the implementation of such processes according to established procedure to ensure healthy and stable business performance and operations. Doosan Corp defines controls by including not only internal controls for the legally required internal accounting control system, but also operational efficiency and compliance for risk management. Using its internal control system called DICAS(Doosan Internal Control Assessment System), Doosan Corp assesses all of its business areas, including finance, sales, purchasing, and production. Each team at Doosan Corp's Businesses conducts self-assessments on a quarterly and half-yearly basis, followed by Internal Control Team's inspections. Then the assessment results are reported to the CFO and CEO, then to the Audit Committee and the Board of Directors, pursuant to the Act on Internal Accounting Control Systems and External Auditing.



Risk Management for Business Continuity in Crisis Situations Doosan Corp created the TFT on the establishment of a crisis response system in February 2014 and made a crisis response manual available at each plant to ensure the safety of employees and their families in such crisis situations as major disasters and preserve the core competencies of its businesses and its assets. The manual centers on 20 essential infrastructure units in 4 areas(Governance, People, Asset, and Operation). A crisis response action plan for each plant reflects the characteristics of each business area and the response system was established. In October 2014, in order to test the ability to respond to actual situations, Doosan Corp provided comprehensive crisis response training in various simulated crisis situations caused by earthquakes at plants of Electro-Materials, Industrial Vehicle, and Mottrol, under the supervision of Emergency Management Team comprising Doosan Corp's CEO and top management. In 2015, Doosan Corp will provide infrastructure improvements and periodic company-wide training to internalize BCM.

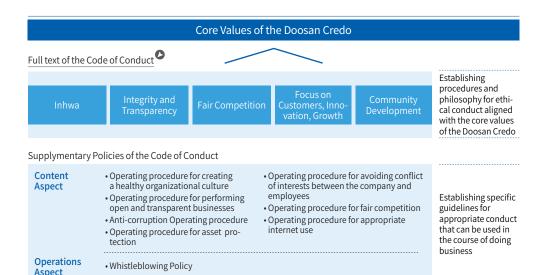


BCM<sup>1</sup>



# Ethical Management

**Principles of Ethical Management** As part of its sustainable growth strategy, Doosan Corporation created the Code of Conduct and operates it as a set of standard operating procedures for employees to enhance organizational competitiveness and fulfill its social responsibility on the basis of inhwa, customer-oriented business philosophy, transparent management and innovation. Doosan Corp applies the Code of Conduct to all of its employees and recommends that third parties including partners doing business with Doosan also comply with the code. Additionally, Doosan Corp established detailed procedures of the Code of Conduct, which provide specific guidelines for appropriate behavior in the course of doing business, so that employees can practice the Code of Conduct in everyday life and at work.



# **Ethical Management Activities**

**Ethicsal Management Training Programs for Employees** Doosan Corp provided ethics training to raise employee awareness of business ethics. In 2015, the scope of ethics training will be extended to suppliers and overseas subsidiaries and the effectiveness of training will be enhanced by diversifying programs, including cyber training.

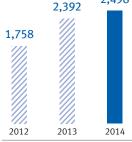
Whistleblowing Policy and Cyber Accusation Center Doosan Corp's Whistleblowing Policy is intended to solidify a transparent and fair ethical management system and the company protects persons filing complaints by keeping them strictly confidential. Important issues that have been investigated are reported to the CEO and the Audit Committee. Doosan Corp also operates the Cyber Accusation Center on the company's website to receive reports from outsiders on employee violations of the Code of Conduct or laws and unfair practices. Anyone can submit a report on a real-time or anonymous basis through a variety of channels including phone, e-mail, mail, fax, and visit. In 2014, Doosan Corp received 17 complaints through the aforementioned reporting mechanisms, conducted an internal investigation, and issued a disciplinary action for 1 incident. In 2015, Doosan Corp will extend the whistleblowing policy to its overseas subsidiaries so that integrity and transparency can be ensured internationally.

Help Desk Operations Doosan Corp operates Help Desk on the official website, a mechanism through which questions are answered and information is provided about the company's ethical management policy, details of the Code of Conduct, and filing reports and complaints. Through Help Desk, Doosan Corp was able to help its employees and external stakeholders better understand Doosan Corp's ethical management principles and business conduct policy.

White Paper Policy Under the White Paper Policy, white papers are prepared and shared about important issues arising from corporate processes such as internal auditing in order to prevent the issues from recurring and improve related business practices. In 2014, a total of five registered white papers helped employees understand the causes of the issues and realize that the same problems should not happen again. In 2015, Doosan Corp will increase white paper registrations regarding internal auditing and important issues so that the purpose of registering and sharing white papers can be widely understood.

# Ethical Management Training Hours Unit: Hour 2,392 2,117 1,060





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## **Compliance Program**

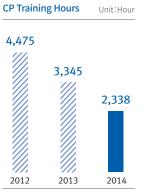
**Compliance Program Organization** Doosan Corp created a Compliance Program(CP) organization to expand participation in CP across the organization and ensure systematic Compliance Program operations. We also organized CP Managing Team that oversees setting direction for Compliance Program operations and supervising the company-wide CP system and appointed a Compliance Manager. Additionally, we appointed a Compliance Officer and created a dedicated Compliance Operating Team from each business group and unit so that Compliance Program activities aligned with the needs of each business group and unit can be carried out.



**Distributing a Compliance Program Guidebook** In September 2004, Doosan Corp produced and distributed the Compliance Program Guidebook to establish a culture of compliance. Since then, we have published and distributed new versions of the Compliance Program Guidebook every time changes have been made to applicable laws or business operations so that employees can easily consult the Guidebook during their jobs. Furthermore, we also created the Compliance Pledge directed at employees on teams with a high likelihood of committing legal offenses.



1. Compliance Program: A program voluntarily adopted and operated by a company to enforce compliance with fair trade laws, and designed to provide behavioral standards for compliance, prevent legal offenses, and identify and correct violations early on.



Number of Employees Attending CP Training Unit: Hour

		316
208	218	
2012	2013	2014





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Generation and Distribution of Economic Value

# **Generation of Economic Value**

Doosan Corp has continued to grow by making profits. In 2014, the company reported 3.5 trillion KRW in total assets, a 7% increase from the previous year, and 180 billion KRW in net profit representing a 25% increase. Domestic sales included 33% sales from Electro-Materials BG, 33% from Industrial Vehicle BG, 18% from Mottrol BG, 10% from Information&Communications BU, and 7% from the rest. Doosan Corp will gain a sustainable competitive advantage by strengthening its fundamental competitiveness across all business areas from products, to technologies and to quality. We will also create sustainable economic value by gaining new growth engines through M&A and upgrading ICT-based business infrastructure.

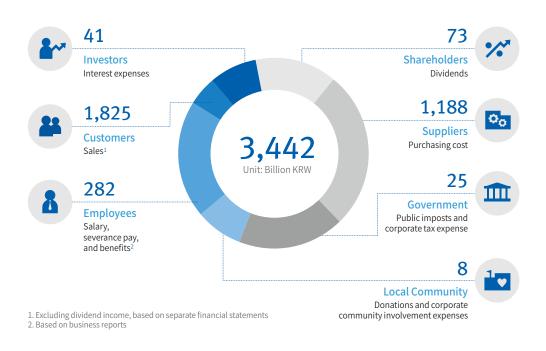
ltem		2012	2013	2014
Balance	Total assets	3,190,375	3,319,134	3,509,598
Sheet	Total liabilities	1,165,531	1,323,744	1,399,060
	Operating income	1,487,631	1,652,025	1,995,372
	Operating expenses	1,361,343	1,456,584	1,738,925
La como a	Operating profit	126,288	195,441	256,448
Income Statement	Income before corporation taxes	97,089	158,415	206,080
	Corporation tax expense	23,973	19,173	19,680
	Net income	85,407	149,688	186,399

#### Summary of Economic Value Created<sup>1</sup>

1. The past data were re-prepared based on the creation of and amendments to the accounting standards. For details, please see business reports.

# **Distribution of Benefits**

Doosan Corp makes sure that the value created through its business operations is fairly distributed to internal and external stakeholders. In 2014, the value returned to investors, shareholders, customers, suppliers, employees, governments, and communities increased by 6%, compared with the previous year.



Unit: Million KRW

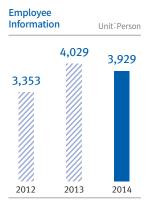


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# Talent Management



# **Talent Recruitment and Cultivation**

**Principles of Recruiting** Doosan Corp's recruiting process utilizes a variety of channels, including annual recruiting, special hiring of experienced employees, internships, and university-industry scholarships. The company operates a fair and competency-based recruitment process, without asking applicants to submit information about their families and academic performance. All of the company's HR programs including recruitment prohibit discrimination on the basis of nationality, gender, religion, race, age, and educational attainment and are fairly and reasonably operated.

**Employee Information** As of late December 2014, Doosan Corp has a total of 3,929 employees. 88% of them are men with 3,441 and 12% women with 488. Full-time employees account for 91% of the total workforce, and there are also 51 employees with disabilities and 45 veterans.

**Talent Development System** Doosan Corp provides equal educational opportunities to all of its employees. The company established a learning road map(LRM) based on the functional competency model encompassing all job functions and develops and operates in-house programs. The LRM includes all of the company's training and learning solutions, such as OJT(On-the-Job Training), in-house/external group training, and online classes, which are classified by the level of competency. In 2015, Doosan Corp will launch in-house group courses for all job functions based on the completed LRM and appoint in-house instructors.

DLI Supervised CC Supervised To Be Developed

#### Doosan Corporation Education Organization

Classi	fication	Executive	Team Leader	Team	n Manager	Team Member
		Doosan Way Online Programs				
Orientatio	n Program	New Executive Course	New Team Leader Course	New Manager		Assistant New Recrui
		External Recruit Course	Doosan Orientation Program -	Experienced Recruit		
		Insight - Executive	Insight - Team Leader			
		Executive Coaching	Group Learning			
Anchor Pr	ogram	STEPS Executive	STEPS		STEF	'S Junior
			STEPS Online Programs			
•••••	Building	Things Seen When Paid Attent	······································		••••••	
	D.Talent	Master Coach				
			A – Team Building		••••••	
	Inhwa	How to cheer up	0			
		Active Communication		Active Comm	unication	
	Openness			Reporting A to		
Buildup		Break Through				
Program	Innovation			Smart Goal Se	etting	
			Work Smarter			Smarter
	Execution		Project Management			
	Priority Focus		Strategic Decision Making			
		Business Simulation	5			
•••••	· · · · · · · · · · · · · · · · · · ·		Winning Doogather – Team			
Winning Te	eam Program		0 0		Winn	ning Doogather -Jr.
0	Ũ				Follo	wership
•••••	•					
•••••			CFO Academy			
		HR Academy				
			R&D/E Academy			
Expert Pro	ogram		EHS Academy			
			Content Development Worksh	ор		
			Functional Specialty Education			
E b E.		••••••	Faculty Basics			
Faculty Pr	ogram		Faculty Advanced			
Clabel D		•••••••••••••••••••••••••••••••••••••••	Doosan Expatriate			
Global Pro	ogram		Expatriate Pool Program			
Core Taler	nt Program				Juni	or MBA
•••••		Ethical Management Training				
Others		R&D Communication				
•••••						
Classi	fication	Technical General Manager	Technical Deputy General Manager Techr	nical Manager	Technical Assistant Manager	Technical Employee
		Production Leadership Trainin				
Technical	General	Production Leadership Trainin				New Recruit Course
Technical General		Grievance Counseling	.0			

1.CC and BG cooperation



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# **Employee Competency and Performance Evaluation**

**Competency and Performance Evaluation** Doosan Corp evaluates an individual employee's competency objectively based on the Doosan Way and the job the employee does through the Doosan Competency Model(DCM) and Development Plan(DP). Doosan Corp's competency evaluation focuses on each employee's individual characteristics and competency development, instead of merely ranking employees. Then a development plan is created and examined based on the employee's individual strengths and developmental needs identified during the evaluation. To carry out fair and objective evaluations, a start-up meeting is held between the evaluation officer and the evaluated employee and a calibration meeting between the employee and an assistant evaluation officer to exchange feedback. The meeting results are then incorporated into the evaluation results. Performance evaluations are conducted using the Management by Objectives(MBO) method. To ensure fairness in evaluations, an objective sharing meeting is held between the evaluated person before setting objectives and the evaluated person and the evaluation officer monitor the progress against the annual objectives together.

**Compensation and Promotion** Once competency and performance evaluations have been completed, feedback is provided on the evaluation results to enhance the acceptability of evaluations. Based on the competency and performance evaluation results, compensation and promotions are determined. When linking compensation to evaluations, Doosan Corp incorporates into evaluations both the process of competency improvement and the current level of competency, so that employee competencies can be improved based on the Doosan Way. Doosan Corp also operates a dialogue-based process that takes a variety of factors into consideration, instead of merely scoring and ranking employees.



# **Organizational Culture**

**Employee Benefits Programs** Doosan Corp operates a wide range of benefits programs to help employees maintain work-life balance and increase motivation and efficiency at work. We provide various programs for leisure benefits, maternity and parental benefits, residential stability, medical and health benefits, training and professional development across the organization. There are also programs for employee therapy, family summer resorts, commuting flexibility, culture and performances, and lunch with new recruits' parents, which are aligned with the characteristics of Doosan Corp's businesses.

Leisure	Benefits	Summer vacations(paid vacations), year-end vacations, vacations to refresh, family event vacations, resorts benefits, club membership benefits, back-packing trips abroad, anniversary gifts, birthday parties
	ity and al Benefits	Child care centers, lounges for female employees, scholarships, birth gifts
Reside Benefit	ntial Stability ts	Housing allowances and rent for non-homeowners and singles, housing expenses for moving, dormitory benefits, and family event benefits(funerals, congratulatory events, condolences)
Medica Health		Medical expenses, health check-up benefits, group accident insurance coverage, flu shots, fitness center operations and benefits
	g and Profes- Development	Doosan Academy and cyber training programs, in-house language classes, external language classes and qualification examinations(twice a year)
Interna	ational SOS	Providing year-round medical, security, and online support services for employees going on business trips abroad
Other		Long-service rewards, gifts(New Year, Chuseok, Doosan Corp's anniversary, Labor Day), uniforms, textbooks for children, commuting expenses and com- muter bus service



**Family-Friendly Programs** Doosan Corp invites employees' families to annual concerts to instill a sense of pride among them and expand their cultural experiences. On Children's Day, the company organizes various events where families are invited to visit the company. Doosan Corp Electro-Materials BG, Industrial Vehicle BG, Mottrol BG and Glonet BG designate a certain day as "Family Day," allowing employees to leave early, spend some time with their families and achieve work-family life balance.

**Retirement Pension Plan** Doosan Corp operates a pension plan that contributes to employees' post-retirement financial security. To further ensure post-retirement financial security, Doosan Corp also operates a longterm savings plan along with the pension plan as a fail-safe mechanism, providing subsidies in addition to the employee's monthly wage. Doosan Corp Industrial Vehicle, for instance, operates a transition support program to help soon-to-be retired employees plan their post-retirement lives. 10 sessions of one-on-one counseling are being offered regarding start-ups, re-employment, and investments to help eligible employees plan their lives.

Labor-Management Communication System Doosan Corp operates the Labor-Management Council on the basis of trust and mutual respect. Doosan Corp guarantees freedom of association and the right to collective bargaining and ensures transparency in its business operations by regularly disclosing important issues and business information, including legal agreements between labor and management. More importantly, Doosan Corp promotes exchange of ideas between labor and management through different types of communication channels. To build consensus between labor and management about business issues, each business group holds monthly or quarterly business briefing session, quarterly Labor-Management Council meetings, special Labor-Management Council meetings, Labor-Management on-site council meetings, and frequent meetings between BG leaders and technical employees. A variety of labor-management relations events, such as sports games and new recruit mentoring sessions, also contribute to building solidarity between labor and management, which lays the cornerstone for a labor-management culture of shared growth. Doosan Corp Electro-Materials BG and Mottrol BG organize community volunteering involving both technical and support office employees as part of their labor-management cooperative efforts to resolve social problems. Although there was still conflict between labor and management at certain business groups despite the efforts, Doosan Corp will continue to build consensus between labor and management about business issues through ongoing dialogue so that such conflict will not occur again.





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Product Responsibility Management

### **Product Accountability Management**

Quality Management Principles Doosan Corp strives to deliver quality innovation and maximize customer satisfaction using its superior technology. Doosan Corp's businesses will solidify quality competitiveness by adopting quality management policies and establishing and implementing specific quality strategies.

#### **Quality Management Principles by Doosan Corp's Businesses**



acquiring world-class quality certifi-

ing systems in accordance with stan-

dard procedures.

cates.

management policy encompassing management innovation, parts quality instructions, quality assurance infrastructure and product reliability improvements, and the implementation of quality management system auditing.

mental preservation when providing products and services to stakeholders including customers. Mottrol BG created and operates a quality management system to fulfill the quality

policy and commits itself to continu-

ous quality improvements.

Information&Communications BU	Glonet BG	Fuel Cell BG
		*
To improve service quality, I&C BU conducts an annual IT service sur- vey and incorporates survey results into quality improvements. I&C BU also continuously carries out quality activities aimed at increasing cus- tomer value, including fault manage- ment, prevention and maintenance for project management and operat-	Glonet BG aims to meet the expecta- tions of customers and society by pro- viding safe, legitimate, reliable and high-quality products and conducting research to develop distinctive com- petencies. By retaining distinctive competencies based on technologies in demand now and in the future, Glo- net BG practices quality management	Under the principles of innovation and adhering to basics, Fuel Cell BG regards customer satisfaction as a top priority and improves product reliability through the process of planning, execution, evaluation, and corrections based on feedback.

**Ouality Management System** Doosan Corp acquires quality certification to meet global customers' demands for high quality. Electro-Materials BG operates a quality management system based on ISO 9001 certification and will deploy the TS-16949 automotive quality system to its plants in China. Industrial Vehicle BG, Mottrol BG, Glonet BG, and Fuel Cell BG have also maintained ISO 9001 quality management systems. I&C BU created and operates a quality management system based on ISO 9001/ISO 20000.

to become a value creator in the living

and cultural business.





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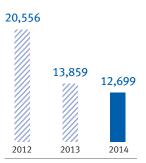
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Data collection range: Doosan Corporation Mottrol

#### Information Security Training Hours Unit: Hour



# Research and Development(R&D)

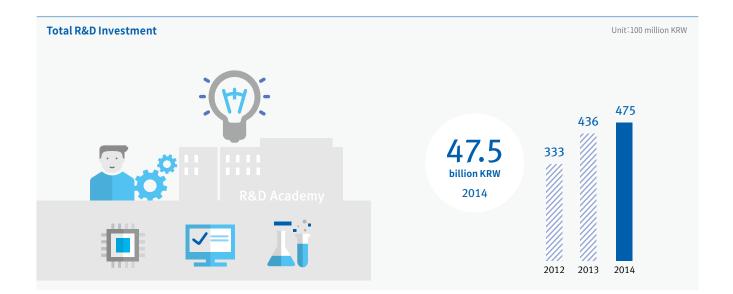
**R&D Performance** In 2014, Doosan Corp invested a total of 47.5 billion KRW in R&D, which represents a 9% increase compared with the previous year. R&D investment as a percentage of sales has continued to grow since 2012 and Doosan Corp will continuously increase R&D investment.

# **Customer Satisfaction**

**Customer Satisfaction Activity Principles** Doosan Corp exists to serve its customers and considers customer value a top priority. Doosan Corp is unceasingly committed to providing greater value to customers than competing companies do. Doosan Corp demonstrates its value by respecting customers' feedback and meeting their expectations. Doosan Corp resolves complaints and products arising in connection with the use of products through weekly reliability meetings and improve customer satisfaction by quickly responding to complaints and offering highly reliable products. Mottrol BG, Glonet BG, and Fuel Cell BG regularly conduct customer satisfaction surveys. Electro-Materials BG will also begin periodic surveys.

**Information Security** Doosan Corp created the Internal Information Management Plan to prevent damaging data security breaches. This plan applies to personal information collected, used, provided, and managed by the company through digital networks or in writing, and to employees of Doosan Corp and employees of contract companies charged with dealing with the aforementioned personal information.

Doosan Corp monitors compliance with laws through information security checks and provides information security training to its employees and those of contract companies to raise their security awareness. Training is provided at least twice each year in a variety of forms, such as formal training, internet training, and groupware training. Its commitment to security has led the company to head off security threats and protect personal information. For the past 4 years, there has been no complaint relating to security.





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#### EHS Management Green

#### Green Management

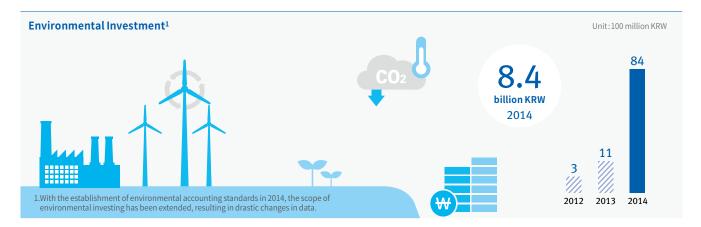
**Green Management Strategy** Based on the 3 pillars of its green management strategy(Green Culture, Green Value, and Green Communication), Doosan Corp established the "3G Practice and 15 To-Dos" to provide products and services that improve the quality of life of communities and human beings around the world. We also created a long-term road map(Introduction—Growth—Top Tier Entry) with the goal of becoming a "Global Top Green Company" by 2020.

**Green Management System** To abide by its commitment to green management, Doosan Corp created a Green Management System and built diverse infrastructure for green management. Particularly, we established a management system to minimize environmental impacts and have effectively implemented it. Each business group also acquired ISO 14001 environmental certification and created a management system aligned with domestic and international environmental guidelines. Furthermore, the business groups adopted IT systems for systematic management of EHS data and utilize them to support systematic and fast sharing of environmental data such as environmental accounting.

In 2007, Doosan Corp created a team dedicated to EHS(Environment, Health, and Safety) to realize systematic and advanced green management and create a green workplace. Doosan Corp's EHS Team consists of professionals, such as EHS officers each representing the business groups and qualified team members. EHS Team is preparing the company to become a green management leader by minimizing environmental impacts, making ongoing environmental improvements, and pushing ahead with green management initiatives—which include creating and updating annual ESH policies, setting goals, and examining business operations.

2014	►	2015~2017	►	2018~2020		
Proactive Response to Legal Requirements	- Establishing and Implementing Strategy		- Creating and Implementing Green			
Act on the allocation and trading of greenhou-		that Reflects Management's Commitment to Green Management		Purchasing System		
se gas emission permits,, Chemical Control and Chemical Registration and Evaluation Acts		- Creating Green Management		<ul> <li>Exploring Green Technologies and Products</li> </ul>		
Strengthening Legal Risk Management		Organization, Training and Programs		- Segmented Management of Green		
Reinforcing monitoring of environmental					- Creating Performance System	
pollutants				- Operating Green Management Support		
Ensuring Safety of Equipment				Programs for Suppliers		
Proactive environmental investing, continuous improvement						
Strengthening Emergency Response System						
Preventing chemical accidents and providing training						
Creating EHS Competency System						
Examining detailed performance indicators						

**Environmental Investment Performance** Doosan Corp implements environmental investing as part of its environmental protection efforts such as climate change response and environmental pollution management. In 2014, we invested a total of 8.4 billion KRW and will increase environmental investments to respond to environmental regulations and preserve the environments of local communities.



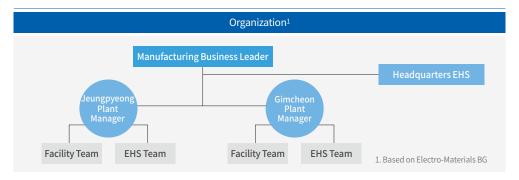


**Environmental Impact Assessment System** To reduce environmental impacts and risk-related costs, Doosan Corp conducts a preliminary EHS impact assessment before commencing an investment or construction works from which environmental risks may arise, thereby creating a safe work environment. Doosan Corp sets development objectives that take into consideration target quality, target cost, and environmental impacts at the stage of developmental project planning. At the stage of basic design, we examine whether the design reflects considerations about environmental impacts to enhance reliability in the basic design. At the stage of development completion, Doosan Corp conducts an objective review and evaluation to determine whether the design takes environmental impacts into consideration and receives feedback on the progress of the development project. Doosan Corp will work harder to minimize the environmental impact of its businesses by increasing environmental spending.

# **Responding to Climate Change**

**Climate Change Response Strategy and System** Doosan Corp is actively engaged in government-led greenhouse gas mitigation initiatives and committed to responding to climate change and fulfilling its social responsibility to minimize environmental impacts. Under the 3 green management strategic pillars, Doosan Corp established climate change response and energy use reduction systems and organized related activities. First, we created a TF dedicated to the target management schemes, and the task force has conducted energy use and GHG emissions surveys and kept track of policy trends for the past 3 years. Doosan Corp thus created a system for measuring and reporting workplace greenhouse gas emissions as a foundation for more effective response to climate change. Building on this experience, Doosan Corp is enhancing its capabilities to respond to the GHG Emissions Trading Scheme by creating a team dedicated to the GHG Emissions Trading Scheme, dedicated business process and mitigation plan.

**Climate Change Response Performance** In 2014, Doosan Corp's greenhouse gas emissions amounted to 74,558tCO2eq, representing a 7% reduction compared to an average year. Based on the Long-Term Climate Change Action Plan, we will develop measures to mitigate GHG emissions and continue to control GHG emissions.



#### Long-Term Climate Change Action Plan

2014~2015		2016~2018		2019~
Developing and Verifying Inventory	►	Establishing and Implementing a Reduction Plan	►	Greenhouse Gas Management
<ul> <li>Developing an inventory to identify greenhouse gas emissions and sources of emissions</li> <li>Ensuring reliability by verifying</li> </ul>		<ul> <li>Identifying sources of emissions in the workplace where emissions can be reduced and setting targets</li> <li>Implementing GHG management through emissions trading</li> </ul>		<ul> <li>Managing greenhouse gas allowances and creating a reduction plan during the phase II period of the Green- house Gas Emissions Trading Scheme</li> <li>Creating a corporate GHG management system through CDM<sup>2</sup> or emissions trading</li> </ul>
<ul> <li>Developing a greenhouse gas inventory</li> <li>Creating a dedicated team and providing training to related staff</li> <li>Verifying and reporting greenhouse gas statements</li> <li>Identifying BAU<sup>1</sup> emissions, consumption, and reduction limits</li> </ul>		<ul> <li>GHG emissions management through carryover and borrowing</li> <li>Defining R&amp;R for emissions trading and business process</li> <li>Emissions purchase/sale management</li> </ul>		<ul> <li>Reducing emissions based on the established targets</li> <li>Implementing mitigation operations</li> <li>Implementing CDM business</li> <li>Emissions purchase/sale management</li> </ul>

1. Business as usual(BAU): Expected emissions 2. Clean Development Mechanism(CDM): Clean Development Mechanism is a program for greenhouse gas reduction aimed at mitigating global warming

82,202 80,421 74,558 7% Reduction

Unit:tCO2eq

Greenhouse Gas Emissions



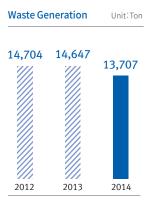
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# **Environmental Pollution Management**

**Waste Management System and Performance** Doosan Corp manages waste produced in each process by classifying it by disposal method, such as recycling, reclamation or incineration. To ensure transparent and legal waste management pursuant to waste laws, Doosan Corp regularly conducts follow-up evaluations and training for waste disposal companies. In 2014, waste generated was disposed of by recycling(79%), reclamation(2%), and incineration(19%).

Hazardous Waste Management System and Performance Doosan Corp manages hazardous waste according to legal procedures and strives to prevent damage to local communities caused by hazardous waste spills. To head off damage to local communities, Industrial Vehicle BG created a separate control box designed to prevent the spills of toxic substances and made control equipment available to be able to quickly respond to emergencies. Information & Communications BU manages waste safely through a legitimate process by hiring industrial waste disposal companies when industrial waste arises from PCs and servers.

Water Management System and Performance Doosan Corp manages water risks to ensure stable water supply and distribute the risk of water scarcity. Water risk management is being conducted at 3 plants of Electro-Materials BG(Jeungpyeong, Gimcheon, and Iksan), Glonet BG's Iksan Plant, Mottrol BG's Changwon Plant, and Industrial Vehicle BG's Incheon Plant. In 2014, water usage declined by 4%, compared with the previous year. In addition, in 2014, the amount of water reused and recycled by Doosan Corp Electro-Materials increased to 178,510 tons in total, compared with the previous year.

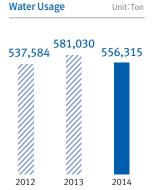
Air Pollution Management System Doosan Corp strictly manages air pollutants arising from plants so that the emissions meet in-house requirements below legal limits. Industrial Vehicle BG conducted twice as many monitoring sessions as legally required to control air pollutants at 18 locations of emission sources and prevention facilities. Furthermore, Industrial Vehicle BG frequently measures emissions at facilities preventing air pollution to see if emissions are below 50% of the allowable emission limits. Moreover, soundproofing walls and chimney cap were installed at prevention facilities near the boundary areas of plants, which helped proactively respond to expected complaints.

# Safety and Health

Doosan Corp created a safety and health management system to effectively manage its facilities, make continuous improvements and prevent accidents. In addition, we strive to improve employees' and stakeholders' well-being and quality of life by providing support to our internal/external partners and creating a clean, safe, and accident-free workplace. All of Doosan Corp's plants are equipped with advanced management systems. 5 domestic locations and 2 overseas locations have obtained and maintained

Accident Management Process By operating the Accident Management Process, Doosan Corp established measures to respond to accidents early on and prevent additional damage. we create a safe workplace by establishing the best possible measures to resolve the root causes of accidents based on systematic analytics to prevent recurrence.

**Health and Safety Committee** The Health and Safety Committee consists of equal representatives from labor and management and holds quarterly meetings. Through the committee meetings, labor and management cross-examine overall business operations and issues, including working environments, health check-ups, safety facilities and protection equipment, contributing to promoting workplace health and safety. Electro-Materials BG and Industrial Vehicle BG operate Health and Safety Committees each of 54 members and apply the results of discussions to all of their employees. Mottrol BG applies the results of discussions at EHS Improvement Committee meetings to all employees at its plants.







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## **Economic Data**

# **Generation of Economic Value**

Category		Unit	2012	2013	2014
Balance Sheet	Total assets	Million KRW	3,149,139	3,291,631	3,509,598
	Current assets	Million KRW	567,179	571,884	639,610
	Non-current assets	Million KRW	2,581,960	2,719,748	2,869,988
	Total liabilities	Million KRW	1,165,531	1,323,744	1,399,060
	Current liabilities	Million KRW	438,272	487,660	742,714
	Non-current liabilities	Million KRW	727,259	836,084	656,340
	Total Capital	Million KRW	1,983,608	1,967,887	2,110,538
	Capital Stock	Million KRW	132,778	132,894	134,838
	Additional Paid In Capital	Million KRW	729,523	638,682	667,08
	Other capital adjustments	Million KRW	-333,675	-368,033	-368,143
	Other Accumulated income(loss)	Million KRW	16,050	39,434	35,66
	Earned Surplus	Million KRW	1,438,932	1,524,910	1,641,09
	Total Liabilities and Capital	Million KRW	3,149,139	3,291,631	3,509,59
Income Statement	Operating Income	Million KRW	1,487,631	1,652,025	1,995,37
	Sales	Million KRW	1,439,962	1,549,828	1,825,12
	Dividends profit	Million KRW	47,669	102,196	170,24
	Operating Expenses	Million KRW	1,361,343	1,456,584	1,738,92
	Cost of sales	Million KRW	1,104,020	1,187,253	1,434,88
	Sales, general, and administrative expenses	Million KRW	257,323	269,330	304,03
	Operating Profit	Million KRW	126,288	195,441	256,44
	Non-operating Profit	Million KRW	33,415	37,631	32,64
	Non-operating Expense	Million KRW	62,614	74,657	83,01
	Profit(loss) before Corporation Tax	Million KRW	97,089	158,415	206,08
	Corporation Tax Expense	Million KRW	23,973	19,173	19,68
	Continuous Operating Profit	Million KRW	73,115	139,242	186,40
	Discontinuous Operating Profit	Million KRW	12,292	10,446	-0.
	Net Income	Million KRW	85,407	149,688	186,39



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 Image: Compact Party Party

# **Economic Data**

# **Division of Economic Value**

Stakeholders		Unit	2012	2013	2014
Investors	Interest	100 million KRW	357	375	414
Shareholders	Dividends	100 million KRW	653	743	735
Customers	Sales	100 million KRW	14,400	15,498	18,251
Suppliers	Purchasing cost	100 million KRW	8,773	12,794	11,882
Employees	Salary, severance pay, benefits, etc.	100 million KRW	2,037	2,828	2,816
Government	Public imposts and corporate tax expense	100 million KRW	273	224	245
Local Community	Donations and Corporate community involvement expenses	100 million KRW	69	80	81
Total		100 million KRW	26,562	32,542	34,424

### R&D

Category		Unit	2012	2013	2014
R&D <sup>1</sup>	R&D investment	Million KRW	33,258	43,605	47,530
	R&D investment as a percentage of sales	%	2.3	2.8	2.6

# **Credit Rating**

Category	2012	2013	2014
Korea Investors Service Inc.	A+	A+	A+
Korea Ratings Corporation	A+	A+	A+
NICE Information Service Co.	A <sup>+</sup>	A <sup>+</sup>	А

1. Data changes were made due to adjustments to data collection range



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### **Social Data**

# **Employment and Benefits**

Category		Unit	2012	2013	2014
Total Employees		people	3,353	4,029	3,929
Employees by	Electro-Materials	people	1,404	1,477	1,338
Business Group	Industrial Vehicle	people	-	528	528
	Mottrol	people	559	592	564
	Glonet	people	253	102	73
	Information and Communication	people	541	569	539
	FM <sup>1</sup>	people	252	263	330
	Fuel Cell	people	-	-	71
	CC, Administration Center	people	344	498	486
Employment Status	Full-time	people	3,107	3,716	3,593
	Contract	people	246	313	336
Gender	Male	people	2,881	3,477	3,441
	Female	people	472	552	488
Employment diversity	Disabled	people	34	39	51
	Veteran	people	25	33	45
New Recruit	Full-time	people	363	124	214
	Contract (excluding dispatched employees)	people	245	288	245
「urnover <sup>2</sup>		%	4.9	3.3	8.0
Percentage of employees vho receive formal performance evaluations <sup>3</sup>		%	99.5	99.3	99.4
Frade union membership status <sup>4</sup>		%	97.0	98.8	98.6
Parental Leave <sup>5</sup>	No. of employees who used parental leave	people	22	10	15
	No. of employees who returned to work from parental leave	people	16	9	18
	No. of employees who were still employed 12 months after their return to work	people	4	8	8
Pension	Operational Cost	Million KRW	22,739	51,580	81,641
	Defined Benef it Retirement Pension(DB)	people	2,972	3,656	3,507
	Defined Contribution Retirement Pension(DC)	people	0	3	18

Excluding employees of business partners employed for security and cleaning purposes
 Data collection range for turnover: Full-time employees
 Data collection range for performance evaluations: Support office employees
 Collective bargaining results applied to those who are members of the trade unions of Electro-Materials BG, Industrial Vehicle BG, and Mottrol BG.
 Data changes were made due to adjustments to data collection range



# Social Data

# **Employee Training**

Category		Unit	2012	2013	2014
Employee Training <sup>1</sup>	Total cost	Million KRW	18,855	11,791	9,616
	Total hours	Hour	185,619	214,637	260,957
	Training cost per person	1,000 KRW per person	5,623	2,927	2,387
	Training hours per person	Hours per person	105	90	130
Training by Program <sup>2</sup>	General training hours	Hours per person	89.3	80.5	119.8
	Ethical Management training hours	Hours per person	0.6	1.0	1.1
	Anti-sexual harassment training hours	Hours per person	1.0	1.0	1.1
	Compliance training hours	Hours per person	-	13.2	6.1
	Information security training hours	Hours per person	11.6	5.8	6.3

### **Shared Growth**

Category	Unit	2012	2013	2014
No. of Key Suppliers	Company	120	227	278
Total Amount of Purchases by Suppliers	100 million KRW	8,773	12,794	11,882
Amount of Purchases by Key Suppliers	100 million KRW	3,827	8,235	9,081
Amount of Purchases by Small and Medium Enterprises(SME)	100 million KRW	3,722	6,568	5,898
Advance Payments for Holidays to SMEs	100 million KRW	783	1,020	360

### **Corporate Community Involvement**

Category	Unit	2012	2013	2014
Corporate Community Involvement Expenditure	Million KRW	6,871	7,972	8,078
Corporate Community Involvement Participants	Person	1,354	1,684	2,371
Corporate Community Involvement Hours	Hour	7,045	9,241	10,379

1. Data collection rage for employee training: Support office employees, Data changes were made due to adjustments to data collection range 2. Data changes were made due to adjustments to data collection range



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### **Environmental Data**

# **Resource and Energy Use**

Category		Unit	2012	2013	2014
Raw Material Use		Ton	77,093	79,785	65,440
	Copper Foil	Ton	10,599	9,598	8,544
	Glass Fabric	Ton	23,793	24,559	19,930
	Epoxy Resin	Ton	12,963	12,517	11,168
	Phenol	Ton	2,277	883	756
	Methanol	Ton	4,696	2,402	2,089
	Steel Plate	Ton	-	4,549	4,114
	Casting	Ton	21,748	24,476	18,572
	Egg York Powder	Ton	378	295	100
	Ethanol	Ton	244	213	58
	Acetone	Ton	396	293	84
	SUS Plate	Ton	-	-	14
	SUS Tube	Ton	-	-	2
	Steel Plate	Ton	-	-	10
Recycled Material Use <sup>1</sup>	Amount of materials Used	Ton	563	447	125
	Use Ratio	%	55.3	55.8	51.7
Energy Use <sup>2</sup>		TJ	1,654	1,616	1,504
	Electricity Use	TJ	1,042	1,039	1,001
	Gas Use	TJ	619	584	503
Energy Intensity(Energy Use/	/Sales)	TJ/Billion KRW	1.1	1.0	0.8
Water Use		Ton	537,584	581,030	556,315
	Water supply	Ton	210,487	284,906	316,675
	Groundwater	Ton	250,907	227,626	190,085
	Industrial water	Ton	76,190	68,498	49,555
Total Amount of Water Reuse	ed and Recycled <sup>3</sup>	Ton	193,606	181,139	178,510
Environmental Investment <sup>4</sup>		Million KRW	282	1,064	8,429

Data collection rage for recycled material use data: Based on the use of ethanol and acetone by Glonet
 Data changes were made as a result of third-party assurance
 Data changes were made due to adjustments to data collection range
 With the establishment of environmental accounting standards in 2014, the scope of environmental investing has been extended, resulting in drastic changes in data.



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### **Environmental Data**

# **Pollution Emissions**

Category		Unit	2012	2013	2014
Waste Generation <sup>1</sup>		Ton	14,704	14,647	13,706
	Recycled	Ton	11,711	11,714	10,861
	Landfill	Ton	93	157	196
	Incinerated	Ton	2,901	2,776	2,648
Hazardous Waste		Ton	9,555	9,183	8,265
Greenhouse Gas Emissions <sup>2</sup>		tCO2e	82,202	80,421	74,558
	Scope 1	tCO2e	31,617	29,949	25,945
	Scope 2	tCO2e	50,591	50,480	48,624
Greenhouse Gas Intensity(GHG	Emissions/Sales)	tCO2e/100 million KRW	5.7	5.2	4.1
Greenhouse Gas Emissions	Electro-Materials	tCO2e	69,124	66,487	56,981
by Business Area <sup>2</sup>	Industrial Vehicle	tCO2e	0	1,468	4,347
	Mottrol	tCO2e	9,229	9,790	9,000
	Glonet	tCO2e	2,458	2,529	2,081
Wastewater Generation <sup>1</sup>		Ton	446,231	431,169	405,768
Chemical Oxygen Demand(COD)		ppm	22	24	17
Biochemical Oxygen Demand(BOD)		ppm	12	17	11

1. Data changes were made due to adjustments to data collection range 2. Data changes were made as a result of third-party assurance



### **Third Party Verification Statement**

This Assurance Statement has been prepared for Doosan Corporation in accordance with our contract but is intended for the readers of this Report.

### **Terms of Engagement**

Lloyd's Register Quality Assurance Ltd.(LRQA) was commissioned by Doosan Corporation to provide independent assurance on its 'Corporate Social Responsibility Report 2014'("the Report") against the assurance criteria below to a moderate level of assurance using AccountAbility's AA1000AS(2008), where the scope was a Type 2 engagement.

Our assurance engagement covered Doosan Corporation's operations and activities in Korea and specifically the following requirements:

- · Evaluating adherence to AA1000 AccountAbility Principles of Inclusivity, Materiality and Responsiveness
- · Confirming that the Report is in accordance with GRI G4's Sustainability Reporting Guidelines(core option) and GRI's sector disclosure for Construction and Real Estate
- · Evaluating the accuracy and reliability of data and information for only the selected indicators listed below:
- Environmental:energy(EN3, EN5, EN6, EN7, CRE1), water(EN8, EN9, EN10, CRE2), emissions(EN15, EN16, EN18, EN19, CRE3), effluents and waste(EN22, EN23, EN24), products and services(EN27, EN28)
- Social: occupational health and safety(LA5, LA6, LA7, LA8, CRE6), training and education(LA9, LA10, LA11), labor practices grievance mechanisms(LA16), local communities(SO1, SO2, CRE7), anti-corruption(SO3, SO4, SO5), anti-competitive behavior(SO7), customer health and safety(PR1, PR2), product and service labelling(PR3, PR4, PR5, CRE8), marketing communications(PR7), customer privacy(PR8)
- Data and information listed on page 81 of this Report.

Our assurance engagement excluded the data and information of Doosan Corporation's suppliers, contractors and any third-parties mentioned in the Report.

LRQA's responsibility is only to Doosan Corporation. LRQA disclaims any liability or responsibility to others as explained in the end footnote. Doosan Corporation's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the Report and for maintaining effective internal controls over the systems from which the Report is derived. Ultimately, the Report has been approved by, and remains the responsibility of Doosan Corporation.

### LRQA's Opinion

Based on LRQA's approach nothing has come to our attention that would cause us to believe that Doosan Corporation has not:

- $\cdot$  Met the requirements above
- Disclosed accurate and reliable performance data and information as all errors or omissions identified during the assurance engagement were corrected
- · Covered all the issues that are important to the stakeholders and readers of this Report.

The opinion expressed is formed on the basis of a moderate level of assurance and at the materiality of the professional judgement of the Verifier.

Note: The extent of evidence-gathering for a moderate assurance engagement is less than for a high assurance engagement. Moderate assurance engagements focus on aggregated data rather than physically checking source data at sites.

### LRQA's Approach

LRQA's assurance engagements are carried out in accordance with AA1000AS(2008). The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

• Assessing Doosan Corporation's approach to stakeholder engagement to confirm that issues raised by stakeholders were captured correctly. We did this through reviewing documents and associated records.

• Reviewing Doosan Corporation's process for identifying and determining material issues to confirm that the right issues were included in their Report. We did this by comparing Doosan Corporation's reported material issues against reports of their peers. We also tested the filters used in determining material issues to evaluate whether Doosan Corporation makes informed business decisions that may create opportunities that contribute towards sustainable development.

• Auditing Doosan Corporation's data management systems to confirm that there were no significant errors, omissions or mis-statements in the Report. We did this by reviewing the effectiveness of data handling procedures, instructions and systems, including those for internal verification.



We also spoke with those key people responsible for compiling the data and drafting the Report.

- · Visiting Doosan Corporation's head office in Seoul, Industrial Vehicle Headquarters & Plant in Incheon, Electro-Materials & Glonet Plant in Iksan, Mottrol Plant in Changwon, Elector-Materials R&D Center in Yongin, Fuel Cell BG in Seongnam, Glonet R&D Center in Suwon, FM BU Office in Seoul and I&C BU Office in Seoul.
- · Checking that the GRI Content Index allows stakeholders to access sustainability performance indicators.

### Observations

Further observations and findings, made during the assurance engagement, are:

· Stakeholder Inclusivity

We are not aware of any key stakeholder groups that have been excluded from Doosan Corporation's stakeholder engagement process. Doosan Corporation has mechanisms in place for stakeholders to express their grievances; these grievances are then considered in Doosan Corporation's sustainability decisions.

Materiality

We are not aware of any material issues concerning Doosan Corporation's sustainability performance that have been excluded from the Report. It should be noted that Doosan Corporation has established extensive criteria for determining material issues/aspects and that these criteria are not biased to Doosan Corporation's management. However, Doosan Corporation should be more familiar with GRI's guidelines in order to apply fully the materiality test as defined in GRI's guidelines and to disclose all required information for the selected indicators.

· Responsiveness

Doosan Corporation has developed their sustainability management strategies and programs in 2014.

#### Reliability

Doosan Corporation has developed and improved their internal reporting guidelines by providing extra detail on how to calculate their selected indicators for GRI G4. However, Doosan Corporation should ensure that these guidelines are fully understood and implemented by the people charged with managing sustainability performance to ensure that the quality of data and information is enhanced and free from errors and omissions.

### LRQA's Competence and Independence

Licensed Assurance Provider

000-189

LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

This verification engagement is the only work undertaken by LRQA for Doosan Corporation and as such does not compromise our independence or impartiality.

18 May 2015

**Tae-Kyoung Kim** LRQA Lead Verifier Lloyd's Register Quality Assurance



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### **GRI Indicators**

### **General Standard Disclosures**

Aspect	Index	Content	Page	References and Stated Omissions	Veri- fied
Strategy and	G4-1	Statement from the most senior decision-maker of the organization	4~7		٠
Analysis	G4-2	Key impacts, risks, and opportunities	4~7, 14~17		•
	G4-3	Name of the organization	12		•
	G4-4	Primary brands, products and services	14, 15		•
	G4-5	Location of the organization's headquarters	12		•
	G4-6	Number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report	12, 13		•
	G4-7	Nature of ownership and legal form	12, 13		٠
	G4-8	Markets served(including geographic breakdown, sectors served, and types of customers and beneficiaries)	12, 13		٠
Organizational	G4-9	Scale of the organization(Total number of employees, net sales, total capitalization, products and services)	12~15		٠
Profile	G4-10	Total number of employees	72, Business Report 443		٠
	G4-11	Percentage of total employees covered by collective bargaining agreements	72		٠
	G4-12	Describe the organization's supply chain	60, 36~39, 71		٠
	G4-13	Significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain	About this report		•
	G4-14	Report whether and how the precautionary approach or principle is addressed by the organization	56, 57		٠
	G4-15	List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses	82		•
	G4-16	Memberships of associations(such as industry associations) and national or international advocacy organizations in which the organization	83		٠
	G4-17	Entities included in the organization's consolidated financial statements or equivalent documents	9, 12, 13, Business Report 4		•
	G4-18	Process for defining the report content and the Aspect Boundaries	16~17		٠
Identified Material	G4-19	Material aspects identified in the process for defining report content	17		٠
Aspects and	G4-20	Report the Aspect Boundary within the organization	16~17, 20, 25, 30, 36, 40, 46		٠
Boundaries	G4-21	Report the Aspect Boundary outside the organization	16~17, 20, 25, 30, 36, 40, 46		٠
	G4-22	Effect of any restatements of information provided in previous reports, and the reasons for such restatements	About this report	Restatements of certain CSR performance data	•
	G4-23	Significant changes from previous reporting periods in the Scope and Aspect Boundaries	About this report		٠
	G4-24	List of stakeholder groups engaged by the organization	55		٠
	G4-25	Basis for identification and selection of stakeholders with whom to engage	55		٠
Stakeholder Engagement	G4-26	Organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process	16~17,55		•
	G4-27	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting	17		•
	G4-28	Reporting period for information provided.	About this report		٠
	G4-29	Date of most recent previous report	About this report		•
	G4-30	Reporting cycle(such as annual, biennial)	About this report		٠
Report Profile	G4-31	Contact point for questions regarding the report or its contents	About this report		٠
	G4-32	The 'in accordance' option the organization has chosen.	About this report		٠
	G4-33	Organization's policy and current practice with regard to seeking external assurance for the report	About this report, 76~77		•
	G4-34	The governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts.	52~54		•
	G4-35	The process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees	54		•
Governance	G4-36	Report whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body	54		•
	G4-37	Processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics. If consultation is delegated, describe to whom and any feedback processes to the highest governance body	53~54		•
	G4-38	Composition of the highest governance body and its committees	52~53, Business Report 441~442		٠
	G4-39	Report whether the Chair of the highest governance body is also an executive officer (and, if so, his or her function within the organization's management and the reasons for this arrangement)	52		•



# **GRI Indicators**

	G4-40	The nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members	52		•
	G4-41	Processes for the highest governance body to ensure conflicts of interest are avoided and managed	52, 53		٠
	G4-42	The highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission state- ments, strategies, policies, and goals related to economic, environmental and social impacts	52~54		•
	G4-43	Measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics	54		٠
	G4-45	The highest governance body s role in the identification and management of eco- nomic, environmental and social impacts, risks, and opportunities	52~54		•
Governance	G4-46	The highest governance body's role in reviewing the effectiveness of the organiza- tion's risk management processes for economic, environmental and social topics	52~54		•
	G4-47	The frequency of the highest governance body's review of economic, environmen- tal and social impacts, risks, and opportunities	53, 54		•
	G4-48	The highest committee or position that formally reviews and approves the organi- zation's sustainability report and ensures that all material Aspects are covered	54		•
	G4-50	Nature and total number of critical concerns that were communicated to the highest governance body and the mechanism(s) used to address and resolve them	53, Business Report 431~432		٠
	G4-51	Remuneration policies for the highest governance body and senior executives for the below types of remuneration	53, Business Report 444~445		•
	G4-54	Ratio of the annual total compensation for the organization's highest-paid individ- ual in each country of significant operations to the median annual total compensa- tion for all employees(excluding the highest-paid individual) in the same country	-	Ratio of median salary to compensation for the high- est-paid:2.34%	•
	G4-56	Organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics	58, Website (Code of Counduct)		•
Ethics and Integrity	G4-57	Internal and external mechanisms for seeking advice on ethical and lawful behav- ior, and matters related to organizational integrity, such as helplines or advice lines	58		•
megney	G4-58	Internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity, such as escala- tion through line management, whistleblowing mechanisms or hotlines	58		•

# Specific Standard Disclosures

Aspect	Index	Content	Page	References and Stated Omissions	Veri- fied
Environment					
-	G4-DMA	Management approach	30, 67		
	G4-EN3	Energy consumption within the organization	34~35 ,74		•
	G4-EN5	Energy intensity	34~35,74		•
Energy	G4-EN6	Reduction of energy consumption	31, 68		•
	G4-EN7	Reductions in energy requirements of products and services	31		•
	CRE1	Building energy intensity(unit:kWh/m <sup>2</sup> )	-	Energy intensity: 2.41	•
	G4-DMA	Management approach	30, 66, 68		
	G4-EN8	Total water withdrawal by source	34~35, 74		•
Water	G4-EN9	Water sources significantly affected by withdrawal of water	68	No water sources significantly affected by withdrawal of water	•
	G4-EN10	Percentage and total volume of water recycled and reused	68, 73		•
	CRE2	Building water intensity(unit:m <sup>3</sup> /m <sup>2</sup> )	-	Incidents of spills:0	•
	G4-DMA	Management approach	30, 66, 68		
	G4-EN15	Direct greenhouse gas(ghg) emissions(Scope 1)	34~35, 74		•
	G4-EN16	Energy indirect greenhouse gas(ghg) emissions(Scope 2)	34~35, 74		•
Emissions	G4-EN18	Greenhouse gas(ghg) emissions intensity	34~35, 74		•
	G4-EN19	Reduction of greenhouse gas(ghg) emissions	34~35, 74		•
	CRE3	Greenhouse gas emissions intensity from buildings(Unit:kgCO2eq/m <sup>2</sup> )	-	Greenhouse gas emissions intensity:0.118	•
	G4-DMA	Management approach	30, 66, 68		
Wastewater and	G4-EN22	Total water discharge by quality and destination	34~35, 74		•
Waste	G4-EN23	Total weight of waste by type and disposal method	34~35, 74		•
	G4-EN24	Total number and volume of significant spills	33, 68	Incidents of spills:0	•





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# **GRI Indicators**

	G4-DMA	Management approach	40,64		
Products and	G4-EN27	Extent of impact mitigation of environmental impacts of products and services	31, 42		•
Services	G4-EN28	Percentage of products sold and their packaging materials that are reclaimed by category	-	No activities	•
Labor Practices a	nd Decent \	Nork	1		
	G4-DMA	Management approach	20, 23, 68		
	G4-LA5	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	68		•
Occupational Health and	G4-LA6	Percentage of total workforce represented in formal joint management–worker health and safety committees that help monitor and advise on occupational health and safety programs	24		•
Safety	G4-LA7	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	24		•
	G4-LA8	Workers with high incidence or high risk of diseases related to their occupation	68		٠
	CRE6	Health and safety topics covered in formal agreements with trade unions	-	Expected to acquire certification	•
	G4-DMA	Management approach	25,61		
Training and	G4-LA9	Average hours of training per year per employee by gender, and by employee category	26~27, 72		•
Education	G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	26~27		•
	G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	62, 72		•
Labor Practices	G4-DMA	Management approach	20, 58, 63		
and Grievance Mechanisms	G4-LA16	Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms	21, 58		•
Social					
	G4-DMA	Management approach	46~47		
Local	G4-S01	Percentage of operations with implemented local community engagement, impact assessments, and development programs	48~50		•
Communities	G4-SO2	Operations with significant actual and potential negative impacts on local communities	12,68		•
	CRE7	Number of persons voluntarily and involuntarily displaced and/or resettled by development, broken down by project	-	Not applicable	•
	G4-DMA	Management approach Total number and percentage of operations assessed for risks related to corruption	36, 58~59		
Anti-Corruption	G4-SO3	and the significant risks identified	57, 58~59		•
	G4-SO4	Communication and training on anti-corruption policies and procedures	58~59		•
	G4-SO5	Confirmed incidents of corruption and actions taken	58~59		•
Anti- Competitive	G4-DMA	Management approach	36, 39, 59		
Behavior	G4-S07	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	Business Report 478		•
Product Responsi					
	G4-DMA	Management approach	40, 43, 65		
Customer Health and	G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	43		•
Safety	G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	-	0 incidents	•
	G4-DMA	Management approach	40~41,64~65		
	G4-PR3	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements	43		•
Product and Service Labeling	G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	-	0 incidents	•
	G4-PR5	Results of surveys measuring customer satisfaction	65		•
	CRE8	Type and number of sustainability certification, rating and labeling schemes for new construction, management, occupation and redevelopment	-	Not applicable	•
	G4-DMA	Management approach	40, 43		
Product and Service Labeling	G4-PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes	-	0 incidents	•
Customer	G4-DMA	Management approach	65		
Privacy		Total number of substantiated complaints regarding breaches of customer privacy			



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# **GRI Indicators**

### **Non-material Aspects**

Index	Content	Page	Reported Content	Verified
Economic		1		
G4-EC1	Direct economic value generated and distributed	60, 70	Generation and distribution of economic value	•
G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	30, 32, 33	Climate change risks and opportunities, climate change response through energy efficiency	•
G4-EC3	Coverage of the organization's defined benefit plan obligations	63, 72	Pension(operational cost, employees covered)	•
G4-EC4	Financial assistance received from governmen	Business Report 263	Government grants	•
G4-EC5	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	-	Percentage of average wage for new recruits against national minimum wage: 418%	•
G4-EC7	Development and impact of infrastructure investments and services supported	46~50	Community involvement activities and donations	•
G4-EC8	Significant indirect economic impacts, including the extent of impacts	38, 46~50, 61	Shared growth programs, community involvement activities, job creation	•
Environm	ent	-	· · · · · · · · · · · · · · · · · · ·	
G4-EN1	Direct economic value generated and distributed	68, 74	Generation and distribution of economic value	•
G4-EN2	Financial implications and other risks and opportunities for the organization's activities due to climate change	34, 35, 74	Climate change risks and opportunities, climate change response through energy efficiency	•
G4-EN29	Coverage of the organization's defined benefit plan obligations	33	Pension(operational cost, employees covered)	•
G4-EN31	Financial assistance received from governmen	30, 74	Government grants	•
G4-EN34	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	2013 CSR Report 50~51	Number of incidents of environmental impact-related grievances:0 incidents	•
Labor Pra	ctices and Decent Work	· ·		
G4-LA1	Total number and rates of new employee hires and employee turnover	72	New recruitment, turnover	•
G4-LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	22, 62, 63	Employee benefits programs, family- friendly programs, retirement pension plan	•
G4-LA3	Return to work and retention rates after parental leave, by gender	72	Parental leave(No. of employees who use it, No. of employees who return to work, No. of employees employed 12 months after returning to work)	•
G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	72	Employment diversity (gender, disability, veterans)	•
G4-LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	Business Report 443	Employee salaries (by gender and employment status)	•
Human R				1
G4-HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	58	Anti-sexual harassment training hours	•
G4-HR3	Total number of incidents of discrimination and corrective actions taken	_	Number of incidents of discrimination:0	•
G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	63	Membership of trade unions, labor- management communication channels	•
G4-HR8	Total number of incidents of violations involving rights of indigenous peoples and actions taken	-	No. of incidents of human rights violations of residents near operations:0	•
G4-HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	58	Ethics training hours(for all operations)	•
G4-HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	38, 58	Whistleblowing policy, cyber reporting center operations, 2 incidents	•
Social	Brevarice meetinging			
G4-SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	Business Report 475~476	Monetary value of significant fines and total number of non-monetary sanctions	•
G4-SO11	Number of grievances about impacts on society filed, addressed, and resolved through formal	-	Operations of grievance mechanisms	•
	grievance mechanisms		related to social impacts, 6 incidents	
Product R	Responsibility			1
G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	-	Incidents of non-compliance with laws and regulations concerning products and services:0	•





# **UN Global Compact**

Since joining the UN Global Compact in 2014, Doosan Corporation abides by the UN Global Compact's ten principles in the areas of human rights, labour, the environment and anti-corruption. We reflect global standards for sustainability management and stand firmly on our will to carry out social responsible management, to carry out our social responsibility and our role as a global sustainability management corporate leader representing Korea.

Category	Principle	GRI-G4	Page
Human	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and	HR1, HR2, HR3, HR4, HR5, HR6, HR10	58
Rights	Principle 2: make sure that they are not complicit in human rights abuses.	HR3, HR7	58
	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	HR4, LA4, G4-11	63
	Principle 4: the elimination of all forms of forced and compulsory labour;	HR6	
Labor	Principle 5: the effective abolition of child labour; and	HR5	
	Principle 6: the elimination of discrimination in respect of employment and occupation.	HR3, LA1, LA9, LA12, LA13	61,62
	Principle 7: Businesses should support a precautionary approach to environmental challenges;	G4-14	56, 66, 67
Environ- ment	Principle 8: undertake initiatives to promote greater environmental responsibility; and	EN12, EN13, EN19, EN22, EN23, EN27, EN31	33, 67, 68
	Principle 9: encourage the development and diffusion of environmentally friendly technologies.	EN6, EN7, EN10, EN19, EN27	31
Anti- Corruption	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.	SO3, SO4, SO5	39, 58, 59



# Awards and Membership

# Membership with Associations

Category	Membership with Associations
Doosan Corporation	Maekyung SEL Club, Federation of Korean Industries, Korean Industrial Hygiene Association, Korea Chamber of Commerce and Industry, The Korea Employers' Federation, Korea Economic Research Institute, Korea Advertisers Association, Korea Management Association, Korea Mecenat Association, Korea Listed Companies Association, Korea IR Service, Korea Fire Safety Association
Electro-Materials	Korea Industrial Technology Promotion Association, Korea Printed Circuit Association, Korea Electronics Association, Korea Display Industry Association, Institute of Microelectronics Packaging, Macromolecular Research, Korea Chemical Society, Korea Construction Equipment Manufacturers Association
Industrial Vehicle	Global Fork Lift Truck Association, China Fork Lift Truck Association, North America Fork Lift Truck Association, Korea Industrial Safety Association, Korea Construction Equipment Manufacturers Association, Korea Industrial Technology Promotion Association, Korean Standards Association, Korea Construction Equipment Manufacturers
Mottrol	GyeongNam Employers Federation, Changwon Chamber of Commerce and Industry,Korea Association of Machinery Industry, Korea Construction Equipment Manufacturers Association, Korean Nurses Association(Gyeongnam Nurses Association), Korea Industrial Safety Association, Korea Customs Logistics Association, Volvo Construction Machine, The Korea Society of Fluid Power and Construction Equipments, Japan Fluid Power Society, Korea Electric Engineers Association, Korea Industry Association, Korea Industrial Complex Corp, Mini-cluster project annual fee, The Korea Institute of Military Science and Technology, Commercial Association
Information & Communications	Korean Personnel Improvement Association, Korea Information and Communication Contractors Association
Glonet	Korean Society for Horticultural Science, Korea Post-harvest Management, KOITA R&D Directors' Council, Korean Society for Biotechnology and Bioengineering, Korea Electric Engineers Association, Iksan Chamber of Commerce and Industry, Jeonbuk Conference of Environmental Engineers, Iksan Business Environment Council, Jeonbuk Regional Chemical Plant Council, Iksan Safety and Health Managers' Council, Iksan Regional Fire and Hazard Managers' Council, Korean Industrial Health Association
FM	Korea Building Owners & Managers Association, Korean Society for Facility Management, Korean Foundation for Quality membership, Korea Building Hygiene Management Association, Korean Security Association, Korea Facility Maintenance and Management Association, Korea Construction Engineers Association, Korea Mech. Const. Contractors Association, Korea Fire Facility Association, Korea Fire Safety Association, Korea Electric Engineers Association
Fuel Cells	Korea Hydrogen Association, Korea Renewable Energy Association, Korea International Trade Association, Korea Industrial Technology Association

### Awards

Category	Award Description	Awarding Body	Award Date
Mottrol	Excellence Prize at Employee Health Promotion Best Practices Presentation Competition	Korea Occupational Safety and Health Agency	July 20, 2014
Electro-Materials	President's Commendation for establishment of labor-management solidarity and advanced labor-management culture	Seoul Regional Ministry of Employment and Labor	May 1, 2014





### **Report Publication TF Members**

Category	Team	
Electro-Materials	Business Administration, HR, labor Relation, EHS, technology planning, strategic purchasing, quality planning, business management	
Industrial Vehicle	Strategy, HR, labor Relation, EHS, product planning, purchasing planning, quality assurance, domestic sales, management	
Mottrol	Strategy, HR, labor Relation, EHS, R&D 1 team, shared growth, quality planning, sales planning	
Information & Communications	Strategy, HR, purchasing, quality innovation, FA	
Glonet	Management strategy, HR, EHS, management strategic bio planning part, QA, Management, Business Cosme part	
FM	FA, sales HQ, general administration	
Fuel Cell	HR, support, quality/reliability, customer satisfaction, R&D, sales, sales& marketing	
Corporate Office	Legal , CR	
Management HQ	IR, financing, accounting 1 team, HR, purchase management, planning management, business support, Tax affairs, Communication	
CC	Doosan Way, SPM2, audit, internal controls, EHS, HRD, HRM, OE	

# BUILDING YOUR TOMORROW TODAY

 
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### DOOSAN CORPORATION

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