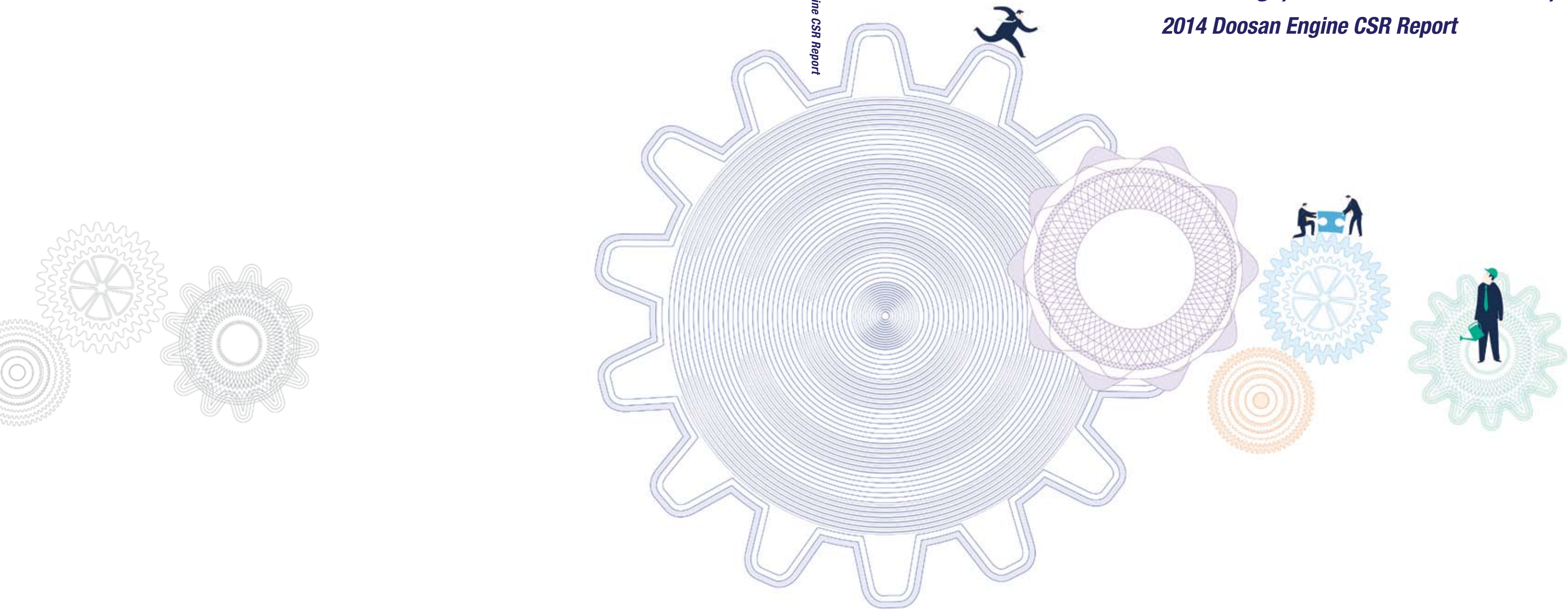




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2014 Doosan Engine CSR Report

Building your tomorrow today
2014 Doosan Engine CSR Report



Doosan Engine



Doosan Engine

About This Report

Reporting Principles and Standard

This report contains Doosan Engine’s performance on sustainable management of its economic, social, and environmental responsibilities along with its efforts and results aimed at producing the world’s best high performance and environmentally friendly engines.

This report was written in accordance with GRI (Global Reporting Initiative) G4 Guidelines. Doosan Engine established a set of CSR strategies and came up with 11 strategic objectives in connection with its value chain. The issues of CSR addressed in this report are composed of three main areas of context, progress, and next step, in order to help readers better understand our commitment to sustainability.

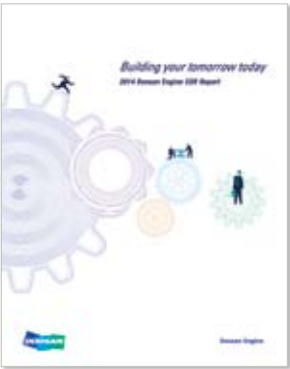
Through this report, Doosan Engine wishes to make its CSR activities and determination clear to every party involved and continue to communicate with its stakeholders.

Reporting Period, Scope and Boundary

This report covers the period from January 1, 2014 to December 31, 2014. Three years’ worth of quantitative data of major achievements is included in this report. For measures of some achievements, data from the first half of 2015 was also included. The result contained in the report is limited to domestic branches (data from subsidiary in China, Doosan Marine Industry (DMI), is excluded.), and major issues are demonstrated separately in page 24.

Third Party Assurance

In an effort to raise the suitability and fidelity of reporting process, and to enhance the accuracy and reliability of reporting contents, we were verified of our report in a Third Party Assurance Statement by an independent assurance agency, KPMG Samjong Accounting Corp. The detailed contents of the results of the assurance are shown on page 78 in a verification report.



The cover symbol represents Doosan Engine’s value chain in the form of a cogwheel mechanism in the areas of productivity, transparency, and future orientation. Inside the cogwheels is a pictogram of people and technology, which symbolize Doosan Engine’s sustainability.

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Doosan Aspiration & Core Values



“When asked ‘what kind of company is Doosan,’ our answer is steadfast. We are a company renowned for our unique devotion to cultivating people.”

Chairman and CEO of Doosan Group, Yongmaan Park

The Doosan Credo: Doosan’s Aspiration and Core Values

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

Aspiration

Doosan’s ultimate goal is the creation of a ‘Proud Global Doosan’.

In our Vision, each of our employees and all of our stakeholders will benefit from and be proud of their association with, Doosan.

Every employee takes great pride in being a member of Doosan. Each customer recognizes and appreciates Doosan’s high-quality goods and services. Every shareholder values our fair and high levels of profit.

Core Values

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

Doosan People practice the nine core values of the Doosan Credo everywhere we operate, every day, to build a “Proud Global Doosan”.

These values guide the way we do business, the way we treat each other and the way we work with all of our partners. The nine core values of the Doosan Credo are as follows:

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

Doosan Credo

Our Vision

We aspire to be a Proud Global Doosan -a leading innovator of products and services that improve the quality of life for people and communities around the world.

We will achieve this by living the Doosan Credo.

Guided by our Credo, we will drive our second 100 years of growth.

Core Values

Doosan’s people are our greatest asset and the key to our future.

They are at the heart of all our achievements. Our continued and distinguished success will only be possible through developing and cultivating our talent. Our People possess great capacity, willingness and drive to contribute to the Company. They are relentless in enhancing their skills and capabilities. They embrace our Core Values and demonstrate these beliefs and principles in their daily behaviors.

Cultivating people is our highest priority and a shared responsibility.

Attracting and recruiting the right talent, who understand and embrace our values, will be the foundation for developing our people. We believe people develop and grow through performance at work and we give them the authority and responsibility that best match their capabilities. Through experience, people develop to their maximum potential. Fair and immediate feedback and recognition are offered as we believe this is central to self-development. Our People are given the opportunity to develop their strengths and address areas for improvement. As a result, Doosan people are proud of who they are and respected as business professionals.

Integrity and transparency are fundamental Doosan strengths.

We make profit by creating value through fair and transparent activities. We acknowledge our mistakes and keep our promises. We never compromise our principles.

Inhwa best expresses who we are and provides us with a unique competitive edge.

We define Inhwa as teamwork in the truest sense of the word, grounded upon fairness and camaraderie. By carefully following these virtues we have created One Doosan; a collective strength built on the contribution of a wide diversity of individuals. Inhwa means we maximize our organizational strength and potential through true teamwork built on defined, transparent rules of fair play. Selfish rivalries between individuals or departments have no place at Doosan and discrimination of any kind is not tolerated. Inhwa means each individual contributes to the success of their colleagues and team, resulting in both excellent team and individual performances. Inhwa also means we are open; Doosan welcomes proactive ideas and constructive criticism from everyone, regardless of seniority or position. Our unique practice of Inhwa extends beyond the internal organization and embraces the entire Doosan community from our families to our shareholders, affiliates and partners.

Our customers are the reason Doosan exists.

The true measure of Doosan’s success is our customers’ satisfaction and respect. Our goal is to always deliver superior value than our competitors. We achieve this by understanding our customers’ needs and meeting or exceeding their expectations.

Embracing world-class technology and innovation is vital to our survival.

Tomorrow drives today at Doosan; we always look to the future instead of the past. We strive to understand, and stay ahead of, change. We continuously seek to improve our business model, products, services and methods. We celebrate and properly reward successful risk-taking, while also respecting valuable attempts that fail. Doosan applauds the spirit of challenge over complacency. Our future success will be driven by seeking breakthrough ideas, knowledge, technologies and resources regardless of their origin, either internal or external.

Profit measures our success and drives our growth.

Our profit must exceed our capital cost and be sufficient to fuel our continuous growth and investment. Our People understand how the work they do contributes to Doosan’s profit. We recognize that long-term success is built by respecting the rights of our suppliers, distributors and partners to earn fair profits.

Creating a socially responsible enterprise is our duty to society.

We see business and society as a close partnership and an opportunity for mutual growth. Doosan will be proactive in this partnership, contributing the time and resources required for success. Our goal is to develop and grow alongside society, as a trusted and trustworthy partner. Wherever we operate, we do so transparently and lawfully. We aim to contribute to the development of talent in society. Our community service activities promote both corporate and social development.

We provide clean and safe working environments.

Doosan maintains all our facilities to the highest possible standards. This is the basis for superior productivity as well as being our responsibility to our people, their families, our customers and shareholders. Environmental protection is our duty and obligation to every community where Doosan does business. We know this ultimately results in greater value creation.

theDoosanWay

Our story. Our vision.

Doosan Brand Story



Our name ‘Doosan’

Doosan is made up of two Korean words. ‘Doo’ means a unit of grain, while ‘San’ means a mountain. Together, they mean ‘little grains that can build a mighty mountain’, suggesting that great things can be achieved when even the tiniest forces join together in a unified effort.

Doosan, Our commitment to people

Established in 1896, despite our ceaseless growth and transformations, our commitment to people has never changed.

Providing the infrastructure of tomorrow

Doosan is the fastest growing Infrastructure Support Business in the world. We provide power to move the world by producing eco-friendly, energy efficient world-class engines based on our technology. We also provide communities across five continents with the fundamental solutions, tools and structures they need to advance their societies. We are committed to providing the opportunities that enable people and communities around the world to flourish, prosper, and create a better world for tomorrow.

Advancing through people

Whether this is by providing the tools and facilities to open up new opportunities, by supporting them in their business enterprises, or simply by providing a helping hand in times of need, Doosan is committed to making a better world for everyone. It is our character that defines us at Doosan and sets us apart from other companies.

Creating a world of opportunities

We constantly challenge ourselves to innovate and develop valuable, reliable products and solutions that improve everyone’s quality of life. By a ‘better world’ we mean a world of opportunity where each of us has the tools and facilities to reach our full potential. For some, opportunity may mean having power and force to move the world, and fresh water to enjoy fuller harvests. For others, it may mean having power to light the family home, or the tools to make machines to advance in business. Whatever may be needed to meet to challenges of the future, we are ready to play our part.

That’s what ‘*Building your tomorrow today*’ means to all of us at Doosan.



2014 Doosan Engine Key Performance

Doosan Engine Develops Eco-Friendly, High-Performance Engine with Enhanced Fuel Efficiency

Doosan Engine completed the development of the Generation X engine, which offers exceptional efficiency and fuel consumption performance to provide a favorable Energy Efficiency Design Index. The output of the Generation X engine is 15 percent greater than that of conventional engines. The Generation X engine consumes a smaller amount of fuel to produce the same output compared with conventional marine engine options in its class, and hence can save KRW 830 million in fuel costs per year per engine. Considering the average lifespan of vessels amounts to 30 years, the engine will save a total of KRW 25 billion in fuel costs. In addition, the new engine is an eco-friendly engine that meets the International Maritime Organization's Tier II environmental standard. Doosan Engine will develop Generation X engines in diverse sizes, and expand its application to large container vessels.



Doosan Engine Receives Order for Diesel Power Plant Project from Mexico, Paving the Way for the Expansion to Latin America

A consortium of Doosan and Acciona, and the Federal Electricity Commission (CFE) signed an agreement to supply a diesel power plant, paving the way for the expansion into the emerging diesel power plant market of Latin America. A diesel power plant with an output of 40 MW will be constructed by a consortium of Doosan Engine and Acciona, a Spain-based energy company, in Mexico. The 100 million dollar power plant will be constructed to serve about 200,000 people near La Paz, Baja California, Mexico. The work scope ranges from the supply of core equipment for diesel power plants—including engine and auxiliary equipment—to installation, commissioning and inspection. As there is an increasing global demand for diesel power plants, mostly led by emerging markets including Latin America and the Middle East, Doosan Engine will step up our efforts to respond to the growing market by securing technological competitiveness.



Doosan Engine Produces World's First Low Speed Marine Dual Fuel (DF) Engine

Doosan Engine was the first in the world to announce the production of an electronically controlled dual-fuel ME-GI engine that can run on either bunker-C oil or LNG. The main fuel will be LNG, which costs less than bunker-C oil, which will play a supplementary role. As such, the ME-GI dual-fuel (DF) marine engine will both lower shipping costs substantially and be friendlier to the environment, because burning LNG, a cleaner fuel, produces far lower levels of pollutants including carbon dioxide, nitrogen oxide and sulfur dioxide than existing diesel engines. Doosan Engine produced the world's first electronically-controlled low speed diesel engine in 2003, and now we have developed the first-ever electronically-controlled dual-fuel low-speed engine. These achievements demonstrate our outstanding technological capabilities in the area of large marine diesels.



Doosan Engine Becomes the First in the World to Commercialize Selective Catalytic Reduction (SCR)... First-Mover Advantage Expected to be Trillions of Won

Doosan Engine received orders for supplying eight low-speed marine engines with the low-temperature Selective Catalytic Reduction (SCR) systems for eight very large ethane carriers (VLEC). The DelNOx[®] SCR System for the main engines, developed by Doosan Engine in 2013, is the world's first eco-friendly NOx reduction system, reducing nitrogen oxide emissions by more than 90 percent. With the International Marine Organization (IMO) Tier III emissions standards, set to take effect in 2016, the market for SCR marine engine systems is expected to grow to billions of dollars.



A Great Majority of Doosan Engine's Suppliers were Awarded in 2014 Quality Renovation Progress Contest for Small and Medium Sized Enterprises

Doosan Engine's suppliers swept 15 out of 54 awards in the 2014 Quality Renovation Progress Contest for Small and Medium Sized Enterprises. The event was organized to award the small and medium sized enterprises with excellent performances, persons of merit, and parent companies that have contributed to the betterment of quality competitiveness of suppliers by successfully incorporating Single Parts per Million (PPM) Quality Renovation Campaign. Through providing technology guidance and worksite improvement for its suppliers, Doosan Engine produced government award winners in quality renovation for eight consecutive years by contributing to the quality improvement and securing competitiveness of its suppliers. Doosan Engine plans to expand the Single PPM Quality Renovation Campaign to secondary suppliers, and increase the number of certified items.



Doosan Engine Implements Business Continuity Management (BCM)

Doosan Engine implemented Business Continuity Management (BCM) in an effort to ensure safety of employees and their family in state of crisis (ex. natural disasters) and to secure the company's core competence and assets. Assuming a case of nationwide earthquake, we practiced plan of reactions for secondary damages like fire. After the drill, we analyzed the performance of each worksite and discussed room for improvement.

With continuous drills, Doosan Engine plans to improve BCM system to heighten its plan of reaction to that of advanced global enterprises.



Doosan Engine raises level of understanding tasks, individual competency and interdepartmental cooperation with Pumasi Education

Doosan Engine raised the level of task understanding among employees, improved individual competency and strengthened interdepartmental cooperation by operating functional specialty program, Pumasi Education. In Pumasi Education, functional experts selected from each division go through instructor development course to spread the knowledge and skills among the employees, by designing curriculums and providing lectures themselves. In 2014, we raised 22 new faculty members and 972 employees participated in the program. Over the year, a total of 54 sessions were held in 11 different functional areas. Pumasi Education demonstrates Doosan Engine's willingness to foster cross-functional knowledge sharing.



'Doosan Day of Community Service', a Festival of Sharing with Local Communities

'Doosan Day of Community Service' was held in Doosan branches all over the world to share with the local communities. On 'Doosan Day of Community Service', our employees find and participate in community service activities that the local communities need.

Our employees wore a shirt with 'Doosan Day of Community Service' logo and participated in 132 different community service programs all over the world, including production and distribution of necessities to the less privileged, repair of welfare facilities, visit to the less privileged, and environmental cleanup of local areas.



Message to the Stakeholders



Dear Honorable Stakeholders,

Last year marked yet another year of struggles due to the delay in recovery of global shipbuilding and vessel engine market and continued competition to secure supplies based on price. Despite the tough situation, we, Doosan Engine, made no small feat. We successfully completed the commercial production of world's first electronically-controlled low speed marine DF engine (ME-GI engine) in June 2014. We were also the first to obtain order for our self-developed SCR (Selective Catalytic Reduction), leading to tangible results for future business.

Doosan Engine has established a detailed plan comprising eleven CSR strategic objectives as part of its effort to strategically handle a range of sustainability issues that it will face in its future business activities and intends to put it into practice by stages from the year 2014. The company is committed to the effort to boost its capacity to execute its strategic missions in connection with the CSR strategies established by Doosan Group on the basis of a clear understanding of the value chain that optimizes business performance and organizational sustainability.

On the other hand, the difficult situation of shipbuilding industry is expected to continue this year. Shipbuilding industry tends to be more vulnerable to economic fluctuations compared to other industries. In order to secure a sustainable operational foundation that is independent of external situation and enables early realization of profit, Doosan Engine plans to continue our CSR activities that enhance fundamental competitiveness. We will also discover specific tasks that could strengthen our constitution, and enthusiastically carry them out. We plan to target eco-friendly, high-performance ME-GI engine and SCR markets to solidify our performances in this area. This will also aid us in actively responding to global environmental, social issues and in heightening Doosan Engine's business value. Doosan Engine will strive to concentrate not only on our business performance but also on corporate social responsibility as a member of the society to ensure continuous and healthy growth of our company.

We at Doosan Engine will continue to actively communicate with all our stakeholders through the regular publication of CSR reports, comply with the ten UNGC principles, and direct all our resources to achieving mutual prosperity with all the stakeholders. It is our pride and joy to know that one in every four ships sailing the oceans of the world is propelled by a product of Doosan Engine. We know that this is a great achievement, but we will not allow ourselves to become complacent and will try ever harder to become the maker of the Number One Engine in the World by constantly pursuing change and innovation. We will do our utmost to ensure that Doosan Engine is always revered as the global leading company in its chosen business domain. Your continued support and attention will be greatly appreciated.

Thank you.

Kim Dongchul
President & CEO
Dongchul Kim

Company Profile

One quarter of all the ships in the oceans are equipped with marine engines made by Doosan Engine. We at Doosan Engine are not satisfied with current achievements. As a global leader, we will continue to deliver top-tier engines through innovation so we can realize the vision of building the ‘No. 1 Engine in the World’. We will also take initiatives to develop environmental-friendly technologies as a respected global leading company.

Company Summary

Doosan Engine has established itself as a global diesel engine maker by building and managing diesel power plants and selling and servicing engine parts, as well as by producing low and medium speed diesel engines, which are a key component for the shipbuilding industry. Doosan Engine set a number of technological milestones in the industry by achieving a cumulative total production of 90M BHP in the shortest period of time, produced the world’s first large electronically-controlled marine engine and commercialized a dual-fuel low speed marine engine.

Company Name	Doosan Engine Co., Ltd.				
Established	Dec 30, 1999		CEO	Kim Dong-chul, Kim Il-do	
Major Areas of Business	Marine engines, diesel/gas power plants, engine parts and ship equipment, off shore plants, nuclear emergency generators				
Business Locations	Head Office/Factories: 18, 21 beon-gil, Gongdan-ro, Seongsan-gu, Changwon, Gyeongsangnam-do R&D Center: 10, 112 beongil, Suji-ro, Suji-gu, Yongin, Gyeonggi-do 4 overseas branches (Germany, China, Singapore, Indonesia), 11 offices (4 domestic, 7 overseas)				
Totral Capital	KRW 1,540.3 Billion	Equity Capital	KRW 700.7 Billion	Sales	KRW 888.8 Billion
No. of Employees	996 (Dec 2014)		Credit Rating	A- (Korea Investors Service, NICE)	
Overseas Subsidiaries	Doosan Marine Industry (Dalian) Ltd.(frame box, bedplate and other engine parts manufacturer)				

Major Areas of Business

Marine Engines (Low/Medium Speed)

Doosan Engine boasts extensive experience as a top-tier manufacturer of marine diesel engines in the globalmarket, and our integrated service system extends from new model design and production to sales and after-sales services. These valuable assets enable the company to meet increasingly diversified customer needs and provide engines that satisfy ever-stricter environmental regulations. In the case of medium-speed engines, Doosan Engine was first to establish a mass-production system with a moving assembly line as well as a foolproof system for zero-defect production.

Diesel/Gas Power Plants

Doosan Engine completed a turnkey project for a 40MW low-speed diesel power plant on the southern part of Jeju Island in 1990. In 1995, it constructed an 80MW low-speed diesel power plant in Guam. Since then,the company has won additional orders for gas, low and medium-speed engine-based diesel power plants in Papua New Guinea, India, Greece, Eritrea, Indonesia and other parts of the globe that are in need of electricity.

Engine Parts

Doosan Engine supplies a wide range of essential and genuine engine parts. Based on the 3B (Best Speed, Best Quality, Best Price) principle, we deliver customer value through a global network to ensure that our engines run at the optimum condition.

Eco-Friendly System

Doosan Engine applied its proprietary technology to develop a new DeINoX system. It is an eco-friendly system designed to help customers meet a wide range of marine and industrial regulations on nitrogen oxide emissions by converting nitrogen oxides in the engine exhaust gases into harmless pure water and nitrogen.



Governance

Doosan Engine strives to maximize corporate and shareholder value by practicing responsible and transparent management, particularly endorsed by the board of directors. The board of directors is a decision-making body that acts primarily through management of the company, representing the interests of investors. The members of the board also monitor and resolve current major management issues with the shared goal of achieving the long term growth of the business. So when making important decisions, top management listens to the expectations and demands of stakeholders, and takes an active part in the company’s IR activities as well as disclosing any major managerial changes and business performance.

Board of Directors (BOD)

As of April 2015, Doosan Engine’s board of directors consists of 5 inside directors and 6 outside directors. The members of the board are appointed at the general meeting of shareholders in accordance with related laws and articles of incorporation, and outside directors account for more than half of the total number of members to ensure independence of the board.

Before being appointed by the general meeting of shareholders, ‘Outside Director Candidate Recommendation Committee’ implements a screening process for all candidates to ensure they don’t have special ties with the company. The committee make sure that they have an adequate level of expertise in their respective fields such as economy, society, and environment for the sake of professionalism and independence.

The board of directors has the Audit Committee, Internal transaction Committee, and Outside Director Candidate Nominating Committee to make effective decisions. These committees consist of outside directors to ensure their professionalism and independence.

Members of the Board (as of April 10, 2015)

Category	Name	Career Experience	Role	Appointed On
Inside Directors	Kim Dong-chul	CEO of Doosan Engine	Chairman of the BOD	Mar 27, 2015
	Kim Il-do	CFO of Doosan Engine		Mar 27, 2015
	Jang Myeong Ho	Vice-President of Doosan Heavy Industries & Construction		Mar 27, 2015
	Sunwoo Myung-hwan	Managing Director of Doosan Engine Offshore Plant Division		Mar 28, 2014
	Cho Yong-jun	Managing Director of Doosan Engine Management Support		Mar 27, 2015
Outside Directors	Jeong Ku-yeong	Lawyer at Jeong Ku-yeong Law Firm	Member of the Outside Director Candidate Committee and Internal Transaction Committee	Mar 29, 2013
	Oh Sei-jong	Ex-President of Korea Long-Term Credit Bank	Member of the Outside Director Candidate Committee and Chairman of the Audit Committee	Mar 29, 2013
	Park Bum-hoon	Professor Emeritus at Chung-Ang University	Member of the Outside Director Candidate Committee and Internal transaction Committee	Mar 28, 2014
	Song Hou-Keun	Professor at Seoul National University Department of Sociology	Member of the Audit Committee and Internal transaction Committee	Mar 28, 2014
	Yoon Yong-Suk	Lawyer at Lee&Ko	Member of the Audit Committee and Internal transaction Committee	Mar 29, 2013
	Lee Jae-Young	Professor at Seoul National University Department of English Language and Literature	Member of the Outside Director Candidate Committee and Internal transaction Committee	Mar 29, 2013

* Park Bum-hoon resigned from the position for personal reasons on May 27, 2015

Committees Under the Board

Committee	Members	Main Functions
Outside Director Candidate Nominating Committee	4 Outside Directors	Recommend outside director candidates
Audit Committee	3 Outside Directors	Audit of financial and accounting records
		Evaluate the management of internal accounting system
		Appoint and approve outside auditors
Internal transaction Committee	5 Outside Directors	Audit and approve transactions between subsidiaries

Activities of the Board of Directors

The board of directors audits, resolves, and checks major management issues on the economy, society and environment. Also, it reviews and votes on issues regulated by laws and articles of incorporation, issues delegated to the board by the general meetings of shareholders’, as well as major issues on the basic management and operation of the company. The CEO assumes the additional position of the chairman of the board of directors and is entrusted with overall business management to form a quick decision-making system. The board resolves major issues and reflects stakeholders’ opinions gathered from the general shareholders’ meeting and IR activities in making decisions, and oversees directors’ management activities.

No one can act on behalf of a board member in making any decisions, and board members who have a stake in certain issues cannot exercise their right to make decisions on the issues. All directors are allowed to send and receive video and voice messages to take part in the decision-making process, and attendance through such methods of communication is regarded as being present at the board of directors meeting. In 2014, the board of directors reported management performance and operating performance of fair trade compliance, etc. while deliberating and resolving a total of 19 major issues including approval of transaction with major shareholders. All potential management issues are reported to the board of directors.

Major Activities of the Board

	Meeting Date	Agenda	No. of Outside Directors Presented (of Total No.)
1	Feb 13, 2014	5 cases including the approval of the 15 th financial statements and operations report	5(6)
2	Mar 5, 2014	2 cases including the calling of the 15 th General Shareholders Meeting and approval of its agenda	6(6)
3	Mar 31, 2014	3 cases including the appointment of CEO	5(6)
4	Apr 24, 2014	1 case of the approval for providing DII and DHEL shares as collateral	5(6)
5	May 26, 2014	1 case of the approval for providing DII and DHEL shares as collateral	5(6)
6	Jul 24, 2014	1 case of the approval of transaction with major shareholder	5(6)
7	Sep 30, 2014	1 case of the approval of transactions with major shareholder	5(6)
8	Oct 27, 2014	2 cases including the approval of establishing a corporation in Papua New Guinea	6(6)
9	Dec 18, 2014	3 cases including the approval of transaction with Doosan Heavy Industries & Construction	5(6)

Evaluation and Compensation

The board of directors and each committee evaluate their own annual activities including their participation. Inside and outside directors are paid within the limit approved at the general meeting of shareholders. To ensure the independence of outside directors, they do not get paid extra for their performance measurement and only receive a base salary and allowances for domestic and overseas business trips.

Executives receive performance-based annual salary and stock option in order to encourage them to boost their performance which in turn can help the company achieve its long-term management objectives. In addition to the base salary according to their position, directors are also given performance-related pay based on the company’s management performance. The CEO is paid the most: about 7.32 times higher than the employees’ median pay. The average pay for both inside and outside directors in 2014 amounted to KRW 140 million a year.

Ethics & Integrity

At Doosan Engine, employees are making multilateral efforts to comply with legal and ethical requirements as strongly encouraged by the CEO. While abiding by the law both in and out of the country, the employees of Doosan Engine are also guided by the Code of Conduct as it is one of the core values of the ‘Doosan Way’. The Company has also implemented a number of compliance programs such as internal control, whistle-blower system and legal compliance for systematic and proactive legal and compliance risk management. Through these efforts, Doosan Engine will fulfill its corporate social responsibility, while maintaining sustainable management by providing benefit to all stakeholders.

Code of Conduct

As the oldest business group in Korea, Doosan has established a unified code of behavior for its people all around the world and has implemented Code of Conduct to prepare for the new century. To keep pace with this, Doosan Engine has also implemented a revised Code of Conduct for every employee to follow in order to ensure sustainable growth based on compliance and ethics management. We also encourage third parties such as subcontractors to take part in our Code of Conduct to spread the ethical cultureamong corporates. Doosan Engine plans to offer enhanced educational programs to all its employees so that the new Code of Conduct will be firmly established as the principle of carrying out business.

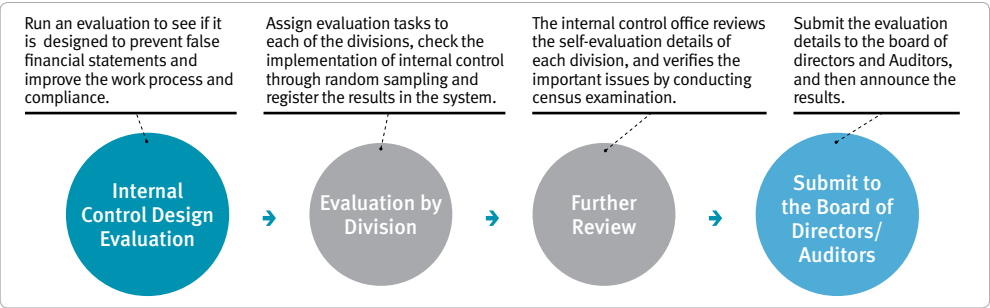
Compliance Programs

Internal Control Program

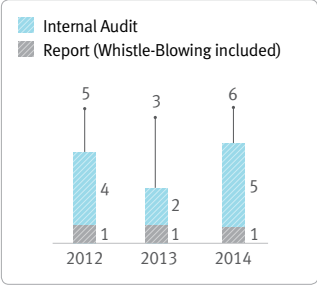
Doosan Engine has developed and implemented an internal control program to ensure the reliability and transparency of accounting data in addition to the protection of its assets. The internal control system enables the company to select the items to be controlled throughout the process so they can be checked and evaluated. The results are submitted to the board of directors and audit committee, and the reports are made available to the public.

Doosan Engine not only fulfills the internal accounting management system requirements as required by law, but also includes a number of other various risk factors for self assessment, evaluation, and monitoring. The evaluation is performed five times a year through the DICAS (Doosan Internal Control Assessment System). After each of the business division performs an evaluation on its own the results are checked by the internal control office. Those results are then evaluated by an outside accounting firm for a further review on adequacy and sent to all stakeholders inside and outside the company. A newly improved system has been implemented since October 2014 to enable more reliable internal control.

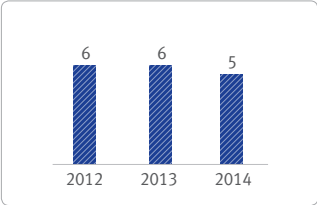
Internal Control System



Audit Performance



Code of Conduct Education



Internal Audit, Whistle-Blower System and White Paper Program

Doosan Engine runs a whistle-blower system along with an internal control system for preliminary review. It reviews the compliance of its Code of Conduct and illegal activities through management consulting audit, and unscheduled audits upon receiving reports from inside and outside the company. When necessary, disciplinary actions are taken to firmly establish a compliance and ethical management system. Recently, the company has put the white paper program into full effect to prevent recurrence, in accordance with the ‘Doosan Way’ rather than taking disciplinary actions against employees who do not comply with the code of conduct. The ‘white paper’ refers to a document used to record and compile the analyses of fundamental reasons in order to prevent the recurrence of similar incidents so the data can be shared and used in educational activities. Through this program, employees acknowledge their mistakes by themselves and come up with improvement measures to make sure they do not make the same mistakes again.

Doosan Engine also has a ‘Cyber Internal Report Center’ on its website. It can be used by any employee or related party outside the company to report the corruption of another employee, thereby helping establish a compliance program and ethical management. Thus far, it has been very useful in establishing a compliance program and ethical management. Anyone can use the report center without pressure since anonymity is guaranteed and the content of the report is confidential.

Legal Compliance Program

Doosan Engine has implemented a legal compliance system in 2012 in accordance with the Commercial Law. In 2013, the company appointed compliance office and established compliance standards. The legal compliance program is an important part of the compliance system along with the internal control system, and it is used to identify legal risks through self-evaluation and submission of a report to the board of directors. More regulatory details will be added before full implementation of this program. Thus, Doosan Engine will have a more advanced compliance and ethical management system and manage legal risk in a systematic and proactive manner.

Status of Criminal and Administrative Sanctions

Evaluation Items	2012	2013	2014
Total Amount of Major Fines (KRW million)	-	300*	-
Number of Non-Monetary Penalties	-	-	-
Number of Dispute Resoulution Cases	-	-	-

* A criminal case in violation of the Act on Unfair Competition Prevention and Trade Secret (lawsuit filed in 2011 and a fine of KRW 3 million paid in 2013)

Compliance and Ethics Management Activities

Doosan Engine is leading in compliance and ethics management by aggressively operating various compliance programs including its Code of Conduct. The company offers compliance and ethics management programs to all the employees in addition to annual training on fair trade, privacy protection and trade secret. All employees are required to complete the compliance and ethical training courses after joining the company and submit their written oath on the Code of Conduct. Team managers and more senior management also write an Interest-Based Relationship Description and submit it to the Legal & Compliance Team once a year. This system is designed to help employees better understand compliance and ethicsmanagement and, thus, encourages full participation. The CEO sends letters to the employees of Doosan Engine and its suppliers on New Year’s Day, Chuseok, and other national holidays, to encourage them to comply with the Code of Conduct. The CEO monitors their compliance activities in order to implement and carry out compliance and ethics management activities.

Doosan Engine plans to strengthen the ethical training system for employees to further improve its compliance and ethical management activities. It plans to have Legal & Compliance Team, which is in charge of compliance management, provide more legal services for site operations in order to reduce legal and compliance risks.

Risk Management

Doosan Engine is establishing risk management processes for each of the business area in order to identify risks and ensure efficient risk management in accordance with ongoing changes in the management environment both inside and outside the company. In 2014, we promoted risk management system by setting up BCM (Business Continuity Management) system to sustain our core competence and assets, notwithstanding the extremely difficult situation.

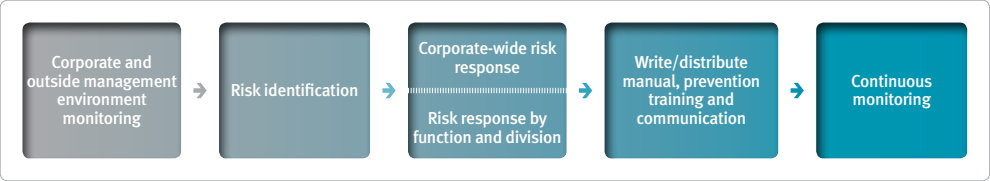
Risk Management System

Major risks that need to be managed corporate wide are managed by the corresponding Risk Management Committee. The risk management process involves identifying risks in monitoring internal and external management environment, making decisions to reduce or avoid risks, executing upon the decision, and conducting follow-up measures such as providing preventive manuals and education.

Risk Management Committee



Risk Management Process



Financial Risk Prevention & Management

Doosan Engine has improved its financial structure and efficient asset management system in order to ensure safe and sustainable management performance from various financial risks including market, credit, and liquidity risks. We have initiatives in financial risk identification, evaluation, response, and follow-up management periodically, and such activities are systematically controlled and managed in accordance with the Internal Control System and Financial Management Manual.

Foreign Exchange Risks

Doosan Engine is very much affected by exchange rate fluctuations since our business is heavily dependent on overseas sales. Since the KIKO (Knock-In, Knock-Out) crisis of 2008, the company organized a foreign exchange risk management committee, established a foreign exchange hedge policy, and strengthened management and monitoring activities. Our fundamental strategy to manage foreign exchange risk is to prohibit speculative derivative transactions and to reduce influence of changing exchange rates on profitability by hedging exchange risks on foreign currencies acquired through import and export.

Interest Rate Risks

The purpose of managing interest rate risks is to reduce uncertainty caused by interest rate changes and minimize financial costs. We manage interest rate risks by regularly monitoring the interest rate changes in Korea and other countries while minimizing external borrowing and improving the structure of short and long-term loans.

Credit Risks

Doosan Engine only deals with clients with a certain level of credit rating to manage credit risks that can occur in common transactions. We regularly evaluate the clients and contractors' financial status and credit ratings for credit risk management, and set different credit limits for different clients and contractors.

Liquidity Risks

Doosan Engine predicts receipts and disbursements in sales, investment, and financial activities based on a regular receipt and disbursement plan in order to manage the maturity structure of debt and assets. Through such activities, we identify and maintain the required size of the liquidity, and manage any possible liquidity risks.

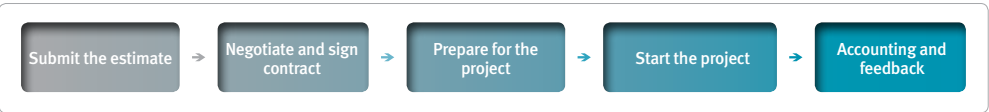
Non-Financial Risk Management

Doosan Engine has policies, organizations, systems, and programs in full operation to reduce non-financial risks in accordance with the CSR vision and strategy map for each of the major areas, such as human rights, labor, environment, fair management, consumer, and local community.

Category	Areas of Risk Management
Human Resource	Human rights protection, prevention of discrimination, labor law compliance, privacy protection, etc.
EHS	Environmental issues, work environment safety, and disaster/emergency management
Supplier	Supply chain risk management, fair trade, anti-corruption
Customer	Customer health and safety, customer information protection, customer complaints
Community	Deal with local community issues, social contribution activities

Project Risk Management

Doosan Engine runs the Quality Gate program, in which management categories are defined at different stages of a project such as contract, planning, action, and accounting. Through the program, we assess and analyze the risks and make decisions, thereby controlling risks at all stages of the project. In the bidding procedure, the Bid Approval Committee evaluates on overall risks including foreign laws and makes decisions to manage the risks in advance and ensure profitability.



Management of Response Infrastructure for Disaster and Emergency

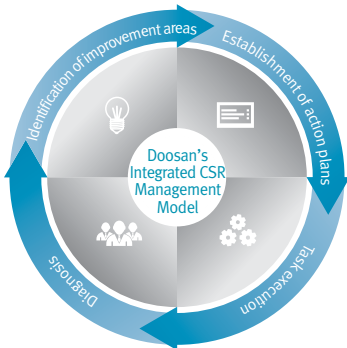
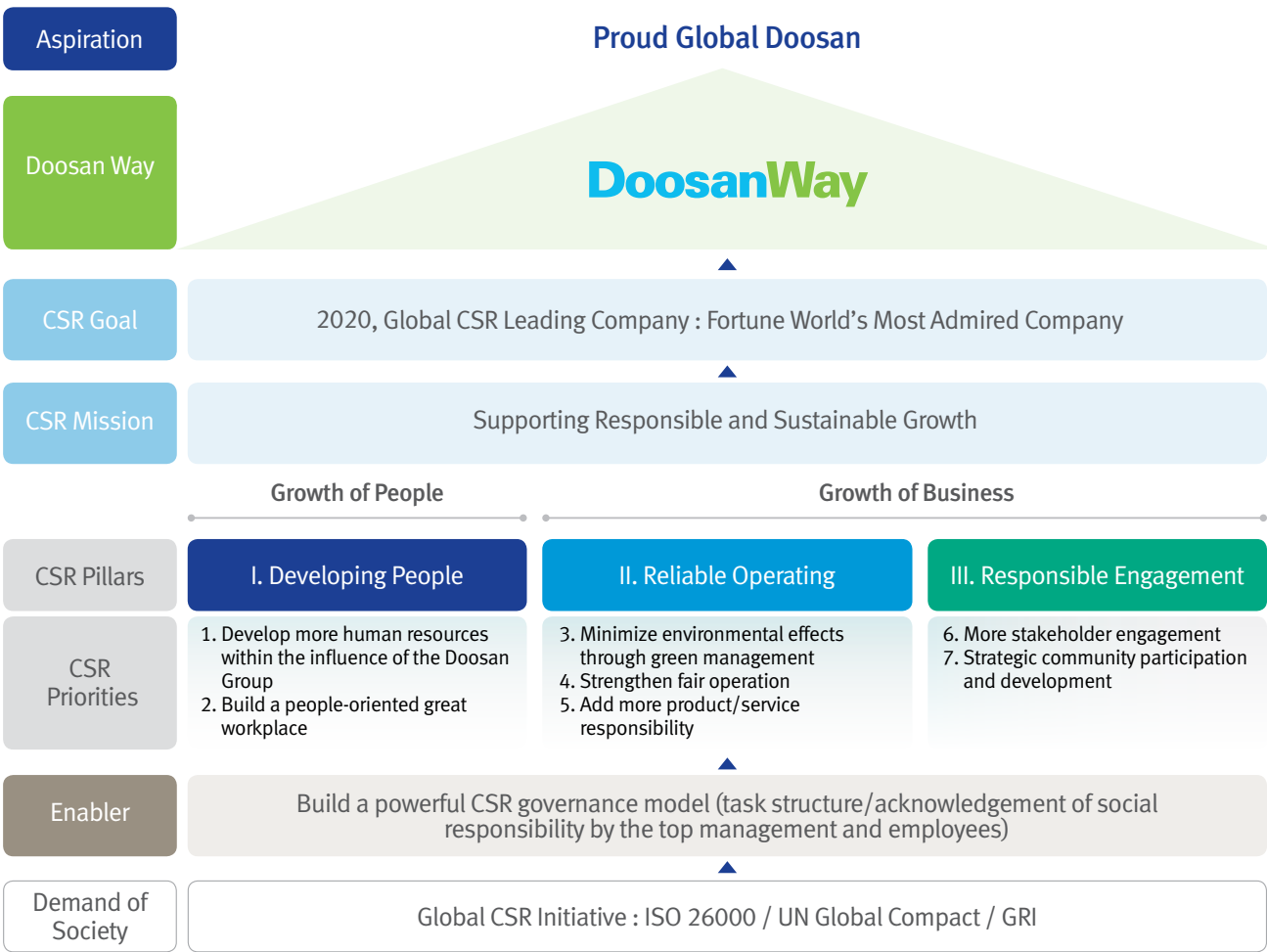
Doosan Engine is operating emergency response system to maintain corporate value by sustaining our core competence and assets, notwithstanding the extremely difficult situation. In 2014 we established response organization and reporting system while formulating 20 essential response manuals, based on which we conducted simulations. In coming years, we plan to strengthen and develop response capacity by conducting simulation training twice a year.

CSR Strategy & Management

The structure of Doosan’s Corporate Social Responsibility (CSR) strategy is composed of the goal ‘2020, Global CSR Leading Company’, mission ‘Supporting Responsible and Sustainable Growth’, three CSR strategic directions, and seven CSR priorities, which are all aimed at realizing the vision: ‘Proud Global Doosan’.

The structure of Doosan’s CSR strategy is particularly significant in that stakeholders took active part in identifying core issues of CSR and strategies were developed based on these issues. In addition, Doosan’s identity and CSR priorities are highlighted in the structure. Doosan Engine developed CSR promotion activities for each of the business areas based on its CSR strategy map, with which to minimize risks related to main issues and promote activities aimed at improving its competitiveness.

Structure of CSR Strategy



CSR Assessment Tool

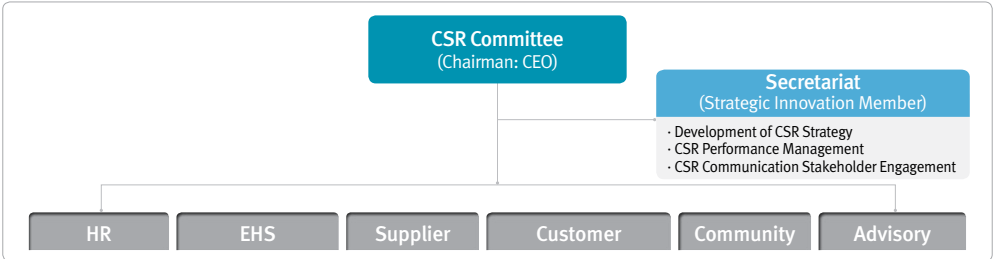
Doosan Engine continuously monitors and seeks improvements in CSR by using the ‘Doosan CSR Assessment Tool’. Doosan’s integrated CSR management model is composed of four stages, namely the ‘establishment of action plans’, ‘task execution’, ‘diagnosis’, and ‘identification of improvement areas’. Assessment index is composed of 2 areas, 7 fields and 24 indices based on the core subjects of ISO 26000.

The 2014 CSR assessment tells us that Doosan Engine needs to improve on CSR integration, respect for human rights, supply chain CSR, sustainable use of resources, and consumer information protection. The assessment result called for a company-wide action, and considering the influence of risk and urgency of response, Doosan Engine proposed four assignments to be accomplished, namely the establishment of human rights risk management system, management of energy efficiency in workplace, enhancement of supply chain CSR management system and reinforcement of stakeholders’ information security. Our executives took the initiative to promote the derived assignments by responding to 2014 CSR assessment and stimulating the CSR activities. With the effective support of our executives, we have formed task force teams in which an executive takes the role of a leader in each team, to efficiently resolve the assignments.



CSR Committee

Doosan Engine has organized the CSR Committee with the CEO as the chairman of the committee in order to meet the demands of various stakeholders both in Korea and overseas and fulfill the social responsibilities discussed in the ‘Doosan Way’. We established a TFT, developed CSR strategies, programs, and action plans and approved the publication of the CSR Report for CSR communication. The Doosan Engine CSR Committee plans a wide range of activities aimed at minimizing CSR risks and improving the company’s competitiveness for the future ahead.



Stakeholder Engagement

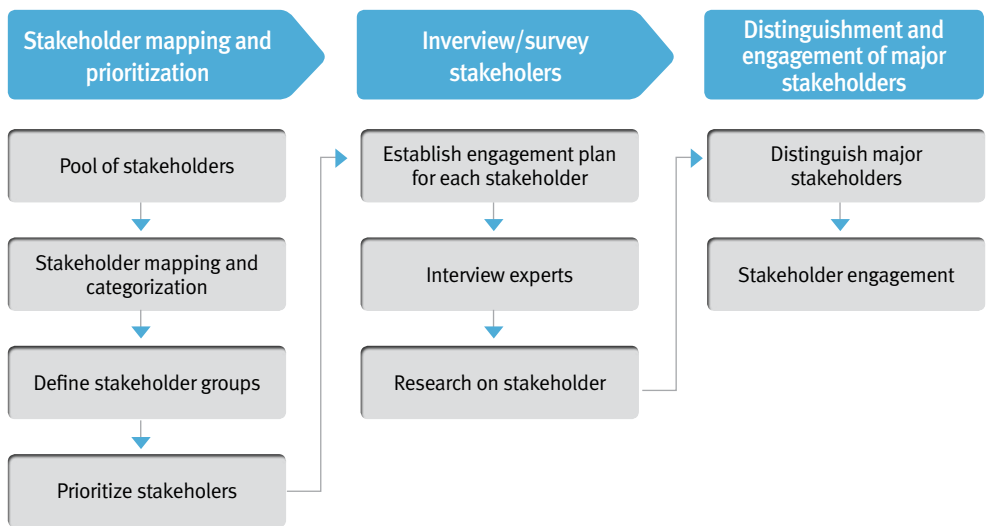
Identification process of major stakeholders

Definition of stakeholders







Doosan Engine defines those individuals or organizations that affect or are affected by our business activities as stakeholders. We define and categorize our stakeholders as shareholder/investor, customer, supplier, licensor and local community, according to stakeholder identification standard of ISO 26000. Our corporate sustainability is raised by reflecting the various opinions of each group on our business activities.

Stakeholder engagement

Doosan Engine operates several communication channels for each stakeholder, there by promoting stakeholder engagement. We are working to settle a sustainable management with stakeholders, where stakeholders participate in business activities both directly and indirectly through organic communication with Doosan Engine, while Doosan Engine grasps and effectively responds to major interests and expectations of stakeholders. The results of such communication are reflected on our business activities and are shared through our CSR reports and company website.



Doosan Engine’s Major Stakeholders

Major stakeholders	Major issues and requirements	Communication channels
Shareholder/Investor 	Improve contract rate of return, secure financial soundness	General meeting of shareholders, disclosed materials, investment information website, frequent IR meetings
Customer 	Develop eco-friendly, high-performance engines, provide differentiated prompt services and feedbacks, develop high-quality engines	Technology seminars, technology and service letters, customer satisfaction evaluation
Supplier 	Expand supports for strengthening suppliers' competitiveness and capacity, pursue fair trade and shared growth	Quality forums, suppliers conference, suppliers education, operation of technology instruction group for suppliers
Licensor 	Co-develop technology with licensors	Technology forums, regular technology meetings
Local community 	Revitalize economy of local communities, create jobs, execute social contributions and community services	Meetings and sisterhood with local communities, philanthropic activities
Employee 	Establish win-win labor management relations, stimulate communication within the company, promote human resources development, provide fair evaluation and compensation, ensure work-life balance	A joint labor-management conference, grievance treatment process, intranet, internal communication program, employee satisfaction survey

Materiality Analysis

Doosan Engine singled out the core issues by combining the risk that needs to be considered in management activities, the stakeholder engagement on CSR-related issues to manage opportunities and their influence on Doosan Engine, based on the standards for Materiality Analysis as proposed in the GRI G4Guidelines, and referred the methods suggested by the ISO 26000.

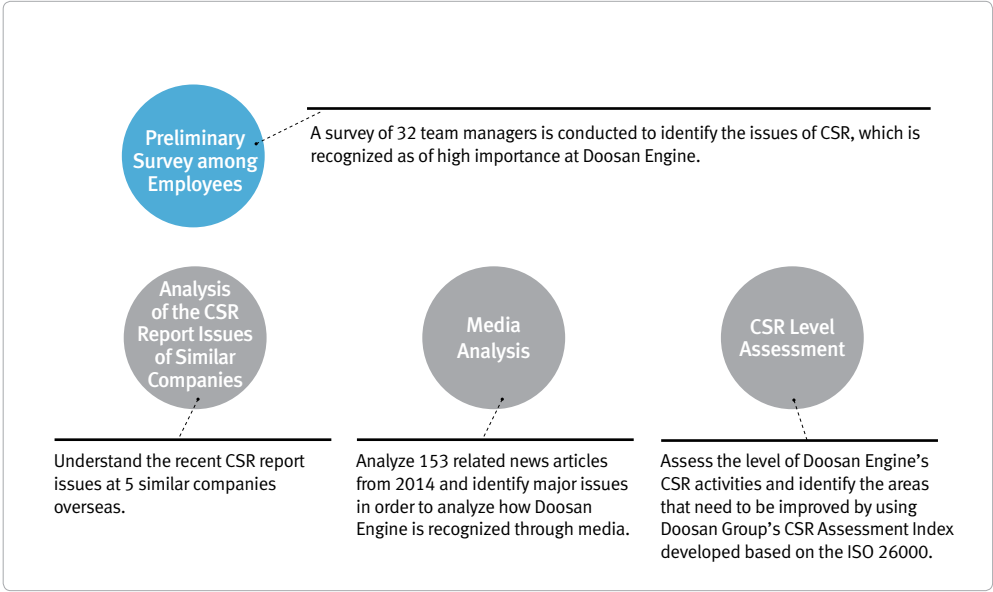
Materiality Analysis and Results

Doosan Engine performed a materiality analysis as well as internal and external analysis based on the principles of Stakeholder Inclusiveness, Sustainability Context, Materiality and Completeness in order to identify major CSR issues. In particular, we divided the internal stakeholders (employees) into four levels by their positions and categorized external stakeholders into five different groups: shareholders, customers, engineers, suppliers, and community. After doing so, we tried to reflect the opinions of all the groups. In the 2014 Materiality Analysis, results showed that compliance of environmental regulations and development of environmentally friendly products had the highest scores. It seemed to be the result of the growing interest in the development of environmentally friendly technologies and eco ships. Other issues with high scores were improvement of customer satisfaction (product and service labeling), compliance of regulations on products and society, and the growing importance of health and safety at the workplace.

Process of Identifying Material Issues

Step 1. Identification

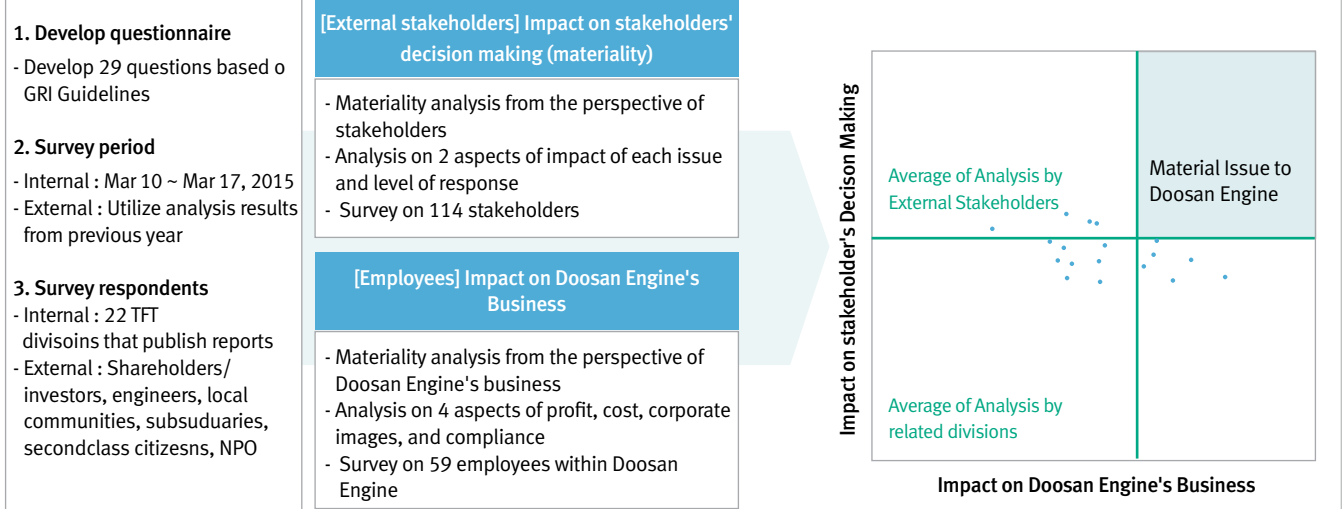
Doosan Engine identified a total of 29 related issues through a preliminary survey among employees, analysis of CSR report issues at domestic and overseas companies, media analysis, and assessment based on the group CSR level assessment index.



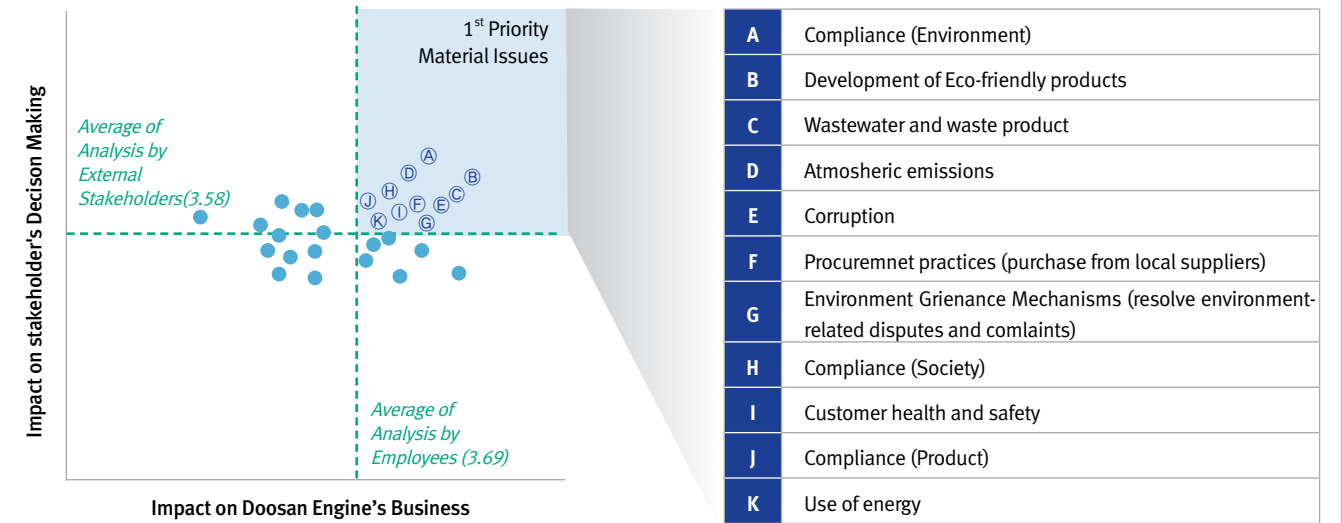
Step 2. Prioritization

Doosan Engine conducted an online survey of 173 stakeholders in order to set priorities on 29 related issues. As a result, the company identified a total of 11 material issues. Two of the issues – impact of issue and level of response – were evaluated by external stakeholders, while four – profit, cost, corporate image and compliance – were evaluated by our employees from the perspective of Doosan Engine's business.

Process of Materiality Analysis



Results of Materiality Analysis



Step 3. Validation

The prioritized 11 issues were reported to the directors and then designated as core issues following a TFT workshop. The level of report on each of the issues was determined before being added to this report in relation to the 11 strategic objectives.







Our Value Chain

Doosan Engine has advanced in tandem with the diesel engine industry. Our product quality is second to none, and we lead the industry in the development of the next-generation electronically-controlled marine diesels.

Doosan Engine strives to build the 'No. 1 Engine in the World' as a global leader in the 21 century through change and innovation.

-  **People & Technology**
People - oriented Technology
-  **Supply Chain Management**
Management of a Mutually Beneficial Supply Chain
-  **Production**
Production Based on the Respect for Human Rights and Environment
-  **Service**
Service for Improving Customer Value
-  **Corporate Community Involvement**
Creating Shared Values with Society

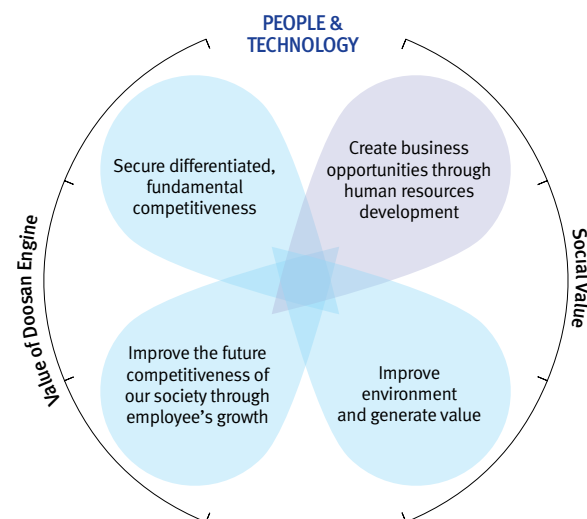
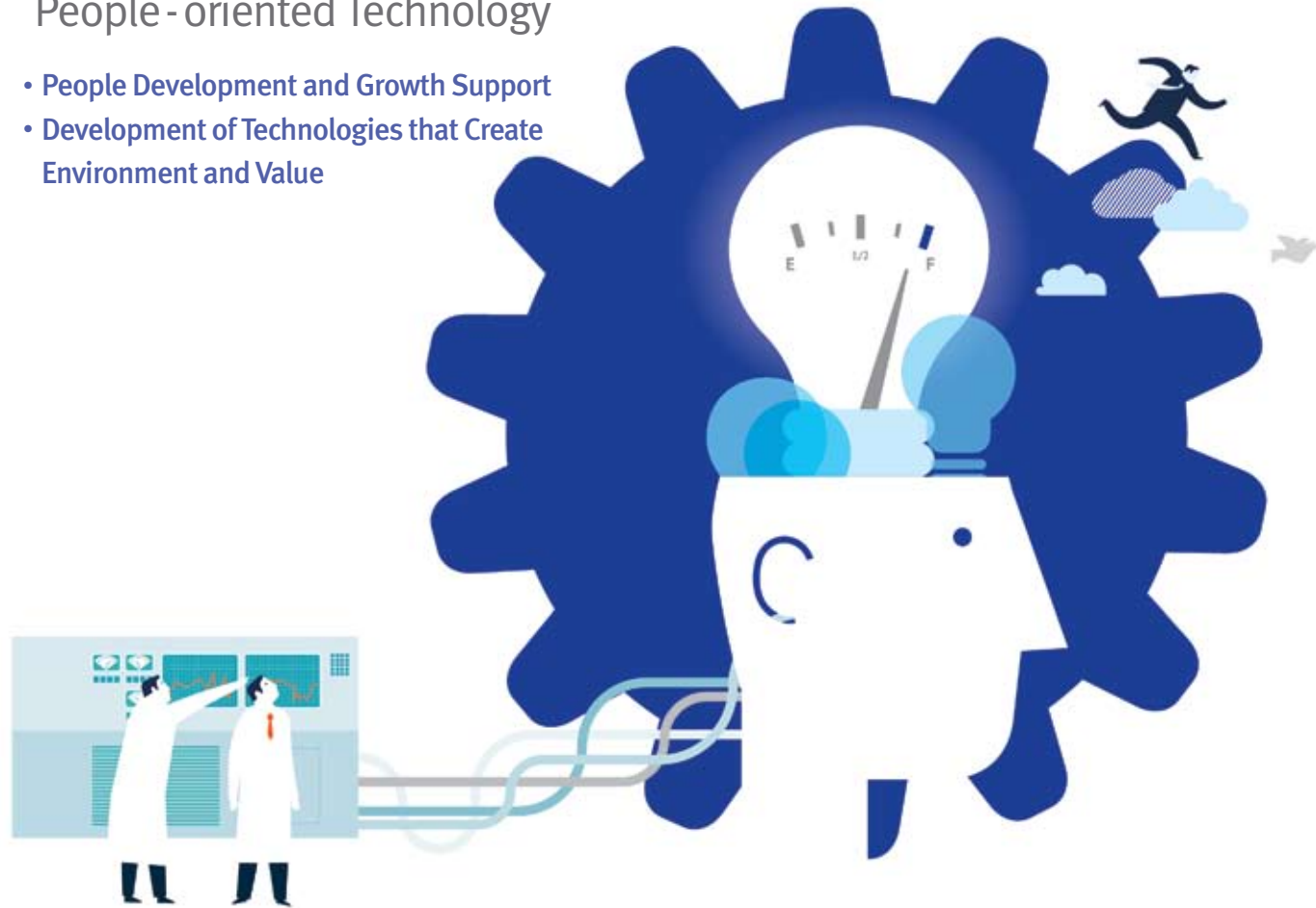
Sustainable Value Chain

Value Chain	Strategic System of CSR	Strategic Subject of CSR	Context	Commitment	2014 Progress	Next Steps
 CSR Governance Governance	Enhancement of Stakeholder Engagement	Operation and promotion of stakeholder engagement	· The trust of various stakeholders in Doosan Engine's competitiveness important management-related is important	· Develop and operate stakeholder engagement programs	· Define stakeholders, identify and disclose major issues and communication channels	· Interview focus groups targeting stakeholders and understand their needs
	Establishment of CSR governance	Establishment of the CSR Committee's implementation system and performance management system	· It became important to reflect CSR on important management-related decisions as there are now higher social expectations for CSR	· Monitor CSR performance and build a feedback system	· Organize the CSR Committee	· Discover and promote major CSR assignments
	Reinforcement of fair operation	Continuous implementation of ethics management	· Increased demand for transparent and ethical corporate management.	· Raise ethics and compliance awareness · Establish the white paper system	· Publish group-wide CoC · Complete ethics management education for executives, and conduct education for CEOs in partnering companies · Publish ethics management information on homepage, manage white paper system	· Internalization through CoC online education targeting all employees · Conduct special education for divisions where ethics management is essential (ex. Procurement Team, Sales Team) · Conduct CoC education and training · Stimulate internal reporting: introduce various reporting channels at the end of every CoC education · Internalize and raise the sense of ethics and compliance if employees through CoC education
 People & Technology People-oriented Technology	Human resources development with in the influence of the company	Human resources development and growth support	· People, particularly those with professional skills and expertise, are becoming a more important competitive factor for businesses.	· Implementation of "Pumasi" Education Program for Professional Development · Continued Improvement of Leadership Program	· Boost Pumasi Education · Implement Insight program to develop leadership for all employees · Special lectures on leadership of on-site employees: 2-hour lecture of a professional hands-on worker · Promote maestros and master mechanics	· Connect Learning Credit with Pumasi Education: plans to implement weighting method · From 2015, expand and multi-functionalize the target of Pumasi Education to engineers · Develop ERP system in HR area · Review the development method of engineers · Strive to nurture more masters
 Supply Chain Management Management of a Mutually Beneficial Supply Chain	Reinforcement of fair operation	Strengthen suppliers' competitiveness	· Outstanding suppliers have direct effects on Doosan Engine's competitiveness, and win-win growth and fair trade are demanded by the society at large.	· Operation of a Support Committee for Improving Suppliers' Competitiveness · Diversification of Competitiveness Improvement Program · Agreement with Suppliers for Win-Win Growth · Publicize Training and Support Activities for Suppliers	· Organize a Support Committee for Improving Suppliers' Competitiveness · Sign an agreement on win-win growth with suppliers and conduct education	· Maintain fair trade activities and promote CSR in supply chain
 Production Production Based on the Respect for Human Rights and Environment	Establishment of GWP focused on respect for human life	Create a culture where employees' rights are respected	· Better employee welfare and more employee rights lead to employee loyalty, which in turn will play an in tegral part in improving workplace performance at Doosan Engine.	· Promotion of Employee Communication Program · Development of Human Rights-Related Work Processes, Establishment of Regulations and Implementation of Education and Training Programs	· Expand internal communication by implementing weekly Doosan Way Time · Stimulate communication with CEO by operating OTRT (Our Trust and Respect Time)	· Establish human rights risk management system: identify and manage human rights risk within company · Review implementation of retiree outplacement
		Advancement of health and safety system	· The health and safety of employees are the most fundamental factors Doosan Engine as a manufacturer.	· Publicize the Performance of Internal and External Health and Safety Activities · Understand the Environmental Factors for Each Individual · Implementation of EHS Competency Education	· Implement BCM (Business Continuity Management), internalize and upgrade by repeatedly conducting twice a year · Conduct sensible safety management	
	Minimization of environmental effect through green management	Advancement of environment management system	· Many environmental regulations (IMO Tier II, III, etc.) related to the shipbuilding industry are becoming ever more strict, and complying with such regulations is now a prerequisite for shipowners in buying an engine.	· Strengthen the executive ability of environmental management by publicizing the EHS strategies and performance index · Review the implementation of green purchasing process · Continue to monitor the test run fuel reduction activities · Monitor the energy consumption of each factory	· Promote reduction of unusual stops (lost operating hours) regarding oil used during test runs · Turn off unnecessary lights, promote energy reduction activities such as worksite patrol of night shifts	· Establish management system for toxic chemicals · respond to Emission Trading · Establish plans for Green Procurement process · Continue monitoring environmental regulations
		Improvement of energy efficiency system				· Reduce 1% of total energy cost · Establish efficiency system for energy management · Develop energy consumption management procedure and manual
 Service Service for Improving Customer Value	Enhancement of responsibility towards products and services	Development of emotional services and suppliers' self-quality control system	· Improving the quality of service and products became evermore important as customer demands for better products increase	· Implement customer satisfaction services · Release customer services and the level of quality satisfaction	· Reorganize for preemptive and systematic customer management · Provide information delivery service regarding regular defect-management · Provide feedback for e-mails within 24 hours · Promote advanced customer visits (ABC)	· Strive to establish service capacity and system for new businesses · Review and analyze prevention of poison pills · Strengthen SCR service capacity · Continue the implementation of sensible services
 Corporate Community Involvement Creating Shared Values with Society	Participation and development of strategic community	Further promote social contribution activities, particularly for the local community	· Supporting local community development will add to Doosan Engine's growth potential and reputation.	· Improve the substantiality of social contribution activities · Develop a program that will help volunteers take pride in their activities	· Operate Doosan day of community service day	· Continuously operate and expand Doosan day of community service day

I. People & Technology

People - oriented Technology

- People Development and Growth Support
- Development of Technologies that Create Environment and Value



Doosan's people are our greatest asset and the key to our future.
 They are at the heart of all our achievements. Our continued and distinguished success will only be possible through developing and cultivating our talent. Our People possess great capacity, willingness and drive to contribute to the Company. They are relentless in enhancing their skills and capabilities. They embrace our Core Values and demonstrate these beliefs and principles in their daily behaviors.

Embracing world-class technology and innovation is vital to our survival.
 Tomorrow drives today at Doosan; we always look to the future instead of the past. We strive to understand, and stay ahead of, change. We continuously seek to improve our business model, products, services and methods. We celebrate and properly reward successful risk-taking, while also respecting valuable attempts that fail. Doosan applauds the spirit of challenge over complacency. Our future success will be driven by seeking breakthrough ideas, knowledge, technologies and resources regardless of their origin, either internal or external.

- Excerpt from Doosan Credo -

People Development and Growth Support

Doosan Engine believes that ‘people’ generate business growth. The 2G strategy is a positive reinforcement of the ‘Growth of People’ leading ‘Growth of Business’ and vice versa.

Context



Progress

With the belief that Doosan’s people are our greatest asset and the key to our future, the company supports the growth of every employee. Doosan Engine is making headway in improving the future competitiveness of both the company and society through fair and advanced recruitment for securing right talent, systematic human resources development system and program, and employees’ growth through fair assessment and rewards.

Staff and Employees

Doosan Engine has a total of 996 employees as of the end of 2014. There are 886 employees at the headquarters in Changwon, Gyeongsangnam-do and 96 at branch office in Seoul and Doosan Technology Institute in Yongin, Gyeonggi-do. The rest are working at sites in Korea and overseas. There was only one temporary employees accounting for 0.1% of the total by the end of 2014. However, the one temporary employee was employed part-time after retirement, and other than this case, there was practically no temporary employee.

As for female employment, they account for only 3.81% of the total number of employees due to the characteristics of the shipbuilding industry. Still, women are given an equal opportunity to be hired. We are making efforts to create a pleasant work environment with a work-life balance. The underprivileged groups and National Merit recipients are given an advantage in job recruitment. The company is creating more job positions through improving the work environment for people with disability. Doosan Engine evaluates and rewards all employees on an equal plane, and prohibits discrimination by gender, religion, race, age, and educational background. When recruiting employees, the company does not require applicants to enter personal details of their families or school grades but instead focuses on their individual capabilities for equal and fair job opportunity. Newly hired employees are paid 247% of the legal minimum wage.

Fair & Advanced Recruitment

‘Attracting and recruiting the right talent, who understand and embrace our values, will be the foundation for developing our people.’ Based on Doosan Credo, the company accepts online job applications through its website to make sure that every applicant are given equal opportunity. The company applies an advanced recruiting tool, such as Doosan Bio-data Survey, DCAT, first job interview and second job interview (third job interview for experienced applicants). In particular, top management participates in the final job interview.

Human Resources Development

According to the ‘Doosan Credo’, ‘Cultivating people is our higher priority and a shared responsibility.’ One of Doosan Engine’s main goals is cultivating global leaders who have internalized the Doosan Way and expert to sharpen to competitive edge and lead innovation for the Nurture Proud Doosan People. Two of these goals are leadership competency (DCM) and functional competency. To achieve these goals, the company has established a development plan based on improving individual ability and capacity through work experience in addition to training programs. Training program is comprised of the “Leadership College” and “Professional College”. In August 2014, Doosan Engine also established methods to raise the job performance of production and technical staffs and to educate on-site managers of leadership. Based on the accomplishment, we will continuously promote human resources development.

Leadership College

The Insight program is designed to help all Doosan employees understand and acquire the essential leadership skill for each role level. It is being introduced in stages, starting with executive, team leader, part leader, and Individual. The company has also invited experts in leadership and innovation to provide input so that employees are provided with information on the latest trends as part of development. We also implemented PLAZA* lectures in the form of talent donation, where experts within the company can exhibit their expertise. The lectures are not only led by our employees, but also involve the participation of their family members. In 2014, the event took place five times.

The company also offers Biz Chinese and Intensive English classes in order to promote global competitiveness prior to entering new markets and strengthening our global business. The company supports overseas professional training and backpack trips to help employees engender global mindset.

For production and technical staffs, we have conducted leadership education for on-site managers in November 2014 and plan to continuously carry out leadership education to strengthen their roles. We will enhance the leadership capacity to effectively manage worksites, to promote the cooperation of worksite members, and to provide a leading role in organizational change. In line with that effort, Doosan Engine has established development system for production and technical staffs in which they can experience various jobs with improved work capacity.

Professional College

Doosan Engine is developing functional competency by identifying unique and global standard expertise and excellence in order to build strong competitive edge. Based on this, the company plans to develop ‘Doosan People’ with real skills based on the philosophy of ‘Doosan Way’ and provide a basis for career development plan.

In R&D and design technology, we completed the FC system in 2014 and are fostering experts to take the lead in enhancement and innovation of fundamental technology competitiveness. We plan to finish the FC system for all functions including production, procurement, sales, quality, and planning/support in 2015. As a result of the development in functional expertise, one of our R&D staffs was registered in Marquis Who’s Who in the world 2015 (one of the world’s top three biographical dictionaries with American Biographical Institute of United States and International Biographical Center of England) for excellent research on materials such as casting and composites.

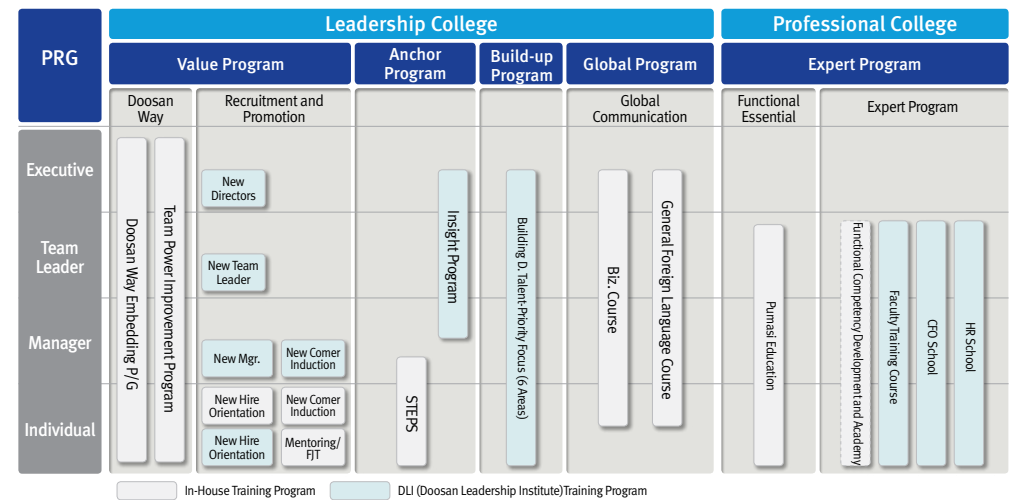
For production and technical staffs, we have prepared professional development and leadership programs for different positions to strengthen the flow from personal development to the growth of the company. The system commenced partially in 2014, and many other professional development programs are waiting to take in 2015.

*PLAZA: a system designed to 1) make an atmosphere promoting development of human resources in spite of difficult business situation, 2) cheer up employees, 3) provide a place where employees can communicate, participate and develop their skills



Individual Development Plan

Doosan has its own development plan which includes customized individual development activities aimed at identifying and meeting development needs through interactive discussions between the assessor and the assessed. In the past, leaders usually initiated development. This has changed to voluntary personal development with the person taking full responsibility of the action, and the team leader continuing to provide support in team members’ personal development activities. When creating a development plan, it is easier to identify root cause of development and provide examples of various development activities. In particular, DP evaluation (competency growth) is reflected in annual salary increase rate to better motivate people to develop themselves.



Faculty Training Program

Doosan Engine has identified experts in each respective area and has them teach others in their teams as part of its expertise training program as well as ‘Pumasi Training’. These selected experts can learn how to program their classes and give lectures with the support of the company. In 2014, we newly fostered 22 faculty members.

Pumasi Training : Exchange of education, Cultivation of expert by field and reflecting individuals’ wishes

The Pumasi Training is designed to help employees better understand, learn, and develop skills in other areas and the value chain with the goal of achieving higher performance. This is Doosan Engine’s unique training program through which employees are informed of important factors of work competence. In the short term, the ‘Pumasi Training’ works like a stepping stone between teams, which means customized training sessions are made available for different teams. Once the FC system is established for each function in the near future, this training will be integrated with other existing academic classes of each business division in order to form a more structured training system. In 2014, 54 sections were held in 11 different functional areas, and 972 employees participated in the program.



Fair Evaluation and Reward

Doosan Engine maintains the highest level of rewards to recruit and develop talented people. Doosan Engine conducts a DCM assessment (competency: How to achieve) and an MBO assessment (performance: What to achieve) based on the traits required of Doosan People. Competency and performance are evaluated annually for our salary and reward system. Instead of lining up employees by their grades, the company started to look at individual development in 2013 for personnel management and reward system. The new system is focused on identifying individual employees’ strength and weakness for development, and employees are promoted and rewarded based on their capabilities and ability to play a higher role. It’s not a one direction where evaluators assess their staff, as they are required to talk to their staff one-on-one throughout the evaluation and development process as a measure to increase objectivity. In performance evaluation, evaluators do not focus only on the short-term performance of their staff but also in their good attempts in order to avoid excessive difference in rewards. This means that they no longer practice the forced distribution methods and employees are rewarded according to their performance result, leading to a better alignment between performance and rewards. In the case of technical staff, competency evaluation and standardized performance evaluation are applied as well.

In regards to production and technical staffs, we have altered the evaluation system (evaluation elements, weight of evaluation items) to establish reasonable grounds for fair compensation through objective evaluation. The alteration was applied in evaluation in 2014 to heighten objectivity. In 2015, the system will be improved by reinforcing the verification system of evaluation results.

Global Mobility Support Program (GMS)

Global Mobility Support Program (GMS) was introduced to assure the stable life of expatriate staffs working abroad. Doosan Engine set up a compensation system in which our employees all over the world can work under the same condition. By providing living expenses considering the price level and living environment of the particular country, we assure the expatriate employee the same standard of living despite different circumstances. For early settlement, we also look for houses, provide information on children’s education, and provide education of different cultures and foreign language.

GMS Program is focused on securing fairness, objectivity, and transparency and on promoting early settlement of expatriate staff and his/her family.

Direction of New Expat Policy

Direction		
Internal equity	· Same treatment within same region regardless of what subsidiary expats work for	“Integration of all subsidiary policies”
Criteria objectivity	· Adoption of objective, reliable Index and Global Standards for consistency and timeliness of the program	“Secure global competitiveness”
More care to expat and accompanied family	· Comprehensive provision of benefits from pre-departure to repatriation · Expats will be able to perform early while families will adapt to the Host country easily with minimized inconveniences	“Comprehensive Benefitand utilization of specialized vendor”
Transparent operation	· Disclosure of all principles, allowances and benefits, and their ceiling	“Strengthen expat Communication”



Next Step



In order to create more jobs, Doosan Engine plans to establish a more systematic roadmap to make hiring more detailed and realistic while also encouraging employees to make more effort in personal development. Doosan Engine will take more interest in underprivileged groups and National Merit recipients and provide them with more opportunities to minimize the loss of skills. We will continue to offer programs for employees to achieve work-life balance.

Learning Credit

Doosan Engine has implemented the Learning Credit and practiced the ‘Doosan Way’ to establish a voluntary learning culture, support employees to develop leadership, and increase their expertise at the same time.

OTRT (Our Trust & Respect Time) Meeting

To discover and encourage those employees who positively influence others leading by example, Doosan Engine introduced monthly OTRT luncheon meetings with the CEO.

Establishment of Development course for Production and Technical Staffs

At the end of 2014, Doosan Engine established development course for production and technical staffs in 2-Track (production manager, technical specialist) while in 2015, the individuals themselves will choose their own course of development. Such choice will propose a vision for production and technical staffs of becoming an executive member in a medium to long term.

Development of Technologies that Create Environment and Value



To lead the global market in next 100 years, Doosan Engine trains technicians and strives to improve the maritime environment and develop environmentally friendly technology for future growth.

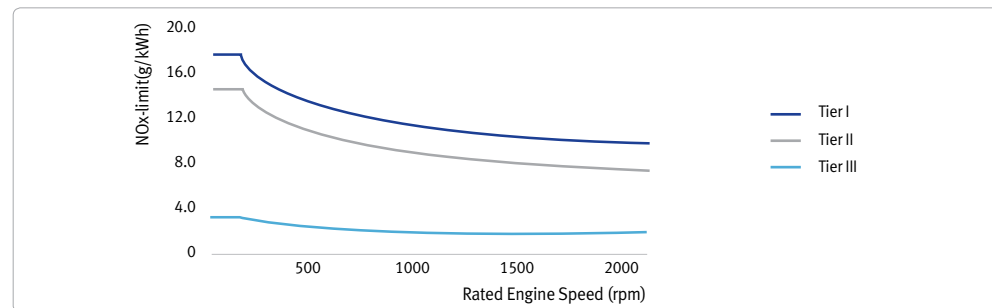


Context

The IMO* has been regulating NOx emissions since 2000 in order to improve the atmosphere by controlling NOx emissions from diesel marine engines. Today, the Tier II Regulation is in effect, and it will be followed by the Tier III (NOx 3.4g/kWh or less) in 2016. The implementation of this tier has been confirmed, and it will be first applied on the U.S. coasts, and then the Baltic Sea, North Sea, and Australian Sea will follow.

*IMO: International Maritime Organization

Doosan Engine is now developing more environmentally friendly technologies such as higher efficiency, environmentally friendly engines and DeNOx systems in order to comply with these stricter marine environmental regulations and the fierce competition in the marine engine industry. Doosan Engine is also strengthening its diesel power plant business by improving the energy efficiency of diesel power generation. Doosan Engine will continue to improve the Earth's environment by producing environmentally friendly and high efficiency engines, and achieve sustainable competitiveness in this area.



IMO NOx Regulations



Progress

Development of High Efficiency, Environmentally Friendly Engines

High Efficiency Environmentally Friendly Engine (MDT-G, Wartsila-X Engine)

This environmentally friendly engine has an increased piston stroke within the engine cylinder to increase fuel efficiency by up to 7% and reduce gas emissions by 7%. It is designed to satisfy the Tier II Environmental Regulations of the IMO. Doosan Engine and partner engineering companies have developed high output marine engines with higher fuel efficiency and less noxious gas emissions. With these environmentally friendly engines that can satisfy the needs of its clients who place great importance on being environmentally friendly, Doosan Engine is playing a leading role in the market for environmentally friendly engines.

Electronically Controlled Dual-Fuel Engine (ME-GI, DF Engine)

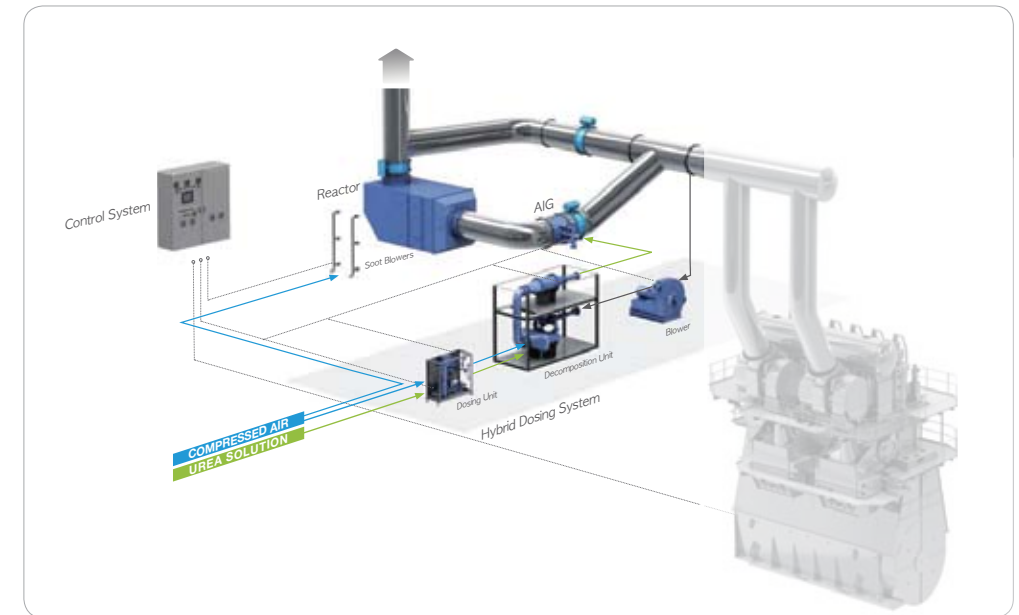
In February 2013, Doosan Engine won a contract from a U.S. shipping company to build a large low-speed marine engine with supply system that can use both LNG and diesel oil for the first time in the world. This will serve as a basis for the company to build the commercial production of electronically controlled dual fuel engines. Electronically controlled dual fuel engines primarily use clean, environmentally friendly LNG as primary fuel instead of diesel oil, which is used only as auxiliary fuel. These next-generation environmentally friendly engines will significantly reduce not only ship operation cost, but also carbon dioxide, nitrogen oxide, and sulfur oxide emissions.



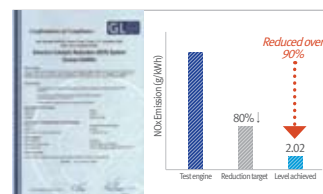
Environment

Taking effect from 2016, the IMO's Tier III Regulation will require NOx emissions from marine engines to be reduced by 80% compared to the existing Tier I Regulation, in order to prevent atmospheric pollution. Doosan Engine, a top tier engine maker with advanced engineering, analysis and applied control technology, has been developing marine SCR since 2011 based on its expertise in the area.

The SCR is an environmentally friendly technology that converts NOx (NO and NO₂) in emissions into harmless N₂ and H₂O by using catalyst.



SCR System



GL COC Certification
*COC (Confirmation of Compliance)

Technology

Since the SCR in general works at exhaust fumes of high temperature (over 300 degrees Celsius), its main components had to be installed around the engine. This takes up much of the space in the engine room. To overcome this technical limitaion of SCR, Doosan Engine has been focusing on the development of a new SCR system while also developing a low temperature catalyst with the cooperation of national research institutes. In addition, we succeeded in developing a prototype low-speed engine of the size of a real marine engine for the first time in the industry to have the performance and technology of the catalyst and SCR system verified, and in June 2013, we became the world's first company to receive a certification from the GL classification for satisfying the IMO Tier III Regulation.

Doosan Engine's new SCR named DeINOx has excellent performance even in low temperatures, making it much easier to install the SCR and providing more room by making a better use of the space. This will also add more versatility to designing a ship.

Service

Doosan Engine will provide a differentiated total solution by providing the package of engine and SCR as well as technical services to clients based on years of expertise in the engine industry and global network. We will also continue to create environmentally friendly future value.

Diesel/Gas Power Plants

Doosan Engine provides clients inside and outside Korea with a complete service package for the design, manufacture, construction, and operation of power plants driven by low and medium speed diesel/gas engines. The company meets the requirements of the individual client and satisfies various environmental regulations enacted by governments. Doosan Engine built the world's first pollution-free 80MW diesel power plant in Jeju Island. This environmentally friendly power plant is equipped with all the necessary environmental pollution prevention systems such as deSOx, DeNOx and electrostatic precipitator. The Company has also supplied 100% of the emergency diesel generators to nuclear power plants in Korea, and it continues to build diesel power plants, providing a stable source of light and energy all over the world. We plan to maximize our EPC (Engineering, Procurement & Construction) capabilities to secure our position as a leading provider of diesel power plants.



Offshore Plants

Doosan Engine will continue to develop more advanced engineering technology based on its expertise in engine manufacturing technology with the goal of becoming a leading provider of offshore plants. The offshore plant market is growing as a result of increased deep-water development projects. The company plans to become an expert in offshore plants to seek business diversification and sustainable growth.



Improved R&D Capabilities

R&D Organization Expansion and Technology Network Enforcement

Doosan Engine continues to increase the number of R&D staff and diversify R&D network in order to explore new business opportunities and maximize R&D synergy.

Our Changwon R&D Center is tasked with engine and mechatronics technology development, engine tests/ support, catalyst development, and SCR test. One of our main tasks is to develop environmentally friendly technology and products and support commercialization. The Suji R&D Center has built a global technology network with the cooperation with the R&D centers of Doosan Group's subsidiaries, industry-academia partnership research institutes, and global engineering companies. By making effective use of this great research infrastructure, this R&D Center develops marine engines, environmentally friendly technology, and cutting edge ICT (Information & Communication Technology).



Next Step

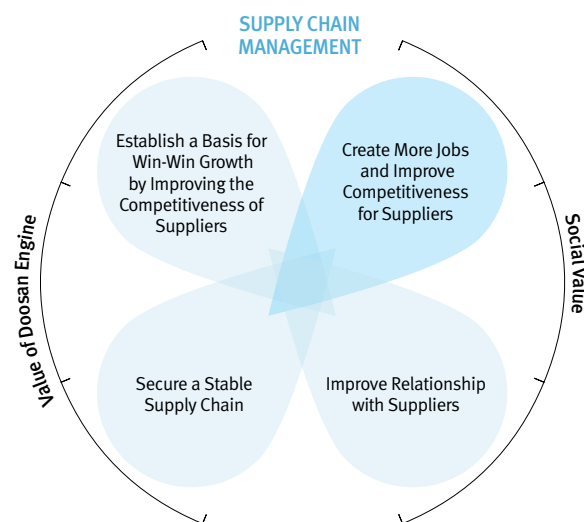
In an effort to enhance the value of offshore and shipbuilding industry by developing cutting-edge engines and eco-friendly ship equipment, Doosan Engine was the first in the world to successfully produce the electronically controlled engine (ME-GI) that utilizes both LNG and oil fuel. We plan to lead the world by developing technologies that preserve the environment and create values, while guiding the world in terms of global technological trends.

Doosan Engine will increase its lineup of SCR products to include catalysts that can be applied in stationary engines in addition to low/medium-speed engines based on the Doosan's low temperature SCR technology in the area of marine engine. We will continue to develop new products such as SCR packages and high performance catalysts. With this new lineup, we plan to maximize our corporate value and play a leading role in improving the environment.

II. Supply Chain Management

Management of a Mutually Beneficial Supply Chain

- Fair Trade with Suppliers
- Shared Growth with Suppliers



Integrity and transparency are fundamental Doosan strengths.
We make profit by creating value through fair and transparent activities.
We acknowledge our mistakes and keep our promises. We never compromise our principles.

Our unique practice of Inhwa extends beyond the internal organization and embraces the entire Doosan community from our families to our shareholders, affiliates and partners.

We recognize that long-term success is built by respecting the rights of our suppliers, distributors and partners to earn fair profits.

- Excerpt from Doosan Credo -

Context

Progress

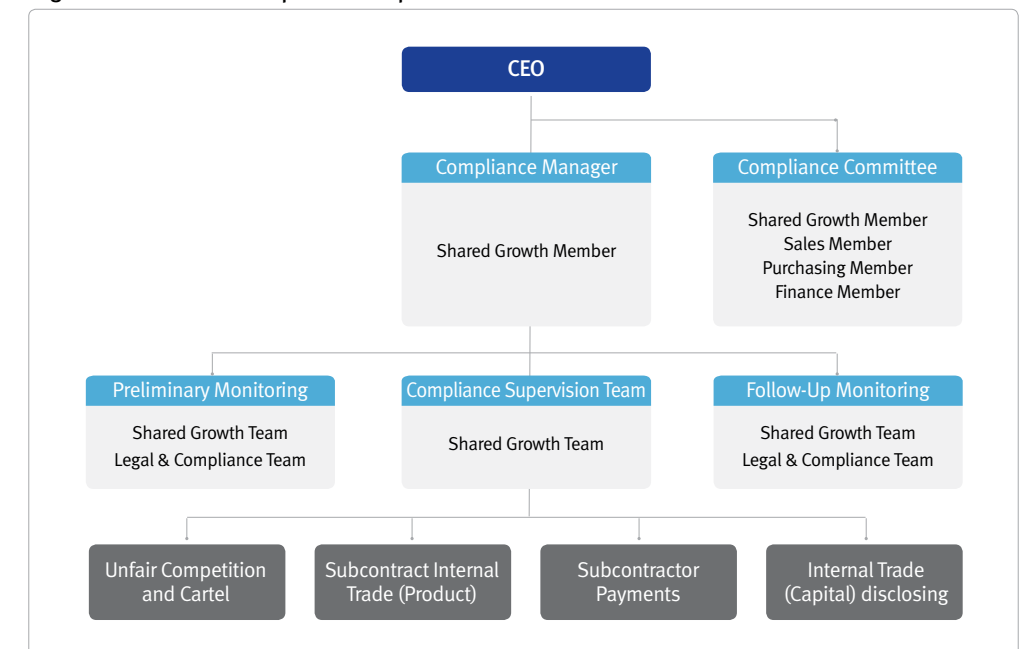
Fair Trade with Suppliers

Doosan Engine has implemented a compliance program in order to improve transparent management and fair trade, and also established a code of conduct on fair trade. We are making continuous efforts to realize fair trade and transparent management by complying with our code of conduct.

Doosan Engine implemented a compliance program in 2004, and has been practicing transparent and fair work process since then in order to meet demands for corporate social responsibility and for fair trade when dealing with suppliers. Doosan Engine has its own compliance program in order to comply with fair trade regulations. This program is designed to prevent violation of such regulations, monitor compliance, and inform employees of related regulations. The company has published and distributed a handbook on compliance to help employees better understand relevant regulations. In addition, we provided feedback on major issues regarding the results of monitoring at CP conferences led by compliance manager. After the education on regulations, we conducted surveys to examine the effectiveness of education and reflected the survey results in designing the education program.

Doosan Engine also organized a compliance group under the direct supervision of the CEO in order to improve competitiveness through fair trade and transparent management. The compliance group is composed of the Compliance Manager approved by the Board of Directors, and the compliance group submits a compliance management plan and performance to the Board in the first and second half of each year.

Organization & Role of Compliance Group





Fair Trade Guideline

Doosan Engine has 4 Guidelines as its company regulations to ensure fair trade with suppliers.

First is the ‘Guideline on Recommended Contract Signing’ with the aim to fairly reflect suppliers’ profit and prevent the violation of the principle of freedom of contract by abusing the company's advantage in signing contracts. Related persons are advised to follow the content of this guideline to practice and promote reasonable and fair trade.

Second is the ‘Guideline on the Organization and Operation of Internal Audit Committee for Subcontracts’ with an intention to review the fairness and legitimacy of the contract in advance by organizing an internal audit committee for subcontracts that are worth over a certain amount, and contribute to ensuring fair subcontracting practices.

Third is the ‘Guideline on Selecting and Managing Suppliers’ to improve transparency and fairness in selecting and managing suppliers by disclosing the process and result of selecting suppliers as well as standards for selecting suppliers. It also provides standards for cancelling registered suppliers to ensure transparent management.

Fourth is the ‘Guideline on Recommended Issue and Preservation of Written Documents’ for encouraging the issue and preservation of written contracts when and after signing a contract with a supplier to prevent unfair trade with suppliers in advance, seal subcontracts and protect the rights of suppliers.

Compliance Program

Doosan Engine has implemented a compliance program and code of conduct for transparent management and fair trade. The company made efforts to ensure fair trade and transparent management by complying with this code of conduct, and as a result, we have accomplished no violation record of fair trade and subcontractor law for 11 consecutive years.

Doosan Engine first established the management regulations for this compliance program in 2004 in order to practice the 7 factors of the program, and has been carrying out various activities.

Doosan Engine ensured more detailed activities by developing set of procedures such as the ‘CP Monitoring System Management Procedure’, ‘CP Education Program Management Procedure’, ‘CP Document Management Procedure’, and ‘Management Procedure on Penalties for Employees Violating the Competition Law’.

7 Factors of the Compliance Program

- 1. The CEO expresses his determination on compliance (every year)**
 - Raised the legal compliance consciousness of employees by posting the CEO message regarding Compliance Program on corporate homepage and intranet.
- 2. Appoint the Compliance Manager as decided by the board of the directors (upon occurrence)**
 - Compliance Manager reported Compliance Program semiannually. When the Compliance Manager changes, the board of directors immediately appoints another manager.
- 3. Print and distribute handbook on compliance (every two years)**
 - Made and distributed brochures explaining the clauses of Fair Trade Act and Subcontractor Transactions Act with relevant examples to employees, to promote their understanding.



4. Offer education program (every year)

- Conducted educations on Fair Trade Act and Subcontractor Transactions Act for existing and new employees.

Category	2012	2013	2014
Regular education for	340	202	238
employees (No. of persons)	47	33	23

5. Establish and implement compliance monitoring system (every quarter or half year)

- Visited the divisions with possible violations of Fair Trade Act or Subcontractor Transactions Act, reviewed related documents and interviewed relevant managers.

6. Penalties on violation of the law (upon occurrence)

- Demanded improvement in cases of violation through Compliance Monitoring and CP Conferences of Compliance Managers.

7. Document management (every year)

- Complied with the duty to store documents for three years, according to related regulations.

Selection and Evaluation of Suppliers

Doosan Engine provides fair trade opportunities to all the suppliers through a collaboration system called the COVAN system, and accepts on and offline applications from suppliers to reflect their opinions and problems.

After an applicant company’s basic information is entered on COVAN according to the manual and submitted to the purchasing staff for review, the submitted application is categorized by case so related teams (purchasing, quality, shared growth, etc.) can visit and evaluate the applicant company, which can be registered in accordance with the final internal regulations. In addition, the supplier will be provided with feedback on the evaluation results (business management, purchasing/manufacturing, technical skills, quality, etc.) to make the evaluation system transparent.

Fair competition and trade are a basis for strengthening the supplier’s competitiveness. We will continue to make efforts to apply fair and transparent management principles in all the transactions with suppliers, and fulfill our social responsibilities.



Next Step

We will utilize CSR assessment tool in the evaluation and selection of suppliers, to prevent social criticism (human rights, labor, safety, environment, ethics, and fair trade) from arousing. We plan to amend the company regulations so that suppliers who have violated supplier management provisions would be permanently eliminated from all Doosan affiliated companies.



Shared Growth with Suppliers

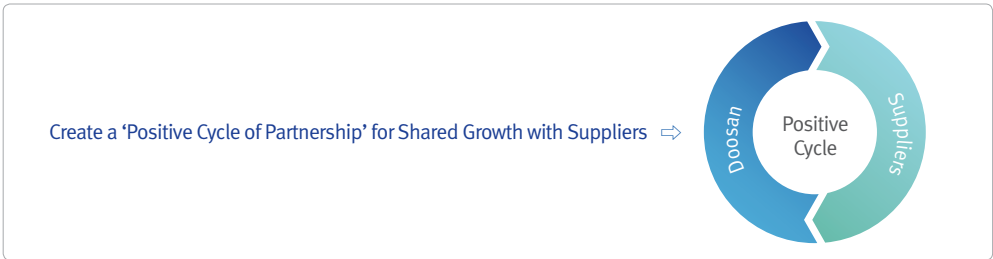


Doosan Engine's motto in shared growth is creating a 'positive cycle of partnership' to ensure shared growth with suppliers, and we offer a wide range of programs on strengthening suppliers competitiveness. This is part of our endeavor to ensure fundamental competitiveness for both Doosan Engine and our suppliers and to realize sustainable growth.



Context

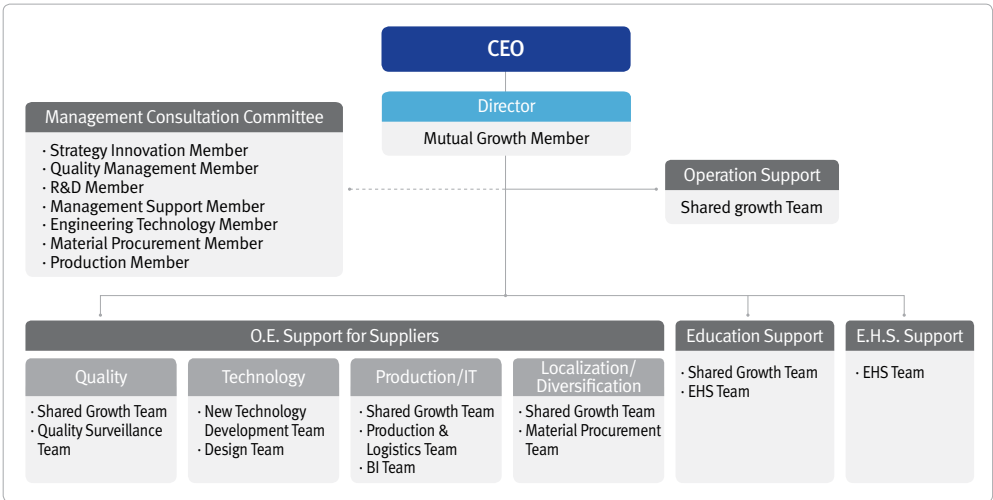
The purpose of creating a 'positive cycle of partnership' is to include all of our suppliers in our own technology/quality/management and business systems so as to turn them into a unitary system. The aim is to improve the competitiveness of the overall production and supply system instead of being limited to a mere purchasing agreement/subcontract. We seek to build a stronger partnership with the suppliers by sharing profits.



Progress

Doosan Engine developed a support program for shared growth in order to create a 'positive cycle of partnership' and sign a 'shared growth agreement' with suppliers every year. We have the Shared Growth Team, which carries out competitiveness improvement activities with suppliers under the supervision of the Competitiveness Improvement Support Group.

Organization of Competitiveness Improvement Support Group



Competitiveness Improvement Support

O.E. Activities of Suppliers

Doosan Engine visits suppliers and provide solutions in their quality, technology, production, IT, and factory innovation constraints as part of our O.E. (Operational Excellent) activity. By supporting domestic developments, we contribute to our suppliers' revenue increase.

Domestic Part Development Support for Suppliers with Purchase Conditions

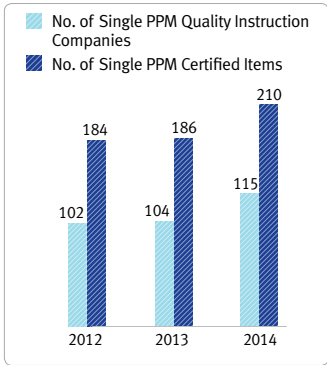
Doosan Engine has participated in the new product development project with purchase conditions that was promoted by the Small & Medium Business Administration from 2005 to 2014, and helped suppliers receive government grants that amounted to a total of KRW 2,197million for 13 projects. As a result, Doosan Engine has contributed to the suppliers' competitiveness.

Category	Before 2012	2013	2014
New Product Development with Purchase Conditions (Item)	11	1	1
Government Grants (KRW million)	1,727	250	220

Sub-vendor Quality Guidance Team

Doosan Engine has a sub-vendor quality guidance team dedicated to improving the quality of its suppliers. The team offers single PPM (parts per million) instruction activity every year. As of the end of 2014, a total of 210 items from 115 companies received the Single PPM (parts per million) Certification from the government.

Category	2012	2013	2014
No. of Single PPM (parts per million) Quality Instruction Companies	102	108	115
No. of Single PPM (parts per million) Certified Items	184	186	210



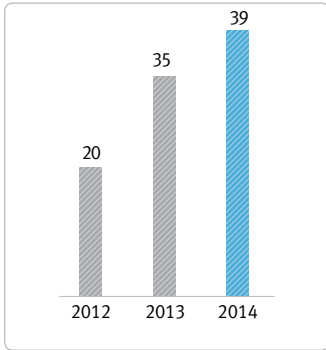
Health and Safety Evaluation and Education for Suppliers

Doosan Engine has been supporting its inside and outside suppliers with their health and safety programs since 2012, and helped them receive an 'A' grade in 2012/2013 and 'B' grade in 2014 from the Ministry of Employment and Labor Changwon. In 2014, Doosan Engine conducted a risk assessment of 42 suppliers, installed safety rails and hosted a total of 194 safety sessions. In these sessions, safe crane operation training was offered, safety regulations at each of the sites were attached, the safety of lifting tools was assessed, plan forms for safety-related work plans were provided, instructions were given on how to create safety plan forms, and special safety instructions were provided.

Training for Suppliers' Employees

Doosan Engine offered 45 hours of training to a total of over 370 employees from 195 suppliers in 2014 alone, with topics such as change management, cost improvement in 8 areas, functional training, welding, processing, and facility. In the same year, Doosan Engine also offered 45 hours of financial, quality and production training sessions to 20 employees from 14 suppliers with the support of Changwon National University in order to improve the competence of suppliers' employees. Doosan Engine plans to continue to offer job training sessions to improve the competence of suppliers' employees.

Amount of Shared Growth Fund
(Unit: KRW billion)



Financial Support

Shared Growth Fund

To provide suppliers with direct and indirect financial support, Doosan Engine raised a fund of KRW 39 billion with a financial institution to provide suppliers with a loan at lower interest rate.

Category	2012	2013	2014
Amount of Shared Growth Fund	KRW 20 billion	KRW 35 billion	KRW 39 billion
Loans from Shared Growth Fund	KRW 17.8 billion	KRW 20 billion	KRW 21.2billion
Recipients of Shared Growth Fund Loan	17 Companies	18 Companies	19 Companies

Improvement of Payment Terms

Doosan Engine paid 71 high performing suppliers in cash (40%~100% of monthly payment) in 2014, and helped them improve their cash flow by changing the monthly payment for goods received term from twice to three times in October 2012. Doosan Engine also donated KRW 100 million to the Small & Medium Business Support Foundation, provided management consulting for its suppliers, supported them with raw material purchasing and offered raw material cost-linked utility rate system.

Promote the local economy by purchasing parts in the local area

Local Purchase Amount by Year

(Unit : KRW 100 million)

Category	2012	2013	2014
Internal Capital	6,906(77%)	4,246(81.6%)	5,224(80.7%)
External Capital	2,062(23%)	958(18.4%)	1,247(19.3%)
Total	8,968(100%)	5,204(100%)	6,471(100%)

Improved Communication with Suppliers

Doosan Engine provides its suppliers with consulting services to help them with their problems, holds conferences with suppliers, hosts forums and workshops, and has the CEO visit the suppliers in order to communicate more effectively with them and promote mutual understanding and trust.

Category	2012	2013	2014
CEO Visits	8 Companies	12 Companies	16 Companies
Conferences with Suppliers	15 Times	13 Times	9 Times

Shared Growth Workshop

Doosan Engine hosted a Shared Growth Workshop in November 2014, and invited 110 sales managers from 104 suppliers to discuss survey results, fair trade academics, and exemplary cases for better communication with the suppliers.



Shared Growth Quality Forum

Doosan Engine hosts a quality forum with its suppliers to boost their quality awareness. The quality forum held in May 2014 was attended by the CEO, directors, and team leaders of Doosan Engine and representatives of 130 suppliers, who announced their quality policies, shared related issues, and had a discussion on cooperation.

Heath Check-Up for Suppliers

Every year, Doosan Engine supports health check-ups for the representatives (and their spouse) of three suppliers with outstanding performance after a comprehensive evaluation of suppliers as part of the shared growth program.

Category	2012	2013	2014
Health Check-Up Support (Number of Beneficiaries)	9	10	6

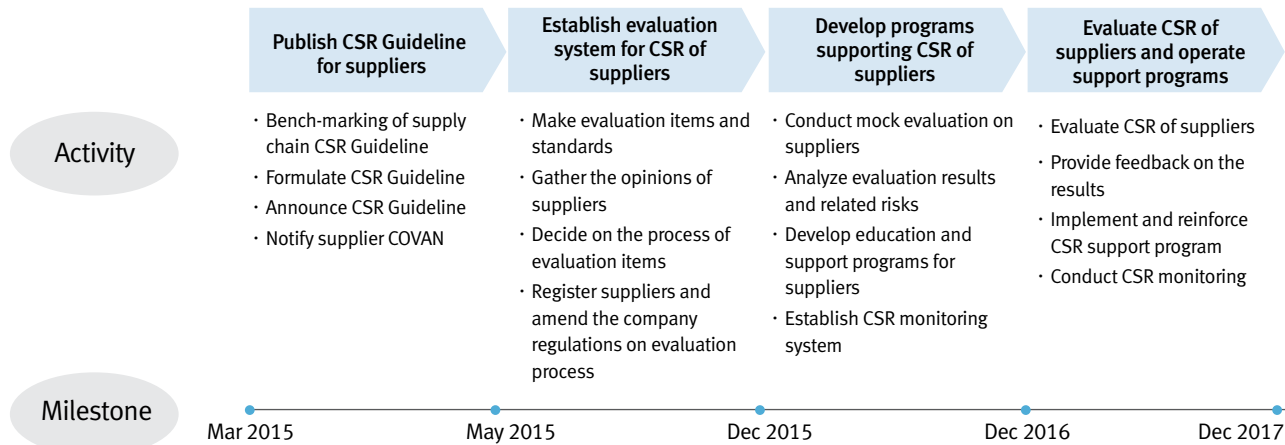


Next Step

Due to the recent change in paradigm, the concept of global competitiveness has changed from competition between individual companies and systems to competition between supply chains including the suppliers. Doosan Engine plans to actively cope with this shift and continue to develop and support a number of shared growth programs that meet the needs of suppliers.

In 2015, Doosan Engine plans to promote a total of 33 activities with three KPI strategic objectives: competitiveness improvement support, financial support, and communication improvement. In order to promote shared growth programs, Doosan Engine will sign shared growth agreements with 106 suppliers and run competitiveness support team to create corporate ecology where it can grow along with its suppliers.

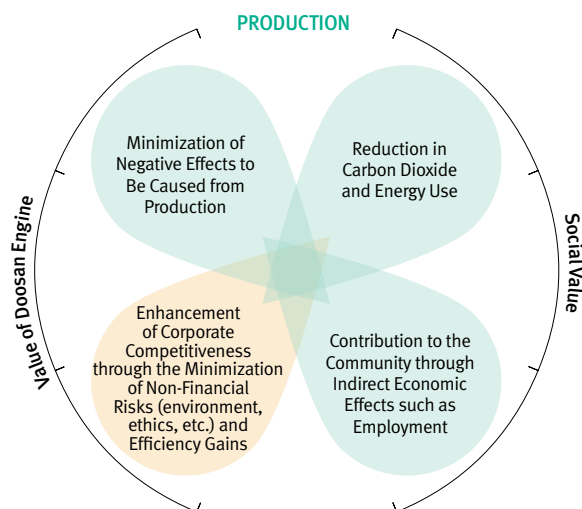
In an effort to strengthen the CSR management system of suppliers, Doosan Engine will support our suppliers by 1) formulating and publishing suppliers CSR Guideline, 2) establishing evaluation items/standards for assessing suppliers' CSR and defining evaluation process, and 3) including suppliers' CSR evaluation system on the company regulations and developing CSR support system in the long term.



III. Production

Production Based on the Respect for Human Rights and Environment

- Respect for Employees' Rights
- Health and Safety Management
- Green Management



Inhwa best expresses who we are and provides us with a unique competitive edge.
We define Inhwa as teamwork in the truest sense of the word, grounded upon fairness and camaraderie. By carefully following these virtues we have created One Doosan; a collective strength built on the contribution of a wide diversity of individuals. Inhwa means we maximize our organizational strength and potential through true teamwork built on defined, transparent rules of fair play. Selfish rivalries between individuals or departments have no place at Doosan and discrimination of any kind is not tolerated. Inhwa means each individual contributes to the success of their colleagues and team, resulting in both excellent team and individual performances. Inhwa also means we are open; Doosan welcomes proactive ideas and constructive criticism from everyone, regardless of seniority or position. Our unique practice of Inhwa extends beyond the internal organization and embraces the entire Doosan community from our families to our shareholders, affiliates and partners.

We provide clean and safe working environments.
Doosan maintains all our facilities to the highest possible standards. This is the basis for superior productivity as well as being our responsibility to our people, their families, our customers and shareholders. Environmental protection is our duty and obligation to every community where Doosan does business. We know this ultimately results in greater value creation.

- Excerpt from Doosan Credo -

Respect for employees' rights



Employees are important stakeholders and concurrently the subjects who lead business. We are well aware that employees are the backbone of growth, and comply with laws and regulations related to human rights and working conditions. We also make various efforts such as systemic improvements, to respect the rights of our employees.

Context

We develop our core competence by managing various environments based on the talent management philosophy of 'People are the Future' and the basic concept of 'The development of people leads to that of business'. In addition, we are improving the competitiveness of the organization by running various programs, such as enhancement of communication capability, grievance resolution process, strengthening of the welfare system, fair evaluation, and remuneration, to ensure the rights of employees and to form a proper work culture. We increase workplace satisfaction through welfare benefits, fair evaluation, and fair compensation, ultimately enhancing individual capabilities.

Progress

Programs to Respect the Rights of Employees

Doosan Engine provides stable working environment for employees through its recruitment, employment, and retention policies. The company complies with laws and regulations concerning human rights and working conditions in work types and employment, and prohibits child labor and forced labor in all workplaces in accordance with the Labor Standards Act and the policies of the International Labor Organization (ILO).

Doosan Engine does not discriminate employees on the basis of gender, religion, race, age, education, etc. The We strongly encourage taking maternity leave before and after childbirth and parental leave to prevent career breaks. Under Equal Employment Opportunity and Work-Family Balance Assistance Act, Doosan Engine gives all its employees sexual harassment awareness trainings and has a grievance treatment system in an effort to respect various rights both systematically and culturally. Employment rate for people with physically challenged people was 2.2% in 2014, and we plan to increase the figure in the future.

The company encourages employees to establish their own short-, medium-, and long-term career development plans individually; communicate regularly with their line managers; and place their jobs in rotation in a way that reflects their desire and ability, in order to assist them in realize their own vision through the work performance. In addition, we are conducting the Why campaign that explains the purpose and core of work to employees and encourages communication with each other without carrying the burden even about incomprehensible matters. This helps employees to develop a two-way communication culture.

By conducting sexual harassment education and information security education on security personnel, we ensure the protection of our workplaces and prevent social issues from arising. The education programs are carried out annually.

Coexistence of Labor and Management

Doosan Engine holds quarterly meetings of the labor-management council and special meetings when necessary to promote the welfare of employees, address their grievances, improve working conditions, and build up employees' health. We make an effort to promote the common interests of both labor and management through unreserved discussions on matters brought before the council.

In addition to the labor-management council, the occupational safety and health committee, grievance committee, joint labor-management safety inspections, musculoskeletal hazards investigations, and others are in place for cooperative communication. Informal gatherings between labor and management have also been encouraged to facilitate for a mutually acceptable resolution.

Occupational Safety and Health Committee

The occupational safety and health committee consists of equal numbers of members from employees and the employer, and is organized to consider or resolve important matters concerning occupational safety and health. The committee represents approximately 75% of employees except for team leaders and officers and deliberates on and operates the whole labor-management EHS through a regular meeting, extraordinary meeting, working-level meeting, and the like once or more per quarter.

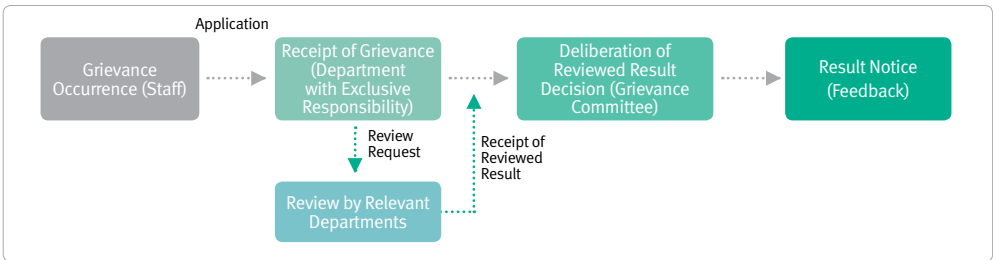
Classification	Meeting Cycle	Composition of Committee
Regular Meeting	Once or more /quarter	· Labor side: employee representative Honorary occupational safety supervisor (head of occupational safety and health department), nine workers or less designated by the employee representative · Employer side: business representative (safety and health officer) Safety and health manager, nine department heads or less designated by the business representative
Extraordinary meeting	When necessary	Same as above
Working-level meeting	Once or more /month	· Labor side: honorary occupational safety supervisor, and two members of the occupational safety and health committee or less. · Employer side: EHS team leader, safety manager, health manager

Grievance System for Employees

Doosan Engine operate a grievance system to raise the morale and work satisfaction of employees by collecting and addressing their grievances. Grievances are addressed as either individual or organisation grievances through the following stages: hearing the opinion of grievance unit; reviewing various regulations and situations for such grievance; conducting an interview with staff in charge of grievance treatment; reporting the result internally; and making a final decision. Doosan Engine plans to continue to study the grievance treatment process in the future, which is angled towards situations of the times and employees and then increase employees' satisfaction.

In terms of grievance treatment of employees, we settled 20 cases of grievances to help the employee enjoy a stable work life. Doosan Engine will continuously enhance our Grievance Treatment Procedure.

Grievance Treatment Process



Welfare Benefits

Work/Life Balance

Doosan Engine is supporting various programs under the principle that work performance is maximized when employees live in comfort and satisfaction. The company encourages two weeks of summer vacation and one week of winter vacation each year, and supports programs for the work - life balance through the designation of the 'Family Day' every Wednesday. In addition, welfare benefits are provided to employees through the home loan support system and the operation of company housing, medical support, educational expenses support system for children of employees, and the opening of a day care center in Changwon support couples where both parents work.

Status of Major Welfare Benefits

Support Programs	Contents of Support
Leisure Support	Summer vacation, winter vacation, refreshment vacation, condominium support, etc.
Housing Assistance	Provision of dormitories for unmarried persons, provision of company housing for the non-homeowners, assistance of home loans, etc.
Childcare Support	Operation of day-care facilities, education expenses aid, reference book aid, etc.
Vehicle Support	Operation of commuter buses, vehicle support for an occasion for celebration and condolence
Total Mutual Aid Services	Support for the mutual aid support service system, leave for celebration and condolence, support for expenses for gifts of celebration and condolence
Medical and Health Support	Surgery support, support for comprehensive health examination, taking out of group accident insurance and savings insurance, operation of medical office and physical therapy management, influenza vaccination, operation of the primary care physician system, etc.
Other Supports	Long-service awards, provision of uniforms, provision of gifts for traditional festive days and anniversary, athletic meets for each department, Doosan family festival, camp support for officers' and employees' children, support for birthday and wedding anniversary gifts, etc.

Support for Hobbies and Leisure Activities

Doosan Engine has organized employee clubs to support employees' hobbies and leisure activities. By end of 2014, there were a total of 19 clubs including sports, potted plants, photograph and music, and more than 60% of the employees have joined at least one club.

Employee Retirement Benefit Plans, and Support for Retirees

Doosan Engine adopts defined benefit retirement pension (DB) to ensure stable retirement payment. In addition, we assist employees in acquiring skills to achieve strategic goals in changing work environment. In particular, we assist employees in preparing for life after their retirement by taking their age and length of service into consideration sufficiently and giving retirement allowances.



Next Step

Doosan Engine will build the foundation for its growth as a global company where its employees continue to maintain, develop, and create a better working environment and conditions so as to respect their rights, improve productivity, and grow their loyalty to the company. Also, the company will spare no effort to raise the quality of life of employees through various means, such as communication programs, and development, education, and training of human rights-related business processes.

In order to prevent infringement of human rights, Doosan Engine plans to establish a culture of respect for human rights, implement management program, and devise risk management system for human rights issues with in the company. At the same time, we will set up a channel to foster employees' reporting and to clarify the response process when problem occurs. Further more, we plan to develop and implement education program targeting all our employees, including the leaders, to heighten their knowledge and mind-set on human rights to the global standard.

Health and Safety Management



Doosan Engine endeavors to make a safe and healthy workplace for employees by not only complying with health and safety requirements at home and abroad but by applying internal standards that are more stringent than legal standards. Further, the company does its utmost to expand the scope of health and safety management to suppliers and the community to make it an accident-free and pollution-free workplace.



Context

Health and safety are the basics of all production activities, and workers are entitled to work in a safe, comfortable environment. Doosan Engine is well aware that the health and safety of workers are essential elements of the company's sustainable development, and considers the safety of workers a top priority in all production activities. In addition, we are examining how to operate in the most safe manner by identifying and taking measures against risk factors in advance through systematic safety evaluations, hazard investigations, and other methods, from design to production to investment.



Progress

Health and Safety Management Policy

Doosan Engine is establishing and abiding by the EHS management policy to realize workers' health and safety, and internal and external stakeholders' satisfaction in all business activities, based on the management philosophy of human dignity.

EHS Management Policy

Doosan Engine is a world-class manufacture and supplies of diesel engines for ships and power generation. As such it has established an Environment, Health and Safety management policy. All employees are required to follow this policy for all aspects of work. The policy is based on the management philosophy of human dignity and a comfortable environment being maintained for all, and comprises.

1. Place a top priority on prevention of accidents related to environment, health, safety and create a safe, comfortable working environment.
2. Operate the emotional safety management and make preemptive safety culture take root.
3. Improve the health care system to maintain and promote the health of workers.
4. Establish the greenhouse gas management system to continuously strive to reduce greenhouse gases.
5. Build integrated safety management with suppliers to establish an autonomous safety management system.
6. Set goals for environment, health safety and ensure improvement in implementation.
7. Comply with international conventions and domestic laws and regulations concerning environment, health safety.

President and CEO of Doosan Engine
Dongchul Kim

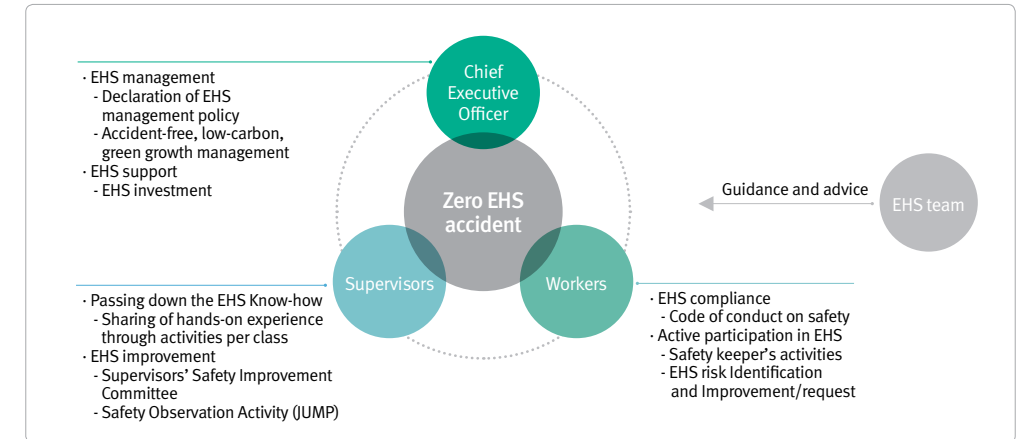
Kim Dong Chul



Organizations and Systems for Health and Safety Management

Doosan Engine is operating the health and safety management system under OHSAS18001 and KOSHA18001 to create a healthy and safe working environment. The occupational health and safety committee consisting of eight members (from four labor and four management) discusses details of environmental improvement, accident prevention, health diagnosis and education, etc., and each employee sets and practices his/her own safety goal to reduce the event rate.

Hierarchical role in EHS



Safety Supervision

Doosan Engine Work is fostering worker's awareness of safety by formulating codes of conduct on safety for each work process, processing equipment, and transporting equipment and using them before the start of a given job and as TBM (tool box meeting) materials. We are carrying out preventative EHS activities by each position and department to prevent accidents on the shop.

Safety keeper's activities

Safety keeper's activities are those in which all workers participate to enhance the effectiveness of the safety management on the floor to prevent accidents. In this regard, a worker is designated as a safety keeper for a period one week to improve unsafe acts and conditions voluntarily. This contributes greatly to not only maintaining the safety of workplace and colleagues but raising the responsibility for the safety on the shop floor in a manner that leads workers to continuously participate in such safety activities. As a result of this ongoing safety supervision, Doosan Engine showed a low rate of injury and occupational illness incidence in 2013.

Doosan Way Field Practice Committee

The supervisors' safety improvement committee composed of managers on the shop floor identifies riskfactors on site every month, takes corrective measures, provides training in line with those measures, and acts as belt and braces in prevention of accidents.

Real-time inspections and measures by safety managers dedicated to each section of the shop floor

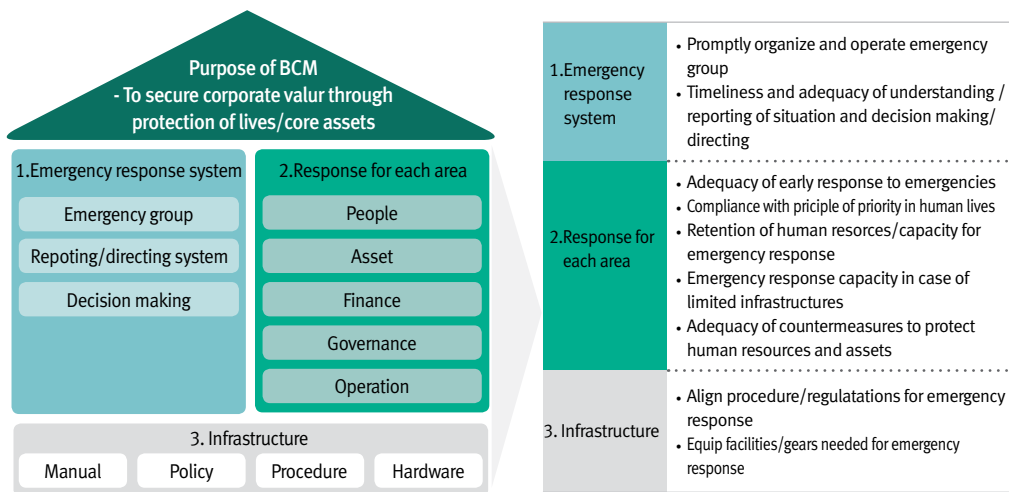
Safety managers dedicated to each section for the shop floor identify unsafe acts and conditions in real time and register the results in a computer system after taking immediate rectifying measures. The rectified results are analysed comprehensively for feedback, reflected in the "EHS evaluation" to induce voluntary participation.

System for managing harmful chemicals and hazardous, dangerous equipment

We apply strict management standards in the entire phase from purchase to disposal of harmful chemicals to minimize such substances that may result in adverse effects on humans and the environment. We keep an inventory of all chemical substances, review the harmfulness, investigate reproductive toxicity and carcinogenicity, and create a database of all the results. We not only prevent serious occupational accidents being caused from harmful or dangerous equipment by implementing the PSM(Process Safety Management) system, but also work to ensure workers' safety and prevent a neighborhood near the workplace from suffering damage through the establishment of an autonomous accident prevention system on site.

BCM (Business Continuity Management): Establishment of Business Continuity Management System

In today's advanced and globalized economic environment, halt in business caused by emergencies such as natural disasters could severely damage business. Doosan Engine strives to eliminate such incidents by securing rapid recovery ability to protect corporate core value. As part of our efforts, we began to establish BCM system in 2014 and completed the development of emergency response process in core areas to ensure business continuity management in cases of emergencies. Our first emergency response training began in October 2014 in Asset area. In 2015, we will conduct practical training in all areas including Finance, Governance, and Operation to secure capacity to respond to emergencies.



Establishment of Crisis Management & Response System at Overseas Workplaces

The company is operating the overseas workplace risk management and response system to prevent risks that may occur at overseas workplaces or any location employees are dispatched. This system minimizes damage even in crisis through the protection of major assets abroad as well as employees when damage or harm occurs. While our expatriate staffs work at overseas worksites, there are potential dangers in some countries due to wars, military coups, terrors, riots, natural disasters (earthquakes, tsunamis), or epidemics. These disasters could cause crisis where infrastructures essential to basic maintenance of a country malfunction. Doosan Engine operates crisis management response system to protect our expatriate staffs, their family, and assets in the areas of danger.

Doosan Engine plans to register to and provide medical and security assistance of global infrastructure, online support service and International SOS Service, a 24-hour overseas safety management membership service which enables the safety of overseas staffs to be checked and travel-alerts to be sent via e-mail and SMS through Travel Tracker.

Health Management

Doosan Engine periodically investigates and evaluates factors harmful to potentially the health of an employee to prevent occupational and lifestyle diseases that could be manifested due to lifestyle changes. The company actively gives employees support so they work in a healthy and comfortable environment through health promotion programs and tailored health care programs for individuals. In particular, we are well aware of such diseases as noise-induced hearing loss, musculoskeletal disorders, and cardiovascular diseases, all of which could occur to certain groups of workers and so are monitored continuously.

Health Promotion Programs

Doosan Engine operates health promotion programs to support in the prevention of various lifestyle diseases, cerebropathias, cardiovascular diseases, and musculoskeletal disorders that could arise from repetitive tasks, handling of heavy materials, or other causes; as well as aging and lack of exercise, lifestyle changes, etc. The company actively assists employees in maintaining a healthy life to minimize risk through: risk assessment of disease outbreak (based on the results of various examinations); comprehensive regular physical examinations for risk groups (low/medium/high); primary care physicians' health care(counseling and medical treatment, prescription); and guidance on improvements in healthy life styles(exercise instruction, low-salt diet, no smoking clinic). Further, Doosan Engine operates a system for the health care and health promotion of employees' families, such as each year's seasonal flu and novel flu vaccination, comprehensive physical examination, and medical expense support.

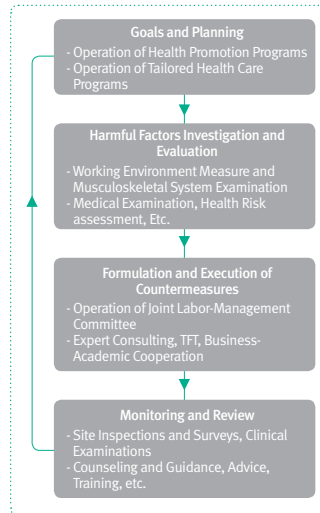
Tailored Health Care Programs

Doosan Engine operates a health care program considering individual health characteristics through a collaborative team connected with external experts and business-academic complex, such as Yonsei University Graduate School of Public Health, occupational environment medical center, and KOSHA. We have set up exercise rooms and fitness centers, and also built a Wellness Clinic System which has introduced physical strength-diagnosing equipment and personalized exercise guidance equipment. For those who suffer musculoskeletal pain and personal injuries, support is provided through personalized exercise programs (KEMA) every day at the exercise therapy room after medical evaluation. For patients with chronic diseases, such as lifestyle diseases, we operate a primary care physician system through which employees can receive diagnosis, clinical examination, lifestyle modification guidance, and stress counseling services.

Health Care for Suppliers

For employees of suppliers working on the premises, we are also taking pains with not only prevention of occupational disease but personal disease management, through primary care physicians, vaccination, harmfulness evaluation of chemicals, measurement of working environment, etc. In the event of an unexpected accident or illness, the company operates a system for the families and acquaintances to get convenient and numerous benefits through cooperation with a variety of medical institutions.

Health Care Management



Next Step

The primary purpose of safety management is to respect humans. We are examining all of the stages from design to investment to production so the safety of workers in all activities can be made a top priority. In addition, we will continue to strive to attain the top level of safety culture in the world to not only strengthen the ability to execute the EHS on the shop floor by continuously developing and supporting various EHS-related education, practice, experience programs, but also identifying individual environmental factors and making public the results of health and safety activities.

Green Management

Doosan Engine perceives green management as the social, ethical responsibility of corporations. We are making efforts to minimize the environmental impact that occurs in the entire process of corporate management from development to assembly, transport, and disposal of products. We hope to be reborn as an eco-friendly company by fostering environmental awareness through green management activities.



Context

With world wide concerns over climate change and energy issues, changes in corporate paradigms to preemptively respond to environmental issues, such as strengthening of various environmental regulations, are continuously required. We are engaging in multi-faceted efforts to minimize possible environmental risks: participate in climate change policies at home and abroad, develop an eco-friendly engine, and set company-wide energy-saving activities as strategic tasks.

In addition, in order to respond to Chemicals Control Act and Act on the Registration and Evaluation of Chemical Substances which will come into effect starting 2015, we are currently establishing inventory for chemicals used across the company. We are also positively reviewing the implementation of IT system to secure transparency in the course of purchase, storage, and disposal of chemicals.

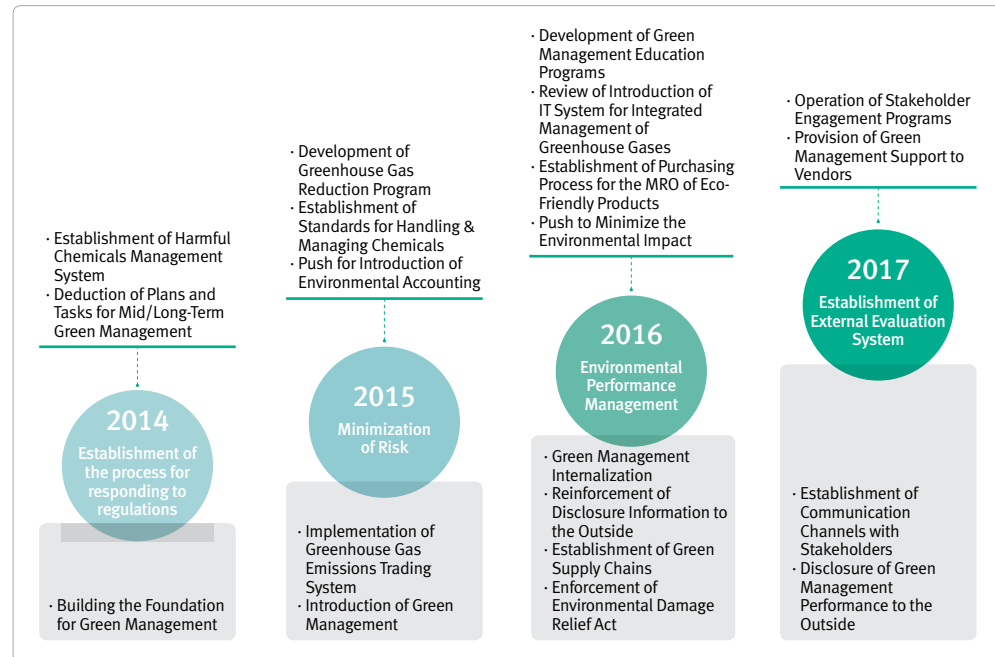


Progress

Green Management Policy and Strategy

With the increase in demand for the disclosure of environmental information and environmental management system standardization, we operate organized systems under the green management policy, and adopt gradual green management strategies to establish an external evaluation system which will begin with building an infrastructure under the regulations.

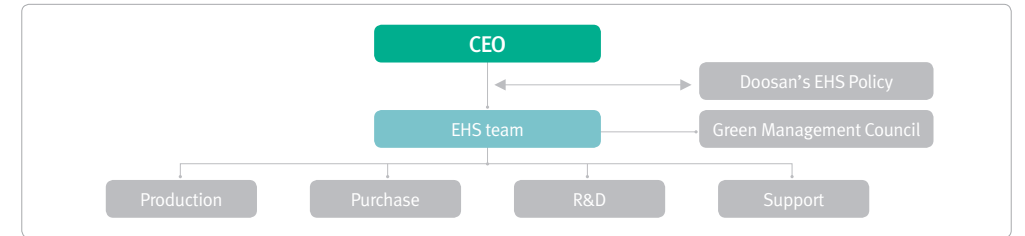
Road Map to Medium- and Long-Term Green Management



Green Management System

Doosan Engine's Changwon establishment formulates environmental management plans each year for systematic Green management to review the environmental impact on business and push to continuous monitoring and improvement activities. We have been maintaining the Green management system to international standards through regular follow-up and recertification examination since the acquisition of ISO 14001, the standard for the environmental management system issued by the International Organization for Standardization in 2007. We are doing our utmost to be an eco-friendly company through continuous improvements.

Green Management Promotion Organization



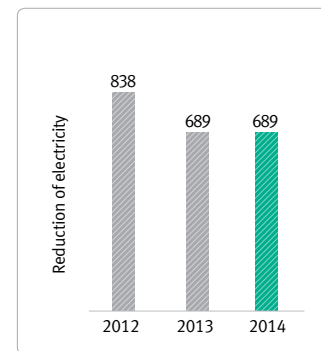
Energy Management

Doosan Engine is managing its total energy consumption in a systematic manner. We are reporting our total energy consumption to the government every year, while actively participating in various activities to minimize energy consumption by analyzing the facilities used for each types of energy. We study, analyze, and gradually improve technologies and systems to establish efficient facilities.

Energy and Raw Material Consumption

Classification	Unit	2012	2013	2014
Electricity	MWh	38,628	31,500	36,302
B-A	kℓ	6,630	5,096	7,010
LNG	1,000 m ³	850	488	606
Gasoline	kℓ	100	71	70
Diesel	kℓ	160	60	135
Kerosene	kℓ	95	84	74

Energy Reduction (unit: MWh)



Energy-Saving Activities

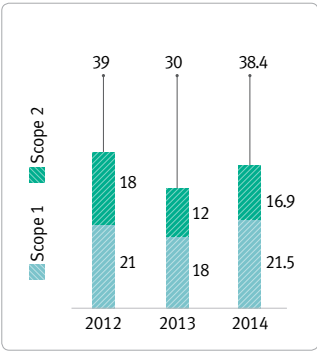
Doosan Engine is carrying out various activities to save energy. In line with the effort to habituate saving energy across the company, we turn off lighting in all factories and offices at lunch time, and night shifts check substations to turn off any unnecessary light or electric heater. In addition, we have minimized the use of energy by implementing automatic control system, in which the system stops the operation of air conditioning and heaters at designated time during summer and winter seasons.

Management of greenhouse gas emissions

Doosan Engine calculated the sources and quantities of emissions in the Changwon establishment by building a greenhouse gas inventory in accordance with international standards, such as IPCC, WRI, and ISO14064. We continue to make efforts to manage the increase or decrease in emissions of direct greenhouse gases (Scope 1) and indirect greenhouse gases (Scope 2).



GHG emissions (unit: 1,000 tCO₂)



GHG reduction

(unit: tCO₂)

Classification	2012	2013	2014
Process improvement	3,604	1,160	526
Replacement with high-efficiency equipment	208	343	79
Total	3,812	1,503	605

Disclosure of information on climate change

Doosan Engine is providing investors and external stakeholders with information on its response to climate change and making public greenhouse emissions and reduction activities by participating in CDP (Carbon Disclosure Project). We are striving to place ourselves as an excellent carbon management company by continuously managing and improving such areas as corporate governance structure, risk and opportunity factors, greenhouse gas emissions accounting, and communication, all of which are related to response to climate change issues.

Environmental pollutants emission management

Air pollutants

Doosan Engine has established an internal environmental standards that restricts dust emission, a major pollutant, 30% of the legal limit, and strictly abides by the internal standards. Departments in charge of operations, inspection, and management are jointly monitoring and making continuous improvements of emission and prevention facilities. The departments replace supplies and fillings for prevention facilities on a regular basis to deliver the optimal performance.

In 2014, Doosan Engine radically reduced the level of pollutants in exhaust gas during engine test runs by self-developing Selective Catalytic Reduction (SCR), a reduction device of air pollutants (NO_x, SO_x). We will participate in air pollution reduction policy by producing eco-friendly engines loaded with SCR.

Water pollutants

Doosan Engine fully delivers a small amount of wastewater created, to a specialized company. We have established a thorough management system to prevent leakages from the wastewater storage tank to the outside. We also set up an automatic shut-off and alarm system at the very end outlet to prevent the leakage of oil and water pollutants to neighboring seashores. Doosan Engine abides by concerning wastewater regulations.

Quantity of entrusted wastewater disposal

(unit: ton)

Classification	2012	2013	2014
Waste processed	48	40	54

Soil Pollution and Oil Spill Prevention System

Doosan Engine dedicates a department to inspect and improve the oil tank (B-A) used for the trial run of engines. The department conducts the test for land pollution and leakage consistent with legal standards. In addition, we have installed oil surveillance sensors and CCTVs in the main storage areasto prevent oil spills, and built scenarios and emergency drill systems for rapid response in an emergency to thoroughly block harmful pollutants from being emitted to the outside.



Next Step

Resources Recycling and Management

Doosan Engine recognizes the importance of limited resources and continuously seeks various resource management methods, such as by-product management and waste recycling, to use resources efficiently.

By-products and Waste Management

Scrap metal, processing chips, and copper scraps are separated and recycled or sold. Factory waste is classified into general waste or designated waste, and dedicated forklifts are used to transport them to waste storages, to allow treatment in accordance with disposal standards under the Waste Control Act. In addition, we are minimizing waste incineration and landfill rate and instead looking for companies to recycle waste. We are actively participating in the waste-recycling policy by collecting refinable waste oil and sorting waste wood (used for parts packaging) to recycling.

Status of By-product sale

(unit: ton, KRW 100 million)

Classification	2012		2013		2014	
	Amount of disposal	Amount of money	Amount of disposal	Amount of money	Amount of disposal	Amount of money
Scrap metal machined chips	3,240	14.5	2,300	8.6	2,720	9.6
Copper scrap	6	0.5	10	0.4	4	0.2
Total	3,246	15	2,310	9	2,724	9.8

* The amount of money is fluid according to unit cost of purchase from steel manufacturer

Communication with Stakeholders

The company is identifying and managing the needs of stakeholders (neighboring companies, NGO) due to exhaust gas (sooty smoke) and noise arising from the final trial run stage after the assembly of marine engines. We have established a mutual network with stakeholders and are constantly implementing various activities (community service, environmental cleanup, etc.) to maintain the communication and trust. As a result of these efforts, we received zero complaints over the year.

Response to Environmental Statutes

Doosan Engine responds to environmental laws and regulations by applying strict EHS internal management standards and guidelines and has not violated environmental statutes or been ordered to pay negligence fines since our foundation in 2000.

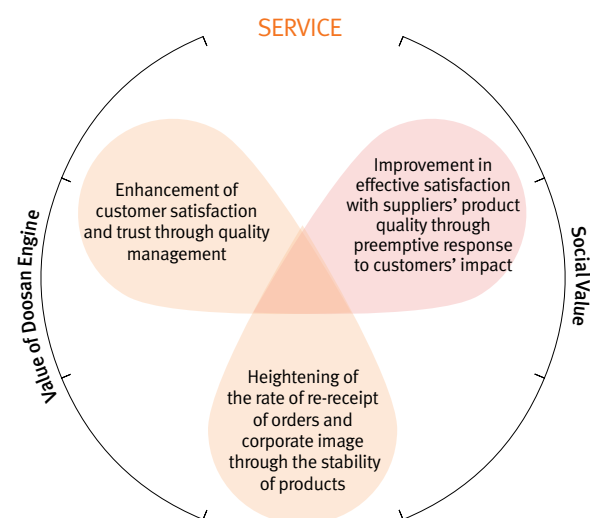
Doosan Engine plan to continuously manufacture eco-friendly engines that allow for reduction of exhaust gas emissions, fuel curtailment, etc. from the development stage thereof, and make EHS strategies and results public. In addition, the company intends to respond in advance to environmental issues for new projects and actively react to climate change and greenhouse gas reduction through curtailment of trial run fuels and power consumption, together with production of gas engines using cleaner fuels (LNG) and eco-friendly shipping materials (air pollutant reduction device).

In addition, Doosan Engine examined the impacts of expansion of carbon market on workplaces where Emission Trading Scheme takes effect, and is establishing related manuals, procedures, and guidelines to vitalize emission trading.

IV. Service:

Service for Improving Customer Value

- Quality Management
- Customer Satisfaction Management



Our customers are the reason Doosan exists.

The true measure of Doosan's success is our customers' satisfaction and respect. Our goal is to always deliver superior value than our competitors. We achieve this by understanding our customers' needs and meeting or exceeding their expectations.

- Excerpt from Doosan Credo -

Quality Management



Quality is the reputation and pride of Doosan Engine. We conduct quality management across the entire production cycle to improve customer satisfaction through the production and supply of the highest quality engines based on quality competitiveness. In addition, we make all-out efforts to provide customers with accurate information and maximize their value.

Context

The needs of our customers with respect to engines continue to increase and become more specific, so the importance of improvement in the quality of products and services is immeasurable. We establish and operate a quality assurance system in an organized, systematic manner under the quality policy that the company guarantees in engines for diesel/gas power plant and ships. The quality assurance system consists of quality assurance plans, procedures, and guidelines. Our company has acquired and maintained various certificates from international certification institutions implementation of the quality system. It has been rated as fully meeting the global standards by customers and regulatory authorities.

Progress



Quality Policy

The quality policy emphasized by Doosan Engine is being implemented on the 'creation of customer value based on trust in the quality'. We are raising the value of customers, along with pride in the quality, through activities for 3 Zero and single PPM quality innovation.

Quality Management System

Doosan Engine meets the quality requirement of certifying entities, but also amasses its reputation and pride of 'quality' through ceaseless maintenance and improvement of quality system.

Quality Certification

We have acquired ISO9001 certification to ensure customers' trust in its products and maintained the quality management system certification for the production and supply of the products. We also obtained a qualification for producing emergency diesel generators for nuclear power plant through certification of KEPIC-MN & EN and are carrying on nuclear-related business. Doosan Engine has acquired API Q1 Certificate and established the foundation of offshore equipment business.



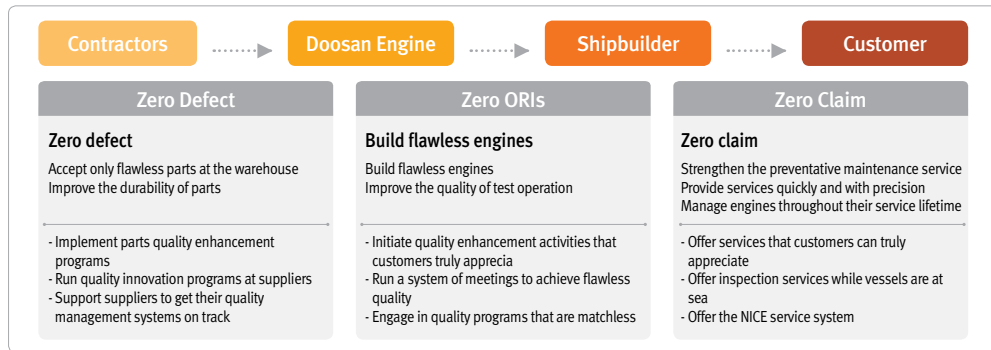
	ISO9001 : 2000	KEPIC-MN	KEPIC-EN
Cert No.	0601-2000-AQ-KOR-RvA	MN-243	EN-177
Certification by	Det Norske Veritas (DNV)	Korea Electric Association (KEA)	Korea Electric Association (KEA)
Scope of Certification	Design, Manufacture and Associated Services of Diesel Engine for Use in the Shipbuilding Industries, Co-Generation Plant and Diesel Power Plant	On-site Manufacture, Factory Assembly, and Relevant Services for Nuclear Piping Subassembly of Grade 3	Production of Nuclear Class 1E Diesel Generators, and Factory Assembly and Installation of Relevant Equipment



3 Zero⁺ Quality Innovation

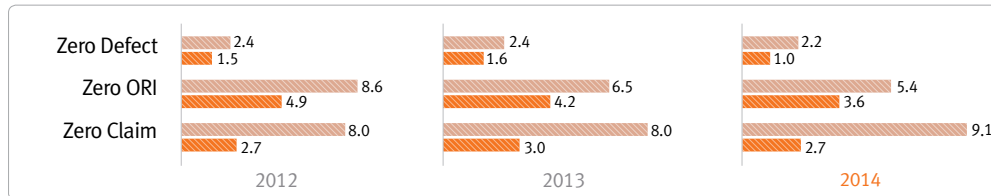
Doosan Engine's quality policy is focused on creating customer value based on the customers' trust in its quality. To this end, the company's '3 Zero' (Zero Defect, Zero ORI, and Zero Claim) quality innovation initiative has turned its diesel engine quality and services into global standards. This in-house initiative became the starting point for building engines that are unrivalled in the industry.

System for 3 Zero⁺ Quality Innovation



- Zero Defect: Securing trust in parts and in the quality of suppliers parts
- Zero ORI (Owner Request Item): Securing perfect quality without ORI in the process of engine assembly/trial run
- Zero Claim: Decrease in claims by customers due to trust and confidence in engines

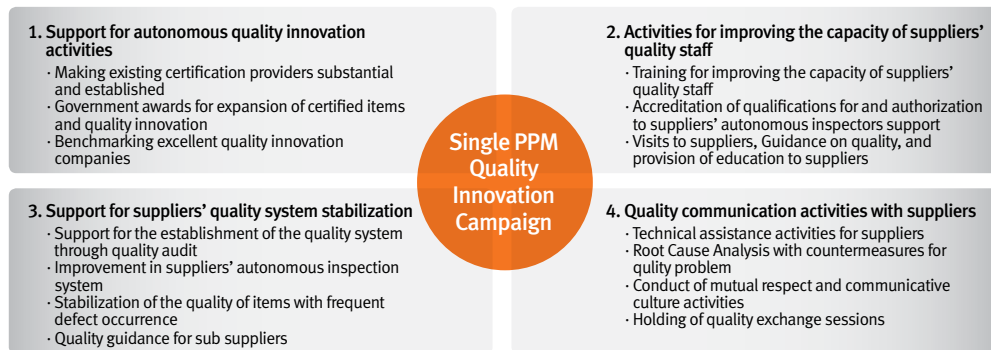
3 Zero⁺ Quality Indicators



※ Zero Defect means the number of defects arising from parts warehoused by suppliers; Zero ORI means the number of customers' comments arising in the process of assembly/trial run; and Zero Claim means the number of claims received after the delivery of products to customers.

Single PPM Quality Innovation

The Single PPM Quality Innovation is the world's unique system that the government certifies the quality of products and the zero-defect quality production activities with the aim of establishing zero-defect rate. The government awards the 'Single PPM Quality Certificate' to suppliers that manage to achieve the single PPM level at which defective products of 1,000,000 products should be reduced to a single digit number and are concurrently accepted. Doosan Engine introduced this system in 2005 and thereafter made suppliers practice the quality innovation program, which leads about 82% of suppliers to receive certifications from the government.



Status of Single PPM Certified Suppliers By Year

The certification is subject to suppliers that meet the promotion qualifications required by the single PPM, and are selected among non-large enterprises whose items subject to recommendation are 5% or more of total sales or production.

Government awards for quality innovation

We have been promoting activities for excellent single PPM implementors and persons of merit to receive awards from the government and achieved the brilliant feat of winning six consecutive government awards.

Year	Award winner (suppliers)
2012	Presidential Award to Keumyong Machinery Co., Ltd./Hanmi Hydraulic Machinery Co., Ltd.
2013	Prime Minister's Award to Kyung Sin ETM Co., Ltd.
2014	Presidential Citation to Younghae Engineering Co., Ltd.



Next Step

Activities for improving quality satisfaction that customers can feel

To maximize customers' satisfaction with the quality engines, parts, and services, we have been improving customers' real satisfaction and making the results public. We improve customer satisfaction by increasing the quality of engine parts through support for building vendors' self-management quality system, and by making qualitative service improvements and establishing trust relationship with customers through provision of differentiated customer-friendly sensibility services.

Satisfaction with the quality of engines that customers can feel	Satisfaction with the quality of parts that customers can feel	Satisfaction with the quality of service that customers can feel
<ul style="list-style-type: none">Quality before the launchQuality before the deliveryCustomer VOC scores	<ul style="list-style-type: none">Quality of warehoused partsQuality of delivered partsQuality SystemQuality improvement activities (Single PPM)Number of customers' comments after their inspection	<ul style="list-style-type: none">Number of flaws (defects)/ flaw incidenceQuickness with which flaws are addressedRate of measures against flawsSatisfaction with the quality of servicesRegular notification rate of claim status



Context



Progress

Customer Satisfaction Management



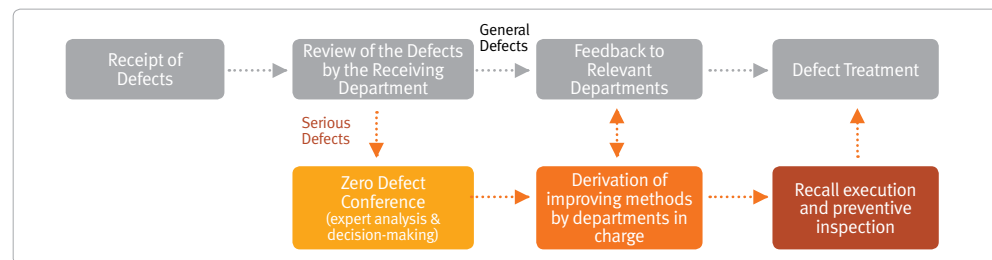
Doosan Engine is providing customers with differentiated customer-friendly sensitivity services, and actively continues to improve the quality of products and services for customer satisfaction.

The company listens to the voice of customers through various channels and provides them with the best value by products and services corresponding to their needs. To this end, we strive for customer satisfaction management through various activities, including the establishment of service systems to quickly respond to customers' needs, efficient operation of CS organizations, and education of employees for their capacity development.

Product Stability

Doosan Engine has established the process for caring defects and responding to the Product Liability Act through to relevant statutes to minimize customers' dissatisfaction. As a result, we are executing a system for responding to the occurrence of problems and complaints by all stages for design, sales, operation, and maintenance of products, and continuously improving the stability and reliability of the products.

Process for Caring and Responding to Defects



C/S quickness and customer service offer

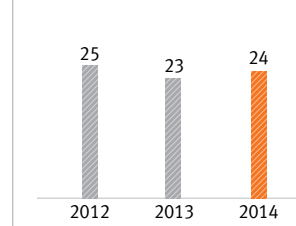
Doosan Engine provide 24-7 Anycall Service to our valuable customers in order to give the greatest satisfaction for operation, maintenance, and technical support. We provide periodic feedback with necessary information related to operation, maintenance & new technologies for products, and services through NICE Service System (Internet & Mobile Website).

Protection of Customer Information

The company has formulated and operated the 'Doosan Information Security Policy' if a customer should suffer damage due to the leakage of customer information. The 'Doosan Information Security Policy' aims at protecting the Company's information assets from various internal and external threats and maintain its competitiveness, and regards customer information most important. All employees are subject to education to protect information belonging to the company and customers, and we also carry out security checks every month. As a result of these activities, no complaint has been received concernig violations of customer privacy and losses of customer data last year.

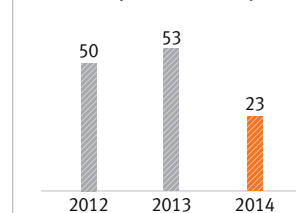


Number of voluntary recalls



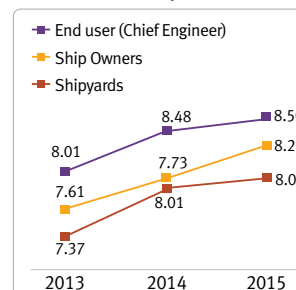
- Recall items
- Repeted claim items
- Modified design items
- Improved quality items

Number of preventive inspections



- Preventive Service
- Maiden Voyage Inspection
- Sailing Inspection
- Routine/General Inspection

Customer Survey Results



Preemptive Defects Prevention

Doosan Engine conducts voluntary recalls for nonconforming products in order to continue quality management and develop trust relationship with customers. In addition, we prevent potential defects in advance by preventive services, and improve customers' satisfaction who can feel through preemptive defects prevention.

Information about products and services offered

The engine instruction manual given when an engine is delivered consists of a total of five volumes, and contains in detailed disassembly/assembly procedures, features and measures of normal/abnormal state in operation, essential spare and tool list, etc, all of which are required to operate and maintain the engine. In addition, we provide information on the latest technology trends regularly and consult convenience of customers by supplying caution plate for safety operation and maintenance of main components in customer's desired language.

Improvement of Service Quality by Customer Satisfaction Survey

Doosan Engine regularly carry out customer satisfaction survey of services in order to provide differentiated customer-friendly services. Doosan Engine creates a list of customer demands that require long-term management, and continue to develop and improve the list.

Customer survey results

Doosan Engine visits customers throughout the years considering their characteristics and get their real-feel satisfaction and needs through open communication, and carry out a survey periodically at least once a year. We analyze various information and customers' needs collected through such communication and surveys, and then identify current level and execute improvement measures. Also, we continue to improve the ability for products, services, and defects caring.

Following VOC (Voice of Customer) through the customer survey, we reflected their needs in establishment of quick claim treatment system & e-mail response monitoring system, operation of technical support organizations, and enhancement of customer caring & visit activities and executed them immediately. In particular, we are getting customers' complaint with valuable VOC through ABC (Advanced patrol service Before Complaint) activities in advance and offering the settlement & feedback for their needs immediately for improvement of customer's satisfaction and strengthening of products & service ability.

Provision of Hands-On Support and Customized Services for Shipyards through Local Site Office

Doosan Engine has established a total of 7 sites in key locations and shipyards in Korea and overseas (2 in Korea and 5 in foreign countries-as of the end of 2014). Resident professional staff provide customized services to customers by promptly identified technical support for customer's requests and problems during installation of the engine on ship or offshore and trial after engine delivery to shipyard. We also train to improve of technical & work skill which were required from shipyard in order to prevent & settle the problem preemptively, and these efforts are significantly improving the customers' real-feel satisfaction.



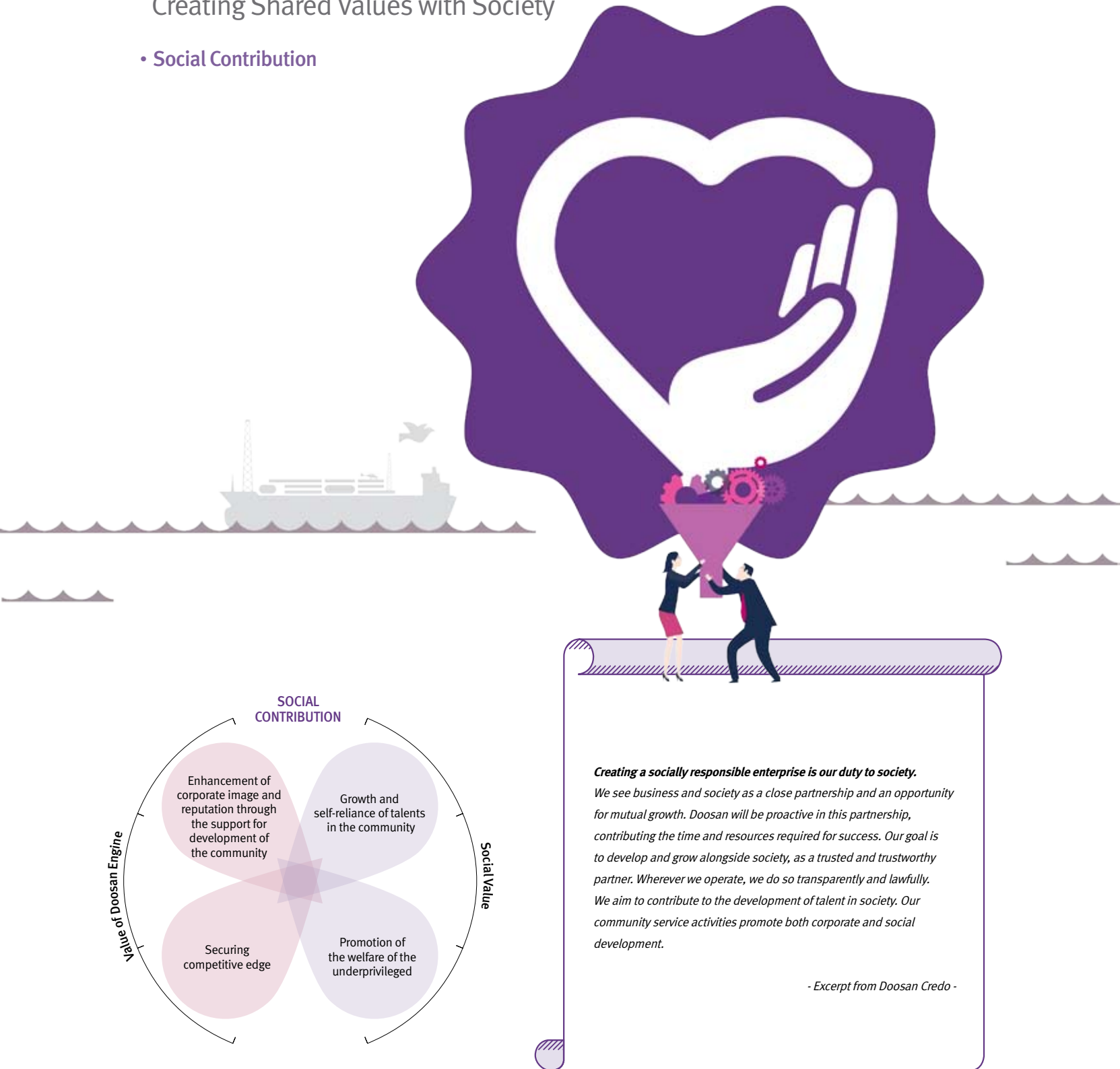
Next Step

The needs of customers with respect to quality and service of engines are constantly increasing. We strive for active response to any complaint or opinion from customers, and to do so, visit customers regularly and listen to their voice on the spot, while analyzing and responding to the opinions collected through the VOC channel. We will also play an active role in the stabilization of the quality of products and customer satisfaction.

V. Corporate Community Involvement

Creating Shared Values with Society

• Social Contribution



Social Contribution



Doosan Engine's social contribution activities create higher social value. Doosan Engine will continue its social contributions to support the development of local communities and strengthen its growth potential.

Context

Recent contribution activities go beyond simple donations and evolve into CSV (Creating Shared Value) activities that corporate business activities themselves solve social problems and create mutual value of business interests and social environment. Amid such trends, companies can build positive corporate images and secure competitive edge through positive social contributions and increase employees' loyalty to the companies through employees' participation. In addition, both growth potential and reputation of Doosan Engine can be enhanced through support for community development. Doosan Engine undertakes to secure the reputation for social contributions through voluntary participation by its employees and strengthen the value of both the organization and the society concurrently.

Progress

Doosan Engine's Social Contribution System

Vision and Mission



Strategic Directions

- Securing the reputation for social contributions based on activation of employees' voluntary participation
- Strengthening social contribution activities of the community through the activation of social volunteer corps

Activity Principles

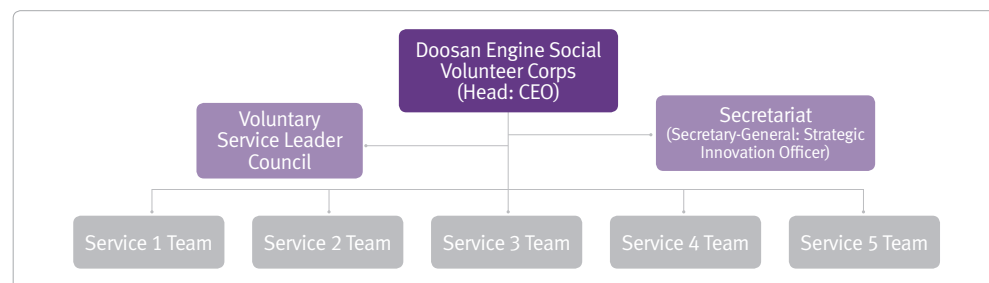
- 1) Develop/run social contribution programs that reflect the characteristics of a profession.
- 2) Effect substantive changes on the part of beneficiaries through constant performance.
- 3) Guarantee employees paid service hours to ensure their voluntary participation.
- 4) Executes the Matching Grant fund with respect to the donations by employees.
- 5) Makes an effort to create the culture for employees to voluntarily participate in social contribution activities.



Doosan Engine's Social Contribution Organizations

Doosan Engine's Social Volunteer Corps Organizations

Doosan Engine's Social Volunteer Corps headed by the CEO assigns all employees to any of five service teams and makes them render shared services to the community. The company runs the voluntary service leader council which consists of service leaders selected by each voluntary service team. Through this council, we not only collect the opinions of employees about social voluntary service activities and presents their directions, but do transparent, efficient voluntary service activities through the review and consultation of social voluntary service fund operations.



Doosan Engine's Major Social Contribution Activities

Doosan Engine Social Volunteer Corps promotes a campaign of one-day, one-spirit volunteer work for those in need for all employees around the globe. The world-wide volunteer service demonstrates Doosan's 100-year history as a responsible global citizen. World-wide 'Doosan Day of Community Service' takes place March and September every year as festivals that bring the local community and companies together.



Volunteer workers participated in various community service activities for local communities on Doosan Day of Community Service.



Next Step

Doosan Engine plans to lower local community's dependence on the company and make specialized social contribution continuously. The company will expand its management and promotion of Social Volunteer Corps' volunteer activities. We will continuously develop social contribution programs for both the community and the company.



Community Service Activities of Doosan Engine



Employees of Doosan Engine visited Sodap-dong, Uichang-gu of Changwon, a low-income residential area, and painted flowers on the wall to liven up the residential environment.



Employees of Doosan Engine handmade five different types of furniture. Among them, toy boxes and living toys were donated to facilities for single mothers and children, and closets and hangers were sent to facilities for disabled.



Those employees who were not able to participate in external community service activities made table with their families and colleagues for senior citizens who live alone.



Leverage voluntary team comprised of employees with experience in improvement of production sites visited senior club worksite to ensure convenience of elderly workers and increased work efficiency by making various improvements, such as repairing rail tracks and doing electrical works.

Doosan Engine consolidated sisterhood ties with six community childcare centers by visiting ice rink with the children.

In preparation of Jinhae Gunhang Festival, a leading fireworks festival in Jinhae, our employees cleaned up garbage thrown in Daeballyung Hill through environmental cleanup activities and prepared to welcome guests visiting Gunhang Festival.

Employees repainted the wooden walkway, bulletin board and benches, for the convenience of visitor to Bongam Mud Flat Eco-Learning Center. The employees helped grow an eco-forest by removing noxious plants and cleaning up the surroundings.



Babpeo Volunteer Team, formed with employees of Seoul office, visited three soup kitchens in Seoul to help distribute food, wash dishes and donate rice, sharing love and compassion.

Since 2000, passionate employees organized Small Love Volunteer Service Club to participate in community service activities. Approximately 300 members donate KRW 1,000 or under as operational fund and visit welfare facilities in need of a helping hand on every third Saturday of the month. They clean up the area, clean and repair the building, and mow the lawn as long as those are the things needed to be done at the facility.

APPENDIX

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Facts & Figures: Economy, Environment, Society

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Third-party Assurance Statement

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GRI Index

Economic performance

Stability indicators	2012	2013	2014
Current ratio	89%	91%	83%
Debt ratio	139%	110%	120%
Fixed rate	153%	149%	157%
Dependence on borrowings	17%	19%	20%

Profitability indicators	2012	2013	2014
Operating profit rate	5.1%	0.1%	-4.5%
Net profit rate	13.8%	-0.7%	-4.8%
ROA	9.9%	-0.3%	-2.6%
ROE	28.8%	-0.7%	-5.7%

Growth indicators	2012	2013	2014
Sales growth rate	-31.3%	-46.0%	19.5%
Growth rate of net profit	-15.3%	-102.8%	-706%
Growth rate of total assets	-12.9%	-6.9%	-7.4%

Activity analysis	2012	2013	2014
Total capital turnover (times)	2.0	1.0	1.2
Receivables turnover (days)	29	26	17.4
Inventory turnover (days)	78	115	85

Distribution of economic performance

Income tax	2012	2013	2014
Continuing operations income before income tax (KRW 100 million)	177	-1	-94

R&D	2012	2013	2014
R&D expenses (KRW 100 million)	74	175	57
R&D expenses to sales (%)	0.5%	2.4%	0.6%

Dividend	2012	2013	2014
Earnings per share (KRW)	2,739	-75	-608
Dividend per share (KRW)	0	0	-
Dividend yield (%)	0	0	-
Total dividends (KRW 100 million)	0	0	-

Labor costs	2012	2013	2014
Total annual salary (KRW 100 million)	901	700	721
Average per capita wage (KRW million)	77	69	60

Governance

Performance of the Board of Directors

Results of operation of the Board of Directors	2012	2013	2014
Times of meetings held (times)	9	10	9
Board attendance rate (%)	77%	86%	84%
Attendance by outside directors (%)	69%	85%	89%

Audit results

Audit results	2012	2013	2014	Total
Tip-off	1	1	1	3
Internal audit	4	2	5	11
Education on code of ethics	6	6	6	18
Total	11	9	12	32

Safety and environment results

Classification		Unit	2012	2013	2014	Remarks
Materials used	B-A	kℓ	6,630	5,096	7,010	
	LNG	1,000 m³	850	488	606	
	Gasoline (vehicles)	kℓ	100	71	70	
	Diesel	kℓ	160	60	135	
	Kerosene	kℓ	95	84	74	
Energy Usage	Power	MWh	38,628	31,500	36,302	
	Electric Power/Sales	MWh/KRW million	0.03	0.04	0.04	
Water	Industrial water	m³	443,144	336,378	384,122	
	SCOPE1	tCO₂	21	18	21.5	
	SCOPE2	tCO₂	18	12	16.9	
Greenhouse gas emissions	Unit emission	tCO₂/KRW million	0.028	0.04	0.04	
	Dust	mg/m³	7.7	7.6	9.1	Legal standard:50mg/m³
	Total hydrocarbons(THC)	ppm	41.8	44.4	44.2	Emission standards:200ppm
Air pollutants						

Classification		Unit	2012	2013	2014	Remarks
Waste	Incineration	ton	1,870	1,517	1,824	
	Recycling	ton	1,186	853	922	
Wastewater	Waste throughput	ton	48	40	54	
	Scrap metal, Machined chips	ton	3,240	2,300	2,720	
By-product recycling	Copper scrap	ton	6	10	4	
	Waste wood	ton	922	647	777	
Environmental investment	High-efficiency lighting replacement	KRW	3.9억	-	-	
	Cooling and heating control system	KRW	-	1.12억	-	
	Environmental protection costs	KRW million	1002	34	200	
Compliance with environmental statutes	Number of sanctions	Case	0	0	0	
	Fines	KRW	0	0	0	

Classification		Unit	2012	2013	2014	Remarks
Assistance to suppliers	EHS support	No. of suppliers	42	41	42	
	Injury rate (IR)	%	0.55	0.17	0.09	
Accident rate	Occupational disease rate (ODR)	%	0.07	0.08	0	
	Lost day rate (LDR)	%	26.55	6.39	29.11	

Status of remuneration

Classification	No. of persons	Total remuneration	(unit: KRW million)
			Average per capita remuneration
Inside directors	5	1,125	225
Outside directors	6	390	65
Total	11	1,515	138

Status of shareholders

Number of shares issued		69,500,000
Doosan Heavy Industries and Construction		42.7%
Samsung Heavy Industries		14.1%
Daewoo Shipbuilding & Marine Engineering		8.1%
Employee stock ownership		2.2%
The others		33.0%

Social performance

Workforce status

Classification		Unit	2012	2013	2014
Total number of employees	Officers	Persons	18	20	20
	Employees	Persons	986	990	976
By business area	Clerical staff	Persons	521	512	500
	Technical staff	Persons	483	498	496
By employment type	Full-timers	Persons	989	993	995
	Non-regular employees	Persons	15	17	1
	Rate of non-regular employees	%	1.49%	1.68%	0.10%
Retirement rate	Rate	%	4.08%	4.36%	3.51%
	Employees eligible for the union	Persons	723	678	626
Labor union	Joined members	Persons	498	492	491
	Membership rate	%	69%	73%	78%
Female staff	Number of persons	Persons	39	40	38
	Rate	%	3.88%	3.96%	3.81%
Employment of the Disabled	Number of persons	Persons	27	22	22
	Rate	%	2.69%	2.18%	2.21%

By age/gender		2012		2013		2014	
		Male	Female	Male	Female	Male	Female
50 and older		115	0	139	0	160	0
In 40s		233	5	238	6	238	6
In 30s		371	9	408	13	456	14
In 20s		246	25	185	21	105	18

Status of employment and retirement	2012		2013		2014	
	Male	Female	Male	Female	Male	Female
New employees	42	0	35	2	15	7
Retirees	37	7	33	5	26	5

*Excluding the 266 people who have voluntarily retired or were transferred to another subsidiary company in 2012.

Status of Parental leave use and reinstatement	2012		2013		2014	
	Male	Female	Male	Female	Male	Female
Number of employee(s) who obtained parental leave	1	2	-	1	0	3
Number of employee(s) who returned to work	-	2	-	1	0	3
Rate of employee(s) working for more than 12 months after the return to work	-	100%	-	100%	0	100%

	2012	2013	2014		2012	2013	2014
Average length of service (years)	8	8.42	9.51	R&D personnel (persons)	61	66	67

Social Contribution		2012	2013	2014
Donations for social contribution (KRW 100 million)		81	27	2

Hours of training per person

Classification		2012	2013	2014
		Annual average Training hours	Annual average Training hours	Annual average Training hours
Gender	Female	25	42	48
	Male	29	36	26
Employment category	Officers	84	16	8
	Managers (Head of Departments- Chief of Sections)	57	35	29
	Team member (Mere employees- Acting section chief)	22	71	49
	Production and Technical staff	26	43	15
	Researchers (R&D)	83	46	65

* Training hours are calculated based on those of full-time staff.

Financial assistance to suppliers (Shared Growth Fund)

Classification	2012	2013	2014
Raised amount of Shared Growth Fund	KRW 20 billion	KRW 35 billion	KRW 39 billion
Loans from Shared Growth Fund	KRW 17.8 billion	KRW 20 billion	KRW 21.2 billion
Beneficiaries of Shared Growth Fund	17	18	19

Associations and Memberships

(As of May 22, 2015)

Category	Name of Association/Society	Remarks	Category	Name of Association/Society	Remarks
1	Industrial Complex Civil Defense Association	Member	15	Fair Competition Federation	Member
2	Gyeongnam Employers Federation	Director	16	Korea Customs Logistics Association	Member
3	Gyeongnam Community Development Association	Director	17	Korea Association of Machinery Industry	Director
4	The Korean Society of Mechanical Engineers	Corporate Member	18	The Korean Society of Mechanical Engineers	Diamond Group
5	Plant & Mechanical Contractors Financial Cooperative of Korea	Member	19	Korea International Trade Association	Member
6	Korea Mech. Const. Contractors Association	Non-Member	20	Korea Industrial Technology Association	Member
7	The Society of Naval Architects of Korea	Member	21	Korea Industrial Complex Corp.Public Relations Council	Council
8	Machinery Financial Cooperative	Director	22	Korea Productivity Center	Member
9	The Federation of Korean Industries	Member	23	Korea Federation of Combustion Engines	Member
10	Electric Contractors' Financial Cooperative	Member	24	Korea Nuclear Association for International Cooperation	Regular Member
11	Changwon Chamber of Commerce & Industry	Standing Member	25	Korea Electric Engineers Association	Member
12	Changwon Plant Mangers Association	Member	26	Korean Standards Association	Executive Director
13	Changwon Labor and Management Cooperation Association	Council	27	Korean Standards Association Six Sigma Research Group	Member
14	Korea Economic Research Institute	Member	28	Korea Marine Equipment Research Institute	Director

Summary of Consolidated Financial Statements

(unit: KRW million)			
Title	2012	2013	2014
Assets			
I . Current capital	641,108	489,183	437,417
Quick assets	436,032	311,109	238,890
Inventories	205,076	178,074	198,527
II . Non-current assets	1,145,095	1,173,426	1,102,879
Investment assets	458,375	467,391	413,689
Tangible assets	592,944	627,446	607,104
Intangible assets	18,814	25,004	41,680
Other non-current assets	74,962	53,585	40,406
Total assets	1,786,203	1,662,609	1,540,297
Liabilities			
I . Current liabilities	717,758	538,143	529,675
II . Non-current liabilities	320,673	334,428	309,920
Total liabilities	1,038,431	872,571	839,595
Equity			
I . Capital	69,500	69,500	69,500
II . Capital surplus	367,215	367,215	367,215
III . Other capital items	397	355	0
IV . Accumulated other comprehensive income	(22,211)	4,439	-337
V . Earned surplus	332,871	348,529	297,161
Total shareholders' equity	747,772	790,038	700,702
Total liabilities and shareholders' equity			
	1,786,203	1,662,609	1,540,297

Summary Consolidated Statements of Income

(unit: KRW million)			
Title	2012	2013	2014
I . Sales	1,378,778	743,879	888,826
II . Cost of sales	1,223,597	691,242	887,155
III . Total sales profit	155,181	52,637	1,671
Selling and administrative expenses	85,415	51,916	41,267
IV . Operating profit	69,766	721	-39,596
Financial income	121,270	100,930	91,239
Finance costs	120,127	107,260	94,798
Other non-operating income	12,713	4,666	1,652
Other non-operating expenses	11,813	8,502	2,703
Income on equity method	136,225	4,147	-7,420
V . Income before income taxes (loss)	208,034	(5,298)	-51,627
Income tax expense (income)	17,654	(62)	-9,396
VI . Current Net income (loss)	190,380	(5,236)	-42,231
VII . Earnings per share (loss) (KRW)	2,739	(75)	-608

Assurance Statement

Independent Limited Assurance Report to Doosan Engine

We were engaged by Doosan Engine to provide limited assurance on the ‘2014 Doosan Engine CSR Report’ for the year ended December 31, 2014 (further ‘the Report’).

Responsibilities

As stated in the ‘Reporting Principles and Standard,’ Doosan Engine is responsible for all content within the Report in respect of the GRI Sustainability Reporting Guidelines (G4). It is the responsibility of Doosan Engine’s management to establish and maintain appropriate performance management and internal control systems from which the reported sustainability information is derived.

Our responsibility is to perform a limited assurance engagement and to express a conclusion based on the work performed.

Assurance Standards

We conducted our engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board. The standard requires that we comply with applicable ethical requirements, including independence requirements, and that we plan and perform the engagement to obtain limited assurance about whether the Report is free from material misstatement.

Major Assurance Procedures

Our engagement was designed to provide limited assurance on whether the Report is presented fairly, in all material respects, in accordance with the reporting criteria. Procedures performed to obtain a limited level of assurance on a sustainability report consists of making inquiries, primarily of persons responsible for the preparation of information presented in the sustainability report, and applying analytical and other evidence gathering procedures, as appropriate. These procedures included the following:

- Confirmation on whether the financial information presented in the Report was correctly derived from Doosan Engine’s audited financial statements
- Inquiries to gain an understanding of Doosan Engine’s processes for determining the material issues for key stakeholder groups
- Interviews with relevant staff at corporate and business unit levels responsible for providing the information in the Report
- Visit to Doosan Engine’s operation site in Changwon-Si
- Comparing the information presented in the Report to determine whether it is in line with our overall knowledge of, and experience with, the sustainability performance of Doosan Engine

Limitations

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement or an audit conducted in accordance with the International Standards on Auditing and Assurance Engagements, and consequently does not enable us to obtain assurance on all significant matters that we may become aware of in an audit or a reasonable assurance engagement. Accordingly, we do not express an audit or a reasonable assurance conclusion.

This report has been prepared solely for Doosan Engine in accordance with the terms of our engagement. We do not accept or assume responsibility to anyone other than Doosan Engine for our work, or for the conclusions we have reached in the assurance report.

Independence

In conducting our engagement, we have complied with the requirements of the International Federation of Accountants (IFAC) Code of Ethics for Professional Accountants, issued by the International Ethics Standards Board for Accountants. We do not engage in any and all activities that may influence our independence from Doosan Engine. KPMG has systems and processes in place to monitor compliance with the Code, and to prevent conflicts regarding independence.

Opinion and Conclusion

- Stakeholder Inclusiveness
 - Doosan Engine has communication channels with key stakeholders such as shareholders/investors, customers, suppliers, licensors, local communities and employees.
 - We are not aware of any key stakeholder group that has been excluded from dialogue in the Report.
- Sustainability Context
 - Doosan Engine presents an integrated CSR management model to continuously monitor and improve CSR.
 - We confirm that Doosan Engine has a comprehensive understanding of sustainability and applies it to management and stakeholder communication.
- Materiality
 - Doosan Engine conducts a materiality test in determining material issues.
 - We are not aware of any material aspects concerning its sustainability performance which have been excluded from the Report.
- Completeness
 - Doosan Engine applies a reporting scope, boundary and temporal criteria in the Report.
 - In terms of the criteria mentioned above, we confirm that the Report is suitable for stakeholders’ assessment of sustainability performance.

Based on the procedures performed, as described above, nothing has come to our attention to indicate that the Report is not presented fairly, in all material respects, in accordance with the reporting criteria.

June 2015
KPMG Samjong Accounting Corp.
CEO Kim, Kyo Tai

삼성 KPMG *Kyo Tai Kim*

Doosan Engine 2014 CSR Report GRI G4 Index

G4 Guidelines				
General Standard Disclosure		Page	Assurance	Note
Strategy and Analysis				
G4-1	Provide a statement from the most senior decision-maker of the organization (incl. strategy relates to sustainability, impacts of the activities in relation to the stakeholders).	10~11	√	
G4-2	Provide a description of key impacts, risks, and opportunities.	18~19,28~29	√	
Organization Profile				
G4-3	Report the name of the organization.	12	√	
G4-4	Report the primary brands, products, and services.	12~13	√	
G4-5	Report the location of the organization's headquarters.	12	√	
G4-6	Report the number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report.	12	√	
G4-7	Report the nature of ownership and legal form.	74	√	
G4-8	Report the markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries).	12~13	√	
G4-9	Report the scale of the organization, including: · Total number of employees · Net sales (for private sector organizations) or net revenues (for public sector organizations) · Total capitalization broken down in terms of debt and equity (for private sector organizations) · Quantity of products or services provided	31, 77		
G4-10	a. Report the total number of employees by employment contract and gender. b. Report the total number of permanent employees by employment type and gender. c. Report the total workforce by employees and supervised workers and by gender. d. Report the total workforce by region and gender. e. Report whether a substantial portion of the organization's work is performed by workers who are legally recognized as self-employed, or by individuals other than employees or supervised workers, including employees and supervised employees of contractors. f. Report any significant variations in employment numbers (such as seasonal variations in employment in the tourism or agricultural industries).	31, 75	√	
G4-11	Report the percentage of total employees covered by collective bargaining agreements.	75	√	
G4-12	Describe the organization's supply chain.	40~47	√	
G4-13	Report any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain, including: · Changes in the location of, or changes in, operations, including facility openings, closings, and expansions · Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations) · Changes in the location of suppliers, the structure of the supply chain, or in relationships with suppliers, including selection and termination	12, 29	√	
G4-14	Report whether and how the precautionary approach or principle is addressed by the organization.	18~19	√	
G4-15	Report whether and how the precautionary approach or principle is addressed by the organization.	76	√	
G4-16	List memberships of associations (such as industry associations) and national or international advocacy organizations in which the organization: · Holds a position on the governance body · Provides substantive funding beyond routine membership dues	76	√	
	· Participates in projects or committees · Views membership as strategic			
Identified Material Aspects and Boundaries				
G4-17	a. List all entities included in the organization's consolidated financial statements or equivalent documents. b. Report whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report.	2	√	
G4-18	a. Explain the process for defining the report content and the Aspect Boundaries. b. Explain how the organization has implemented the Reporting Principles for Defining Report Content.	24~25	√	
G4-19	List all the material Aspects identified in the process for defining report content.	24~25	√	
G4-20	For each material Aspect, report the Aspect Boundary within the organization, as follows: · Report whether the Aspect is material within the organization · If the Aspect is not material for all entities within the organization (as described in G4-17), select one of the following two approaches and report either: - The list of entities or groups of entities included in G4-17 for which the Aspect is not material or - The list of entities or groups of entities included in G4-17 for which the Aspects is material · Report any specific limitation regarding the Aspect Boundary within the organization	78~79	√	
G4-21	For each material Aspect, report the Aspect Boundary outside the organization, as follows: · Report whether the Aspect is material outside of the organization · If the Aspect is material outside of the organization, identify the entities, groups of entities or elements for which the Aspect is material · Report any specific limitation regarding the Aspect Boundary outside the organization	78~79	√	
G4-22	Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements.	None	√	
G4-23	Report significant changes from previous reporting periods in the Scope and Aspect Boundaries.	None	√	
Stakeholder Engagement				
G4-24	Provide a list of stakeholder groups engaged by the organization.	22~23	√	
G4-25	Provide the contact point for questions regarding the report or its contents.	22~23	√	
G4-26	Report the organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process.	22~23	√	
G4-27	Report key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting. Report the stakeholder groups that raised each of the key topics and concerns.	22~23	√	
Report Profile				
G4-28	Reporting period (such as fiscal or calendar year) for information provided.	2	√	
G4-29	Date of most recent previous report (if any).	N/A	√	First Published in 2014
G4-30	Reporting cycle (such as annual, biannual).	2	√	

General Standard Disclosure		Page	Assurance	Note
G4-31	Provide the contact point for questions regarding the report or its contents.	2	√	
G4-32	a. Report the 'in accordance' option the organization has chosen. b. Report the GRI Content Index for the chosen option (see tables below). c. Report the reference to the External Assurance Report, if the report has been externally assured. GRI recommends the use of external assurance but it is not a requirement to be 'in accordance' with the Guidelines.	78~79, 80~82	√	
G4-33	a. Report the organization's policy and current practice with regard to seeking external assurance for the report. b. If not included in the assurance report accompanying the sustainability report, report the scope and basis of any external assurance provided. c. Report the relationship between the organization and the assurance providers. d. Report whether the highest governance body or senior executives are involved in seeking assurance for the organization's sustainability report.	78~79	√	
Governance				
G4-34	Report the governance structure of the organization, including committees of the highest governance body.	14~15, 20~21	√	
G4-35	Identify any committees responsible for decision-making on economic, environmental and social impacts.	14~15	√	
G4-36	Report the process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees.	14~15, 20~21	√	
G4-37	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.	21	√	
G4-38	Report the composition of the highest governance body and its committees by: · Executive or non-executive · Tenure on the governance body · Number of each individual's other significant positions and commitments, and the nature of the commitments · Gender · Membership of under-represented social groups · Competences relating to economic, environmental and social impacts · Stakeholder representation	14~15	√	
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).	14~15	√	
G4-40	Report 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, including: · Whether and how diversity is considered · Whether and how expertise and experience relating to economic, environmental and social topics are considered · Whether and how stakeholders (including shareholders) are involved	14~15	√	
G4-41	Report processes for the highest governance body to ensure conflicts of interest are avoided and managed. Report whether conflicts of interest are disclosed to stakeholders, including, as a minimum: · Cross-board membership · Existence of controlling shareholder · Cross-shareholding with suppliers and other stakeholders · Related party disclosures	14~15	√	
G4-42	Report the highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts.	20~21	√	
G4-43	Report the measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics.	21	√	
G4-44	a. Report the processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics. Report whether such evaluation is independent or not, and its frequency. Report whether such evaluation is a self-assessment. b. Report actions taken in response to evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics, including, as a minimum, changes in membership and organizational practice.	14~15	√	
G4-45	a. Report the highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities. Include the highest governance body's role in the implementation of due diligence processes. b. Report whether stakeholder consultation is used to support the highest governance body's identification and management of economic, environmental and social impacts, risks, and opportunities.	18~19	√	
G4-46	Report the highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics.	18~19	√	
G4-47	Report the frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities.	21	√	
G4-48	Report the highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material aspects are covered.	21	√	
G4-49	Report the process for communicating critical concerns to the highest governance body.	14~15	√	
G4-50	Report the 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.	15	√	
G4-51	a. Report the remuneration policies for the highest governance body and senior executives for the below types of remuneration: · Fixed pay and variable pay: - Performance-based pay – Equity-based pay - Bonuses – Deferred or vested shares · Sign-on bonuses or recruitment incentive payments · Termination payments · Retirement benefits, including the difference between benefit schemes and contribution rates for the highest governance body, senior executives, and all other employees b. Report how performance criteria in the remuneration policy relate to the highest governance body's and senior executives' economic, environmental and social objectives.	14~15	√	
G4-52	Report the process for determining remuneration. Report whether remuneration consultants are involved in determining remuneration and whether they are independent of management. Report any other relationships which the remuneration consultants have with the organization.	14~15	√	
G4-53	Report how stakeholders' views are sought and taken into account regarding remuneration, including the results of votes on remuneration policies and proposals, if applicable.	14~15	√	
G4-54	Report how stakeholders' views are sought and taken into account regarding remuneration, including the results of votes on remuneration policies and proposals, if applicable.	14~15	√	
Ethics and Integrity				
G4-56	Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.	4~7, 16~17	√	
G4-57	Report the internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity, such as helplines or advice lines.	16~17	√	
G4-58	Report the internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity, such as escalation through line management, whistleblowing mechanisms or hotlines.	16~17	√	

Specific Standard Disclosures		Page	Assurance	비고
Procurement Practices				
G4-DMA	Disclosure on management approach	28-29	✓	
G4-EC9	Proportion of spending on local suppliers at significant locations of operation	46	✓	
Energy				
G4-DMA	Disclosure on management approach	28-29	✓	
G4-EN3	Energy consumption within the organization	57	✓	
G4-EN5	Energy intensity	74	✓	
G4-EN6	Reduction of energy consumption	57	✓	
G4-EN7	Reductions in energy requirements of products and services	36	✓	
Emissions				
G4-DMA	Disclosure on management approach	28-29	✓	
G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	58, 74	✓	
G4-EN16	Indirect greenhouse gas (GHG) emissions (Scope 2)	58, 74	✓	
G4-EN18	Other indirect greenhouse gas (GHG) emissions (Scope 3)	74	✓	
G4-EN19	Greenhouse gas (GHG) emissions intensity	58	✓	
Effluents and Waste				
G4-DMA	Disclosure on management approach	28-29	✓	
G4-EN23	Total weight of waste by type and disposal method	59	✓	
Products and Services				
G4-DMA	Disclosure on management approach	28-29	✓	
G4-EN27	Extent of impact mitigation of environmental impacts of products and services	36	✓	
Compliance (Environment)				
G4-DMA	Disclosure on management approach	28-29	✓	
G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	59, 74	✓	
Environmental Grievance Mechanisms				
G4-DMA	Disclosure on management approach	28-29	✓	
G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	59	✓	
Anti-Corruption				
G4-DMA	Disclosure on management approach	28-29	✓	
G4-S04	Communication and training on anticorruption policies and procedures	16-17	✓	
G4-S05	Confirmed incidents of corruption and actions taken	16-17	✓	
Compliance (Society)				
G4-DMA	Disclosure on management approach	28-29	✓	
G4-S08	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	17	✓	
Customer Health and Safety				
G4-DMA	Disclosure on management approach	28-29	✓	
G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	None	✓	
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	None	✓	
Compliance (Products and Services)				
G4-DMA	Disclosure on management approach	28-29	✓	
G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	17	✓	

The UN Global Compact's ten principles

Doosan Engine supports the Ten Principles of UN Global Compact.

Human Rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and

Principle 2: make sure that they are not complicit in human rights abuses.

Labour

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

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

Principle 5: the effective abolition of child labour; and

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

Environment

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

Principle 8: undertake initiatives to promote greater environmental responsibility; and
Principle 9: encourage the development and diffusion of environmentally friendly technologies.

Anti-Corruption

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

Global Network

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