

*Building your tomorrow today*

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## *Building your tomorrow today*

Doosan has selected "*Building your tomorrow today*" as the corporate slogan, which is based on the conviction that companies must contribute to humankind and help to shape the future. All Doosan employees now embrace this slogan, and we continue to enhance our capabilities as a global company through our unique value and philosophy.

Doosan is working at this very moment to provide the basics necessary for improving the quality of people's lives. Doosan's presence can be found in every area of the infrastructure support business, which encompasses industrial facilities, machinery, heavy equipment and construction. You are invited to watch how we are helping to shape the future for all.

## CEO Message



Extending our sincere gratitude to our shareholders and customers for their unwavering love and support for us, we pledge to be a global company that you can be proud of.



## To our esteemed shareholders and customers:

As Korea's first modern company with 121 years of history, Doosan has gone through many changes and significant growth over the years. Toward the end of the 1990s, however, we started to make bolder, innovative moves to completely reshape ourselves at an unprecedented rate, and have achieved remarkable growth. As a result, Doosan has established itself as a world-class infrastructure support business (ISB) provider, with about 40,000 employees in 38 countries.

Behind our great success is a venturesome, entrepreneurial spirit. This pioneering spirit that has driven us to journey into unknown territories remains deeply embedded in our DNA. For the past 121 years, Doosan has lived with great passion. Despite being the oldest company in Korea, our vibrant mindset keeps us young and unafraid of change.

Based on our solid business portfolio, Doosan has delivered robust and healthy growth. We keep a close watch on changing market trends to identify new growth engines. Furthermore, we are committed to achieving innovation and technology excellence, which will give us a strong competitive edge in the market and help us take our next great leap forward.

Doosan People impose no limits to our aspirations and possess true tenacity and drive, and therefore have the capability to utilize every available means to achieve our goals. Based on our people-oriented management philosophy, Doosan strives to become a "caring group of powerful people," who will lead the way to a brighter future for the company.

Doosan's focus on maximizing our shareholder value will remain firm. After switching to a holding company structure, Doosan has achieved greater transparency and stability in governance structure. We strive to establish a board-centric model of corporate governance throughout the entire corporation, including the holding company as well as all of its subsidiaries.

Even at this very moment, all of our employees from around the world do their utmost to maximize corporate value and deliver customer satisfaction, as we strive to become a "Proud Global Doosan." For a company with over 100 years of history, we also believe that it is our obligation to set good examples for others to follow and thereby have faithfully fulfilled our corporate social responsibilities.

We are here today thanks to the confidence and trust our shareholders and customers have in us. Our objective is to become a company that every shareholder and customer can be proud of. That is a commitment we solemnly pledge to all of you.

Thank you very much.

Chairman and CEO of Doosan Group  
Jeongwon Park





# About Doosan



# A History of Transformation

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### Korea's Oldest Enterprise

Doosan is Korea's oldest business organization with a proud history of 121 years. Doosan began in 1896 as Korea's first modern retail business, known then as the Park Seung-jik Store and has grown and developed for more than a century.

### A Journey of Dynamic Change and Innovation

Now a global ISB powerhouse, Doosan's history represents a story of dynamic change and growth. In 1946, Chairman Too Pyung Park renamed the Park Seung-jik Store as the Doosan Mercantile Company, marking the start of our modern history. We diversified into brewing and international trade in the early 1950s and into construction, food & beverages, machinery, media and cultural services in the 1960s. By the 1970s, Doosan was well established as a leader in Korean consumer products and culture-related businesses and our construction, machinery, and electronics businesses entered high-growth stages. During the 1980s, we focused on becoming international while also venturing into publishing and advertising. In the 1990s, operations were divided into three business sectors: information & retail, consumer products, and high-tech materials.

In 1995, one year before our 100<sup>th</sup> anniversary, we began to rigorously restructure with an aim to reinvent ourselves for the 21<sup>st</sup> century. We sold flagship affiliates, including OB Beer, improved profitability by integrating 23 affiliates into 4 companies (Doosan Corporation, Doosan Engineering & Construction, Doosan Packaging and Oricom) and introduced advanced management systems.

### Transition to an ISB-driven Business Portfolio

With a better financial health and improved cashflows, Doosan has accomplished remarkable change and growth through the acquisitions of new growth engines since 2000. Doosan acquired power and desalination plant builder Doosan Heavy Industries & Construction (formerly Korea Heavy Industries & Construction) in 2001, Korea Industrial Development Company in 2004, and construction equipment manufacturer Doosan Infracore (formerly Daewoo Heavy Industries & Machinery) in 2005. Such major acquisitions have transformed our business portfolio into one centered on the infrastructure support business (ISB).

Doosan has aggressively acquired companies outside Korea to grow and globalize. In 2005, we acquired the water treatment business of U.S.-based American Engineering Service Inc. (AES) to set up Doosan Hydro Technology. In 2006, we acquired UK-based Doosan Babcock (formerly Mitsui Babcock Energy), with patented

technologies in the design and engineering of boilers, as well as a large-scale casting and forging operation Doosan IMGB (formerly Kvaerner IMGB) in Romania.

In 2007, Doosan Infracore acquired U.S.-based Bobcat, the world's No. 1 compact construction equipment company, to emerge as a global maker of construction equipment ranging from compact to large models (Ranked sixth in 2016, according to the 2017 Yellow Table Survey by KHL, a U.K.-based construction-industry media group).

In 2008, we acquired Doosan Mottrol (formerly Tongmyung Mottrol), a hydraulic systems specialist, and Norway-based Doosan ADT (formerly Moxy Engineering), a maker of articulated dump trucks. Each of these acquisitions has added significant synergy value to our rapidly growing ISB business.

Doosan Heavy Industries & Construction has laid the groundwork for advancing into the water treatment market. In 2011, Chennai Works, an Indian manufacturer of boilers for coal-fired power plants, was acquired to raise order-taking competitiveness in the local market. A majority share of Germany's Lentjes was also purchased to access original technologies for eco-friendly power generation facilities. In 2012, the Water BG bought Enpure, a British company with design and fabrication technologies for preliminary treatment facilities. Now aggressive marketing activities are being conducted in the Middle East, Southeast Asia, the Americas and other regions.

In 2014, Doosan Corporation established the Fuel Cell BG, expanding our business into fuel cells for residential, commercial buildings and power generation applications. Moreover, Doosan acquired Circuit Foil Luxembourg that produces the copper foils, the core materials of Copper Clad Laminates, and Rushlift, a U.K.-based provider of forklifts and other equipment for hire.

### A New History as a Top-tier Global Enterprise

After acquiring domestic and overseas companies with proprietary technologies and the potential to create synergy with our existing businesses, Doosan now operates 25 affiliates and 121 overseas entities, generating 63 percent of its total revenue from overseas, as of 2016.

Although we have already achieved significant changes, we will continue to pursue further transformation to provide exceptional products and services that inspire trust and pride among our customers, shareholders and employees.





Sales growth  
(In trillions of KRW)

1998

2016

3.4 → 16.4



# An Explosive Growth Record

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### Average Annual Sales Growth : 10%

Doosan chose to pursue the infrastructure support business as our new main growth engine, a choice that has generated phenomenal growth. Sales (KRW3.4 trillion in 2000) reached KRW16.4 trillion in 2016, increasing at a 10 percent compound annual growth rate (CAGR).

This achievement was made possible through the simultaneous pursuit of both organic and inorganic growth.

### Exploration of Overseas Markets for Power and Water

As a global player in power and water, Doosan Heavy Industries & Construction has led the growth of Doosan Group by actively exploring overseas markets in the Middle East, India and Southeast Asia. Doosan Heavy Industries & Construction has also secured core source technologies for power plant equipment, such as boilers and turbines, by acquiring foreign businesses, including Babcock UK and Skoda Power, in the Czech Republic. We are widely recognized as the world's No. 1 business in desalination technologies. Our overseas orders have been growing steadily, accounting for over 70 percent of the all new orders received by the mid-2000s. Furthermore, new orders reached a historic high of KRW 13.9 trillion in 2010.

### Securing New Growth Engines through Acquisitions

Doosan Infracore has also grown remarkably through years of mergers and acquisitions. In 2007, the Company acquired U.S.-based CTI, which owns patented technology for engines powered by a blend of hydrogen and compressed natural gas (HCNG), and Yantai Yuhua Machinery, a major Chinese wheel loader manufacturer. In the same year, Doosan Infracore also completed the acquisition of

Bobcat, the global leader in compact construction equipment. This acquisition enabled us to become one of the world's major construction equipment manufacturers.


### Transition to a Holding Company Structure for Sustainable Growth

Doosan has maintained constant growth by carrying out successful restructuring and switching its business focus to ISB. With the parent company -Doosan Corporation-at the center, the whole group has implemented even more transparent corporate governance, and has secured stable, long-term foundations for growth by focusing on core businesses and developing corporate values.

### Sales (In billions of KRW)



In accordance with the Korean International  
Financial Reporting Standards (K-IFRS)

A nighttime photograph of a cityscape. On the left, a tall, modern skyscraper with many lit windows stands prominently. To its right, a traditional Korean building with a tiled roof and stone walls is visible. In the foreground, a road with light trails from moving vehicles is shown. A dark blue rectangular box is overlaid on the right side of the image, containing white text and a large percentage.

Annual revenue growth  
rate since 2000

10%

# Global Expansion that Extends Our Reach

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## Accelerating Globalization

Our diverse business portfolio allows us to improve the lives of people around the world. Meanwhile, our drive for global expansion is accelerating, thanks to our talented workforce of 37,500 employees (as of the end of 2016) in 38 countries (with more than 19,500 employed outside Korea) and a sales network spanning more than 1,200 locations worldwide. In 2016, we generated KRW10.4 trillion in sales (over half of our total revenue) from outside the Korean market.

## Efficient Networks that Span the Globe

Doosan's production plants span the globe from the U.S. and Europe to Asia. Our production facilities are closely linked with the Korea-based headquarters and global R&D and engineering networks based in the U.S., India and Europe to ensure that customers worldwide receive top-quality products, technology and services.

## An ISB Leader Recognized Worldwide

Doosan has been recognized as a global leader in various ISB sectors, including power, water, construction equipment, construction and marine diesel engines.

Doosan has emerged as a global EPC contractor in the power plant segment. At the same time, Doosan is internationally recognized as the world's foremost builder of seawater desalination plants. We are now entering the multi-effect distillation (MED) segment, thereby furthering our market dominance.

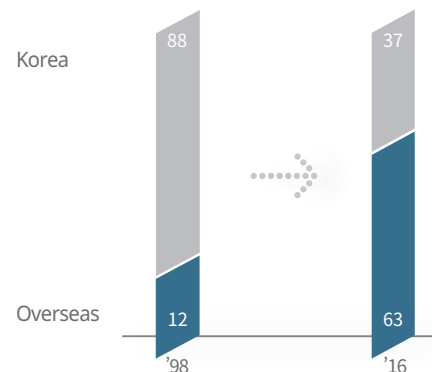
Doosan has also completed a client-tailored construction equipment portfolio that encompasses compact, mid-sized and large model lineups. Especially, Doosan Bobcat's skid-steer loaders are ranked first in the world.

In addition, we rank second in the world for low-speed marine engines, and the Korean government has selected our steam generators for industrial and nuclear plant use as well as our forged backup rolls for plate rolling mills as "World's Best Products" for leading the global market.


## Ongoing Investment for Stronger Competitiveness

We continue to strengthen operations and expand the business network by hiring and training globally competent talent. We are also adopting the International Financial Reporting Standards (IFRS) as part of our commitment to operating on the global stage and adhering to global standards.

Overseas vs. Korea Revenues (Unit: %)







Our global workforce

37,500  
in 38 countries

# The Doosan Credo

The values and philosophy that drive our growth

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## The Doosan Credo

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

### Aspiration

Doosan's ultimate goal is the creation of a "Proud Global Doosan". In our Vision, each of our employees and all of our stakeholders will benefit from, and be proud of their association

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

### Core Values

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

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





## Strategy

Doosan's strategy is based on the principle of "2G"- Growth of Business by Growth of People. 2G is a virtuous circle in which people drive business growth, which in turn provides our people the opportunity for advancement.

Doosan believes that sustained success can only come through people. People have been the foundation of our success for the past century and will help us build our next hundred years. Such trust in our people lies at the very heart of Doosan's management philosophy.

## Doosan People

Doosan People are those who keep the Doosan Credo in their hearts and practice Doosan's distinctive traits everywhere they operate.

Traits of Doosan People are as follows:



Limitless Aspiration



Cultivating People



Inhwa



Open Communication



Tenacity & Drive



Prioritization & Focus

# Sponsorship & Forum

Promoting the Doosan brand through global sports sponsorships & forum

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## Doosan Global Business Forum

Based on its 121-year history and its experience of rapid growth, Doosan recognizes how important it is to fully understand the business environment and forecast the future based on that understanding.

In particular, enterprises are experiencing difficulty in growth and development due to concern about economic growth that has been persistently low since the global financial crisis, and geopolitical risks. Especially, infrastructure business enterprises have been enormously affected by the macroeconomic changes, so they must have an agile response to those changes.

In this context, Doosan held the first “Doosan Global Business Forum” in July 2012, in order to provide an opportunity to make a breakthrough in business

management by analyzing the global business environment and forecasting the core trend of infrastructure industries, while sharing perspectives and ideas with world's greatest scholars, opinion leaders, and business partners.

“Doosan Global Business Forum,” which is held at the very place where “The Open Championship” is held, is designed to give Doosan's customers from all over the world a chance to share their understanding and prospect about the world economy and current issues of the infrastructure industry, while enhancing our business partnership. “Doosan Global Business Forum” aims to provide a place for in-depth discussion to build a foundation of long-term success and prepare for development in the future, in tandem with our business partners.



## The Open Championship

Doosan has been the Official Patron of 'The Open Championship' since 2010 to promote the Doosan brand.

Doosan expressly announced the identity of the Doosan brand in 2011 under the slogan 'Building Your Tomorrow Today'.

For this, TV commercials and newspaper advertisements were created under the theme of 'The Open', an independent promotion stand was set up at the golf course to introduce all of Doosan's businesses and convey its exceptional company image.



## FC Viktoria Plzen

Doosan expands the value of its brand by supporting FC Viktoria Plzen, a prestigious football club in Europe, the home of football.

FC Viktoria Plzen is the most prestigious football club in the Czech League, and has won the Czech regular season championship and advanced to the finals of the UEFA Champions League.

Uniforms with the Doosan logo on and the exclusive stadium named 'DOOSAN Arena', the FC Viktoria Plzen is effectively advertising the Doosan brand in the European market.



# Our Infrastructure Support Businesses





# Our Infrastructure Support Businesses

Enriching the world as an ISB leader

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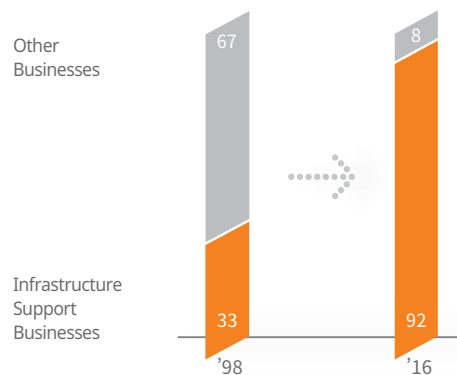
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The infrastructure support business (ISB) is both a growth engine and the key to our global expansion. ISB also delivers the essentials for enriching lives worldwide. The business is about building and operating infrastructure in the public and private sectors and includes energy development, parts and machinery, construction, civil engineering, transportation and other value-added areas.

Doosan's ISB activities generate 92 percent of our total sales and encompass various types of plants, construction equipment, machinery, housing, expressways, bridges and industrial engines.

The rapid progress of urbanization, globalization, and the surging growth of emerging markets will enable us to increase ISB market share and help enrich the world through the continuous growth of our ISB business.

Sales Contribution by Business Type  
(Unit: %)



ISB share of sales portfolio

92%



# Doosan Heavy Industries & Construction

Changing the world with cutting-edge technology and expertise

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## Korea's Leading Company in the Plant Business

Doosan Heavy Industries & Construction is Korea's leading producer of the machineries and equipment. We offer a wide variety of industrial products and facilities ranging from basic industrial materials such as castings and forgings to equipment and components for nuclear, thermal and wind power plants as well as transport and environmental facilities to our global customers in the plant business. Furthermore, our technologies and construction capabilities to execute plant construction, civil engineering and other large-scale projects as a general contractor have been widely recognized at home and abroad.

## A Global Leader in Power and Water

Doosan Heavy Industries & Construction, a global leader in power and water, has received large-scale engineering, procurement and construction (EPC) projects in the Middle East, India and Southeast Asia since 2006, solidifying its position as a global EPC player in the power plant sector. Also, we have won orders for 31 desalination plants across the Middle East, including in Saudi Arabia, the UAE, Kuwait, Oman, and Qatar since 1978, enjoying the largest market share in the world. The amount of fresh water produced daily in these plants is about five million tons, sufficient to meet the daily water requirements of 17 million people.

## Boost in Global Business Competencies

Doosan established Doosan Power Systems with Doosan Babcock in the UK and Doosan Škoda Power in the Czech Republic in a bid to go after the power plant market in Europe and the Americas. In May 2009, we completed a large-scale plant complex in the Dung Quat industrial park in Vietnam to fabricate parts for generators, material-handling systems, and water desalination facilities. To secure capacity to win new orders in the Indian market, the Company acquired Chennai Works, a maker of boilers for thermal power plants located in Chennai, the largest city in southern India, in 2011, and took over German-based Lentjes in a bid to secure proprietary technology for eco-friendly power facilities.

In 2012, Doosan purchased the water treatment specialist, Enpure, strengthening our capabilities in the reverse osmosis area and expanding our involvement in the water treatment business. And, in 2013, Doosan established global R&D centers in the UK, the Czech Republic, and Saudi Arabia to gain a competitive edge in the technology sector, and concentrated on building up the company's global technology capacity.

## Renewable Energy for Our Future Business

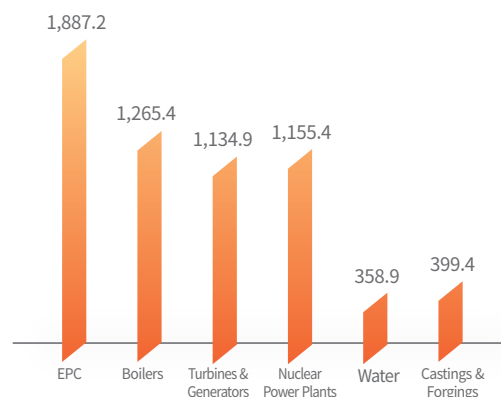
Doosan Heavy Industries & Construction continues to identify and seize new growth opportunities in the high value-added sector of power plant retrofits and services, while strengthening our core businesses at the same time. We are a leader in developing clean coal technologies, wind power generation and other next-generation energy technologies. The Company completed a demonstration of the WinDS3000TM, a 3MW-class offshore wind power generation system in 2010, and acquired international certification from DEWI-OCC, a world-renowned international wind power validation agency.

Since winning the first order for a 9MW-class wind farm project in Sinan, South Jeolla Province, in 2010, the Company has successively acquired EPC projects to construct the 30MW-class Tamra offshore wind farm as Korea's first offshore wind farm project and the 24MW-class Yeongheung Wind Power Complex 2, laying a solid foundation to proactively advance into foreign markets.

Additionally, the Company is making great strides in the eco-friendly, high-efficiency technology market by winning Korea's major 1000MW-class ultra-supercritical (USC) thermal power plant projects.

In 2016, the Company acquired 1Energy Systems, a U.S.-based company that owns the original technology for energy storage systems (ESS), which guarantee a stable power supply from renewable energy sources. The company was then renamed Doosan GridTech.

## 2016 BG/BU divisional sales (In billions of KRW)



In accordance with the Korean International Financial Reporting Standards (K-IFRS)



Total power generation capacity

185<sup>GW</sup>



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## EPC

Doosan Heavy Industries & Construction has been working as an EPC contractor for power plant projects, providing a comprehensive package that includes the engineering, fabrication, procurement, installation, and commissioning processes. Doosan has laid the groundwork for expansion by winning large-scale projects in the Middle East, India and Southeast Asia. In 2016, the Company acquired large-scale project orders, including the Vinh Tan 4 coal-fired thermal power plant extension project in Vietnam, the Fadhili combined cycle gas power plant project in Saudi Arabia, the Subic Redondo coal-fired thermal power plant project in the Philippines, and the Obra-C and Jawaharpur coal-fired thermal power plant projects in India. These projects have proved again that the Company is an EPC market leader. The Fadhili project, in particular, shows our strength as we won the order despite an ongoing decrease in plant project orders in the Middle East, a region that has been affected by low oil prices in recent years.

## Boilers

Doosan Heavy Industries & Construction has become a global leading company that possesses proprietary technologies and a strong track record in boilers and core power plant equipment since acquiring U.K.-based Babcock and German-based Lentjes. We enjoy world-class competitiveness in the area of thermal power plant technology, offering solutions for cleaner,

more efficient power plants. We have also made great strides in the market for environmentally-friendly technology facilities such as circulating fluidized-bed (CFB) boilers and desulfurization systems. The Company is planning to introduce 300MW-class CFB boilers for the Subic Redondo thermal power plant project in the Philippines that we acquired in 2016, which would be the first such application in the Philippine power industry. Also, we have become the first company in Korea to win a large-scale overseas project to construct a CFB power plant.

## Turbines & Generators

Doosan provides highly efficient, durable turbine generators to its global customers. Our technological prowess is recognized worldwide. After acquiring Škoda Power in the Czech Republic, which owns source technologies in steam turbines, we have been manufacturing and supplying proprietary steam turbines to our global customers. In 2011, we successfully tested turbine generators for the massive GHECO-One coal-fired power plant project in Thailand. The equipment was designed and fabricated exclusively with in-house technologies, paving the way for expanded exports worldwide in the future. We succeeded in the fabrication and supply of gas turbines, which is considered as requiring the most sophisticated power generation technology, for the first time in Korea. We have been making bold investments in large gas turbine development with the goal of introducing an exclusively developed





gas turbine model in 2019 based on our world-class technologies. In 2016, meanwhile, the Company acquired the plant performance improvement project for Boryeong Thermal Power Plant Unit3 as part of its involvement in the government's technology development project for 500MW-class thermal power plant retrofits, which began in 2015, amid heightened attention to a reduction in greenhouse gas emissions from old thermal power plants.

## Performance Improvement & Services

The plant performance improvement and services business features a wide scope of high value services—encompassing retrofits, overhaul, repair and maintenance, and fuel conversion—which are performed with the goal of increasing the reliability and efficiency of existing power plants. Compared to the new-build power plant market, which is sensitive to economic fluctuations, the services market has a bigger growth potential. Doosan Heavy Industries & Construction has identified the high growth potential of the services sector against the backdrop of ever-tightening environmental standards to regulate carbon dioxide emissions and particulate matter, and established the new Service Business Group in February 2017, with an aim to make its power plant services business a new growth engine. Based on existing technology and capabilities, Doosan strives to further expand its technological capabilities to offer specialized power plant services that meet customers' needs as a "Total Solutions Provider."

## Nuclear Power Plants

Doosan has earned international recognition by supplying reactor vessels, steam generators and key components for nuclear power plants not only in Korea, but in the U.S. and China. In 2008, we won orders to supply six reactors in support of the first new nuclear plant construction in the U.S. in 30 years. Doosan is also participating in the UAE's nuclear power plant project - South Korea's first exports of nuclear reactors - as the main equipment supplier. In 2011, the Company successfully supplied the main equipment – including the APR1400 reactor, the new Korean standard light-water reactor, and steam generators – to Shin Kori Units 3 and 4. It also completed the development of technology for the design and production of the MMIS and RCP, which were core technologies that Korea had not hitherto developed independently, and introduced the technologies to Shin Hanul Units 1 and 2, thus achieving 100 percent domestic development and production of core facilities for nuclear power plants. In the near future, Doosan Heavy Industries & Construction will continue making strides toward becoming the global champion of the nuclear power business by successfully carrying out the production and replacement of main equipment for nuclear power plants, and expanding its service business, while stepping up efforts to develop technology for the nuclear plant decommissioning market, which is projected to be worth 440 trillion won by 2050.

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## Water

Doosan Heavy Industries & Construction is the world's No. 1 player in the seawater desalination market, and possesses fundamental technology in all three desalination methods, namely Multi-Stage Flash (MSF), Multi-Effect Distillation (MED), and Reverse Osmosis (RO), as well as a strong track record in projects based on such technologies.

In 2010, we signed an agreement to build the Ras Al Khair Phase 1 plant in Saudi Arabia, which will ultimately become the largest desalination plant in the world, with a capacity of 228 MIGD. In addition, we completed construction of the world's largest single-unit MED plant in Yanbu in 2011.

In 2016, we expanded our presence in the field of reverse osmosis (RO) desalination, as we won the contract for the first phase construction of the RO desalination plant in Doha, Kuwait.

The Company is operating R&D centers in Seoul, Changwon (Korea), Dammam (Saudi Arabia), Tampa (U.S), and Birmingham (U.K) to actively conduct water-related research and technology development.

The Company acquired Britain-based Enpure, which

possesses technology for the design and production of pre-treatment facilities in the water business in 2012, and thus laid a solid foundation to make inroads into the water treatment market. In 2015, it acquired the 'Al Ansab' sewage treatment plant project in Oman, and the Bellozanne sewage treatment plant project in the U.K., growing to become a total solutions provider in the water business.

## Castings & Forgings

Doosan boasts the world's highest capacity when it comes to castings and forgings. The company also has the technology to provide top quality materials that satisfy specifications in a number of different fields, such as power plants, steelmaking, mold steels, tool-making, mining and cement manufacturing.

In the nuclear power plant supplies market, we have further increased our competitiveness by developing new technologies for mega-sized, mono-block castings and forgings. In 2014, we succeeded in producing 650-ton ultra-large ingots for the first time in Korea and only the third time in the world. Furthermore, we are



exploring new business lines, including high-quality molded steel and ultra-large forging materials.

## Doosan Power Systems

Doosan Power Systems S.A. is a holding company of its subsidiary in Europe.

Doosan Power Systems offers various shared services such as legal and finance services for the operations of Doosan Babcock in the U.K. and Doosan Škoda Power in the Czech Republic, and also executes vigorous marketing and business activities in the power generation markets of Europe and America.

## Doosan Babcock

Doosan Babcock is a world-class company with over 110 years of history in the power equipment field. Doosan Babcock possesses proprietary technology to design, engineer and construct dust coal combustion boilers, a major product line in the world's thermal plant boiler market.

## Doosan Škoda Power

Doosan Škoda Power is a 150-year-old Czech-based company that designs and manufactures steam turbines and other power facilities. Doosan Škoda Power possesses proprietary technology in steam turbines and has provided about 2,000 units to thermal and nuclear power plants. By acquiring Doosan Škoda Power in 2009, Doosan has been able to produce boiler-turbine-generator packages.

## Doosan Lentjes

In 2011, Doosan acquired AE&E Lentjes, which delivers plant engineering, boiler, and environmentally-friendly technologies, as well as components for thermal power generation and energy from waste plants. Doosan Lentjes is a world-class provider of components for thermal power generation and plant engineering. Of note, the German company owns numerous proprietary high-end green technologies such as circulating fluidized bed combustion (CFBC) boilers and desulfurization systems.

## Subsidiaries



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## Doosan Enpure

In 2012, Doosan acquired Enpure, a water treatment specialist. The British engineering firm is equipped with advanced design and fabrication technologies, particularly in the use of reverse osmosis for preliminary water treatment, and boasts an extensive and diverse project record. This acquisition reinforces Doosan's capabilities in the RO area and provides a platform for advancing further into the water treatment market, providing customers with distinct solutions to address their specific needs.

## Doosan IMGB

Established in 1963, Doosan IMGB is the largest forging and casting company in Romania, equipped with a 12,000-ton press and capable of producing 140,000 tons a year. We have unsurpassed competitiveness in the world market for power plant castings and forgings and mostly export our products to Europe, the Americas, China, and the rest of Asia.

## Doosan Power Systems India

Our power-related business in India has become important, and every effort is now being made to bolster our presence in this so-called "second home market." Therefore, our four Indian subsidiaries, which include Chennai Works, were merged into a single entity called Doosan Power Systems India.

Following a localization strategy, DPSI's competencies are being strengthened in the production of supercritical boiler pressure parts, engineering design, project management, procurement, construction work, and process/quality control. The goal is to maximize growth and profitability by securing competitiveness in the Indian market over the mid-to-long term.

## Doosan Vina

Doosan Vina is a global production base inside the Dung Quat Industrial Complex in Vietnam completed in May 2009 after more than two years of construction.



Doosan Vina has five production plants and is fully equipped with its own port and harbor facilities. These plants produce boilers, HRSGs, desalination plants and transportation facilities.

Local engineers are now being cultivated and efficiency raised to match the productivity of the Changwon plant. Doosan Vina aims to become a major global production base with annual earnings of US\$330 million by 2020.

### Doosan Hydro Technology

Doosan Hydro Technology owns patented technologies for reverse osmosis systems, which account for 50 percent of the world's desalination facilities market.

Thus, Doosan is now equipped in-house with technologies for all three of the major desalination system types: Multi-Stage Flash (MSF), Multi-Effect Distillation (MED) and Reverse Osmosis (RO).

### Doosan HF Controls

Doosan HF Controls specializes in the design and construction of digital instrumentation and control (I&C) systems for diverse power and industrial applications. The company has obtained the U.S. Nuclear Regulatory Commission Safety Evaluation Report and Germany's TUV Safety Integrity Level-3 certification, ensuring the precise and safe control of nuclear power plants and other large-scale industrial plants.

### Doosan GridTech

In 2016, Doosan Heavy Industries & Construction established Doosan GridTech by acquiring 1Energy Systems, a U.S.-based company that owns the proprietary technology for energy storage systems (ESS). This has enabled the Company to secure top-notch systems in the ESS industry and exclusively conduct all relevant processes ranging from the engineering to the installation and commissioning of energy storage systems.



# Doosan Infracore

## Emerging as a world-leading construction equipment maker

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### A Global Leader in Construction Equipment

Doosan Infracore is a world-class machinery maker, providing top-quality products and services in the business areas of compact equipment, machine tools, engines, attachments and utility. The company leads Doosan's ISB segment, bolstering overall product competitiveness and market position through ongoing technology and quality enhancement.

### Continuous Expansion of Global Market Share

Doosan Infracore's prominent technologies, high-quality products and exceptional services have raised customer satisfaction and thereby increased our global market share. We are firmly leading the Korean construction equipment, machine tool, and industrial diesel engine markets, while maintaining the top share of the U.S. market for compact construction equipment, and are continuously increasing our share of the heavy-duty construction equipment market. Also, the Company is striving to find new growth opportunities in emerging markets, including the CIS, Southeast Asia, and Africa.

### Global R&D Capabilities

Doosan Infracore is expanding R&D investment to develop products that exceed the expectations of our customers. With the recent completion of the advanced excavator line construction in our Incheon Plant, we are enhancing data-based quality management and engineering order verification systems to secure consistent quality even in the flexible production environment. This involves the introduction and active utilization of methods and procedures for foolproof production, statistical process control (SPC) and statistical quality control (SQC) of major production processes.

The Company has completed a global R&D belt by successively opening the Global R&D Center in

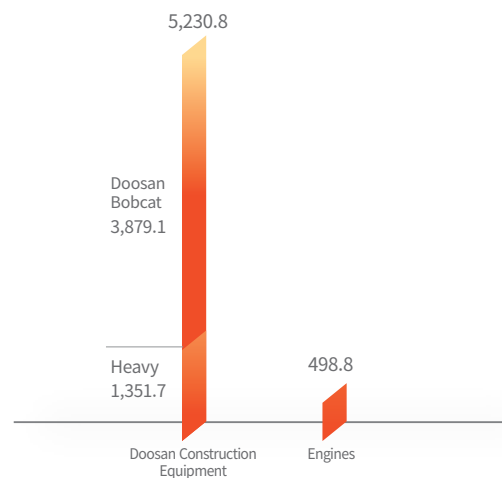
Korea, the Acceleration Center in the U.S., and the Innovation Center in the Czech Republic, and is strengthening its capacity to secure fundamental technology, develop new products and achieve quality innovation.

The Acceleration Center in the U.S. has indoor test rooms so tests can be conducted anytime without environmental restrictions.

Going forward, the Company will further strengthen its global R&D system, and thereby focus on the development of advanced technologies, including fuel economy innovation and ICT convergence technologies, and the development of new next-generation products.

### 2016 BG/BU divisional sales

(In billions of KRW)



In accordance with the Korean International  
Financial Reporting Standards (K-IFRS)

2019 Sales target

7.7trillions



# Doosan Infracore

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## Doosan Construction Equipment

Since its inception 40 years ago, Doosan Infracore Construction Equipment has grown into the industry leader with the biggest market share. In 1985, we commercialized the exclusively developed Solar excavator. We continue to launch products compliant with stricter global environmental regulations, based on our world-class technological prowess. We offer various customer-tailored solutions and products that feature greater performance, efficiency and convenience. We have also received Red Dot Design Awards for our excellence in design.

Doosan Infracore has established itself as a world-class construction equipment maker by focusing on building global production systems and business networks since 1990. We have large-scale manufacturing facilities in Korea, China, Czech Republic and the U.S., with our network of sales subsidiaries, branches and dealers spanning the globe, firmly establishing Doosan Infracore as a major global player. Our global business network has been further expanded through our continued cooperation with Doosan Bobcat, a subsidiary company.

## Attachments

Geith is one of the world's leading producers of attachments. Founded in 1959 in Slane, Ireland, Geith has expertly navigated this dynamic industry ever since. The brand is recognized as a leader in the development of heavy and compact excavator, wheel loader and track loader attachments used in construction, drilling, demolition and steel scrap handling sites.

## Doosan ADT

Doosan ADT operates an R&D Center and factory in Elnesvagen, Norway. The company delivers articulated dump trucks (ADTs) in the 30- to 40-ton range to its customers worldwide, based on the proprietary technology.

ADTs are indispensable at large mining sites and construction sites on difficult terrain.





## Engines

The Engine BG of Doosan Infracore started making diesel engines in 1958. Since then, we have leveraged our R&D capabilities and production technology to maintain our position as the industry leader in Korea. We completed a large-scale plant for mass-producing diesel engines in 1975. Ten years later, we developed a diesel engine model with our own technology, thereby strengthening our front-running position in the industry.

We completed development of a low-emission diesel engine model in 1995, followed by a CNG engine for commercial vehicles in 1998. In the 2000s, we developed and supplied LNG engines for power generators, common rail diesel engines, Euro 6 CNG engines and Tier 4 Final engines for construction equipment. In 2012, we constructed a compact diesel engine plant capable of producing 100,000 units a year with the most advanced facilities. It currently produces 50 to 1200HP diesel engines and 200 to 600HP CNG engines at its production facilities with a capacity of 172,000 engines a year.

Doosan's compact diesel engines, which lead the global market as eco-friendly low-cost engines offering high fuel efficiency and outstanding performance, have been mounted on Bobcat equipment and facilities. In 2016, we signed contracts to supply our engines to major domestic agricultural machinery makers, and applications are being expanded. The same year, we released an advanced DX-9C Generation product to meet China's Tier3 emission standards. DX-9C, which was first launched in 2014, helps reduce fuel consumption by more than 15 percent compared to previous models and offers significantly improved durability.

In November 2016, we successfully developed engines to comply with Euro 6, the toughest diesel engine emission standard yet in the EU. Our Euro 6 engines offer 10 to 19 percent greater fuel efficiency compared to Euro 6 engines of other makers and have larger output with exhaust gas recirculation (EGR) removed from them. The engines will serve as the foundation for Euro 7 engine development and further expansion of our commercial vehicle business.

# Doosan Bobcat

## Leading the world in compact construction equipment and portable power

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### A global leader in compact construction equipment

Doosan Bobcat is the world's leading company of compact construction equipment, with its R&D, sourcing, production and sales units headquartered in North Dakota in the U.S. and Dobruška in the Czech Republic. Its products are widely used in various areas, including construction, industry, landscaping and agriculture.

Doosan Bobcat has maintained its leadership position in the compact construction equipment market, based on its extensive network of over 1,500 dealers that sell tough, versatile products that can be paired with over 450 attachments. Doosan Bobcat is always trying to be a trustworthy company through close communications with its customers and excellent services that exceed customer needs.

### Market-leading competitiveness

Doosan Bobcat has successfully continued its leadership position in the compact construction equipment market, based on an extensive network of over 1,500 dealers and their expertise in the offered products. To secure competent dealers, the company recruits new dealers every year based on its market coverage roadmap, and provides dealer incentive programs and various marketing activities, which have led to greater market share. It is also planning to introduce differentiated dealer management programs, such as big data analysis tools and dashboards for construction equipment industry data analysis.

Its product competitiveness involves not only the strong performance of its products but also the versatility offered by attachments. There are more than 450 attachments available in over 100 categories. The Bobcat technology offers an attachment interface that allows for the easy exchange of attachments, providing great efficiency.

The outstanding competitiveness has been crucial in the success of Doosan Bobcat's major products, including skid-steer loaders, all-wheel steer loaders, mini track loaders, compact track loaders, Toolcats, and compact excavators, which have been leading the global market.

### Diversifying sales regions and products

Since Doosan Bobcat acquired the Doosan Infracore Suzhou plant to produce compact construction equipment in an effort to expand its business into China and other emerging markets, it has been implementing marketing strategies for market expansion. To generate demand and increase market share in those new markets, the company is about to release regionally tailored products, including two skid-steer loader models and four mini excavator models. It is planning to launch the first skid-steer loader customized for emerging markets in China in 2017, which will then be deployed in other major emerging markets.

Doosan Bobcat has made constant investments for product innovation. While other global construction equipment makers have been reluctant to release new products due to unfavorable market environments, Doosan Bobcat has continued to introduce new products, including its M-series loaders, backhoe loaders and electric mini excavators, which has helped the company retain its leadership status in the market.

### Enhancing its global leadership position

While further strengthening its leadership position in compact equipment, Doosan Bobcat is enhancing its market share for heavy and portable power products. The company will focus on diversification of its products and regional portfolios to ensure sustainable growth and make relentless efforts to innovate its products and services, which is the underlying competitiveness of the company.

Extensive network of more than

1,500  
dealers





# Doosan Engineering & Construction

Moving forward to build a better world, a brighter future

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**A general construction company with a 57-year history**

Since its establishment in 1960, Doosan Engineering & Construction has been growing in parallel with the history of Korea's construction industry. The Company has made astonishing achievements in the building works, civil engineering and plant engineering sectors by banking on its extensive know-how and outstanding technology, while striving to emerge as a leader of Korea's construction industry.

**Leader in housing and general development projects**

Doosan E&C's flagship brand, "Doosan We've" continues to grow to become a leading apartment brand of Korea in the 21st century thanks to the unwavering support of its customers, and is gaining stronger ground in urban redevelopment and apartment complex reconstruction projects on the back of its robust brand power. Doosan E&C has successfully executed mega-scale projects to construct high-end commercial-residential building complexes not only in the Seoul metropolitan area but also in major metropolitan cities such as Busan and Daegu. Notably, the 80-story Haeundae Doosan We've the Zenith, Korea's tallest residential building located in Haeundae, Busan, has demonstrated once again Doosan E&C's technological excellence to the world.

**An infrastructure solutions provider that is creating a better world**

Doosan E&C has firmly established itself as the industry leader with an unparalleled track record based on its ample experience in civil engineering as well as extensive capabilities in delivering design, planning and construction solutions. The Company has built the longest high-speed rail lines in Korea and has a proven track record in constructing subway lines across the country. Most notably, Doosan constructed Section 909 of Seoul's Subway Line 9 using a large diameter shield for the first time in Korea, opening a new chapter in the country's construction history. Furthermore, Doosan E&C boasts a strong competitive edge in Korea's construction industry in the privately funded project field. The Company took part in the construction of the New Bundang Line, Korea's first metro project proposed by a private sector, and implemented the entire project from construction to route planning and operation of the line, consolidating its leading position in the transportation infrastructure sector.

**Creating a Beautiful Future**

Doosan E&C faithfully fulfills its corporate social responsibility, which has become an increasingly important duty for any business operation, as well as for our own business. We are enhancing transparency in every aspect of our business and promoting win-win partnerships with our suppliers, and conducting fair trade based on mutual trust.

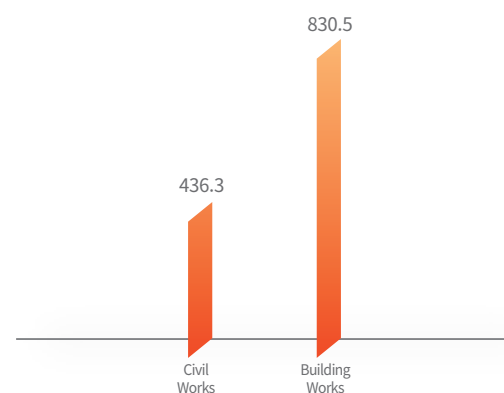
In addition, Doosan E&C continues striving to improve our society by conducting diverse social activities including teenager mentoring programs such as 'Dream Sharing' and 'Human Network,' and a program designed to provide assistance for the treatment of childhood cancer patients and to raise awareness about them in order to ensure sustainable development and strengthen the competitiveness of the community for the future, and 'Habitat for Humanity,' which makes the most of its business in construction.

## Business Portfolio

Civil Works	roads, highways, railways, subways, tunnels, ports, airports, environmental plants
Building Works	office buildings, commercial facilities, public facilities, hotels, resorts, residential facilities

## 2016 BG/BU divisional sales

(In billions of KRW)



In accordance with the Korean International Financial Reporting Standards (K-IFRS)

2020 Sales target (KRW)

2.7trillions



# Doosan Engineering & Construction

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## Civil Works

Doosan E&C carries out engineering, construction, repair and maintenance work for a wide range of civil engineering projects, including high-speed rail lines, subway lines, expressways, bridges, industrial complex site preparation, landfills, and port facilities. Based on its experience and technical expertise gained from carrying out large-scale projects, Doosan E&C is leading the way to preserve the environment and enrich the future for everyone. The company has played a vital role in building safe and convenient transport systems in Korea, including subways, which essentially serve as the legs and feet of the people; high-speed trains, which guarantee faster and more pleasant trips; and tunnels, which significantly reduce traveling time and distance. With its record of building the longest high-speed rail extension in Korea, Doosan E&C has established itself as Korea's leading company in the civil engineering industry.

Doosan E&C also boasts a wealth of experience and capabilities in the engineering, planning and execution of Privately-Funded Infrastructure (PFI) projects as a leader of the PFI sector. Some of the company's most successful PFI projects that are either ongoing or completed include the New Bundang rail line, which is the first privately-funded metro project in the metropolitan Seoul area, the Gangnam Beltway and the upgrade of the West Suwon-Euiwang Expressway. With its outstanding civil works, the company has contributed to the development of the national economy and helped improve the overall quality of life for everyone.

Furthermore, we have performed various environment and industry infrastructure projects based on EPC and possess second-to-none capabilities in the field. Based on our high-quality services in project planning, design, construction and operations, we plan to broaden the scope of our environment-related business.





## Building Works

Blending its advanced technological prowess, superb creativity and exquisite aesthetic styling, Doosan E&C creates spaces of high artistic value while ensuring its buildings harmonize with the surrounding environment to make the world a more beautiful place.

In the Intelligent Building System (IBS) field, which constitutes state-of-the-art technology, Doosan E&C has constructed a number of landmark buildings ranging from hotels, resorts and public facilities with artistic value, to large-space culture and sports facilities that have changed the urban skyline and landscape, based on its outstanding technology and execution capability. Combined with the experience it has accumulated in the course of executing such

projects, Doosan Engineering & Construction is striving to transform our cities into pleasanter, ever more habitable environments.

*Doosan We've*, a leading apartment brand in Korea, has gained a strong competitive edge in urban redevelopment and apartment reconstruction projects and built high-rise residential and commercial buildings in major provincial cities such as Busan and Daegu as well as in the Seoul metropolitan area. Notably, Haeundae Doosan We've the Zenith, an 80-story commercial-residential building with a height of 300 meters, and the Ilsan We've the Zenith, Korea's largest commercial residential building complex housing a total of 2,700 households, have further elevated the stature of Doosan E&C as the front-runner of mega-skyscraper projects.

# Doosan Engine

## Becoming the world's foremost engine maker

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### A Total Global Engine Maker

Doosan Engine is one of the world's top manufacturers of large low-speed and medium-speed marine diesel engines. We also build and maintain internal combustion power plants that use diesel engines. Our annual output capacity makes us the global leader and we have grown to rank second in the world market for large marine engines.

### A Leader of the Marine Diesel Engine Industry

We have established a leadership position within the industry by exceeding accumulated production of 100 million bhp since we first built diesel engines totaling 200,000 bhp in 1984. We have led the engine industry by producing the world's largest electronically controlled engines. We also build main propulsion engines and shipboard generator engines for large vessels or special ships. Our engine portfolio ranges from 700 to 116,000 bhp.

### Producing Dual-fuel Low-speed Vessel Engines

Doosan Engine is leads the world's eco-friendly engine market, as evidenced by its commercialization of dual-fuel, low-speed marine engines for the first time in the world. The dual-fuel engine produced by Doosan Engine is highly sought after as a next-generation eco-friendly engine, as it uses LNG, a clean energy source, as its main fuel and hence can significantly reduce operational expenses and drastically cut the emission of pollutants such as carbon dioxide, nitrogen oxide, and sulfur compounds. Notably, the Company succeeded in producing the eco-friendly, high-efficiency Generation X engine, and signed supply contracts with overseas shipping companies, winning recognition for its technological excellence in the large vessel engine sector.

### Leading the Diesel Power Plant Market

Doosan Engine has constructed power plants based on its mid- to low-speed engines in countries that require electricity generation around the world, including Guam, Greece, Indonesia, Papua New Guinea, Eritrea, Gambia and Mexico, and is consolidating its stature as a leading supplier of

power plant engines. Moreover, the Company is the exclusive supplier of emergency power generators for nuclear power plants in Korea by banking on the technology and know-how it has demonstrated since its acquisition of the Yeonggwang Nuclear Power Units 3 and 4 projects in 1989. Marketing activities have been stepped up in emerging markets with strong growth potential in Southeast Asia, Latin America and Africa, as the company works to secure a competitive advantage and establish an early market presence.

### Eco-friendly Marine Systems

Doosan Engine is exploring new business areas in a bid to diversify its portfolio and bolster its fundamental competitiveness. We have pre-emptively responded to the ever stricter marine environmental regulations being enforced and have gained ground to win orders in the SCR systems for marine applications by successfully securing DelNOx, the world's first Selective Catalytic Reduction (SCR) technologies that can remove more than 90 percent of nitrogen oxide even at low temperatures, through its in-house R&D efforts.

### To Be the No.1 Engine Maker in the World

Doosan Engine is firmly committed to the goal of becoming the world's No. 1 engine maker. We have implemented a meticulous quality management system to ensure that our engines and services are the best available. We also continue to devise innovation activities such as the 3 Zeroes (zero defects, zero complaints and zero claims) and 3C Plus (clean factory, clean mindset and clean engine). Our Single PPM program promotes as well as rewards excellence for our suppliers, who are recognized for superior quality competitiveness around the world.

### Business Portfolio

Low Speed Diesel Engines  
Medium Speed Diesel Engines  
Diesel Power Plants  
Parts Sales Technical Service



A high-angle, wide shot of a massive industrial shipyard. In the foreground, two men wearing white hard hats and work uniforms stand on a white metal walkway with railings. The man on the left is wearing a light blue uniform, and the man on the right is wearing a grey uniform. They are both smiling at the camera. Behind them, a large, complex industrial structure, likely a ship's engine or hull, is visible. The structure is composed of various metal components, including large pipes, valves, and structural beams. The background shows more of the shipyard, with yellow overhead cranes and other industrial equipment. The overall scene is one of a large-scale industrial manufacturing environment.

World's market share for  
marine engines

No. 2





# Holding Company and Other Affiliates



# Holding Company and Other Affiliates

## Enhancing corporate value through advanced corporate governance

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Doosan has established a more transparent and advanced governance structure to ensure compliance with global standards and deliver business continuity. The holding company Doosan Corporation generates revenue from eight business lines: Electro-Materials, Industrial Vehicles, Mottrol, Fuel Cell, Doota Duty Free, Glonet, Information & Communications and FM.

To enhance the competitiveness of its existing business lines, Doosan Corporation acquired the Luxembourg-based electrodeposited copper foil manufacturer Circuit Foil and the U.K.-based Rushlift forklift rental service in 2014, while it sold SRS Korea (KFC) and Doosan Dong-A. It also acquired ClearEdge Power and established its Fuel Cell business through a merger with Fuel Cell Power.

In the electronics field, the Company is producing high-quality copper clad laminate (CCL), a core material for printed circuit boards (PCB), which are used in smart devices, semiconductors, automobiles and electronic appliances, as well as core electronic materials for OLED displays, and is supplying them to the world.

Doosan Corporation's Industrial Vehicle is recognized as a leader in the forklift truck market, while its next-generation forklift truck was awarded the grand prize for its ergonomic design.

Meanwhile, our Mottrol unit has achieved world-leading competitiveness in the markets for travel and swing devices for heavy construction equipment and hydraulic pumps.

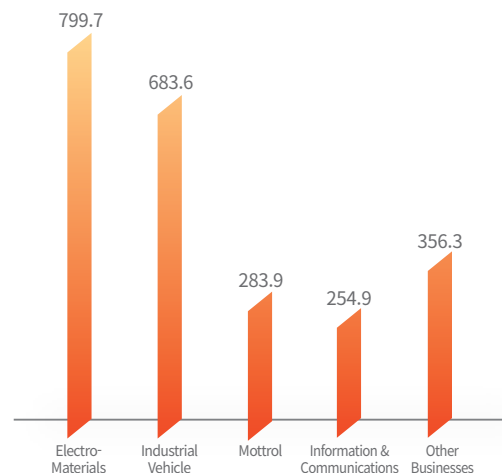
Doosan Fuel Cell is making concerted efforts to become the world leader in the fuel cell market for residential, mid-to large-sized buildings and power generation applications, by overcoming the limitations of traditional power generation methods and increasing energy efficiency based on its excellent technological capabilities.

The Doota Duty Free store opened at Doota, a landmark of the Dongdaemun area in Seoul, in the first half of 2016. It provides an exciting shopping experience to customers, and it is leading the development of Dongdaemun.

In the service sector, Doosan maintains close contact with its customers through Oricom, Korea's foremost specialist in brand management; Doosan Magazine, Korea's leading publisher of trendsetting magazines; Doota Mall, a fashion shopping center; Doosan Cuvex, which specializes in deluxe golf resorts; the Doosan Bears, a professional baseball team; Doosan Mecatec, a chemical process equipment manufacturer; and Neoplux, a leading investment firm in Korea that employs top-notch financial experts and exceptional methods to raise corporate value.

### 2016 BG/BU divisional sales

(In billions of KRW)



In accordance with the Korean International Financial Reporting Standards (K-IFRS)





# Doosan Corporation

Creating value from many different business areas

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## Electro-Materials

Dominant Leader in Electronic Parts

Doosan Corporation Electro-Materials is supplying high-quality CCL, a core material for printed circuit boards, and core materials for OLED displays. Our comprehensive product range includes flexible CCL used in high-performance mobile devices, including mobile phones and tablet PCs; eco-friendly CCL used in digital devices, including computers, LCDs and mobile phones; package CCL used in semiconductors; and network board CCL used in communications equipment such as servers. Our customers include Samsung and LG in Korea as well as Intel, Apple, Qualcomm, Cisco, Sony, Hitachi and Philips outside Korea.

Our domestic plants and research institutes are located in Jeungpyeong, Gimcheon, Iksan, and Yongin. Our overseas network includes a plant in the Changsu region of China as well as subsidiaries and branches in the United States, Japan, Hong Kong, Singapore,

Vietnam, China and Taiwan. By acquiring Circuit Foil Luxembourg in July 2014, Doosan has established a vertically integrated manufacturing chain that now includes copper foils, the core material.

Doosan's CCL products have acquired diverse certifications, including the KS mark in Korea, UL in the U.S., BSI in the U.K., CSA in Canada, VDE in Germany, JET in Japan, and ISO 9001 and ISO 14001, winning global recognition for their excellent quality. The Company is also expanding the scope of its business, including new business in the energy sector, by banking on the technology and capacities it has accumulated in high-end business areas such as Flexible CCL and Package CCL.

Growth in the global markets for mobile communication devices, computers and other digital electronics, as well as in the advanced network industry is driving demand for CCL and OLEDs. As a result, Doosan will continue to bolster its position as a specialist in electronic materials.



## Industrial Vehicle

### High-performance Material Handling Equipment

Doosan Industrial Vehicle BG is Korea's leading material handling equipment maker. We started to produce the nation's first forklifts in 1968 and have since grown into a global player with production facilities in Korea, Germany and China, and sales subsidiaries in the U.S., Belgium and the UK. We are now exporting forklifts to over 100 countries. Notably, we are establishing unrivaled leadership in the domestic market with a market share of around 50 percent.

We place the highest importance on customer satisfaction and top-tier quality. We have established a quality control system that has received ISO 9001 certification for rigorous quality control and used this system to build a quality assurance infrastructure and help our partners produce higher quality parts.

In addition, we are committed to improving the design capabilities of our research and development staff and developing pioneering technologies to deliver reliable and excellent quality to our customers.

Thanks to these efforts, we won the "PIN UP Design Award," hosted by the Korea Association of Designers, for the design of the fingertip controls of 1T and 2T electric forklifts. In 2016, the fingertip controls also received the "Red Dot Award," one of the world's largest design awards, in recognition of our superior quality.

We are aiming to rank among the top -five in the global logistics equipment industry. To make this happen, we are innovating our operations continuously, striving to develop environmentally-friendly technologies ahead of the competition, and expanding our aftermarket business.





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## Mottrol

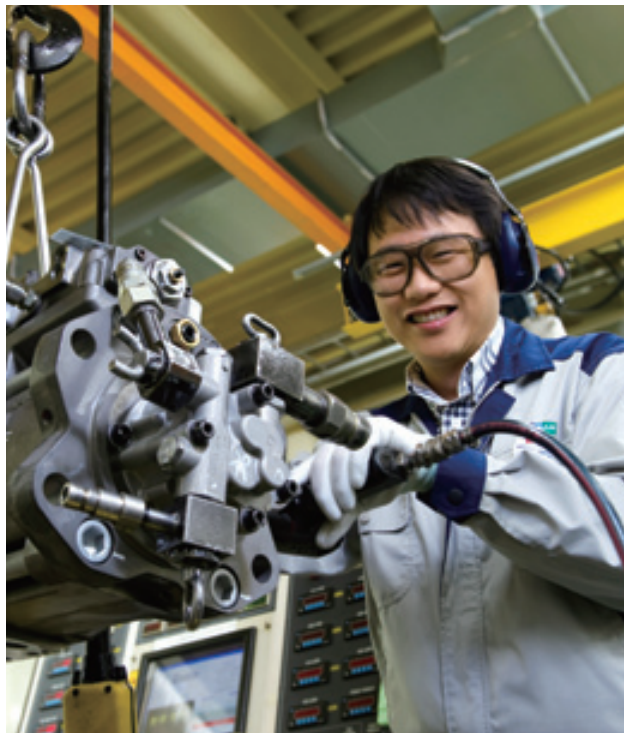
### Globally-recognized Parts Maker

Doosan Mottrol boasts a history of more than thirty years and is Korea's best specialist manufacturer of hydraulic parts, with the monthly production capacity of over 30,000 travel and swing devices, main hydraulic pumps and main control valves for construction heavy equipment. It has obtained world-class quality and environmental management systems including the ISO 9001 Quality Management System, KSD 0050-9000 Defense Quality Management System, and ISO 14001 Quality Management System.

In 2006, its excavator travel motor was selected by the Ministry of Industry and Energy as a "World-Class Product". The company has significantly contributed

to enhancing the nation's defense capabilities with its modernized defense equipment, by developing hydraulic devices and systems for ground, naval, air weaponry and guided missile systems. While pursuing operational excellence based on its stable management structure, the company made a large-scale capital investment by founding Doosan Hydraulic Machinery Limited, China in 2011 to increase its production capacity. It has also operated a separate R&D Center since 2012 with the aim of securing leading advanced technologies.

Mottrol is channeling our capabilities to present a new vision in the hydraulic parts sector. Our goal is to strengthen our business competitiveness based on our best quality, price, and technical competences so as to emerge as a global top-tier producer of hydraulic parts.



## Fuel Cell

### Specializing in Fuel Cell, Next-Generation Energy

Doosan Corporation Fuel Cell, a provider of eco-friendly energy facilities and equipment, possesses proprietary fuel cell technologies designed for residential, building and power generation applications. Fuel Cell is doing its best to be reborn as the world's leading fuel cell maker based on the power generation know-how of Doosan Heavy.

Fuel cell technology, which generates electricity without emitting air pollutants, is expected to take center stage among energy solutions as an ecofriendly energy source that boasts great efficiency and stability.

The company aims to secure the largest share of

the global large-capacity fuel cell market by 2020 by becoming the leader in the world's building applications market. The company has already established itself as the leader in the Korean market for polymer electrolyte membrane fuel cells (PEMFC), which are used in residential and commercial buildings, and aims to take the biggest share in the global market. It has built assembly lines in Hwaseong, Gyeonggi-do Province, to supply PEMFCs in large quantities, and it is focusing its R&D efforts on designing new business models based on convergence with diverse sectors.

Doosan Corporation Fuel Cell is committed to helping fuel the growth of the economy as a whole by supplying reliable, clean and high-efficiency fuel cell systems, overcoming the limits of the conventional means of power generation.



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## Doota Duty Free

A Duty Free Store that grows with local economy of Dongdaemun and Korea's tourism industry

Dongdaemun, which attracts some 7.1 million inbound tourists annually, is a tourism hotspot that offers convenient access, diverse tourism resources, an extensive shopping infrastructure and an abundance of accommodations. Culturally speaking, the area is a space where tradition, modernity and nature co-exist in harmony and it has unlimited growth potential as well as room for further development.

The Doota Duty Free store, which opened with over 700 brands at Doota, a landmark of the Dongdaemun area, pursues a distinctive concept reflecting the unique local features and the changing needs of duty-free customers.

The Doota Duty Free store provides a pleasant and trendy shopping experience to customers by offering the benefits of great prices in a convenient shopping environment as well as young, sophisticated K-style products and thematic zones. In this way, the Doota Duty Free store hopes to contribute to Dongdaemun's emergence as a new hub of 'hallyu' (Korean wave) tourism.

Additionally, the Doota Duty Free Store will play a role as a Duty Free Store of 'co-prosperity' as a partner for the development of the Dongdaemun commercial district. It has formed a virtuous circle with small and medium-size companies, and will help increase the competitiveness of smaller Duty Free Store operators, and discover and present contents designed to accelerate the development of the Dongdaemun area in collaboration with the Dongdaemun Future Foundation.





## Glonet

### Specialized in Functional Biotechnology Materials

The Doosan Corporation Glonet is a time-honored company, with a history of 121 years. We focus on producing and selling functional biotechnology materials.

Glonet develops and supplies various new bio materials, including generic pharmaceuticals, functional foods, materials for cosmetics and growth regulators made of natural plants, using our specialized technological capability in the field of functional materials.

Of note, we have established a stable business foundation by focusing on the Chinese market, spurred by our specialty in lipids, such as an emulsifier for medical use (PL95) which was selected

as a world-class product for the next generation by the Ministry of Knowledge and Economy in December 2008. Since the completion of the Chengdu joint venture in June 2013, we have been accelerating our business expansion in China.

In addition, we seek to keep enhancing our major products, including functional cosmetic materials (ceramides) and functional foods (PS) proven to be effective in cognitive ability improvement, to further expand our business in overseas markets such as Europe and the U.S.

High growth will be maintained by enhancing the competitiveness of core businesses and constantly developing high value-added business lines and new products. We will leverage the optimal business portfolio to become one of the world's top biotechnology companies, providing differentiated value to customers.



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## Information & Communications

Total IT Service Provider for Doosan

The Information & Communications (I&C) business unit of Doosan Corporation provides total IT services for Doosan affiliates worldwide, including IT consulting and system integration, application system services and IT infrastructure services.

In order to provide the needed support for the business growth of its affiliates and the Group, I&C has enhanced global performance capabilities and focused on maximizing synergy by establishing a globally integrated IT system. It has successfully consolidated a single ERP system for all Doosan affiliates and continuously seeks to achieve process excellence by utilizing business solutions based on ERP, PLM and MES.

In 2017, the HR database of more than 38,000 employees at 107 Doosan entities worldwide was consolidated into one HR system called the Global Human Resources Information System (GHRIS), which will serve as a platform for more advanced HR operations. I&C is also supporting its customers on the road to Industry 4.0, using the latest IT technologies (e.g., digitalization, OT, the cloud, IoT).

It has established three global IT centers, in the Americas (DSIA in 2011), China (DSIC in 2011) and Europe (DSIE in 2014), consolidated the Group's IT workforces and infrastructure, and created maximized customer value by elevating the global competitiveness of the affiliates as it transforms into a global integrated IT provider.



## DIP Holdings

DIP Holdings, a subsidiary of Doosan Corporation, is a special purpose company (SPC) established in 2009 for the purposes of improving the financial health and accelerating the business restructuring of the Group and affiliates.

### Neoplux

Your Best Partner for Greater Corporate Value

Neoplux, established in April 2000, has become a leading investment firm in Korea by employing top-notch financial experts and exceptional methods for raising corporate value. The firm boasts particularly strong competitiveness in investment projects both inside and outside Korea. In the venture capital area, we seek out startups and small companies endowed with innovative and creative technologies but lacking in capital, and provide them with capital. The private equity business entails the acquisition of equity stakes or controlling interests in medium-sized or large corporations in order to boost their value and help them grow.

Neoplux, backed by a team of top-notch professionals and world-class investment competencies, continues to raise its goals and advance, thereby building trust in partnerships.

### Doosan Mecatec

The World's Best CPE Company

Doosan Mecatec is a global company that produces and supplies chemical process equipment (CPE), key equipment for refineries, gas processing and petrochemical plants.

Based on our state-of-the-art facilities and technological capabilities optimized for CPE manufacturing, we provide high-quality products to global oil companies, including Saudi Aramco, Shell, Chevron and BP, and global EPC companies, including Bechtel, Technip, CB&I and JGC, which recognize our value.

Doosan Mecatec will continue to strengthen its global leadership position in CPE based on its outstanding technological prowess and customer satisfaction.





## Doosan Bears

Korea's Favorite Professional Baseball Club

The Doosan Bears team was crowned the Korean baseball champion in the first season of the professional baseball league in 1982. They have won five championship titles (1982, 1995, 2001, 2015, and 2016), maintaining their reputation as a prominent baseball team in Korea. In the 2016 regular season, the team set a new record in Korea's professional baseball history by winning 93 games. The same year, they won the Korean Series in four consecutive games.

Doosan's support for prospective baseball talents includes the completion of Bears Park in Icheon in 2014, where they can concentrate on developing their baseball skills. In addition, communication with fans is now possible via such media as the club homepage, smartphone applications and social networks, and the club is involved in numerous community service activities as a way to give back to the community in return for the fans' loyalty and support.

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## Doosan Magazine

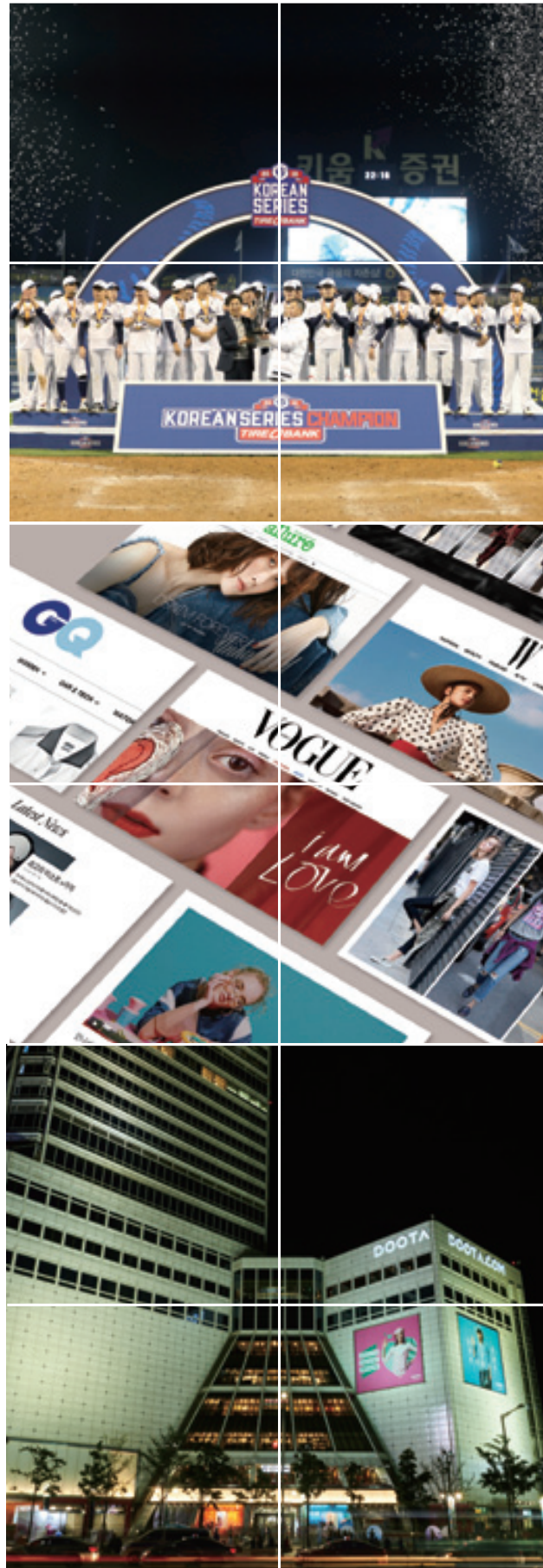
A Media Company Providing Premium Content

Doosan Magazine is a publisher of high-end magazines that present new perspectives on trends and styles through top-rated media brands in the fields of fashion, beauty, and lifestyle. Doosan Magazine publishes four magazines – Vogue, GQ, Allure and W – under an exclusive license agreement with Condé Nast, a world-famous media group. It also creates various types of content, including innovative video clips, that are optimized for websites, mobile, social media and other digital platforms. Doosan Magazine is seeking to become a media company that provides integrated communications solutions that can help raise one's brand values, based on its unmatched capabilities for content creation.

## Doota Mall

A Fashion Powerhouse Embracing Over 360 Boutique Shops

Doota Mall, Korea's leading fashion mall, is visited by some 20 million local and foreign shoppers annually. The eight-story fashion mall houses over 360 various boutique stores that sell a wide range of products, providing a perfect one-stop shopping experience. As a trendy, premium fashion powerhouse, Doota Mall is always trying to provide the most pleasant and efficient shopping environment by keeping facilities up to date to deliver the highest level of customer satisfaction. Doota Mall aims to provide customer satisfaction through its innovative business strategies: Doota Mall became the first fashion mall to offer a fixed-price system, install information centers for foreign visitors and deploy floor managers.





## Oricom

An emerging General Content Group, IMC IDEA group

Oricom was established in 1967 as Korea's first general advertising company. The Company has been elevating the brand values of domestic companies by providing Integrated Marketing Communication (IMC) services such as advertising through the four major mass media channels - media, promotion, brand consulting and online marketing.

Oricom is an IMC IDEA group with a vision to become a "general content group." Our capabilities to provide differentiated, optimal marketing solutions and communication ideas based on integrated ideas have been widely recognized in the market.

## Hancomm

General advertising company that boasts strengths in organizing large-scale events and digital advertising

Hancomm, established in 1983, is a major general advertising company that, along with Oricom, has led the development and growth of Korea's advertising industry. It became an affiliate of Doosan Group in 2015.

Hancomm has been recognized not only for its advertising capabilities on the four major mass media channels, but also for digital advertising and the organization of large-scale events, including the Seoul International Fireworks Festival, an annual event held in October in the Yeouido area, and energy and automobile exhibitions held locally and globally.



## Doosan Cuvex

Specializing in the Creation of a Quality Leisure Culture

Doosan Cuvex, located in Chuncheon, the city of lakes, is a specialized leisure and resort company that operates the Ladena Resort Golf Club, a prestigious golf resort that opened in 1990, the Club Mow Country Club, and the Changwon Dormitory and the Guest House of Doosan Heavy Industries & Construction.

The word 'Ladena' is a combination of 'lake,' 'garden,' and 'nature', which symbolizes Doosan Cuvex's commitment to offer premium leisure activities surrounded by crystal clear lakes and beautiful gardens. The Ladena Resort Golf Club consists of the Lake, Garden and Nature courses where one can enjoy scenic views and the highest quality field services.

Doosan Cuvex will continue to provide maximum enjoyment and the utmost in quality and service.







# Corporate Social Responsibility



# Doosan's CSR

Doosan's CSR is both a steppingstone for Doosan to achieve growth for another 100 years and a promise to society. Doosan will keep its promise by growing in harmony with all stakeholders

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## Outline

Doosan is dedicated to fulfilling its social responsibilities while catering to stakeholder needs. Based on the core requirements of ISO 26000, the international CSR standard, Doosan has built its CSR governance and strategic structure in the areas of CSR integration, human rights, labor practices, the environment, fair operating practices, consumer issues, community involvement and development. In addition, Doosan has publicly demonstrated its commitment to carrying out CSR activities by joining the UN Global Compact.

Doosan is listed on the Dow Jones Sustainability Index (DJSI) and is committed to becoming a responsible global corporate citizen.

## Strategy

Doosan's CSR strategy is established and operated based on its management strategy.

Our CSR strategy includes the goal of becoming one of the world's 100 leading CSR companies by 2025, the mission of supporting responsible and sustainable growth, four CSR pillars, and 10 CSR priorities.

The CSR pillars are as follows: first, "developing people" which is based on Doosan's strategic focus on people's growth that leads to the company's growth; "reliable operation" which pursues fair profits; "responsible engagement" which reflects responsible corporate citizenship; and lastly, "CSR value creation" which seeks co-growth of the company and society. These pillars entail 10 priorities: building a culture of respect for people; fair employment; building a safe working environment; enhancing fair operation and supply-chain CSR; green management and response to climate change; improving product and service accountability; advancing CSR activities that reflect the value of work; enhancing CSR promotion activities; implementing

CSR value creation projects; and advancing CSR performance monitoring.

Based on the CSR strategy, Doosan has been engaged in activities that can contribute to creating shared values and also help increase business competitiveness in each field. The performances and future plans of such CSR activities are available to all stakeholders via CSR reports and other documents made public.

## Code of Conduct

Doosan has revised its Code of Conduct and reinforced its whistleblowing system. The Code of Conduct is a set of rules outlining the core values that all Doosan People are required to comply with to become a "Proud Global Doosan".

The Code of Conduct has the following core values: Inhwa, honesty and transparency, fair competition, customer orientation, innovation and growth, community involvement, and safety and environmental protection. Based on the Code of Conduct, detailed guidelines are provided to employees to create a healthy corporate culture, promote honest and transparent work processes, eradicate bribery, prevent conflicts of interest among employees and more.

All Doosan employees embrace the core values in providing products and services that enhance the quality of life. Thus, our transparent and honest way of doing business based on trust built with our stakeholders helps us fulfill our corporate social responsibilities.

Pursuant to the new Code of Conduct, all stakeholders, including Doosan employees, can report any violation of internal regulations or the law, as well as other inappropriate activities. Doosan processes all such reports promptly and fairly, and protects the confidentiality and identity of the person making the report.

A close-up photograph of a child's hand reaching down to place a small, painted egg in the soil. The egg is shaped like a ladybug, with a red body and black spots. Several other similar painted eggs are scattered on the dark, rich soil. A small green seedling with three leaves is growing nearby. The background is blurred, showing more of the garden setting.

“CSR includes the responsibilities that companies are obligated to fulfill as well as activities that are necessary to attain sustainable growth.”

Chairman & CEO Jeongwon Park  
in his inaugural speech in 2016



# Major CSR Activities

Doosan aims to establish long-term win-win relationships with the community through steady activities in such key areas as governance structure, human rights, labor, environment, health, safety, fair operation, customers (consumers), and community involvement

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## Governance Structure

Doosan has established a sound governance structure to cater to shareholder interests and carry out transparent business operations.

The board of directors is the highest decision-making organ that deals with the execution of business operations, matters stated in the legal statutes and articles of incorporation, decisions made by the general shareholders meeting and more. Doosan appoints external directors to ensure checks and balances between the internal management and external directors. Furthermore, under the board of directors, there are three subordinate committees, including the audit committee, composed entirely of external directors. The board of directors promptly

provides business information by immediately disclosing key decisions of general shareholders meetings.

Apart from the board of directors, Doosan operates the CSR Committee to further enhance its transparency and accountability. It is chaired by the CEO and composed of directors in charge of human rights, labor, environment, customer and product management, fair operations, corporate involvement and more.

In addition, Doosan conducts an annual CSR assessment of its affiliates inside and outside Korea in their respective fields to identify necessary improvements, which are then reflected as priority tasks and carried out according to the plans established subsequently.



## Human Rights and Labor Practices

Doosan's CSR policies concerning human rights and labor comply with the Labor Standards Act, the policies of the International Labour Organization (ILO), and the principles of the UN Global Compact. According to the global principles of human rights, Doosan prohibits forced or child labor, and discrimination on the basis of age, gender or other personal attributes with regard to its recruitment, employment, promotion, pay, or welfare and benefits. Doosan encourages its employees to maintain a work and life balance.

To promote open communication, Doosan has formed a variety of labor-management consultative bodies, through which employees can file complaints

or receive counseling services. A meeting is held every quarter to address the issues and enhance the corporate welfare programs. More recently, an added emphasis was placed on creating a respectful work environment by promoting gender equality and human rights.

Doosan's pursuit of talent cultivation is based on its corporate philosophy—"Growth of people leads to growth of business." Employees develop a plan to enhance their capabilities, and the company provides a wide range of training programs catering to their professional needs and ranks.

Leaders and employees regularly assess and give feedback to each other to monitor whether such efforts are contributing to "growth through work."



# Major CSR Activities

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## EHS (Environment, Health & Safety)

Doosan developed and implemented an Environment, Health & Safety (EHS) management system based on the recognition that respect for life and the environment is its responsibility and a core value for its employees, families and society at large.

We firmly believe that giving utmost priority to environmental, safety and health issues will ultimately increase the value of a company. To this end, Doosan strives to conform to global standards for environmental protection and business management. Doosan is making its best efforts to ensure the safety of all its employees and business sites, as well as to society at large. The company will continue to provide safe and environmentally-friendly products and services, in order to put its EHS philosophy into practice.

### EHS Policy

With EHS as our core management value, Doosan is committed providing products and services that improve the quality of life for people and communities around the world.

To achieve this we shall :

1. Minimize the impact of EHS on management activities by establishing an EHS management system and complying with applicable legal and other requirements.
2. Place the highest priority on the health and safety of all employees and suppliers, for which the best working environment and operational capabilities shall be secured and maintained.
3. Improve the quality of life for customers and contribute to environmental preservation by developing eco-friendly technologies, products and services.
4. Actively take part in the environmental protection efforts of local communities, fulfill social responsibilities, and engage in open communication with interested parties based on integrity and transparency.
5. Ensure all employees and suppliers are aware of and participate in our efforts toward achieving full compliance with our EHS policy.





## Fair Operating Practices

Doosan has enacted and enforced its Code of Conduct, implemented programs for voluntary compliance with fair trade regulations, and supported programs for win-win growth with its partners. It has declared its detailed policies and regulations concerning ethical norms, including those concerning integrity, transparency, and fair competition.

It reconfirms companywide compliance with these norms and standards by requiring all of its employees to submit a sworn statement on their compliance with its Code of Conduct.

In June 2004, Doosan introduced a compliance program that ensures voluntary compliance with the prevailing fair trade regulations by monitoring

the compliance of its employees with the statutes concerning subcontracting. It also conducts on- and off-line education for both its officers and employees and those of its partner companies so as to maintain fair transactional relations.

In addition, Doosan believes that the competitiveness of its suppliers builds its own competitiveness. With that belief in mind, it has established a “virtuous partnership cycle” through which Doosan’s provision of assistance for the growth of its partners ultimately results in its own growth.

It has performed diverse activities aimed at promoting “Benefit Sharing” for joint technology development and cost reduction projects, and securing the financial soundness of its partners by raising win-win growth funds while providing them with customized innovation methods.



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## Customer Issues

Our customers are the reason Doosan exist. Doosan makes diverse efforts to satisfy or exceed its customers' expectations while listening to and respecting their opinions.

Doosan enhances communication with its customers through diverse channels, including but not limited to its Internet website, call center and customer satisfaction survey. The customers' requests and suggestions are actively reflected in quality improvement and product development as well as in immediate actions such as its after-sales service. Further, it has strengthened its product accountability program in order to provide customers with safe and

reliable products of outstanding quality. Safety and quality-related matters are treated as top priority from the initial product design stage to delivery of the final product to the customers. These activities are a key element of the product accountability program, which is designed to enhance customer satisfaction while securing the safety of the customers, the end-users of the products.

Doosan has developed and operated an information security policy to prevent possible leakages of the personal information of its customers and thereby protect them from potential damages. It conducts an annual education program designed to enhance the security awareness of its officers and employees to protect customer-related information, and encourages



them to practice their information security awareness routinely through periodic checks of performance. Doosan's customer information protection system maintains all of its customers' personal information in an encrypted form in a database. Doosan attempts to block information leaks at the very source by pre-emptive monitoring for any acts which are suspected as potential leaks of information, including unauthorized access to, abuse or misuse of personal information.

## Corporate Community Involvement (CCI)

As a corporate citizen, Doosan is fully committed to fulfilling its corporate social responsibilities to help

build a happy and prosperous future. We develop and implement CSR programs that satisfy two core elements: "Commitment to People" and "Contribution to the Community," which have remained unaltered and uncompromised throughout Doosan's 121-year history.

Doosan's CCI goal is to ensure that the communities to which the Company belongs enjoy a far higher standard of living through our CCI activities as we look to make a long-term investment into the future. Doosan has also established the basis on which employees and all its stakeholders can continually grow through diverse CSR activities, under its mission to "enhance the future competitiveness of the community and corporate value through strategic CCI activities" and "Doosan Community Blueprint," its CCI brand.





## Doosan's Community Involvement creates a better life together!

Doosan Corporation has continued to stage diverse CSR activities that enable the Company to grow together with the community.

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Doosan conducts an annual "Doosan Day of Community Service" event in which employees from around the world identify and implement tasks that will benefit local communities. Thus far, some 45,000 employees in over 20 countries have participated in a wide range of volunteer programs. Employees in Korea made furniture for low-income households, and U.S. employees donated toys and books for children in need. In Europe, including the U.K., volunteers helped improve church community facilities. Indian and Vietnamese employees repaired and refurbished schools, welfare facilities and residential environments for low-income earners. Since making its debut in October 2014, the Doosan Day of Community Service has taken root as part of Doosan's unique CSR culture.

In a bid to fulfill our 'commitment to people,' Doosan is involved in diverse activities that can help create a world where future talents can unleash their true potential.

The "Infant Mental Health" project is a customized educational program for nursing teachers and parents to ensure the proper development of children's healthy minds. As of 2016, the project has been proven effective. It has helped nursing teachers at Doosan's in-house daycare centers and community daycare centers in areas around its major workplaces to boost their childcare skills, which, in turn, has led to the improved mental health of infants. As of 2017, the project has shifted its focus to parents, who have the greatest influence on children. The ongoing "Education Class for Parents for Infant Mental Health" program is such an effort, which is supported by the Ministry of Gender Equality and Family.

Other flagship programs of Doosan affiliates designed to help future talents include the "Youth Energy" project, a youth assistance program tailored for various growth phases ranging from childhood and adolescence to young adulthood; the "Dream School" mentoring program for teenagers; and the "Time Traveler" program, which aims to promote the healthy emotional development of teenagers through photography.

Believing that the growth of the community to which we belong is closely related to our own growth, Doosan is dedicated to creating a society where everyone is happy, by extending a warm helping hand to people in need in order to "contribute to the community."





Doosan also seeks to improve access to health care and education for people living in our communities through various CSR programs. Since 2001, Doosan has established 37 “Doosan Hope Elementary Schools” for children living in remote areas in China. Under the “Wish Tree” program, we have forged sisterhood relationships with elementary schools in India with an aim to improve the educational environment for children in need. In Vietnam, we provide free medical services for patients, including children suffering from cleft lip and palate, help improve the nutritional condition of infants, and support the Quang Nam Central General Hospital, the largest medical institution in the Quang Nam region of Vietnam, under the Q Health program.

Doosan has continued with its efforts to meet the needs of the community by reflecting the characteristics of its business. Accordingly, the Company provided water purification facilities in Cambodia in 2006, and donated seawater desalination facilities to An Binh Island in Vietnam in 2012. The Company is also making efforts to provide disaster relief aid for people living in affected areas. The Company extended support for recovery from the 2004 Indian Ocean earthquake and tsunami, and assisted victims of Hurricane Katrina in the U.S. in 2005, the 2008 Sichuan earthquake in China, and the Fukushima nuclear disaster in 2011. The Company was the first to offer a helping hand to Sichuan Province, China, after another earthquake struck the region in 2013. It urgently dispatched its excavators and service personnel through its dealerships in areas around the province, and helped repair damaged roads to enable rescue workers to access the disaster site promptly.

Since 1991, Doosan has delivered the warmth of tea to soldiers of front-line military units under the “Love Tea Sharing” program, a longstanding CI activity that demonstrates its continued commitment to its community. Furthermore, the Company delivers funds to diverse educational institutions and awards scholarships to outstanding students as part of its effort to make contributions to a wide range of activities carried out to help the underprivileged.

Each of the Doosan affiliates has formed teams that are solely dedicated to CSR activities, with an aim to carry them out in a more professional and systematic manner based on close relationships built with their respective communities. To encourage employees’ voluntary participation in the meaningful activities, we have put in place multiple programs, including a small monthly salary deduction, a matching grant for donations made by employees, and a paid volunteer service program. We also have focused on creating more opportunities for external stakeholders to participate in and understand our CSR activities by actively communicating with them.



## Community Involvement Activities of the Foundation

Doosan helps cultivate future leaders, support young artists and grow together with local businesses of Dongdaemun in partnership with Chung-Ang University, the Doosan Yonkang Foundation and the Dongdaemun Future Foundation

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### Participating in the Management of Chung-Ang University

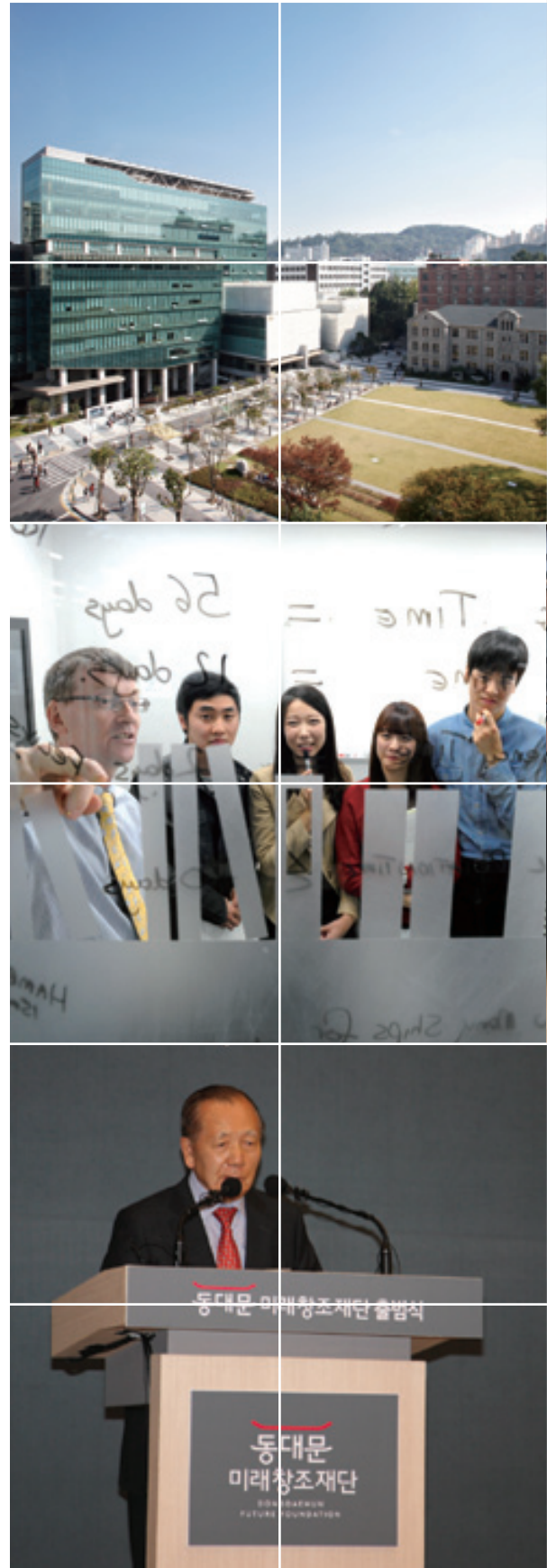
Ever since it began to participate in the management of Chung-Ang University in 2008, Doosan has been proactively providing support to enable the educational institution to join the ranks of prestigious world-class universities. Since 2009, Doosan has continuously pushed for restructuring and reforms by academic subject, and helped the university's different colleges and departments to achieve specialization, and ensure seamless convergence between different academic subjects.

In 2011, Chung-Ang University merged with the Red Cross College of Nursing to launch the Chung-Ang University Red Cross College of Nursing, the nation's largest nursing education institution. In 2014, Doosan introduced a system of functional vice presidents and put them in charge of academic affairs, research, administration and the Anseong Campus, and medical operation, respectively, by having the university's operations specialized by function.

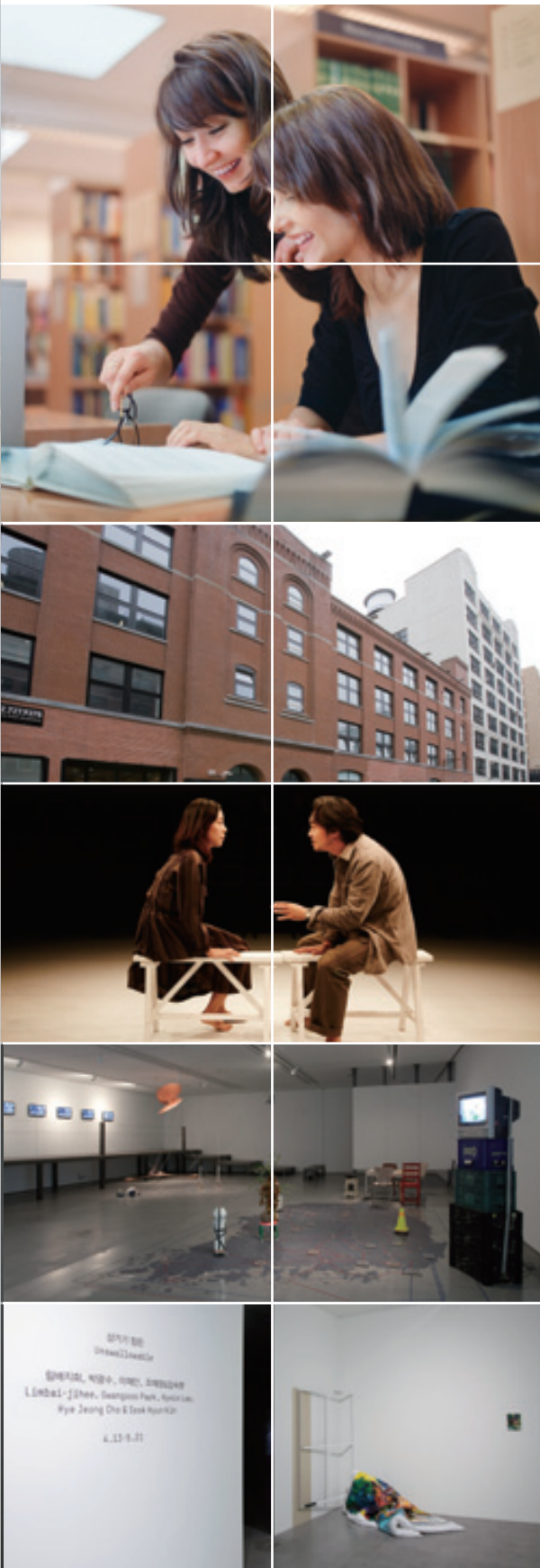
Doosan is also stepping up its efforts to secure infrastructure that is essential to boosting Chung-Ang University's educational and research capacities. Thanks to the remodeling of the central library building, and the construction of the College of Pharmacy and R&D Center building, and Dormitories 1 and 2, students and faculty at the university are able to concentrate on their academic studies and research in a more pleasant environment. Notably, through the inauguration of the Centennial Hall and Management and Economics Building in July 2016, Chung-Ang University is poised to take another dynamic leap forward.

### Dongdaemun Future Foundation

The Dongdaemun Future Foundation was established in 2015 with an aim of systematically promoting the development of the Dongdaemun area and achieving "shared growth" with small local businesses through a public-private-academic partnership. Under its vision of creating a "global top tier" creative tourism cluster that will achieve the advancement of the Dongdaemun fashion and tourism industry and the balanced growth of the local economy, various programs are being prepared to realize the balanced development of Dongdaemun and the value of sharing in order to ensure co-prosperity and more effective management of the community.







## Major activities of the Dongdaemun Future Foundation

- **Think Tank**
  - Research on development models for the Dongdaemun area
  - Improvement of tourism and fashion industry infrastructure
  - Development of tourism and fashion industry software
- **Marketing**
  - Identifying strengths of Dongdaemun
  - Planning and conducting of promotional events under various themes
- **Brand accelerator**
  - Identifying emerging designers and promising brands
  - Support for the development and expansion of sales channels

## Doosan Yonkang Foundation

Doosan Yonkang Foundation was founded in 1978 to honor the late founder of Doosan, Too Pyung Park, who believed that education is the driving force of national growth. Since then, the Foundation has offered scholarship programs, support for academic research, book donations, financial help for teachers to participate in overseas academic field trips and other programs to foster human resource development and academic growth. Doosan supports talented students through a wide range of scholarship programs, including the Doosan Yonkang Scholarship, Doosan Dream Tree, Multi-cultural Family Scholarship, and Korean Studies Scholarship for overseas university students. It also offers overseas academic travel programs to teachers, who are at the forefront of nurturing future talent, providing science teachers a chance to see advanced science education programs and giving history and social studies teachers a firsthand look at economic development.

Since 1979, Doosan has been providing research grants to university-affiliated research centers and professors who are engaged in pure and basic research in order to ensure the balanced development of academic disciplines and research activities. Since 1993, Doosan has awarded the Doosan Yonkang Environmental Academic Research Grant to professors and scholars of Environment, Health and Safety (EHS).

## Doosan Art Center

Doosan Art Center, which is part of the Doosan Yonkang Foundation's corporate patronage activities, is in charge of managing Yonkang Hall, Space 111, Doosan Gallery Seoul, Doosan Gallery New York and Doosan Residency New York. Doosan Art Center supports a number of young artists in different fields, such as musicals, theater and the fine arts, through its Artist Incubator Program, Doosan Residency Program and Doosan Artist Awards.

## Major Activities of Doosan Art Center

- **Artist Incubator Program**  
Selecting young performing artists under the age of 40 to support their art activities.
- **Doosan Art LAB**  
Supporting young artists under the age of 40 in their new experiments through various forms such as showcases, readings and workshops.
- **Doosan Residency New York**  
Supporting talented artists and their creative activities during six-month stays in New York.
- **Doosan Curator Workshop**  
Supporting three new curators with potential.
- **Doosan Artist Awards**  
Supporting artists under the age of 40 with potential for growth in the areas of fine arts and performing arts.



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The performance of Doosan has increased remarkably since the beginning of the new millennium. We have achieved an explosive growth of revenue, from KRW3.4 trillion in 2000 to KRW16.4 trillion in 2016.

This review will provide an understanding and analysis of the Doosan fiscal results for the year 2016. Our operations are focused on the infrastructure support businesses (ISB) and more than 92 percent of our sales are made in that sector. ISB sales are quite sensitive to general economic circumstances. A number of factors beyond expected corporate competition can affect our short-term operating results. These include exchange rate fluctuations, the loss or expiration of technology licenses, costs associated with new technology development and the timing of technology launches, and the adverse effects of tougher regulations.

Last year, Doosan carried out various restructuring activities, including the disposal of excess facilities overseas, write-offs, and asset write-downs. With the global economy expected to see a slow pace of growth for a considerable period of time, the Company inevitably had to make such an adjustment in order to lay the foundation for renewed growth in the future.

R&D success is a major factor affecting our long-term success. Like other leading ISB players, we devote substantial resources to R&D for the benefits that will emerge over the long term. In 2015, Doosan broke ground on the Doosan R&D Complex, a high-tech research park for the Group, in Gunpo, Gyeonggi Province.

In 2016, many Doosan affiliates posted notable achievements amid the major transformation that took place. Here are just a few highlights of the successes for the year:

## Doosan Heavy Industries & Construction

- Won a contract worth 1.8 trillion won to build the Nghi Son II coal-fired power plant in Vietnam
- Recorded 50 million cumulative man-hours without work-related injuries during the Saudi Rabigh Project, the world's largest 2,800MW thermal power plant
- 1000MW ultra-super critical boiler selected as a World-Class Product
- 3MW wind power generation system WinDS3000™ selected as a World-Class Product

## Doosan Infracore

- Developed the 'EURO 6' diesel engine (which is unmatched in fuel efficiency and cost) that is compliant with the toughest emissions regulations
- Released an excavator equipped with AVM (Around View Monitor) and a rear warning system, the first of its kind in Korea
- Signed G2 engine supply contracts with major agricultural machinery makers in Korea (Dae Dong Industrial and Kukje Machinery)
- Won an Honorable Mention at the Red Dot Design Award 2016 for the design of its DX-5 Series

## Doosan Engine

- Global leader in diesel engines
- Captured the second-largest share of the global low-speed diesel engine market
- Developed the world's first SCR (Selective Catalytic Reactor) system for ships

Doosan conducted a corporate restructuring amid the difficult market conditions in Korea and overseas, and improved its financial structure. Doosan Heavy Industries & Construction solidified its position as a global leader in power and water.

In addition, Doosan Infracore sold off its machine tools business and is now focusing on the construction equipment and engine businesses.

We have bolstered our R&D program, secured proprietary technologies through acquisitions that provide Doosan with greater competitiveness, and are more customer-focused than ever. We invested KRW1 trillion last year, while building outstanding business systems and programs for nurturing talented individuals with global competencies.

Having met all our short-term goals of the past several years, we are now focused on the future. Our true strengths lie in our diverse business portfolio as well as our ability to manage every aspect of every business with imagination and rigorous attention to detail. We know we can always improve, shape our business plans even more strategically, continue to give back while doing well and continue to build upon the support and respect of valued employees and customers.

## The Road Ahead

Doosan is determined to join the ranks of the world's biggest 200 companies by 2020. We will continue to strengthen our competitive advantages by securing proprietary technologies and pursuing new business opportunities to aggressively transform ourselves. Consolidated under the 2G strategy—"the growth of business through the growth of people"—Doosan endeavors to become the world's best ISB company.

As we set new milestones as a way to measure our success, Doosan endeavors to create the maximum value for our customers by delivering the best products and services in all of our business areas, encompassing power plants, desalination plants, construction equipment and construction of bridges and highways as well as duty free, advertising, magazine publishing and leisure.

Doosan is undergoing a dynamic transformation even at this very moment. Doosan will continue renewing its efforts to develop into a dynamic global company that will keep growing while recording outstanding achievements in all its business areas.

# Financial Statement 2015

(In millions of US\$)

About Doosan

Our Infrastructure  
Support Businesses

Holding Company  
and Other Affiliates

Corporate Social  
Responsibility

## Financial Review

Companies	Total Assets	Total Shareholder's Equity	Sales	Operating Income
Doosan Corporation*	5,678	2,970	2,880	208
Doosan Heavy Industries & Construction	12,410	5,064	5,964	231
Doosan Infracore	9,713	2,648	6,375	24
Doosan Bobcat	5,431	2,667	3,571	340
Doosan Engineering & Construction**	3,606	1,207	1,596	-148
Doosan Engine	1,200	490	613	-56
Grand Total***	26,925	7,162	16,757	234

Sales and operating income figures are based on average F/X rate of KRW 1,131.49/US\$.

Asset and equity figures are based on year-end F/X rate of KRW 1,172/US\$.

\* Doosan Corporation: Doosan Corporation on a separate basis; DST, Tower, Doosan Feed & Livestock, Oricom, Neoplux, Bears on a consolidated basis

\*\* Doosan Engineering & Construction: Doosan E&C, Cuvex on a consolidated basis

\*\*\* Grand Total: Doosan Corporation as a holding company on a consolidated basis; the numbers in the columns do not add up to the Grand Total.



# Financial Statement 2016

(In millions of US\$)

Companies	Total Assets	Total Shareholder's Equity	Sales	Operating Income
Doosan Corporation*	5,201	2,665	2,474	147
Doosan Heavy Industries & Construction**	12,134	4,897	5,344	248
Doosan Infracore	8,297	2,853	4,937	423
Doosan Bobcat	5,235	2,774	3,404	357
Doosan Engineering & Construction**	2,507	881	1,098	11
Doosan Engine	1,122	442	692	4
Grand Total***	23,719	6,538	14,141	790

Sales and operating income figures are based on average F/X rate of KRW 1,160.5/US\$.

Asset and equity figures are based on year-end F/X rate of KRW 1,208.5/US\$.

\* Doosan Corporation: Doosan Corporation on a separate basis; Tower, Oricom, Bears on a consolidated basis

\*\* Doosan Engineering & Construction: Doosan E&C, Cuvex on a consolidated basis

\*\*\* Grand Total: Doosan Corporation as a holding company on a consolidated basis; the numbers in the columns do not add up to the Grand Total.

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