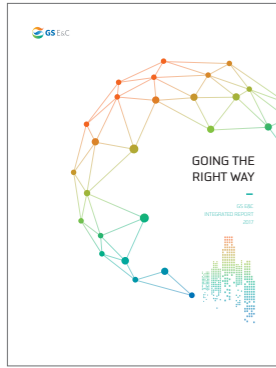


GOING THE RIGHT WAY

GS E&C
INTEGRATED REPORT
2017



GRAN Seoul, 33 Jong-ro, Jongno-gu,
Seoul 03159
Tel. +82-2154-1114
www.gsenc.com



ABOUT THIS REPORT

102-1, 102-3, 102-4, 102-48, 102-50, 102-51, 102-52, 102-53, 102-54

This is the seventh integrated report published by GS E&C.

GS E&C is rooted in the belief that its business activities should pursue values that put forth our society and environment through stable and robust financial outcomes.

Our responsibilities as an E&C company and commitment to sustainability management are carried out through our business activities, as encapsulated in our company-wide VISION 2020 GOAL—"Sustainable Global Company."

GS E&C publishes an integrated report every year to transparently disclose information regarding its financial and non-financial performance measures to its stakeholders. The report includes its sustainability management results across all domestic and overseas worksites as well as its major supply chain entities. The reporting period of this report is from January 1, 2017 to December 31, 2017.

We have based the financial results of this report on the consolidated K-IFRS, and in an effort to enhance the integrity of this report, non-financial information regarding social responsibility has been jointly reported with our data and evaluation results for the DJSI (Dow Jones Sustainability Index).

This report has been prepared in accordance with GRI Standards Guidelines Core Option. Alterations to the previous report have been noted in footnotes accordingly. External assurance is provided by THE CSR, a global sustainability management consulting firm.

For details on this report, please contact our Strategy Planning Team at the following address:



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New values created by GS E&C

Through its business philosophy, "Dreaming about Tomorrow with Clients, Creating New Values for Them," GS E&C creates new values that our stakeholders and society can all share.

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Dear Stakeholders,

On behalf of the entire GS E&C Corporation, I would like to express my deepest gratitude to you all for your interest in and continued support for us.

In 2017, GS E&C strove to gain market confidence through business management that was true to principles despite challenging circumstances due to drastic downturns in overseas orders and declining trends in domestic orders. The company upheld values centered on safety, righteousness, and fair business management, and as a result, generated exceptional financial, environmental and social value on the basis of sustainable management.

First, GS E&C has been able to achieve exceptional financial performance.

Through growth across the architecture and housing, infrastructure, plant and power sector businesses, GS E&C recorded KRW 11.68 trillion in sales, exceeding KRW 10 trillion for three consecutive years. The company was also noted for its turnaround with record-high operating sales in six years. In overseas business developments, we were able to drastically reduce our financial risks and normalize our profit patterns by successfully entering the final stages for most of our projects, even amid difficult conditions. Domestically, our outstanding performance in the housing business, both in sales and orders, drove company-wide financial performances despite reinforcements in government regulations.

Second, GS E&C is leading the way in combating climate change through its environmental management system and eco-friendly technology.

GS E&C is taking company-wide actions to combat climate change with aims to reduce its greenhouse gas emissions by 7.1% by 2020. Centered around our Technology Research Center, we are continuing efforts in developing eco-friendly technology, and have reduced greenhouse gas emissions by approximately 37,500 tons through usage of green concrete and LED lighting on sites. Furthermore, our energy consumption reduction efforts are carried out systematically through our Energy Management Committee. Recently, we have taken our technology for efficient energy operations management from the building to the city level, hoping to more effectively contribute to energy consumption reduction efforts.

Third, GS E&C creates values for the sustainable growth of all our stakeholders.

We strive to provide a working environment that motivates and enables the best performance of our employees grounded in professional expertise, and support our suppliers with safety and ethics trainings for shared growth. We have also continued our social contribution efforts, even when business conditions were not at their best, and built our 230th Dreams and Hopes Study Room.

By taking the initiative to assess and improve our sustainability management by global institutions, GS E&C has been able to produce sustainable results that meet global standards. Especially in 2017, GS E&C was admitted into the DJSI Asia-Pacific Index for eight consecutive years, acknowledging the excellence of our management system.

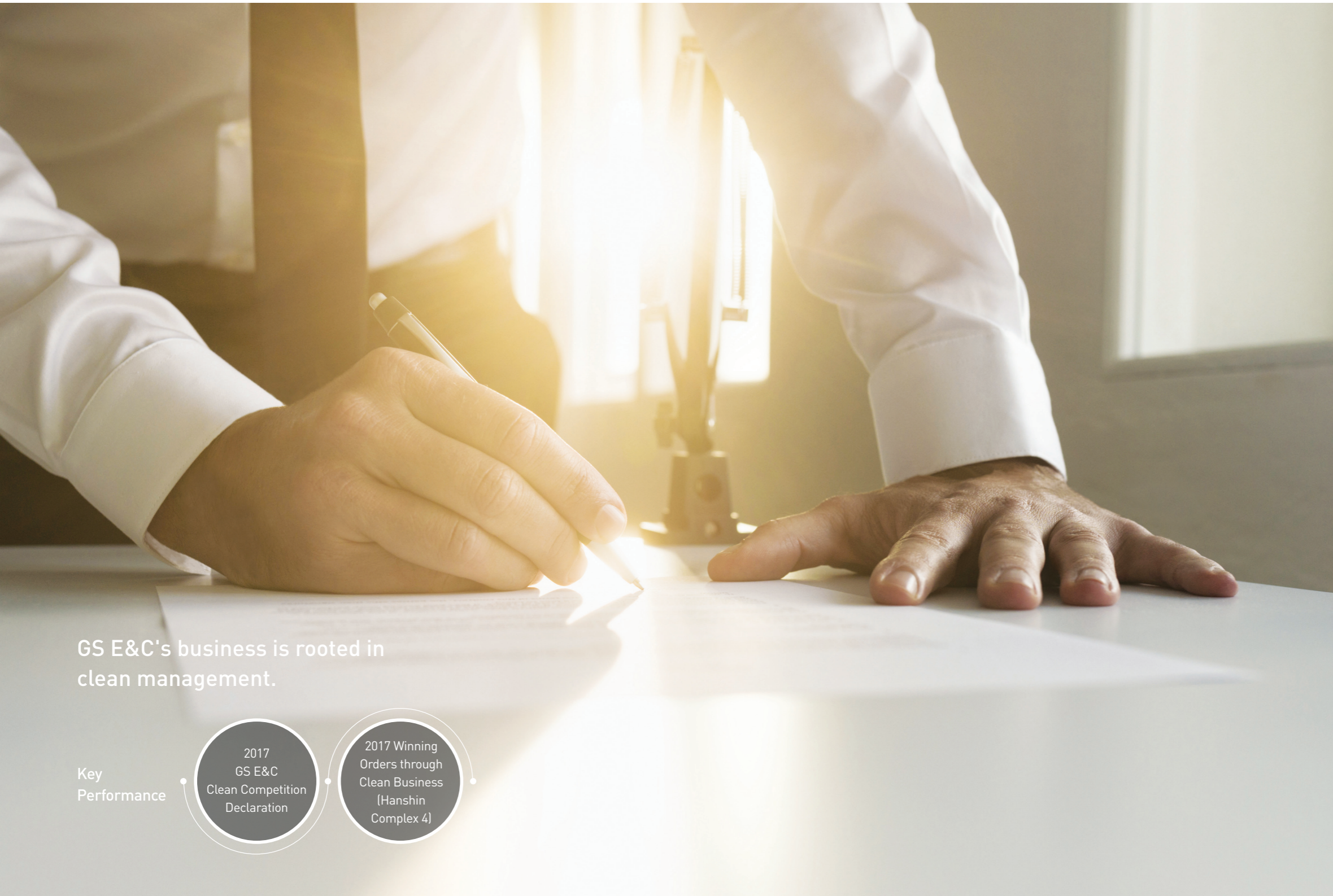
Upon publishing our seventh integrated report, I would like to take this opportunity to express GS E&C's commitment to creating shared values for all our stakeholders.

Thank you.

June 2018
GS E&C Corp.
President & CEO
Byeong-yong Lim

Sustainability Focus 1

Business Ethics



GS E&C's business is rooted in clean management.

Key Performance



“

GS E&C is laying the foundation of business ethics and improving unjust practices to become a “transparent and fair company that customers and society trust.”

First, the company extensively manages and takes preventative measures based on our Basic Principles, which includes sexual harassment, abuse of power, and verbal and physical harassment. In particular, the company tracks reports and transparently amends the situation according to principles.

Also, the company is leading the movement to correct out-dated unjust business practices as well as to improve the industry structure. Specifically, the Clean Competition Declaration, announced in 2017, provided an opportunity for the company and individuals within to take the initiative to change. Some employees were concerned over the possible negative impacts, such as short-term profit loss, inconvenience in sales activities and social risks in the case of unethical sales activities, but the company took a bold move rooted in the belief that gaining trust through upright business is key to sustainable growth. Having successfully won large scale biddings through fair competition after the Clean Competition Declaration, the direction towards business ethics at GS E&C has become ever more clear.

Senior Vice President, Compliance Department
Sun-bin Hong

”



Sustainability Focus 2

Innovative Safety



GS E&C pursues a safety culture of pro-activeness and participation of all members. Striving to end all critical casualties by establishing a sound safety culture, employees as well as suppliers put utmost priority in safety. The company continues to systematically carry out safety activities and various programs based on worker behavior.

The Safety Innovation School, representative of GS E&C's efforts to create a safety culture, has operated for 12 years and become an exemplar of safety culture within the construction industry at home and abroad. Specifically, it provides professional training based on job positions, practical education that replicate field situations and furthermore, improves the programs each year by reflecting the feedback from trainees. This safety training is provided to directors and supervisors of suppliers as well to foster shared growth. In 2016, the Safety Innovation School was introduced in Singapore, and its effectiveness has been acknowledged, with some clients request practical education facilities on new sites.

Safety is an obligation for everyone, not just certain individuals. The GS E&C headquarters and business sites will work together, grounded in safety awareness and open communication to create a sound safety culture.

Senior Vice President, CSO
Chan-Jeong Park



GS E&C prevent construction site accidents through our Safety Innovation School.

Key Performance

- 1st Safety Innovation School in Korea in 2006
- 1st Overseas Safety Innovation School in 2016
- 2017 4 Supplier Critical Casualties



GS E&C supports various CSR initiatives as a global corporate citizen.

Key Performance

Admitted to 2017 DJSI Asia Pacific Index for 8 Consecutive Years

2017 E&C Sector 4th in Sustainability



In the 2017 DJSI assessment, GS E&C was admitted to the Asia Pacific Index for the eighth consecutive year. And its outstanding performance in sustainability has been continuously acknowledged, ranking 4th in the construction industry. The company has no doubt that such records will elevate trust towards GS E&C and positively affect bidding processes as well.

Recently, leading global companies are actively participating in CSR initiatives to promote CSR and assess their sustainability performances to find areas for improvement. GS E&C has participated in CSR initiatives including UNGC, DJSI, CDP, ISO 26000 and ESG & SRI to comply with international guidelines and fulfill social responsibilities as a global corporate citizen.

Sustainability management will soon account for company competitiveness. GS E&C will ensure that all stakeholders dutifully fulfill their social responsibilities by reinforcing its foundation from within to meet the international standards of CSR initiatives it takes part in.

Vice President, Strategy Group
Hun-geun Chae



Revitalizing Community



Depending on the level of infrastructure accessible to residents in a country or region, the benefits that residents can reap vary tremendously; this makes infrastructure an important lifestyle service. GS E&C has contributed to developing infrastructure in Korea by successfully completing the Wonju-Gangneung KTX Railroad Section 7 as well as Pohang-Samcheok Railroad Section 2 and 5. Also, the company has completed various infrastructure projects, such as special bridges, ports, industrial complexes and stockpile sites, which have improved regional accessibility, renovated business areas, and expanded tourism and industry facilities. Like such, GS E&C promotes balanced regional development and creates new jobs that solve issues around the concentrated development in metropolitan areas.

To improve quality of life and guarantee public safety amid more complex life patterns and industrial structures in modern society, greater infrastructure policies and investments are necessary. GS E&C will continue to solidify the position of Korea as a global hub, improve quality of life and further contribute to economic growth through economic cooperation with North Korea.

Senior Vice President, Infra Projects Operation Division
Yong-cheul Park



GS E&C contributes to local community development through business.

Key Performance



Sustainability Focus 5

Green Technology



GS E&C combats climate change through innovative eco-friendly technology.

Key Performance



“

Eco-friendly technologies minimize environmental pollution throughout the entire process, from construction to maintenance, by reducing building energy-consumption, improving indoor air quality and preventing noise and vibration. Like such, GS E&C has continually developed eco-friendly construction technologies to take responsibility for global environmental problems and provide unique values to our customers.

Specifically, all apartments have been installed with an energy-saving package technology, which consists of a floor heating system, hot water supply system and LED lighting technology for basement parking areas. Each year, this technology saves approximately 30% of energy costs and approximately 17% of raw construction costs. To expand these reductions to buildings other than housing, the Building Energy Management System (BEMS) is being adopted to the City Energy Management System (CEMS) to establish eco-friendly cities.

GS E&C continues to take on challenges to explore outstanding technology in other industries such as automobiles, electronics and aerospace and apply them to the construction industry to secure unique and competitive technologies. By developing new technologies that anticipate future trends, the company will take actions to solve environmental problems.

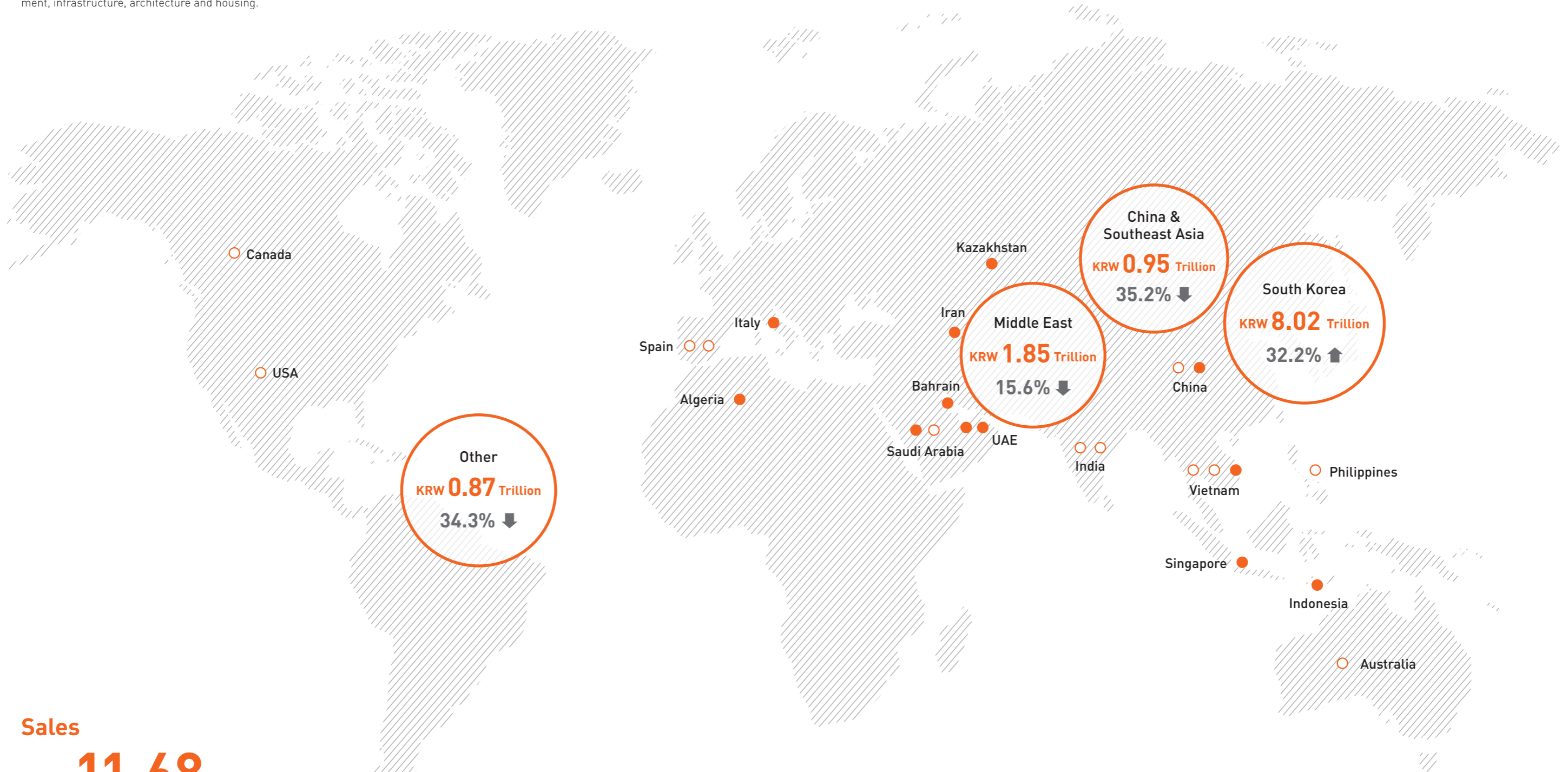
Vice President, Fundamental Technology Group,
Technology Division
Sang-Pil Lee

”



GS E&C was established on December 19, 1969 as Lucky Development Co., Ltd. and later changing its title to GS E&C in March 2005, the company has grown into an external audit company and listed in the securities market. For the past 48 years, the company has prioritized customer values and is always striving to become the best partner and producer in each of its business sectors –plant, power, environment, infrastructure, architecture and housing.

- 12 Branches in 11 Countries
- 12 Subsidiaries in 9 Countries



Sales
KRW 11.68 Trillion
5.8% ↑

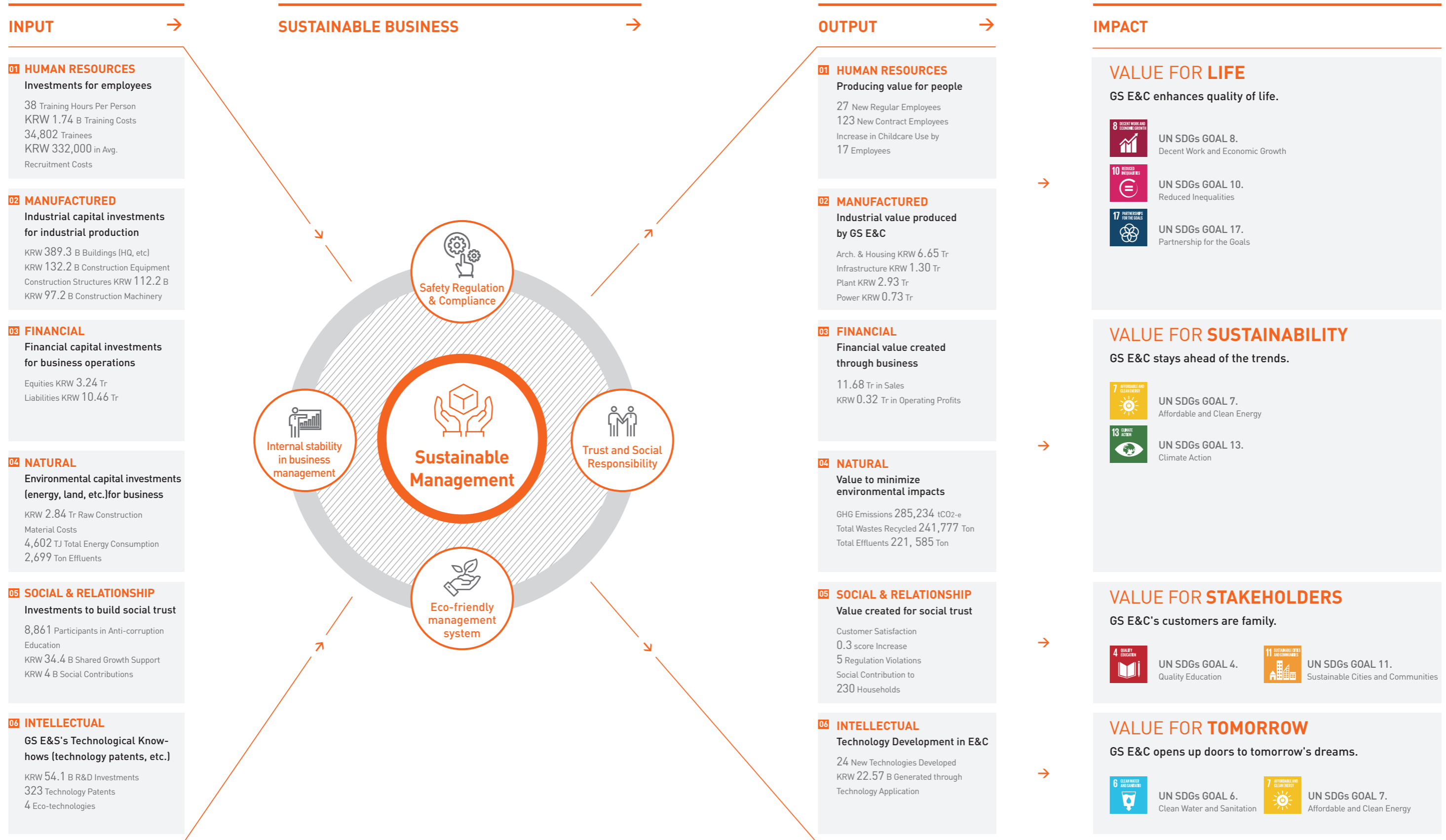
Total Assets
KRW 13.70 Trillion

Operating Profits
KRW 0.32 Trillion

Orders
KRW 11.22 Trillion

Business Sites
210 Sites

Employees
5,961



Architecture & Housing

Representative Areas

Residential facilities,
Business facilities,
Education/research centers/
hospitals, Cultural/leisure/
sport facilities,
Clean rooms/production
facilities, Logistics/
remodeling, Domestic
development projects,
Overseas development
projects

Overview

GS E&C generates the highest sales and profits in Korea's housing sector with "Xi," which ranked 1st in the brand preference, and is continuously developing new housing products, such as terraced and detached housing. In the architecture sector, the company is striving to meet clients' requests in business and production facility projects with its advanced designing skills such as pre-construction. Recently, it is focusing on winning orders for modern complex facilities, such as data centers and R&D centers.

Opportunity

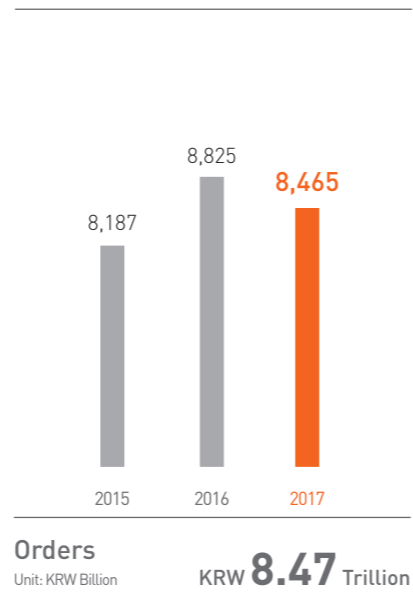
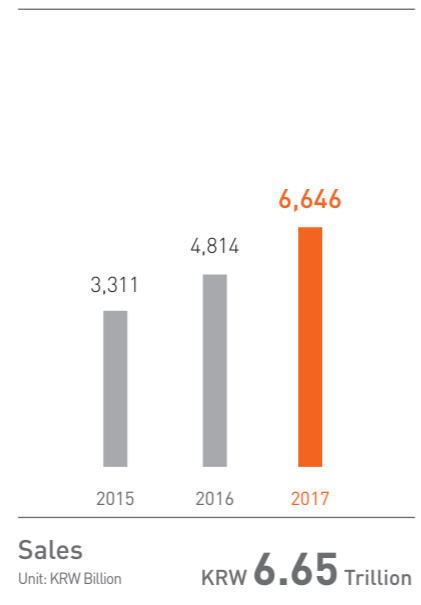
Through preemptive actions to the improving housing market, GS E&C has won various housing orders. Beginning this year, the company plans to focus on supplying reconstruction projects in the metropolitan area to secure sustainable sales and respond to future market changes. Furthermore, GS E&C plans to advance into overseas markets in Vietnam and Indonesia in addition to the domestic housing market which is expected to show increases in public housing orders under government policies.

Outlook

Demands in housing and development projects are expected to continue to increase due to various societal trends: increasing number of small households due to changes in the population structure, aging of large "new cities" in Bundang, Ilsan and Pyeongcheon and the expansion of residential areas that ensued transportation technology developments, such as the GTX. Demands for complex modern buildings, such as data centers and smart buildings with the rise of the 4th industrial revolution as well as E&C market expansions from potential economic cooperation between South and North Korea.

Sales Proportion **57%**

Orders Proportion **78%**



Korea's Premium Apartment Brand, Xi

Xi is short for eXtra Intelligent and symbolizes premium apartment selected by leading people. Xi goes beyond the residential concept and is a high premium space with considerations for values and emotions of residents. It gives a new concept to a space to create new values in aesthetic, cultural and modern aspects. Xi will lead high quality residential culture by providing luxurious lifestyle and high quality cultural experiences based on respecting, delicate and dignified services to customers.

1
Gyeongguigung Xi (Seoul, Korea)
Project Period: Oct. 2014 – June 2017
Order: KRW 513.5 Billion

2
Ng Teng Fong Hospital (Singapore)
Project Period: June 2012- Feb. 2015
Order: KRW 584.4Billion

3
Hana Financial Group Integrated Data Center (Incheon, Korea)
Project Period: June 2015 – May 2017
Order Volume: KRW 194.6 billion

Infrastructure

Representative Areas

Roads, Bridges, Railroads,
Underground facilities,
Water resources, Ports

Overview

The infrastructure industry creates new spaces for the public's benefit. GS E&C has carried out social infrastructure constructions such as roads, bridges, railroads, metro, airports, water resources, ports, industrial complexes and underground storage facilities, and has secured high competitiveness in building and operating private large-scale infrastructure facilities.

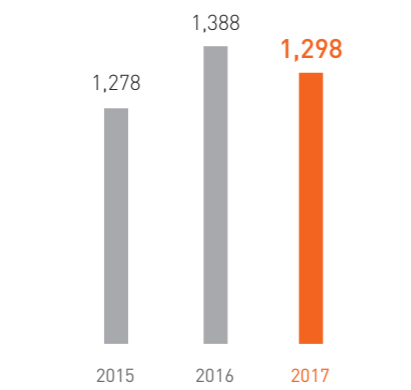
Opportunity

Recently, the domestic (Korean) infrastructure industry is declining, and this trend is expected to continue due to cuts in the social overhead capital (SOC) budgets. In response, it is crucial to pioneer into new markets and diversify business through overseas infrastructural PPP projects. In particular, investment development projects are pursued, rather than simple bidding competitions with lower profitability. In the global infrastructure market, orders are expected to continue regarding transportation related infrastructure projects as a result of urbanization, and opportunities for SOC construction projects based on economic cooperation such as the Economic Development Cooperation Fund (EDCF) are expected to increase mainly in Asia and Africa. In the Australian market, orders for infrastructural projects are expected to increase as well.

Outlook

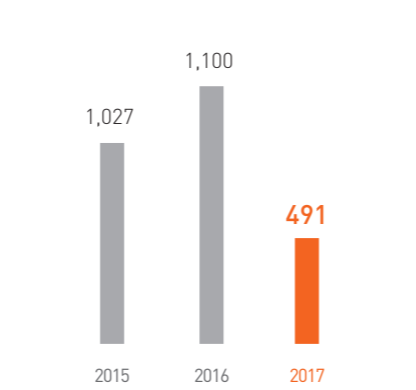
The government continues to secure social overseas capital (SOC) facilities, create jobs, seek eco-friendly growth and develop the E&C industry through public infrastructure projects. It is expected that the infrastructure industry will shift to a complex industrial structure with the integration of various industries, rather than simply focusing on installation and services.

Sales Proportion **11%**



Sales
Unit: KRW Billion **KRW 1.30 Trillion**

Orders Proportion **4%**



Orders
Unit: KRW Billion **KRW 491 Billion**



1
HCMC Urban Railroad
Line 1 Zone 2 (Vietnam)
Project Period: July 2012 – Dec. 2019
Order: KRW 402.8 Billion



2
Vam Cong Bridge
Construction Project (Vietnam)
Project Period: Nov. 2013- In Progress
Order: KRW 180.5 Billion



3
T301 (Singapore)
Project Period: March 2016 – Feb/ 2024
Order: KRW 1.537 Trillion

Plant

Representative Areas

Refinery, Gas,
Petrochemical Plants,
Environmental projects

Overview

The plant industry not only integrates the foundation, design, procurement and installation of facilities used in refinery, gas, petrochemical and environmental (waste treatment and water treatment) plants, but also feasibility studies, plant maintenance and repairs. The scope of orders is determined based on the plant orders of the petrol/gas source country, domestic financial policies and investment/construction regulations also impact the industry.

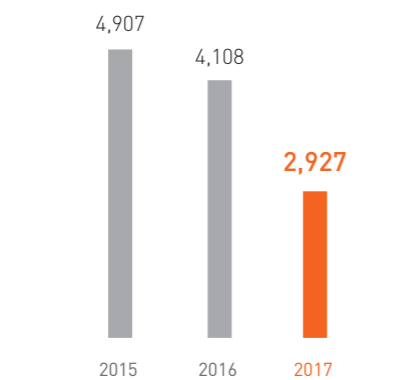
Opportunity

Despite the global economic depression, investments in energy and industrial facilities in the Middle East are expected to continue, and with the expansion of energy industrial facilities following the growth of emerging markets, the investments in plant facilities are expected to show a gradual increase. Also, leading companies are securing profitability in high added value areas, while late comers in EPC, such as China and India, are expanding their market share based on price competitiveness.

Outlook

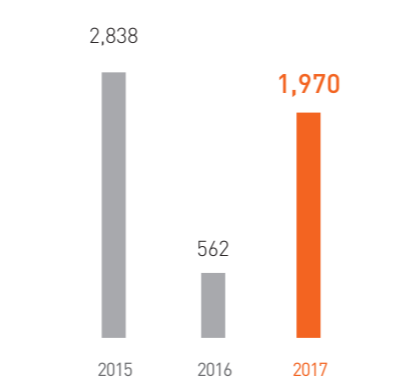
Plant sector orders are expected to continue in the refinery sector in the Middle East, Africa and Latin America. Particularly with the focus on environmental issues, such as regulations for CO2 emissions, demands for gas, a relatively clean energy source, is expected increase. For sustained growth in the plant sector, GS E&C is securing original technology, fostering professional talent and expanding R&D investments.

Sales Proportion **25%**



Sales
Unit: KRW Billion **KRW 2.93 Trillion**

Orders Proportion **18%**



Orders
Unit: KRW Billion **KRW 1.97 Trillion**



1
Rabigh CP3/4 (Saudi Arabia)
Project Period: June 2012 - July 2017
Order: USD 1.377 Billion



2
NSRP (Vietnam)
Project Period: July 2013-Feb. 2017
Order: KRW 1.12 Trillion



3
UHV (Thailand)
Project Period: Oct. 2012-Jan. 2017
Order: USD 640 Million

Power

Representative Areas

Thermoelectric, Nuclear, Renewable, Transmission & Distribution(T&D)

Overview

The power generation, transmission and distribution business involves the construction of facilities that generate and supply power. GS E&C contributes to sustainable national power development through its clean energy business including nuclear and renewable energy as well as its high efficient eco-friendly thermoelectric power business.

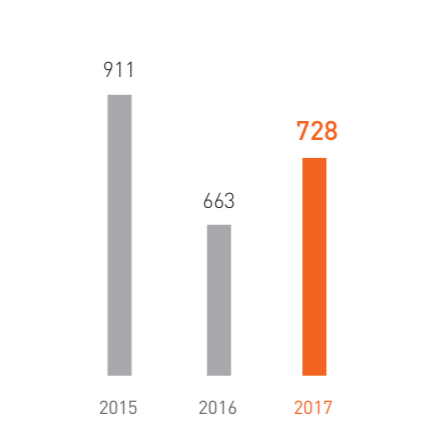
Opportunity

While the overseas power market is stagnant due to continuously declining oil prices, orders for renewable energy such as photovoltaic and wind power have recently increased. In the domestic power market, with increased power reserve margins and stabilized energy demands, the scale of orders, including those of large projects, is expected to decrease. In the overseas transmission market, orders are expected to continue to grow as demands for energy and international power grid connection increase.

Outlook

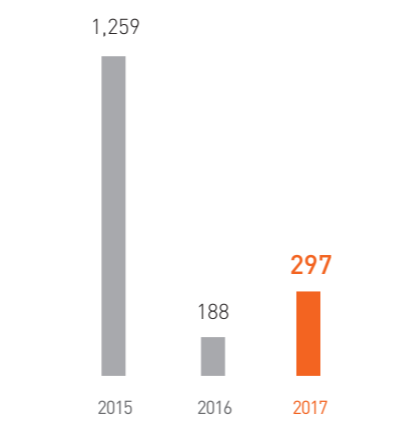
Investments in the power industry continue to expand, concentrated on developing countries, as it provides the infrastructure for economic growth. Therefore, the construction of new power plants is expected to increase particularly for LNG plants and renewable energy in accordance with a need for shift to low-carbon and reduction of coal fired power plants. In the T&D industry, transmission facilities and investment are expected to increase worldwide due to growth in energy demand.

Sales Proportion **6%**



Sales
Unit: KRW Billion **KRW 728 Billion**

Orders Proportion **3%**



Orders
Unit: KRW Billion **KRW 297 Billion**



1
Dangjin Biomass Power Plant
(Dangjin, Korea)
Project Period: May 2014-July 2017
Order: KRW 594.2 Billion



2
Shin-Hanul Nuclear Power Plant
(Unit 1 & 2) (Uljin, Korea)
Project Period: April 2010-April 2017
Order: KRW 402.9 Billion



3
PP-12 Combined Cycle Power Plant
(Saudi Arabia)
Project Period: May 2012-June 2018
Order: KRW 697.3 Billion



GS E&C SUSTAINABLE FOUNDATION FOR 6 CAPITALS

- 28 Capital 1. Financial Value
- 32 Capital 2. Industrial Value
- 38 Capital 3. Intellectual Value
- 42 Capital 4. Environmental Value
- 46 Capital 5. Human Value
- 56 Capital 6. Social Relationship Value



Mecenatpolis(Seoul, Korea)



2018 GS E&C Financial Goals

Orders: KRW 10.040 Trillion

Sales: KRW 12.015 Trillion

GS E&C HQ Gran Seoul

Trends & Context

Global Economy and Oil Prices

According to the 2018 IMF Economy Outlook, the global economy in 2017 grew by approximately 3.7%, and this growth is expected to continue in 2018.* In conjunction with global economic growth, environmental disasters in the US, a regulations agreement between OPEC and Russia restricting oil production and heightened political risks in Middle East, oil prices have risen in 2017 as well.

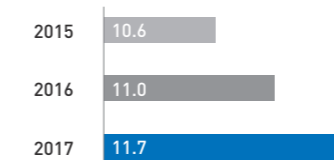
Korean Domestic Policy

The Korean government reinforced real estate regulations in 2017 in order to manage the housing market based on actual ownership. With the introduction of regulations such as an excess profits return system for reconstruction and housing price ceilings, a depression and greater volatility in the housing market is expected.** Also, due to reductions in the Social Overhead Capital (SOC) budget, concerns over a retraction in construction investments are arising.

GS E&C Performance

Sales

Unit: KRW Trillion



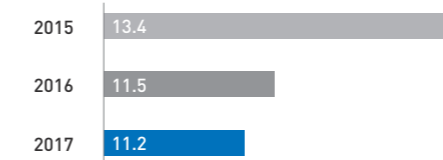
Operating Profits

Unit: KRW Billion



Orders

Unit: KRW Trillion



Credit Rating

Unit: Grade



*IMF World Economic Outlook Update, 2018 **Construction and Economy Research Institute of Korea, 2017

Financial Indicators & Outlook

Sales Status

In 2017, GS E&C sales grew by 5.8%. Domestic sales accounted for 69% of total sales, and sales in the housing business rose by approximately 32%. Overseas sales took about 31% of total sales and fell by 26% due to the decline in overseas plant sales. The architecture and housing sector took 57% of total sales followed by 25% in plant, 11% in infrastructure, 6% in electricity and 1% in other sectors. In overseas sales, approximately 64% was from the plant sector. In profits and losses, although overseas business showed a slight downturn, operating profits recorded its highest in six years at KRW 318.7 billion, led by excellent performance in the domestic housing business.

Sales Details

Unit: KRW Billion

	2015	2016	2017
Sales	10,573	11,036	11,680
Domestic Sales	4,571	6,067	8,016
Overseas Sales	6,002	4,969	3,664

Sales Outlook

Sales in 2018 are estimated to reach KRW 12.015 trillion, up by approximately 2.9%. Led by the recent expansion in housing orders, the architecture and housing business is expected to maintain outstanding sales performances. In profits and losses, with the termination of overseas businesses that have produced losses due to increased raw costs during construction delays, recovery in operating profits is expected to be prominent.

Orders Status

Despite the increase in housing sector orders, total orders in 2017 was down by 2.7% at KRW 11.224 trillion due to the decline in overseas plant orders. The architecture and housing sector orders took the largest portion at KRW 8.465 trillion, and specifically housing sector orders drove overall orders in 2017, reaching KRW 6,402 trillion.

Orders Outlook

GS E&C's goals for orders in 2018 are KRW 10.04 trillion. Taking the largest portion in overseas orders, plant order increases across diverse regions are hopeful due to improved conditions in the global construction markets from oil price increases 2018. Compared to the domestic construction boom in 2015-2017, an overall slump in the housing market is expected. Yet, GS E&C is expected to maintain an excellent order performance by actively implementing strategies such as launching new PF businesses and securing maintenance projects that put forth brand values.

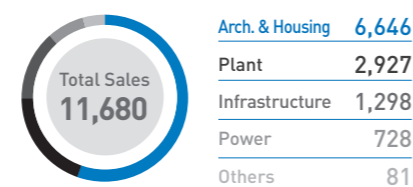
2017 DJSI Assessment Results

Economic Performance

52	72	77
Industry Avg	GS E&C	Industry Best Score

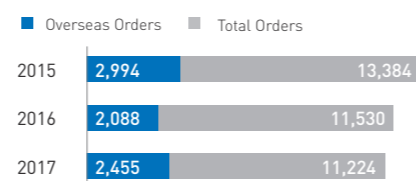
2017 Sales by Business Sector

Unit: KRW Billion



Order Details

Unit: KRW Billion

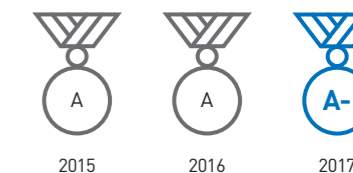


Credit Rating Status

GS E&C was rated A- in its 128th non-guaranteed bond credit rating by the Korea Ratings Corporation. Outstanding business stability based on a diversified project portfolio and high possibility for group support due to its status within the GS group were positive evaluation factors. Yet, the drop was attributed to a decreased financial stability reflected in its increased debt ratio and loan dependency following low operating profitability from overseas construction and businesses transfer delays.

Credit Ratings

Source: Korea Ratings Corporation



Credit Rating Outlook

The Korea Ratings Corporation evaluated the credit rating outlook of GS E&C as "stable." For profit improvements, while the housing business is a positive factor due to its satisfactory payability and distribution performance, stagnant performance from additional raw costs in overseas business transfer delays is expected to burden further improvements. Also, current housing businesses are expected to improve cash flow, yet the recent sharp increase in housing volumes could stimulate volatility in working capital, and continued investment burdens for acquiring industrial land and SOC share is expected to burden cash flows.

Major Credit Rating Evaluation Factors

Business and Financial Factors	Diversified project portfolio, Intensified dependency on housing, Secured satisfactory sales basis, Continued stagnancy in plant sector mainly overseas, Satisfactory performance in housing businesses yet burdens from increased supply
Outlook	Limited operating profits, Increased net loans, Decreased financial stability, Increased PF contingent on liabilities from housing business expansion
Liquidity Analysis	Burdens on performance improvement from possible additional losses in overseas business
Other Factors	Limited financial structure improvements
Liquidity Analysis	Excellent capacity to respond to liquidity needs
Other Factors	Liquidity risks associated to Rating Trigger
Other Factors	High possibility for group support

Increasing Raw Material Costs

The costs of raw construction materials are increasing globally, putting significant burdens on price competitiveness and financial capital for E&C companies. The prices of GS E&C's major raw materials are also expected to rise, making project implementation and business strategies crucial. Steel prices are expected to rise due to high demand and reduced steel production in China. As for wires and nickel, rising demands and environmental regulations are expected to increase prices. Unit costs for RMC is also expected to rise due to surges in sand prices from production reduction.

3-Year Price Trends of Major GS E&C Raw Materials

Raw Material	Unit	2017	Increase Rate
Steel	KRW/Ton	685,000	10%
RMC	KRW/M ³	64,200	0%
Cement	KRW/Ton	75,000	0%
Wire	KRW/M	8,006	12%
Nickel	\$/Ton	11,640	7%

*Steel: HD 10mm, RMC: Metropolitan (25-240-15)
Cement: Bulk cement, Wire: 0.6/1KV FCV 1C*95SQ,
Nickel: LME 3-month average



GS E&C's UN SDGs



UN SDGs GOAL 8.
Decent Work and Economic Growth

GS E&C strives to collaborate to accomplish the 8th UN SDG of improving labor productivity and contributing to economic growth through industrial diversification and technological innovation.



UN SDGs GOAL 17.
Partnership for the Goals

GS E&C is working to accomplish the 17th UN SDG of reinforcing global networks through technological exchanges for sustainable development.

IFC Seoul (Seoul, Korea)

Trends & Context

Overseas Infrastructure Market

Global infrastructural investments are expected to reach approximately USD 93 trillion from 2016 to 2040.* High demands in infrastructure are expected to continue in both advanced and emerging markets due to industrial development and urbanization. Moreover, infrastructural projects are being recognized as essential factors for achieving UN SDGs, such as establishing a sound social infrastructure.

Korean Domestic E&C Industry

Since entry into overseas markets, the Korean E&C industry has reached an accumulative order record of USD 779.4 billion. Yet in 2017, overseas orders declined, following downward trends in 2016.** As for domestic orders, records declined in the later half of 2017 despite all-time high records in 2016. Such a declining trend is expected to continue into 2018 due to sharp decreases in private housing orders and insufficient cushioning effects of public orders.

GS E&C Performance

Domestic Orders

Unit: KRW Trillion



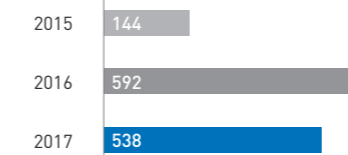
Overseas Orders

Unit: KRW Trillion



Overseas Arch.& Housing Orders

Unit: KRW Billion



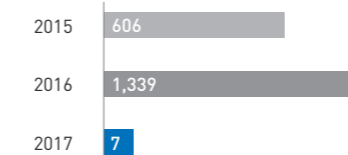
Overseas Plant Orders

Unit: KRW Billion



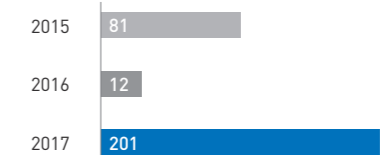
Overseas Infrastructure Orders

Unit: KRW Billion



Overseas Power Orders

Unit: KRW Billion



*Global Infrastructure Hub, 2017 **Construction and Economy Research Institute of Korea, 2018

Enhancement of Overseas Market Competitiveness

Strengthening Bidding Competitiveness

To heighten success rates and profitability in overseas orders, GS E&C participates in bids selectively. In 2017, the proportion of its overseas orders was approximately 21.9%, having increased due to winning large scale plant contracts fueled by rising oil prices, but amongst domestic construction companies, GS E&C took 5.1%, decreased from 2016. GS E&C plans to strengthen its business competitiveness by reinforcing its overseas bidding strategy.

Bidding Competitiveness Enhancement Strategy by Business Sector

Business Sector	Strategy
Arch. & Housing	Conduct housing development projects in Vietnam and Indonesia
Infrastructure	New market entry through market diversification centered on PPP projects and finance-based projects in developing countries
Plant	Conduct FEED, O&M projects etc. to expand optional investment development projects and Value Chain
Power	Energy Sector: Participation in renewable and nuclear energy projects T&D Sector: Expansion in advanced country projects

Overseas Orders by Business Sector	Unit: KRW Billion		
	2015	2016	2017
Arch. & Housing	144	592	537
Infrastructure	606	1,339	7
Plant	2,163	145	1,710
Power	81	12	201
Total	2,994	2,088	2,455

Enhancement in Project Implementation Competitiveness

In efforts to enhance project implementation capabilities, GS E&C has expanded its global project implementation system and strengthened its on-site project implementation capacities. The company assigned project implementation executives as well as administrative and procurement groups to secure overseas project design capacities; established design corporations in Delhi and Mumbai, India and Manila, Philippines and also established construction firms in the Middle East to strengthen its competitiveness in construction. Also, the company expanded and directly manages on-site construction for projects in the Middle East and Asia. GS E&C plans to recruit construction staff with verified on-site skills and assign them to new projects, and also establish a Constructability Team to support its IT and Lessons Learned system.

2017 Overseas Order Proportion

3.8% ↑
21.9%

2017 Overseas Branches

12
Branches

2017 Overseas Subsidiaries

12
Subsidiaries

Strengthening Business Competency

Generating Momentum for New Growth

The company's major business capacities are strengthened by expanding domestic road and environmental maintenance projects through strategic and consistent investments, launching renewable energy projects and expanding its Precon projects. Also, project execution capacities and market attractiveness are thoroughly considered, and investment for business expansion is fostered. GS E&C has moved beyond a growth model simply focused on construction to actively seeking overseas Developer-type business models that comprehensively manage investment, development, EPC and operation. Its bidding competitiveness will be enhanced by establishing partnerships with advantageous Developers in each region and strengthening its strategic relationships with firms experienced in local projects; GS E&C will use this competitiveness to expand its business areas as a Developer, focused on Asia and Africa where future growth is expected.

Business Portfolio Strategy

Business Strategy	Business Sector
New Growth Business	Precon, Domestic Road & Environmental Maintenance and Smart Home Projects
Developer Type Business	Overseas Infrastructure PPP, Overseas Real Estate Development, Renewable Energy IPP and Environmental Concession Projects
Core Infrastructure Product	Oil, Gas, Power Plants, Transportation & Transportation Infrastructure, Construction & Housing
Technical and High-value Added Product	Deep Underground Traffic Network, Plant FEED, O&M and Coal Upgrading Projects

Penetrating Value Added Business

First, to further enhance the competitiveness of its core business, GS E&C has established strategies to reach "Full Potential" and continued investments in operation resources. By business sector, the company seeks mid- to long-term opportunities through three major investment strategies – strategic resource investment, operation resource investment and SEED investment –and advances momentum for next generation growth into value added businesses. Furthermore, the company operates a TFT equipped with core technology and advances into the global market, with a focus in the Middle East, through partnerships with overseas companies.



Market Diversification

GS E&C strives to pioneer into new markets and strengthen its position in existing markets by establishing a unique network within Africa, CIS, Latin America and Asia. Since entering the Bangladesh market in 1983 with a substation project, the company has conducted projects for over 30 years and in 2017, the company exclusively contracted a project that included the entire process, from designing to purchasing and installing transmission cables stretching over 169km. Grounded on its overseas substation projects in Bangladesh, Saudi Arabia, Ghana and Tanzania, GS E&C plans to further expand its overseas position and simultaneously participate in EDCF projects to evaluate risks in new markets as well as conduct overseas infrastructure PPP projects to secure profitability.

Business Portfolio Strategy

New growth business
Developer-type business
Core Infrastructure product
Technical and High- value Added Product

2017 Representative Fields in Major Overseas Markets

	UAE RRW Restoration 2017.7~ KRW 1.366 Trillion
	Bangladesh Patuakhali 400kV Transmission cable construction 2017.6~ 2019.6 KRW 199 Billion

Business Competitiveness

Competitive Advantage by Business Sector

Housing Sector Competitiveness through Innovating Housing Culture

GS E&C has secured unparalleled technology and expertise in the installation management of high-tech office buildings and internet data centers (IDC), as well as capacities for high-rise building and complex project implementation. Furthermore, the company has successfully conducted private and public Precon projects with its advanced technology and experience. In response to a shrinking domestic housing markets, GS E&C has diversified its business through overseas housing market strategies that are resilient to local market risks. Its housing project price competitiveness is enhanced through raw cost innovations, and its foundation for sustained growth is solidified by transforming the housing paradigm with smart homes and cities that are eco-friendly and incorporate air purification systems, IoT, energy-saving buildings, and so forth.

Innovations in Infrastructure Technology and Expertise

Grounded on experience with large social infrastructure projects, such as roads, railroads and water resources, GS E&C has established high competitiveness in the domestic infrastructure market. New construction technologies developed by the GS E&C Technology Laboratory have been applied to projects with high difficulty levels, such as long span overseas bridges, and overseas PPP projects have been implemented in addition to domestic PPP projects that have constantly been carried out for profitability and business diversification. In Singapore, the company continues to successfully carry out Metro construction projects since entering the market 10 years ago, and gaining credibility from Singaporean contractors with high quality standards, GS E&C holds advantages in advancing into Middle Eastern countries known for its plant project contracts.

Know-hows through Large-Scale Plant Projects

GS E&C has secured its competitive advantage in refinery, gas and petrochemical engineering technology. Its recent success in the completion of projects in Middle East and Asia has verified its designing and project implementation capacities of advanced facilities. In addition, based on experience with large plant projects, the company is fostering its advanced project management capacities.

Diverse Power Project Portfolio

GS E&C is creating business synergy with power related subsidiaries in the group, continuing stable business activities by increasing profitability, and has secured various power plant installation technologies related to coal, combined cycle, nuclear and renewable energy power plants. In the T&D industry, the company is expanding its business arena to Africa and the Middle East based on project experience in Korea and Asia.

GS E&C, Surpassed KRW 10 Trillion in Annual Sales for Third Consecutive Year

GS E&C has successfully reached annual sales of KRW 10 trillion for three consecutive years by recording KRW 11.680 trillion in 2017, up by 5.8% YoY. Operating profits in 2017 were KRW 318.7 billion, the highest record in six years, successfully making a turnaround in performance. The recent outstanding profits in housing drove sales and profits. Continuing from 2016, overseas business improvements were slow, but the company is focusing on profit normalization through its risk management system and profit-based order strategies for overseas businesses. GS E&C is dedicated to reestablishing competitiveness in the domestic and overseas markets and maintaining a steady growth rate.

Special 1. GS E&C Story

All Participants Engaging in Communication for Successful Business

What is Pre-Construction Service?

E&C companies are concentrating on efficient business operations as investments in the E&C industry are declining globally and costs in energy and construction materials continue to increase. In response, GS E&C provides Pre-Construction Services (PCS) that reduce risks in design alterations and uncertainties in construction through thorough design inspections of various stakeholders (contractor, designer, constructor). With the introduction of PCS, the company has been able to lead innovations in operations efficiency through not only cost and construction period reductions, but also enhancement in quality.

Cost Innovations through Pre-Construction

GS E&C has recently won orders of the Siheung Eungae S4 Block, which was contracted by LH Construction, and the Daegu DGB Data Center using Precon methods. In the case of the Daegu DGB Data Center currently under construction, PCS was conducted six times through a six-month period; by managing trends in costs, construction costs were reduced by KRW 14.9 billion, 15% of the originally estimated KRW 99.8 billion, and contractor satisfaction levels were elevated. With such public and private PCS experience, GS E&C has competitive advantages in biddings and project implementation.



Daegu DGB Data Center (Precon)



NC Soft Pangyo Building (M&E BIM)

Using BIM and Drone Mapping Technology for Pre-Construction

BIM (Building Information Modeling) digitally models a structure's form and other properties based on 3D information models. GS E&C utilizes BIM technology to comprehensively manage information that was difficult to previously achieve in 2D floor plans, ranging from planning and design to construction and maintenance. As a result, various risks regarding alterations in design are preempted, and operation efficiency is enhanced by monitoring materials and human resources that are needed in each step all at once. In 2017, drone mapping technologies were used to establish 3D digital space information, with plans to further advance the comprehensive management of design and construction.

GS E&C's UN SDGs



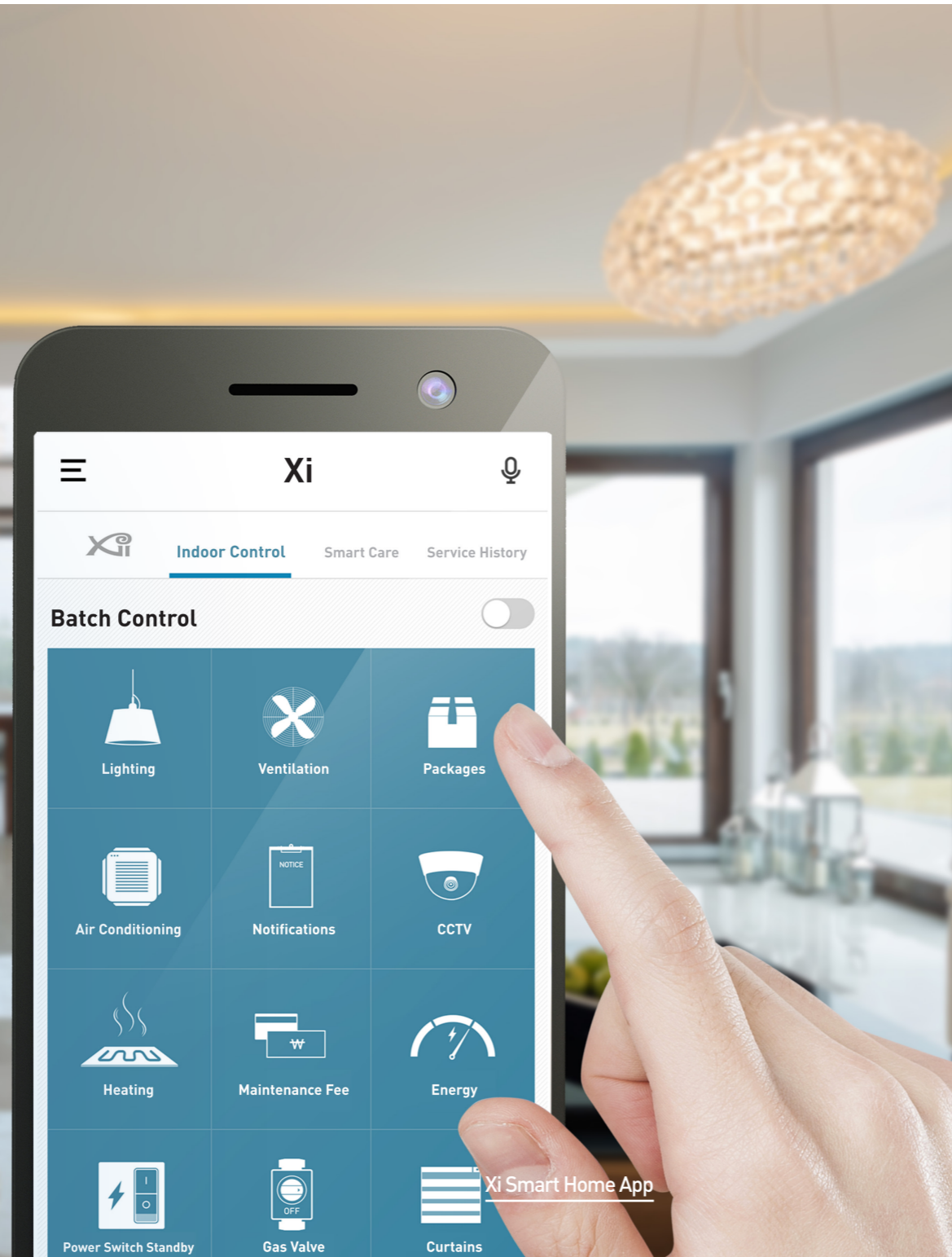
UN SDGs GOAL 6.
Clean Water and Sanitation

GS E&C makes efforts towards achieving the 6th UN SDG of improving water quality and supplying clean water by developing a membrane filter water purification system.



UN SDGs GOAL 7.
Affordable and Clean Energy

GS E&C strives to accomplish the 7th UN SDG of improving global energy efficiency through progressive investments in energy infrastructure, including environmental control systems and clean energy technology.



Trends & Context

4th Industrial Revolution through Big Data

With the emergence of the 4th industrial revolution industrial boundaries are becoming more ambiguous and business operations and technologies are ever changing. The construction industry is particularly focusing on improving productivity and safety by converging digital technologies –big data, AI, drones and VR –with existing technologies. Global construction companies are also discovering momentum for growth through web-based platforms that facilitate the sharing of innovative ideas and adapting technologies from other industries.

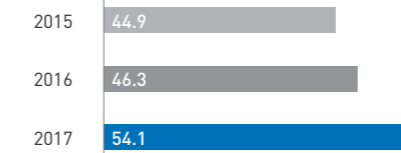
New Business through Technology

Construction companies within Korea and abroad are developing projects that integrate new contents into existing buildings to provide unique values to its stakeholders. For example, these new projects combine IT technologies with existing installation/design technologies to support on-site managers efficiently carry out tasks and provide an abundance of information to various stakeholders to ultimately create ideal residential environments.

GS E&C Performance

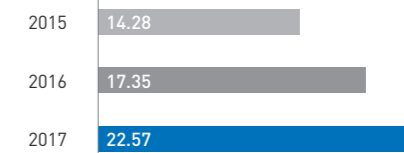
R&D Costs

Unit: KRW Billion



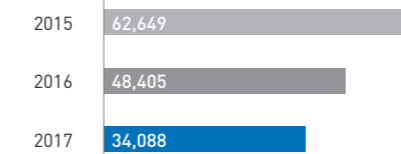
Financial Outcome of Technology Application

Unit: KRW Billion



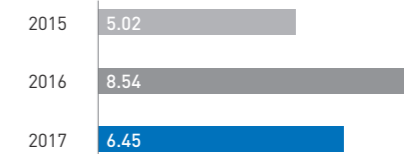
GHG Emissions Reductions (Green Concrete)

Unit: tCO₂-e



Cost Reductions (Green Concrete)

Unit: KRW Billion



Technologies Developed

Unit: Cases



Waste-to-Energy Facilities



20
in operation

Technological Development Strategy and Results

Innovation of Key Technologies

GS E&C is promoting a technological development strategy to prepare for industry changes in Korea and abroad as well as future business trends. Focused on advantageous technological fields, GS E&C implements specific tasks, such as converging and packaging technologies, securing and specializing key technologies for promising businesses, developing technologies that increase productivity, adapting and utilizing outstanding external technologies and application of technologies. Through such strategies, GS E&C strives to maximize their technological value, win orders and improve cost competitiveness.

Key Terms in Innovative Technology Tasks

Technology Convergence and Packaging	Development of new technologies, products and services by combining various existing technologies
Securing and Specializing Key Technologies in Promising Businesses	Advancement of the 7 sectors designated by the technology division (green smart housing, building and city, etc.) and 4 designated by the GE division (specialized water treatment technologies, etc.)

Technological Innovation Results	Units: KRW Billion, Sites, Technologies		
	2015	2016	2017
R&D Costs	44.9	46.3	54.1
Financial Outcome of Technology Application	14.28	17.35	22.57
Application Sites	67	86	61
Technologies Developed	16	34	24

IT-based Technological Development

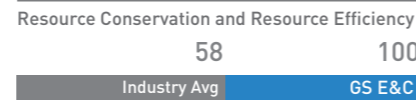
Smart Housing Technology

With the dispersion of IoT (Internet of Things) based sensors and household appliances, smart home technologies are being developed in the construction industry. GS E&C established smart home technologies without increasing costs by using existing facilities. Under this system, a smart home comes with air conditioning, heating and ventilating system with AI technology to provide a pleasant residential environment and an automatic scheduling system to save energy.

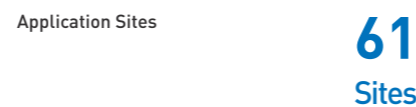
IT-based Structure Research for Safety

GS E&C conducted research to combine IoT, communication technology and high-tech materials with buildings to build a safer construction environment. The Smart Safety Structure minimizes loss of life from natural disasters and casualties (e.g. fire and explosion) at a construction site and quickly restores structural functions to minimize industrial and economic loss. By introducing and incorporating modern technologies to more construction sites, GS E&C aims to improve the standards of safety in the construction industry.

2017 DJSI Assessment Results



2017 Technology Innovation



Eco-friendly Technological Development

Algae-targeted Membrane Filter Water Purification System

Due to climate change, algae proliferation is causing serious pollution in water supply sources. In response, GS E&C developed the membrane filter water purification system that automatically determines the proper hypochlorite concentration as well as the activation amount and time of carbon insertion during backwash by combining real-time algae concentration data measured from the water source with controlled algorithms. This technology effectively saved chemical costs and secured stable water quality.

Development and On-site Application of Green Concrete

Production of cement, the major ingredient of concrete used in the construction industry, takes approximately 7% of global GHG emissions, making it a carbon-intensive process. GS E&C developed the green concrete made from regulated byproducts to reduce cement use, achieving high strength and quality. In 2017, green concrete was applied at 12 construction sites including Geoje Central Xi and reduced KRW 6.45 billion in costs.

GHG Emissions & Cost Reductions through Green Concrete	Units: tCO ₂ -e, KRW Billion		
	2015	2016	2017
GHG Emissions	62,649	48,405	34,088
Cost Reductions	5.02	8.54	6.45

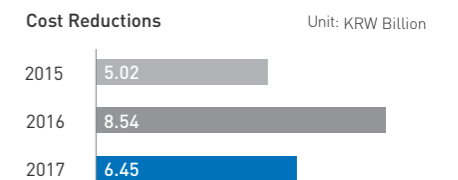
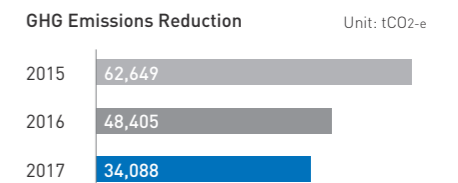
Salinity Difference Energy Recovery System

Highly saline-concentrated water generated from seawater desalination is harmful to the marine ecosystem when discharged into the sea. GS E&C built a pilot plant that generates electricity using high salinity differences between concentrated and sewage water, becoming the world's first to develop such an energy recovery system that efficiently utilizes seawater desalination systems to produce water in an eco-friendly way. Also, because this technology can generate energy regardless of weather conditions, it is expected to be easily applied to seawater desalination plants.

Waste-to-Energy Technology

Waste-to-energy technology is a resource recovery technology that incinerates residential wastes to generate electricity. It is essential to resolving rapidly increasing wastes and producing electricity. Grounded in competitive waste-to-energy technologies such as the automatic waste collection system, mechanical biological treatment (MBT) and stoker burning technology, GS E&C operates approximately 20 waste-to-energy facilities in Korea, including the Mapo Resource Recovery Facility that guarantees the world's best performance.

Green Concrete Application



Waste-to-Energy Facilities in Korea

20
Facilities

GS E&C's UN SDGs



UN SDGs GOAL 7.
Affordable and Clean Energy

GS E&C is working towards accomplishing the 7th UN SDGs of improving global energy efficiency by promoting investments in energy infrastructure such as environmental control systems and clean energy technology.



UN SDGs GOAL 13.
Climate Action

GS E&C has established its environmental management strategy and is actively participating in climate action activities to accomplish the 13th UN SDG of implementing government GHG reduction policies.



Gimnyeong Wind Power Center [Jeju, Korea]

Trends & Context

Climate Change Trends

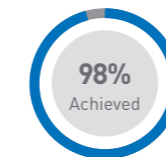
Today, the level of global carbon dioxide emissions has increased by 150% from 1990 standards, and the global average temperature and seawater levels are continuously rising. In response to such severe conditions, the 2016 Paris Agreement has set the goal to keep the increase in average temperature to 2°C lower than before industrialization.* Accordingly, Korea has set a 37% reduction of 851 million tCO₂ as national reduction goal.**

Environmental Impact of the E&C Industry

As much as 40% of society's total energy consumption comes from buildings, and massive amounts of CO₂ are discharged during the production of construction materials as well as building maintenance. In response, global construction companies are making various efforts to minimize such environmental effects, including eco-friendly materials, waste recycling and high energy-efficient buildings.***

GS E&C Performance

Direct GHG Emissions



2017

7.1% Reductions On-site compared to BAU



2020 Goal

Rate of Green Procurement



2017

Above **11.8%**



2020 Goal

Indirect GHG Emissions



2017

7.1% Reductions On-site compared to BAU



2020 Goal

Environmental Conservation Activities



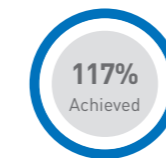
2017

More than **50** Annually



2020 Goal

Rate of Waste Reused & Recycled



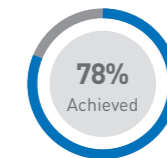
2017

Above **90%**



2020 Goal

Rate of Green Product R&D Investment



2017

Above **70%**



2020 Goal

*UNFCCC, 2018 **Korean Ministry of Environment *** OECD, 2013

Environmental Management System

Environmental Management Strategy

With the Green Environment Team as the TFT, GS E&C carries out its environmental management strategies and manages its performance. Setting a target of 7.1% reduction in GHG emissions by 2020, GS E&C has established three strategic directions and nine tasks for creating eco-friendly worksites, reinforcing environmental management system and reducing GHG emissions and energy consumption.

Environmental Management Strategy System

Goal	Strategic Directions	Tasks
Eco Global Top Tier Reduce 7.1% GHG Emissions by 2020 (Compared to BAU)	Create an eco-friendly worksite	1. Accomplish zero pollution 2. Respond voluntarily to environmental regulations 3. Establish a life-cycle assessment system
	Enhance the environmental management system	1. Enhance global environmental management 2. Strengthen environmental communication 3. Foster TFT and experts
	Reduce GHG emission and energy use	1. Reinforce companywide and supplier GHG reduction activities 2. Develop GHG reducing business and technology 3. Secure GHG and energy diagnostic ability

Fostering Environmental Management among Suppliers

GS E&C has established a green purchase system to manage eco-friendly material certified companies and monitor green purchase records. Upon registration, new suppliers are organized by eco-friendly material types and certification and given additional credits upon these categorization standards to motivate suppliers to obtain green certificates. Major policies related to green purchase are regularly updated on GS-Constat, an internal communication website, to encourage green purchase.

Environmental Regulation Compliance through Essential Environmental Rules

GS E&C obtains various permits throughout its business process, ranging from planning, design, construction and maintenance, and strictly complies to environmental regulations, such as the Environmental Impact Assessment Act, and Wastes Control Act. GS E&C has also enforced the "Essential Environmental Rules," which regulates environmental violations on worksites. In 2017, the company partnered with the Korea Environmental Association to produce the Essential Environmental Rules video, which was distributed to all worksite workers and staff and translated for Chinese workers who take the majority among on-site workers. In 2017, there were eight environmental regulation violations.

Environmental Regulation Violations 307-1

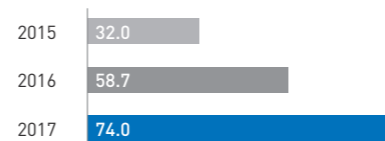
Unit: Case, KRW

	2015	2016	2017
Violations	8	8	8
Fines	11,480	4,400	7,700

2017 DJSI Assessment Results

Environmental Policy & Management System	73	90	100
	Industry Avg	GS E&C	Industry Best Score

Green Purchases Units: KRW Billion



Climate Change Action

GHG Reduction through Eco-friendly Activities

GS E&C makes efforts to reduce GHG through continuous environmentally friendly actions. In 2017, a total of 37,586 tCO₂-e were reduced, including 34,088 tCO₂-e from using green concrete, 15.69 tCO₂-e from conducting video conferences, and 3,482 tCO₂-e from using LED lighting.

GHG Reductions

Units: tCO₂-e, KRW Billion

	2015	2016	2017
Total Emissions	283,499	286,412	285,234
Reductions	65,139	50,517	37,586
Estimated Saved Costs	8.3	9.7	8.5

* Reduction performance and estimated saved costs include the reduction from using LED construction lighting, green concrete, video conference and KVER.

High Energy-efficient Building

GS E&C has implemented cost effective energy-efficient designs to expand green buildings and homes and developed optimal energy saving building design technology by assessing energy consumption levels in the early designing stages. Such eco-friendly building technology was applied to the Yongsan Relocation Program (YRP) Communication Center, Jincheon Athlete's Village and Ananti Seoul Pent House, and will be utilized for public projects and technological proposal biddings. In 2017, GS E&C completed the construction of the LG Science Park, certified as a high energy-efficient building, and maintained the proportion of high energy-efficient buildings at 39%.

Waste Management and Reduction Efforts

To reach its goal of 90% waste recycling by 2020, GS E&C operates a legal waste management system and real-time waste management system. Its waste is classified into six major construction waste categories, and recycled amounts are managed in real-time. Furthermore, it makes efforts to ultimately reduce its wastes through Waste-to-Energy facilities that incinerates waste to generate electricity.

Protection of Wild Endangered Species 304-2

GS E&C protected endangered species by transferring the habitat zones of sticklebacks during the construction of the Bukpyeong 2nd General Industrial Complex in May 2017. Sticklebacks were released into streams such as Jobicheon and Masangcheon, which are similar in condition to that of their natural habitat, Daegucheon. No sticklebacks died in the capturing and transferring process as well as the injection of VIE (Visible Implant Elastomer) tags which were used to check their adaptation status. The successful adaptation of the recaptured sticklebacks was confirmed upon their favorable conditions and behaviors. Such biodiversity protection activities were also carried out on the C937 site in Singapore.



2017 DJSI Assessment Results

Climate Change Strategy	57	100
	Industry Avg	GS E&C

GHG Emissions Units: tCO₂-e

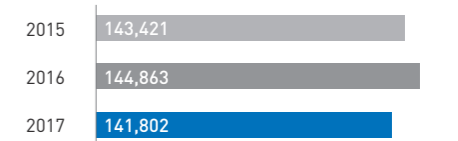
Scope 1 (Direct)



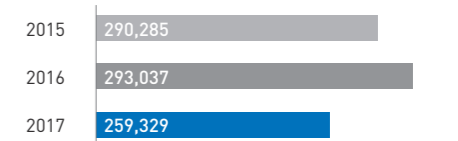
Scope 2 (Indirect)



Scope 3 (Other Indirect)



Generated Waste Unit: Ton





GS E&C's UN SDGs



UN SDGs GOAL 8.
Decent Work and Economic Growth

GS E&C strives to accomplish the 8th UN SDG of creating safe labor environments through its Safety Innovation School in Korea and abroad as well as its Safety Traffic Signal System.



UN SDGs GOAL 10.
Reduced Inequalities

GS E&C eliminates discrimination in employment and assures equal rights to employees in Korea and abroad to achieve the 10th UN SDG of providing equal opportunity.

GS E&C In-house Dreams & Hopes Childcare Center

Trends & Context

Reduction in Experts for Overseas Projects

With diversification in construction projects, there are growing demands for renewable energy and advanced project implementation capacities as well as professional technicians and managers in the global construction market. Supply of such a workforce has been consistently falling short. Especially in Korea, the lack of an expert workforce has led to project delays and quality assurance issues on overseas construction sites.* To guarantee continuous growth in overseas orders, fostering global experts will become more critical.

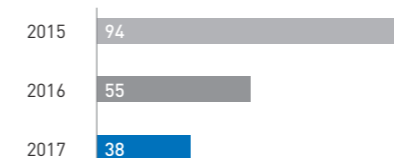
Preemptive Safety Management

The construction industry faces fundamental difficulties in safety management due to a production structure based on contracting/subcontracting, frequent changes of subcontractors and laborers and large scale projects.** In response, E&C companies in Korea and abroad have established preemptive safety management systems. Particularly, European countries and specifically the UK practices "Design for Safety" which applies safety throughout the entire construction lifecycle, from planning to design.

GS E&C Performance

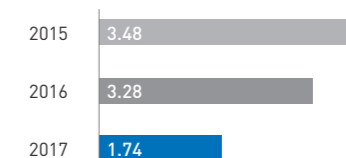
Employee Training Hours

Unit: Hours/Person



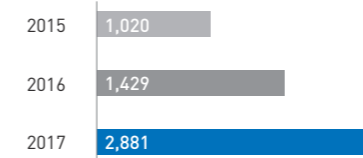
Employee Training Costs

Unit: KRW Billion



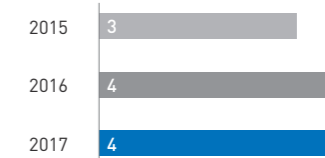
Safety Innovation School Graduates

Unit: People



Supplier Critical Casualties

Unit: People



Maternity Leave Users

Unit: People



Employee Human Rights Survey

Unit: Score (out of 100)



*Construction and Economy Research Institute of Korea, 2009

** Construction and Economy Research Institute of Korea, 2018

Employee Expertise Development 404-1

Human Resource Development Strategy

GS E&C aims to enhance global talent with competencies and leadership for value creation. The GS E&C talent cultivation system consists of the "leadership course," "business management expertise course" and "global course." Based on a performance oriented human resource development strategy, the company continues to develop systematic training courses via various platforms, such as online training, video training and smart phone applications, and is always ready to support employees' business competencies.

Strategies to Improve Organizational Performance

Cultivation System	Education Courses
Leadership Ideal leader cultivation	Executive and team leader training, Leadership diagnosis → training, Motivating leadership behavior, Training expansion to lower level employees(planned)
Job Expertise Competent talent development	Courses for staff , Courses to enhance executives' competencies, Job-specific training, Job transfer training
Global Global talent development	Courses for staff, Improvement efforts for overseas job performance, Language education, Collaboration improvement courses for Korean employees posted overseas

Talent Development Performance	Units: People, KRW Billion, Hours		
	2015	2016	2017
Trainees	32,744	31,385	34,802
Total Training Costs	3.48	3.28	1.74
Training Hours per Person	94	55	38

GS Organizational Competency Survey

GS E&C conducts an organizational competency survey to diagnose its organizational competencies and culture. Nine essential elements for business activities are diagnosed; based on these results strengths and weaknesses in management competency, corporate culture, leadership and human resource competencies are analyzed and reflected in improvement activities. All employees are surveyed regularly once a year. In the 2017 survey, 62.5% were positive towards management competency, similar to 2016. Although employees are generally satisfied by normalized profit patterns, accumulated fatigue is identified as a major complaint.

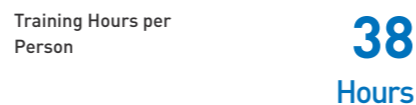
Employee Capacity Building Program

GS E&C continues to develop and support professionals through various training programs. To foster management competencies in leadership and general management as well as improve organizational performance, employees participate in business management training. Advanced training for installation competency are offered to technicians on site and in business divisions as well as on-site workers. Trainees are introduced to issues related to cost, quality and safety with a focus on practical field experience and are able to ultimately foster expertise through practical courses.

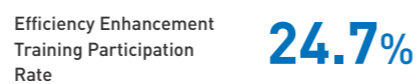
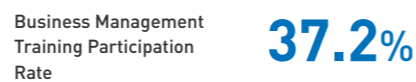
2017 DJSI Assessment Results



2017 Equal Opportunities



2017 Employee Capacity Development Program



Great Work Environment

Fair Performance Evaluation & Rewards

Performance Cultivating Management System

GS E&C operates a performance cultivating management system that improves both employee performance and expertise. Unlike the existing performance management paradigm, performance is evaluated and managed separately for results and competencies. To manage employee performance and build capacity, challenging yet reasonable business goals and self-development plans are set for each individual, and feedback is provided regularly. Various methods such as the MBO (Management By Objectives), multidimensional evaluations and relative evaluations by job position are implemented to increase the fairness of evaluations. The evaluation grades are determined at the evaluation revision session with the participation of all executives of each sector/division, and evaluation results are verified by HR (Human Resource) monitoring, further enhancing its objectivity.

Employee Performance Evaluation & Career Development Review Unit: %

	2015	2016	2017
Performance Evaluation Rate	91.7	95.0	95.3

Merit System and Rewards

To provide reasonable rewards commensurate with employee performance, GS E&C has introduced an organizational and individual performance reward system. Rewards are given according to fair performance and competency evaluations without gender or racial discrimination. Individual performance is reflected in compensation and promotions to motivate employees; feedback is also provided for employees' improvement. As for executives, they are evaluated across a wide range of factors including financial, recognition, and environmental and social performance.

Welfare and Employee Culture

Childbirth Support

GS E&C has introduced a family-friendly work environment so that its employees can focus at work, even after giving birth. The company expanded childbirth related medical costs for spouses, day care centers at work, infertility leave and childbirth and maternity protection support to help employees' childbirth and childcare and ultimately improve work efficiency. Use of maternity leave continues to increase and the percentage of returning employees on leave for over 12 months has been maintained at over 90%.

In-house Child Care Center

For a work and life balance, GS E&C became the first in the industry to open an in-house day care center in 2010. At the Dreams and Hopes GS E&C Child Care Center, education programs are customized to six age groups, from 8-month toddlers to preschoolers, from 7:30 AM to 7:30 PM. Its reliable operation has earned the recognition of employees.

2017 DJSI Assessment Results



Childbirth and Childcare Support

Maternity leave users Unit: Employees



Parental leave users Unit: Employees



Return rate after maternity leave Unit: %



Guarantee of Employee Human Rights

Human Rights & Diversity

Equal Opportunity

GS E&C's employment policy does not discriminate based on gender, age, nationality, marital status, health condition and political affiliation, and gives compensation and promotion opportunities based on work needs. Particularly regarding equal opportunity for minorities, the company monitors the proportions of females, people with disabilities and families of war veterans. While the proportion of females, employees is relatively low due to characteristics of the construction industry, the company prioritizes people with disabilities and families of war veterans during recruitment.

Human Rights Education & Prevention of Human Rights Risks 412-2

GS E&C conducts human rights surveys and education to uphold the basic rights of employees and eliminate human rights violations. The human rights survey evaluates actions taken regarding the 29 tasks across 8 categories which have adapted the Human Rights Management Guidelines of the National Human Rights Commissions of Korea to GS E&C's context. In 2017, the company scored 76, with employment, freedom of association and collective bargaining identified areas for improvement. Also, as part of human rights education, sexual harassment prevention education is conducted each year. In 2017, 6,074 employees completed the 2-hour sexual harassment prevention course.

Employee Grievances

Each year, the labor union and the company management jointly visit business sites in Korea and abroad to listen to employee grievances, check their working and living conditions and ultimately resolve any difficulties. After listening to employees working in projects in the Middle East, such as the CFP project in Kuwait, overseas benefits for assistant managers and managers dispatched to projects in the Middle East were raised in July 2017, accounting for difficulties in the working environment. To support the families of employees working at regional sites in Korea, such as Yeosu GSC, transportation subsidies were increased from once to twice a month.

Human Rights of Foreign Workers

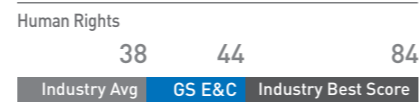
Status of Foreign Employees

Currently, a total of 8,451 foreign employees from 19 countries are classified into Global Permanent (GP), Global Contract (GC), Global Assistant (GA) and Global Technicians (GT). GPs have equal rights and responsibilities as domestic regular employees, excluding wages, and GCs are transferred to GPs based on individual performance.

Foreign Employee Support

Since 2015, GS E&C's integrated HR policy for GPs, the company has complied with human rights regulations during recruitment and in work conditions, including sexual harassment and grievance processes. Furthermore, an orientation introducing Korean culture as well as assistance in opening bank and mobile accounts is provided upon arrival in Korea. Also, living and administrative assistance, including alien registration, visa, hospital and governmental entities, is offered through various consulting services. Furthermore, in order to respect minority religions of foreign employees, the company has established prayer rooms and provides halal food.

2017 DJSI Assessment Results



2017 Equal Opportunities 405-1

Female Executive Ratio (%)	3.4 (↑ 0.6)
Disabled (people)	135 (↑ 39)
Verteran (people)	95 (↑ 2)

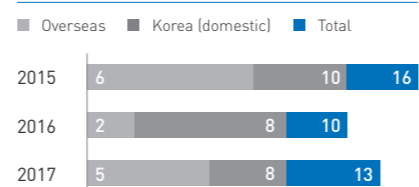
Human Rights

Action Levels Unit: Score(out of 100)

Category	2017
Total	76
Human rights protection of locals	84.2
On-site safety	83.0
Environmental rights guarantee	82.7
Consumer human rights	82.0
Forced labor	78.2
Human rights management system	68.5
Employment	66.1
Freedom of association and collective bargaining	65.1

On-site Employee

Grievance Resolution Unit: Cases



Labor Relations

Open Management Program

With aims to diversify communication channels between the CEO and employees, GS E&C has introduced the CA (Change Agent) system. The CA department is responsible for improving organizational capacities in each sector, division and office by listening to employees, fostering G-Spirit, conducting leadership improvement activities and participating in company-wide CSR activities. GS E&C also provides workshops and external training programs and expands communication opportunities between employees by supporting club activity costs and participating in year-end volunteering activities.

Current Management Agenda Conferences

GS E&C discusses its management performance and current businesses through its Management Committee and Current Management Agenda Conferences. Specifically, at the Current Management Agenda Conferences business environment, annual business strategies and organizational capacity enhancement methods are deliberated, and the Management Committee shares these matters in addition to non-financial factors, such as safety and environmental factors to the overall development of GS E&C at these current agenda conferences.

Operations of Current Management Agenda Conferences



Online Grievance Bulletin

GS E&C introduced the VOE (Voice of Employee) to collect and resolve employee grievances. Under this system, when an employee raises a grievance, the manager responsible responds within two weeks, and the inquirer evaluates this response based on their satisfaction levels. In 2017, 37 grievances were raised and resolved, including improvements in the meeting room scheduling system.

Labor-management Cooperation 102-41, 402-1

GS E&C's labor union consists of 970 (41.4%) permanent employees below manager ranks (excluding managing positions such as finance, planning, HR, general management). The company upholds and assures the three primary labor rights through wage agreements (annual) and collective agreements (biannual). Furthermore, important management matters of the company are promptly notified for consultation. The joint labor-management conference is held quarterly to discuss issues related to joint benefits, such as improvements in working conditions, on-site safety and health, promotion of employee health, and employee grievances.

2017 DJSI Assessment Results



2017 Labor Union Membership



2017 Safety Traffic Signal System

Safety & Health Management System

Striving for "Zero Critical Accidents" at all worksites through "planning, informing and acting," the GS E&C management board oversees the Safety & Health Meetings, which include the Management, Q-HSE (Quality, Health, Safety and Environment) Operations, and Technological Safety Committees. Specifically, the CSO (Chief Security Officer) holds Q-HSE Operations Committee meetings twice a month, totaling 22 times a year, where the heads of all business sectors attend and share their insights into and issues on safety and health to all employees. The committee shares casualty trends analyses, recent casualty cases from other companies, relevant government policies and on-site inspection results to further discuss action measures.

Casualty Prevention

Safety Traffic Light Policy

GS E&C has carried out the Safety Traffic Light Policy for three years, classifying the level of on-site safety management into "green, yellow, and red" to reinforce its essential safety rules and monitor violations of improved policies. Rather than a one-time action measure, this policy proposes improvement plans to prevent casualties. Sites that fail to improve after a traffic light inspection are supported by headquarters and independent on-site workshops are provided. Sites that have been assessed as "green" more than three times are designated as exemplary sites and are given benefits.

Expansion of Safety Innovation School

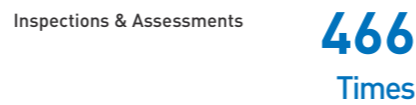
The Safety Innovation School was established to improve safety management capacities of GS E&C employees, suppliers and on-site workers and ultimately prevent casualties. To further improve the trainings, GS E&C has been expanding the network and support each year. In 2017, the company played the key role in establishing the training network and spreading safety management awareness in the industry through partnerships with public institutions including the Korea Occupational Safety and Health Agency and the Seoul Regional Construction and Management Administration. GS E&C also reinforced its on-site training programs.

Furthermore, the company listens to employees and trainees to maintain trainings that are applicable and preemptive. In collaboration with the Technological Safety Support Team, Virtual Reality contents were developed to simulate on-site events, and a survey was conducted to 3,168 trainees to assess their satisfaction levels and find areas for improvement. The company plans to implement global safety & health trainings that meet international standards through the ISO 29990:2010 (educational service management system) certification.

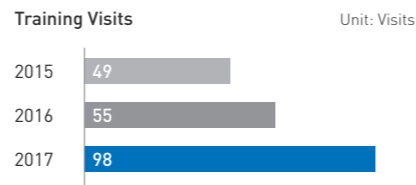
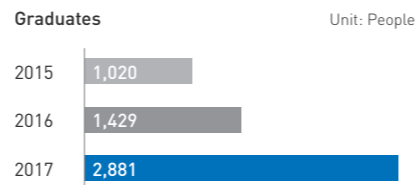
2017 DJSI Assessment Results



2017 Safety Traffic Signal System



Safety Innovation School



Inspections by Equipment Experts

GS E&C has five equipment experts who actively perform equipment and on-site request inspections to prevent accidents associated with construction equipment. In 2017, one additional expert in the equipment department was recruited to reinforce on-site support, management and supervision, and a total of 812 preliminary equipment inspections were performed. GS E&C plans to strengthen its independent equipment inspection capacities by further fostering and allocating new experts capable of independent equipment management.

Central Monitoring System (CMS)

The CMS (Central Monitoring System) monitors unstable behaviors and conditions on site using a remote video management system (CCTV). CMS is a 'safety management method using remote videos' that regularly checks for instabilities in facilities and workers and immediately takes actions through facility broadcasts to prevent accidents on construction sites. Trainings based on video recordings and photos are also provided to workers to promote awareness.

Safety Management of Overseas Sites

GS E&C has regularly performed on-site safety inspections and supported management activities in accordance with the Overseas Safety & Health Manuals enacted in 2014. In 2017, the company performed 10 on-site supervision inspections, and remaining sites were monitored using a remote supervision system. Furthermore, a video safety training was carried out to prevent the three most frequent accidents (jams, hits and crashes) and serious falling accidents.

Top 3 Health Issues Management

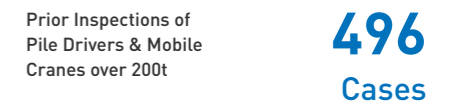
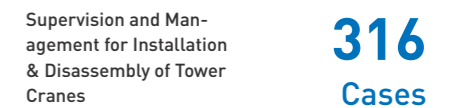
GS E&C fosters self-initiated on-site inspections and casualty prevention by researching monthly themed tasks and casualties, emphasizing the Top Three Health Issues Management — "closed-space operations, working environment and hazardous materials management." The company also produced posters and educational materials regarding health for foreign employees. In 2017, the P9-Project site was awarded the grand prize for "Industrial Safety Week's Outstanding Health Management," acknowledging GS E&C's health management capacities.

Safety Management of Foreign Employees

GS E&C is strengthening its communication with foreign employees by stationing interpreters at construction sites with high proportions of foreign employees for accurate delivery of essential information regarding casualties and guidelines. Chinese dubbed video materials were also produced and distributed on site, and the illiteracy levels of Chinese workers were determined through site visits to provide dubbed industry specific safety guidelines.

2017 Preliminary

Equipment Inspections by Experts



Grand Price Award for Outstanding Health Management



Executive Member Safety & Health Management Activity

GS E&C CEO and executives regularly make site visits and inspect key management factors, such as on-site worker risks to inspect and encourage on-site safety. In 2017, the CEO and CSO visited 10 and 118 sites respectively. Casualties are also prevented by training safety managers on guidance improvements and communication with employees.

Current Status of Casualties

Critical Casualties

To prevent industrial casualties, GS E&C has established a culture of immediate reporting in the case of critical casualties. In 2017, safety was strained due to the stagnant supply of GS E&C workforce despite the increase in construction sites and project workforce in line with growth in housing business orders. As a result, conventional types of critical casualties occurred relatively frequently, while the industrial casualty rate decreased by 0.15% to 0.5%, on-site casualty rates increased by 0.06% to 2.56%.

Critical Casualties of Suppliers 403-2

Unit: People

	2015	2016	2017
Industrial casualties	1	4	4
Construction/technological casualties	2	0	0
Total fatalities	3	4	4

Occupations Injury & Loss Management of Employees and Contractors

Founded on a safety-first business philosophy, GS E&C carefully manages injuries of employees and contractors. The company manages sick leaves based on the severity of injuries and the associated periods based on the days of sick leave. The headquarter monitors the number of injuries of its contractors in Korea, while each overseas branch manages the number of injuries of overseas contractors.

Employee Occupational Injuries & Sick Leaves 403-2

Unit: Time loss from injuries, time loss from sick leaves/million work hours

	2015	2016	2017
Occupational Injuries	0	0	0
Sick Leaves	419.73	528.14	682.77

2017 Board On-site Visits

CEO **10** Visits

CSO **118** Visits

CEO On-site Visit Safety Inspection



2017 Critical Casualties of Suppliers

4 Persons

Special 2. GS E&C Story

Creating Value for Employees through Open Communication



Background

Sharing issues in business environment

In August 2017, GS E&C held a Project Implementation Capacity Enhancement Workshop. Approximately 2,000 employees across all business sectors attended and were able to gain a better understanding of action measures needed to effectively address internal issues and deal with rapidly changing external market factors, such as overseas bidding and relevant domestic policies.

Contents

Discussing enhancements in implementation capacities

The workshop began with the CEO's opening remarks followed by presentations of the heads from its four major business sectors —architecture & housing, infrastructure, plant and power. These presentations aimed to promote improvements in project implementation capacities ranging from direct management to construction, communication, technological abilities and contract management. In addition to information on key business areas, all employees who attended watched videos that showcased the company's CSR activities, such as the 200th Dreams & Hopes Study Room and GS E&C Site Sketches.

Impact

Creating shared understanding through sector-wide feedback

Through this Project Implementation Capacity Improvement Workshop, employees were able to thoroughly understand the reality and risks GS E&C is currently facing and collaborate for resolutions together, rather than through top-down decisions. Grounded on the CEO and company philosophy, this workshop provided an opportunity to further improve current projects by sharing overall progress and "Lessons & Learned" that might be less familiar amongst other business sectors. Moving forward, feedback from each division was distributed through which GS E&C's project implementations capacities will be improved.



GS E&C's UN SDGs



UN SDGs GOAL 4.
Quality Education

To achieve the 4th UN SDG of creating an effective learning environment, GS E&C builds eco-friendly playgrounds.



UN SDGs GOAL 11.
Sustainable Cities and Communities

GS E&C is working to accomplish the 11th UN SDGs of improving living environments for low income families by supporting elderly-youth share houses and building study rooms for low income families.

Dreams & Hopes Playground, Bundong Village Eco-park

Trends & Context

Promoting Corporate Responsibility in Supply Chains

To fulfill corporate responsibilities and uphold favorable company reputations, leading global companies are expanding their scope of supply chain management from primary to secondary and third suppliers. Global companies, many in Europe, have also set sustainable management values, such as carbon reduction and CSR activities, as a selection criteria for suppliers to effectively manage risks.

CSR for Business-friendly Environment

Companies today are putting more emphasis on CSR activities that help business environments and generate financial value. In the E&C industry, companies are establishing community partnerships with through CSR activities such as building bridges and community centers that not only provide local residents convenience but also facilitate project implementation.

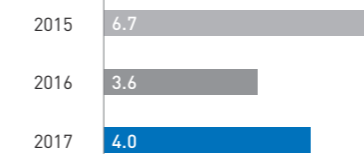
Diversification of Customer and Society's Needs

Reflecting customer needs and raising customer satisfaction have become critical factors in biddings. Corporate clients are requesting non-financial performance measures, such as safety and social contribution, in addition to financial performance indexes. In Korea's E&C industry, the lowest-price bidding system was replaced with a comprehensive evaluation bidding system, which incorporates safety, employment, fair trading and local company participation.

GS E&C Performance

Social Contribution Costs

Unit: KRW Billion



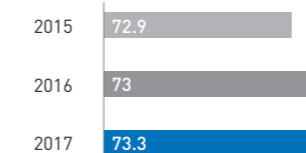
Dreams & Hopes Study Room



230 Families

Customer Satisfaction

Unit: Score (out of 100)



VOC System Complaints

Units: Cases



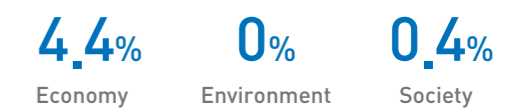
Supplier Financial Support

Unit: KRW Billion



Ratio of Suppliers with CSR Risks

Unit: Companies



Shared Growth with Suppliers

Strategy for Shared Growth with Suppliers

4 Key Principles for Shared Growth with Suppliers

Ethical Contracting Process	Fair Selection (Registration) of Suppliers	Internal Subcontracting Review Committee	Ethical Written Issuance & Maintenance of Subcontracting Transactions
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Supplier Selection

GS E&C selects its suppliers using an Automatic Selection System based on basic principles of "fairness, objectivity and transparency." Suppliers are registered in the supplier pool, classified into key/preliminary/verified suppliers and allowed to participate in biddings in order of highest scores. GS E&C guarantees equal opportunity to all suppliers and encourages increased competitiveness through fair competition.

Internal Review Committee for Win-win Cooperation

The GS E&C Internal Subcontracting Review Committee deliberates various agendas regarding suppliers and makes important decisions regarding subcontracting practices, including fair contracting and pricing, regulation compliance, gathering supplier opinions as well as policies regarding shared growth. In 2017, the Internal Review Committee was held 33 times and discussed suppliers' order statuses and rewards for contracted suppliers to establish a fair relationship with suppliers.

Enhanced Supports for Shared Growth

Suppliers' Next-CEO Training

GS E&C supports its' suppliers with education and training for quality growth. In 2017, the Next-CEO Training was held for suppliers to foster the management skills of their next-generation CEOs. The trainees completed training for essential CEO competencies and management skills such as leadership and safety management. These trainings will be further supplemented by reflecting participant feedback.

Xi CEO Forum

Since 2004, GS E&C has held the annual Xi CEO Forum where GS E&C executives and supplier representatives are able to strengthen their communication. At the 2017 forum in which 99 representatives attended, the company shared major policies regarding suppliers and reflected supplier requests that were proposed in the Issue Specific Discussions. GS E&C also motivates shared growth by rewarding outstanding suppliers.

Financial Support for Suppliers

GS E&C provides financial support for its suppliers through Management Support Funds, Win-win Deposits and Improvements in Payment Terms. In 2017, the company provided approximately KRW 34.4 billion Management Support Funds, based on the annual average balance, and selected 28 recommended suppliers to provide KRW 18.6 billion Win-win Deposits. Furthermore, the proportion of cash payments in subcontractor payments were raised, and the payment period was set to within 10 days, the shortest period among major domestic construction companies.

2017 DJSI Assessment Results

Supply Chain Management	48	77	89
	Industry Avg	GS E&C	Industry Best Score

2017 Newly Registered

Suppliers 414-1

105
Companies

Supplier Selection Score Table

Supplier Selection Score (Out of 100)

Selection Frequency	[20]
Profitability (Comprehensive)	[35]
Quarterly Evaluation (Safety: 20)	[40][20]
Regional Proximity	[5]
Other Merits / Deductions	[+3 ~ -3]
Total	[100]

Fairness, Objectivity, Transparency

2017 Supplier

Financial Support Unit: KRW Billion

Management Support Funds **34.4**

Win-win Deposits

18.6

Fastest Payment Settlement Period

Within 10 days

Encouraging Supplier CSR

Supplier CSR Management Strategy

GS E&C builds a sustainable management system with its suppliers and encourages CSR activities in economic, environmental and social dimensions according to the major sustainability principles—the triple bottom line.

CSR Encouragement Strategy for Suppliers

Category	Key Issue	Key Indexes
Economic	Corporate governance structure, risk management, ethical management, CRM	CEO Forum, financial support
Environmental	Environmental policy, eco-friendly activities, climate action strategy	Environmental violations
Social	Labor regulation compliance, human rights, HR management & support, CSR activities, safety & health	Safety training participants, casualties
Infrastructure	Certificate disclosure, sustainable management strategies & systems	-

Identification of Critical Suppliers

As part of its risk management strategy, GS E&C manages the economic, environmental and social risks of its critical suppliers with relatively high impacts to minimize negative effects on mid- to long-term value creation. GS E&C identifies critical suppliers as those who have maintained relationships over extended periods or have traded in large volumes. In 2017, 320 out of 1,063 suppliers were classified as critical suppliers, accounting for 72.7% to the company's sales.

Supplier Identification

Units: Companies, %

	2015	2016	2017
No. of suppliers	932	1,106	1,063
No. of critical suppliers	494	345	320
Sales proportion of critical suppliers	78.4	74.5	72.7

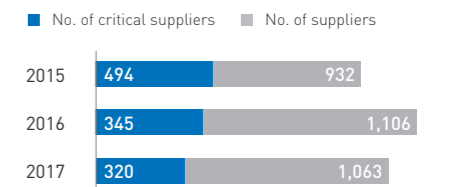
Supplier Risk Management

GS E&C analyzes financial and non-financial risks of critical suppliers to prepare for risks that could impact its value creation efforts. Risks are classified into economic, environmental and social dimensions and are evaluated and supervised in accordance to strict standards; suppliers failing to fulfill certain requirements are disqualified. As a result, a low proportion of critical suppliers exhibited risk in 2017; the proportions of suppliers with economic, environmental and social risks were 4.4% [47 companies], 0% and 0.4% [4 companies] respectively. GS E&C aims for 0% supplier risks across all dimensions.

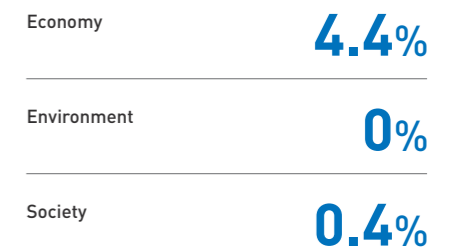
Corrective Measures for Suppliers

To promote awareness of improper business operations and improve competitiveness amongst suppliers, GS E&C regularly performs evaluations and imposes sanctions when necessary. Companies with low scores in the comprehensive credit rating, safety, and customer satisfaction evaluations are subject to sanctions, ranging from warnings to disqualification. In 2017, GS E&C issued written warnings to 22 suppliers with low scores to encourage further fulfillment of social responsibilities.

Supplier Identification Status Unit: companies



2017 Ratio of Suppliers with CSR Risks



Customer Satisfaction Activities

Customer Satisfaction Activity

Preliminary Quality Control

GS E&C inspects and assesses technological quality status in each step of the business process as part of its preliminary quality control efforts. It inspects quality through Quality Control (QC) and Before Service (BS) throughout the entire lifecycle process, and the Preliminary Quality Control (PQC) is performed 75 days before completion of construction. The company inspects areas that are not only evident and visible, but also less visible areas of functionality, such as equipment and facility performance. Also, on-site suppliers, Xi service technicians and occupant inspectors assess a total of 30 categories, and these results are used to preempt possible inconveniences upon occupancy.

Reinforced Customer Communication

GS E&C strives for customer convenience and promptly deals with complaints as they are collected. Its VOC (Voice Of Customer) System and Customer Relationship Management (CRM) system streamline the routes for complaint submission for efficient responses and immediate solutions. The company is also developing a Prior Visits Mobile Application that enables occupants to submit service requests and share request results in real-time prior to moving in, striving to further customer satisfaction and lower labor costs.

Customer Complaints Received

Unit: Cases

	2015	2016	2017
Housing complaints	532	610	896
VOC complaints	282	498	436

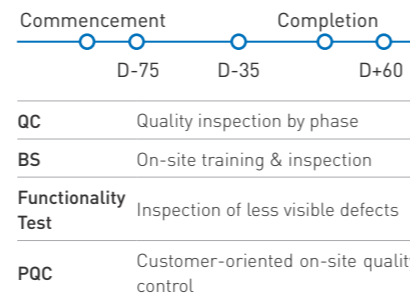
Customer Privacy Protection

Since 2012, GS E&C has been operating the Personal Information Protection Committee, which consists of relevant executives. The committee is convened three to four times a year. Furthermore, customer, recruitment, employee and supplier information is encrypted, and customer and supplier information security is preserved at high standards through accessibility control. As a result, the Ministry of Government Administration and Home Affairs found no areas of improvement upon inspection inspection, and no loss from personal information breaches occurred.

Customer Satisfaction Performance

Not only have GS E&C's customer satisfaction rates steadily increased, but its performance has been recognized by various external institutions. In 2017, the customer satisfaction rate remained at similar levels to the previous year, scoring 73.3. 'Xi', GS E&C's representing apartment brand, won the grand prize for Korea's First Brand Apartment 10 consecutive years, the grand prize in Korea's Premium Brand for nine consecutive years and first place in the Global Customer Satisfaction Index (GCSI) for 13 consecutive years.

Preliminary Quality Inspection Process



2017 Customer Satisfaction Survey Results

73.3 Points

* Source: GCSI (Global Customer Satisfaction Index)

Social Contribution Activities

Major Social Contribution Activities 203-1

Dreams & Hopes Study Room

Through direct employee participation, the Dreams & Hopes Study Room program builds an encouraging environment for children's study rooms and provides furniture, laptop computers and printers for low income household students. GS E&C continuously supports the development of children and further supports achieving their dreams through college scholarships.

Dreams & Hopes Playground

GS E&C supports health and safe spaces for children by building Dreams & Hopes Playgrounds. By going beyond conventional playgrounds, the company builds and donates eco-friendly and educational playgrounds based on innovative concepts, such as eco-playgrounds where children can grow vegetable gardens.

Year-end Kimchi Support

Since 2013, GS E&C has been providing kimchi and heating oil to low income families and welfare facilities each year. Employees and their families have donated a total 20,880 kg of year-end winter kimchi to 2,004 homes and 40 local child welfare centers as well as heating oil to ensure a warm winter for children in 2017.

Senior-youth Home Sharing

Youths and college graduates struggle with living costs and recruitment due to a continued unemployment crisis. Also, with an aging society, solitary senior citizen deaths and zero-income of retired households are emerging as serious social problems. GS E&C created share houses for youth and senior citizens living alone to contribution to resolving these social problems.

Social Contribution Activity Analysis

Social Contribution Activity Input Costs

GS E&C analyzes the costs incurred from its social contribution activities to evaluate and manage their effectiveness. According to LBG (London Benchmarking Group) model, a social contribution evaluation tool, company contributions were classified into four categories —cash, time, in-kind and management costs. In 2017, social contribution input costs from the previous year, with cash donations taking the largest portion. In the future, the company plans to measure the CSR activity results and effectiveness on the basis of input costs.

Social Contribution Activity Input Costs 203-1

Unit: KRW Million

	2015	2016	2017
Cash	6,141	3,248	3,623
Time	91	97	160
In-kind	0	0	0
Management	477	253	193

2017 Dreams & Hopes Study Room

230
Households

2017 Dreams & Hopes Playgrounds

26
Playgrounds

2017 Year-end Kimchi Support

2,044
Households & Child Welfare Centers

2017 Total Social Contribution Investments

4 Billion
KRW



GS E&C SUSTAINABILITY APPROACH

- 64 Sustainability Strategies
- 66 Stakeholder Engagement & Materiality Test
- 68 Governance
- 70 Ethics Management
- 72 Risk Management



Noryang Grand Bridge (Namhae, Korea)

Integrated Sustainability Strategy System

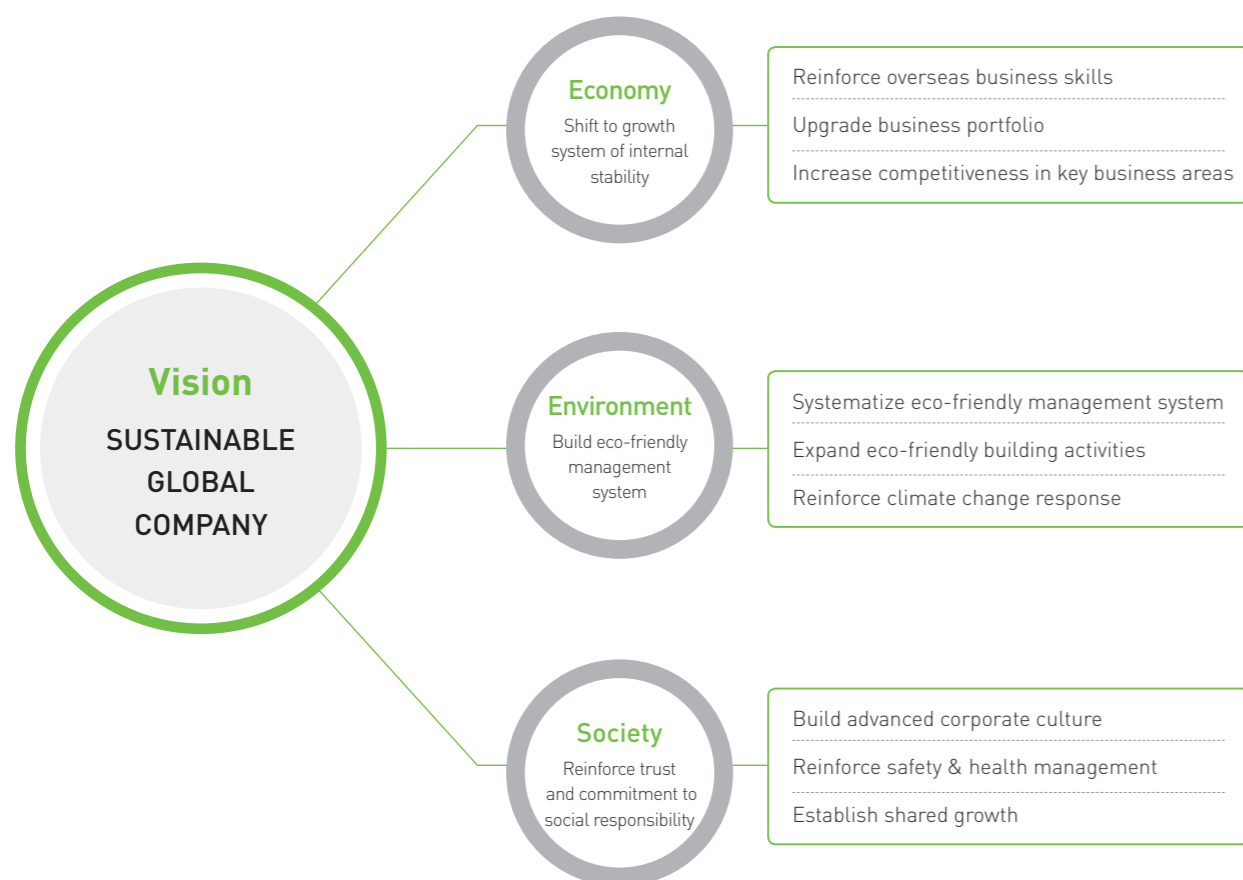
GS E&C's business philosophy and value system are grounded in the strong commitment to achieving sustainable development by fulfilling social responsibilities. To become a company that offers the highest values to its customers, GS E&C has established sustainability strategies. Since setting "Sustainable Global Company" as the company-wide Vision 2020 Goal, strategies have been implemented based on economic, social and environmental value indices.

Sustainability Strategy System

Goal

Pursue Growth with Stakeholders to Create Sustainable Values

Sustainability Strategic Directions



Strategy Direction

Shift to growth system of internal stability

Build eco-friendly management system

Reinforce trust and commitment to social responsibility

6 Capitals	Key Sustainability Performances	Unit	2015	2016	2017
Financial Value	Sales	KRW Trillion	10.6	11.0	11.7
	Operation profits	KRW Billion	122	143	319
	Orders	KRW Trillion	13.4	11.5	11.2
	Credit rating	Rating	A	A	A-
Industrial Value	Domestic orders	KRW Trillion	10.4	9.4	8.8
	Overseas orders	KRW Trillion	3.0	2.1	2.5
	Overseas arch. & housing orders	KRW Billion	144	592	538
	Overseas infrastructure orders	KRW Billion	606	1339	7
	Overseas plant orders	KRW Billion	2,163	145	1,710
	Overseas power orders	KRW Billion	81	12	201
Intellectual Value	R&D investment	KRW Billion	44.9	46.3	54.1
	Financial outcome of technology application	KRW Billion	14.28	17.35	22.57
	GHG emissions reductions (green concrete)	tCO2-e	62,649	48,405	34,088
	Costs Reductions (green concrete)	KRW Billion	5.02	8.54	6.45
	Technologies developed	Technologies	16	34	24
Environmental Value	Direct GHG emissions		117	85	98
	Indirect GHG emissions		91	109	107
	Rate of waste reused & recycled	Goal	126	117	117
	Rate of green procurement	Achievement Rate (%)	76	82	69
	Environmental protection activities		158	96	120
	Rate of R&D investment to develop green products		119	50	78
Human Value	Employee training hours per person	Hours	94	55	38
	Employee training costs	KRW Billion	3.48	3.28	1.74
	Safety innovation school graduates	People	1,020	1,429	2,881
	Maternity leave users	People	35	31	32
	Supplier critical casualties	People	3	4	4
Social Relationship Value	Social contribution costs	KRW Billion	6.7	3.6	4.0
	Customer satisfaction survey results	Score	72.9	73.0	73.3
	VOC system complaints	Cases	282	498	436
	Supplier financial support costs (yearly avg.)	KRW Billion	15.5	29.3	34.4

Stakeholder Engagement & Materiality Test

2017 DJSI Assessment Results



A comprehensive analysis of a company's value creation factors and major issues is critical for sustainable value creation in which all stakeholders uphold CSR values. GS E&C collected the opinions of stakeholder to better understand stakeholder awareness levels towards sustainability and identify value creation factors.

GS E&C Stakeholder Awareness towards Sustainability

Is GS E&C striving to fulfill its social responsibilities? (out of 5)



Is GS E&C practicing sustainability management? (out of 5)

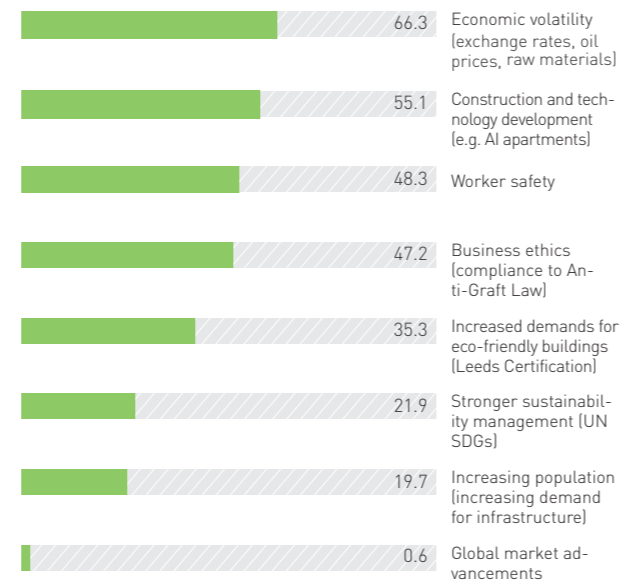


Do you know GS E&C publishes integrated reports?



Sustainability Issues the E&C Industry Should Focus On

Unit: %



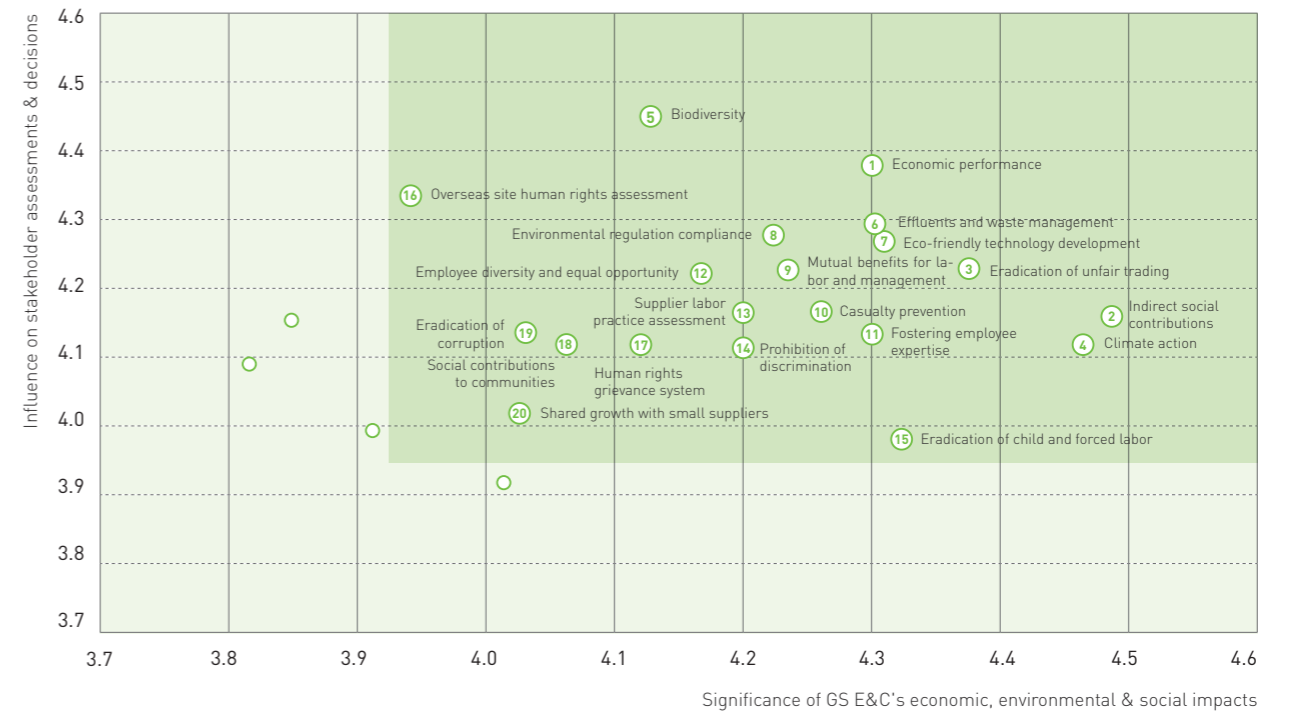
Stakeholders' Key Topics and Concerns 102-40, 102-42, 102-43, 102-44

GS E&C identifies the key topics and concerns of its seven major stakeholder groups each year. In 2017, 172 stakeholder responses from the materiality assessment were analyzed and reflected in business management during the year; these results will be included in the 2018 integrated report.



Materiality Test 102-47, 102-49

The Sustainability Management TFT developed 24 key issues through its relevance evaluation, including media coverage analysis and benchmarking. Among these, 20 issues were identified as material through a stakeholder engagement survey. During the materiality test, a total of 172 stakeholders provided their opinion on the company's sustainability practices in economic, environmental and social fields. In the finalization stage of reporting boundary, the TFT and outside experts helped the company enhance its stakeholders' credibility and responsiveness.



GS E&C 6 Capital	Material Issue	GRI Topic	Relevance to UN SDG
Financial Capital	1	Economic performance	
Industrial Capital	2	Indirect economic performance	17 INDUSTRY AND CLUSTERS, 8 DECENT WORK AND ECONOMIC GROWTH
Intellectual Capital	7	Energy	7 AFFORDABLE AND CLEAN ENERGY, 13 CLIMATE ACTION
Environmental Capital	4, 5, 6, 8	Energy, biodiversity, effluents and waste, compliance to environmental laws	7 AFFORDABLE AND CLEAN ENERGY, 13 CLIMATE ACTION
Human Capital	9, 10, 11, 12, 14, 17	Labor-management relations, occupational health and safety, training and education, diversity and equal opportunity, non-discrimination, human rights assessment	9 DECENT WORK AND ECONOMIC GROWTH, 10 AFFORDABLE AND CLEAN ENERGY
Social Relationship Capital	3, 13, 15, 16, 18, 19, 20	Anti-competitive behavior, supplier social assessment, child labor, forced labor, human rights assessment, local community, anti-corruption, supplier social assessment	4 QUALITY EDUCATION, 11 AFFORDABLE AND CLEAN ENERGY

Governance Structure

Corporate governance grounded on sustainable decision-making practices enables stakeholder expectations to be fully reflected in business management. GS E&C established such a sustainable governance structure centered on the BOD as the highest decision-making body, and practices sustainability management by managing economic, environmental and social issues through the Sustainability Committee under the BOD.

Governance System

Governance Operations

GS E&C has designated the BOD, Sustainability Committee and Management Committee as the highest decision-making bodies for sustainability management. The head of the BOD is the chairman, and the Sustainability Committee consists of the CEO and BOD. The board member of the Strategy Group carries out tasks for sustainability management, and relevant departments also participate in this process. Tasks are to be carried out by GS E&C headquarters as well as overseas subsidiaries, branches and worksites and affiliated companies.

Sustainability Committee

The Sustainability Committee, operating within the BOD, inspects GS E&C's sustainability activities and shares relevant results with stakeholders. The Sustainability Committee convened once in 2017 to inspect overall annual sustainability activities, and relevant departments throughout the company communicated under the organization of the Strategy Planning Team to publish the integrated report, discuss practical directions to deal with DJSI evaluation and implement annual sustainability activities.

BOD Composition & Operations

The GS E&C BOD consists of seven directors including two internal, four external and one non-executive directors, and the roles of the BOD head Chang-Soo Huh and CEO Byeong-Yong Lim are separated. The BOD holds regular and temporary meetings, and decisions are made with majority attendance and majority agreement. Each year, the regular BOD meeting is held seven times, the temporary BOD meetings as necessary. Directors contribute to long term value creation through decisions based on ESG (Environment, Society and Economy) factors, and are restricted to two concurrent positions to foster their commitment to their roles. Furthermore, subcommittees operate under the BOD to not only inspect or manage key operations but provide management advice as well.

BOD Members

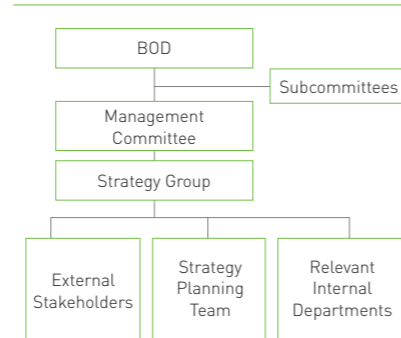
Category	Name	Date of Appointment	Career
Internal Directors	Chang-Soo Huh	2014.03	Chairman of GS E&C & GS
	Byeong-Yong Lim	2016.03	CEO of GS E&C
Non-executive Director	Tae-Soo Huh	2014.03	President of GS Home Shopping
External Directors	In-Ki Joo	2016.03	Former Dean of Yonsei University School of Business
	Do-Youp Kwon	2016.03	Former Deputy Minister of Land, Transport and Maritime Affairs
	Sang-Myeong Jung	2018.03	Former Attorney General
	Jae-Hoon Han	2018.03	Former CEO of LG Electronics

*Average BOD tenure: 5.4 years

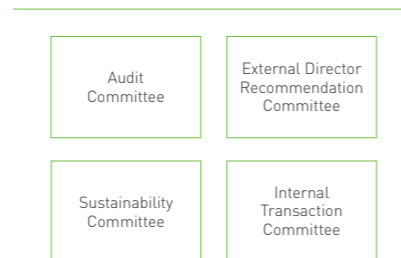
2017 DJSI Assessment Results

Corporate Governance		
GS E&C	Industry Avg	Industry Best Score
49	52	71

Governance Composition



Subcommittees



BOD Performance

Governance Evaluation

The Korea Corporate Governance Service evaluates GS E&C's ESG measures (environment, society, governance), which enables the company to manage its corporate sustainability. Since 2011, GS E&C continuously gained B or higher in comprehensive evaluations, and in 2017, it received a comprehensive rating of A; governance structure, B+; environment, A and society, A respectively.

Governance Evaluation Results

	2015	2016	2017
Comprehensive ESG	B+	B+	A
Governance Evaluation	B	B+	B+

Evaluation Organization: Korea Corporate Governance Service



2017 Comprehensive ESG Rating: A
2017 Governance Evaluation Rating: B+

BOD Performance Evaluation and Compensation

GS E&C enhances the efficiency of the BOD through self-evaluation regarding BOD operations and committee activities every year. The evaluation criteria includes BOD roles, responsibilities, obligations, composition and independence. In 2017, the average self-evaluation scores fell slightly compared to the previous year. BOD compensation is decided in accordance with the Executive Personnel Management Regulations subject to approval at general BOD or shareholder meetings, and the annual business report discloses arbitrary compensations over KRW 500 million along with overall compensation for directors and auditors. In 2017, the annual average compensation of employees and median compensation was respectively 8.6%, 8.2% of the annual CEO compensation.

BOD Operations and Performance

	2015	2016	2017
BOD Meetings	11	13	11
BOD Voting Agendas	17	23	21
Average BOD Attendance of External Directors	81.8	98.4	91.0

Guaranteeing BOD Independence and Efficient Operations

GS E&C maintains the independence of the BOD according to Article 382 of Commercial Law and elects a majority of its independent BOD according to Article 542.8 of Commercial Law. Regarding BOD elections, candidates are selected through the External Director Recommendation Committee, and are re/elected throughout the year at general shareholder meetings. Fairness, objectivity and independence are guaranteed through a final election process. The elected independent BOD participates in company management as well as monitoring and supporting the business management board. Also, to guarantee the BOD has full knowledge on the relevant agenda prior to meetings, BOD and committee materials are distributed in advance and briefing sessions are held as needed. Directors are also frequently informed on major company agendas to maintain the expertise of the BOD.

Self-evaluation result of board of directors



Transparent Business

Corporate ethics impacts company reputation, employee morale and business relations. If a company's ethical foundation is compromised, this could lead to financial losses in the long term. To become a company customers and society can trust for transparent and fair management, GS E&C has enacted and enforced its Code of Ethics in 1994 to provide the basis of ethics management, and intends to continue to enhance its ethics management.

Ethics Management System

GS E&C Compliance Department manages the Ethics Committee and is responsible for the company's ethics management. The Ethics Committee deliberates and votes on ethics policies and standards, as well as inspects the ethics management activities and results. The Compliance Department, operating directly under the CEO, reviews ethics management related policies and audits incorrect customs and non-ethical acts. In addition, the Compliance Department provides ethics education and publicity campaign to create a consensus around ethics management with employees and encourage voluntary participation.

GS E&C Ethics Management System

Goal	A company trusted by customers and society through transparent and fair business practices
Directions	<ol style="list-style-type: none"> 1. Systems: Improvement of ethics management systems 2. Education-Promotion: Enhancement of training and PR 3. Supervision: Management and supervision of employees' work ethics 4. Culture: Strict sanctions against unethical behavior

Ethics Management Activities

Declaration of Clean Competition

Excessive sales activities of construction companies during bidding processes for urban reconstruction projects used to be controversial issues in Korea. In response, GS E&C committed to ethical compliance by declaring Clean Competition to Restore Order in Urban Reconstruction Biddings. This commitment to eradicating excessive sales activities to prevent violations applies to not only all employees, but also advertisement companies working with GS E&C.

Expansion of Ethics Education

All GS E&C employees gain a comprehensive understanding of individual roles and obligations through ethics education and further learn proper response measures to ethical dilemmas during work. Ethics education consists of online, group and visiting courses. In 2017, 2,307 participated in group courses and 6,554 in online courses.

Ethics Committee

The GS E&C Ethics Committee assists the ethical decision-making of the CEO through deliberation, votes on necessary agendas, and inspections of the company's ethical management. The Ethics Committee consists of the committee chairman, the CFO, and its operating members, business sector planning executives and supporting department executives. In 2017, the committee was held twice in the first and second half respectively to discuss preemptive activities and audit activities for ethics management.

2017 DJSI Assessment Results

Code of Business Conduct		
68	75	93
Industry Avg	GS E&C	Industry Best Score

GS E&C Clean Competition Declaration

Declaration
<ol style="list-style-type: none"> 1. Prohibition of even the cheapest meal provisions during promotional activities 2. Prohibition of inappropriate use of promotional locations, such as hotels 3. Prohibition of unfavorable sales activities, such as excessive visits/calls 4. Prohibition of unethical marketing and promotions

Features of Ethics Education

Types	Features
Online	To all employees, mandatory once a year
Group	New employees and major positions/departments
Site Visits	All employees and suppliers

2017 Ethics Education Results Unit: People

Types	2017
Group Course Participants	2,307
Online Course Participants	6,554

Work Ethics Management & Monitoring

Unethical Practices Reporting Channel

GS E&C operates a reporting channel so those that recognize unethical practices can report and appropriately address such practices. GS E&C has set up various reporting channels, such as the Cyber ombudsman, phone/fax to facilitate the reporting channel and provides protection to informants to further encourage reportings. The Compliance Department immediately investigates reported matters and related employees must cooperate in the investigations. In 2017, 31 investigations were conducted.

Reporting Investigations <small>Unit: Cases</small>	
Category	2017
True	7
False	24
Report	31

Inspection and Issue Diagnosis of Operating Projects

GS E&C performs Site Patrol Inspections and Issue Diagnosis for prevent unethical violations and risk factors through preemptive measures. The Site Patrol Inspection monitors compliance measures of operating projects and identifies current on-site issues to prevent the diffusion of unethical practices and further improve awareness. Issue Diagnosis identifies unjustified work practices and areas of improvement in work processes to prevent company losses and promote efficiency. After such inspection activities, the Project site team relevant departments at headquarters seek for improvement measures and implement them into their projects. In 2017, 20 Patrol Inspections and 13 Issue Diagnoses were conducted.

Ethical Violation Cases

Individual Violations

GS E&C places sanctions on unethical practices of employees according to HR regulations and on suppliers, according to internal deliberation standards. Suppliers who report unethical practices of GS E&C employees were designated as an excellent supplier to increase the effectiveness of the reporting system. In 2017, employees and their managers were penalized for violations, such as employee cash loans and inappropriate business trips.

2017 Individual Violaions <small>Unit: Cases</small>	
	2017
Dismissal	5
Recommended resignation	5
Demotion	5
Suspension	7
Others*	29
Total	51

*Others: Degrading position, Pay cuts, Reprimands, Warnings, etc.

Corporate Violations 206-1

Date	Cases	Results
2017.02	Unfair trading in Suseo-Pyeongtaek 3-2 (Korea Rail Network Authority)	Lawsuit cancellation request (unfair trading) First trial in progress
2017.07	Casualty in Suseo-Pyeongtaek 3-2	Penalty of KRW 5 million
2017.07	Indictment of construction payment fraud in Suseo-Pyeongtaek 3-2	First trial in progress
2017.10	Violation of subcontracting regulations in Yeongsangang riverbank (Jongno-gu Office)	Penalty and cancellation of KRW 1.6 billion First trial in progress
2017.12	Lump subcontracting agreement of electricity work in Songdo 4-gyo Bridge (Jongno-gu Office)	Third trial in progress for business suspension cancellation

Risk Management

Preemptive Risk Management 102-11

Since the recent global financial crisis, effective risk management has become even more crucial for long term asset management and flexible organizations. Particularly with the expansions of overseas Mega projects in the construction industry, risks for value creation are now regular occurrences. GS E&S has established an Integrated Risk Management System to preemptively detect and respond to internal and external risks.

Risk Management System

Risk Management System Operations

Since establishment of the company-wide RM Committee in 2011, GS E&C has been preemptively managing risks. The RM Committee analyzes risks independently and operates an integrated risk management system. There are two teams (Civil engineering and Construction Support, EPC Business Support) that consist of experts in relevant fields, and each team is separated by business sector, performing risk management directly under the CEO.

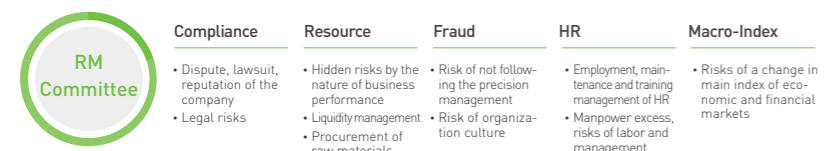
Business Environment & Implementation Risk Management

GS E&C manages business environment and implementation risks separately and accordingly. Business environment risks are managed based on by their the significance levels, possibility of occurrence and direct and indirect impacts; as for business implementation risks, all risks expected or unexpected throughout the entire business cycle are included. To review business feasibility, financial and non-financial risk evaluations are conducted during each business phase by business sector and the Business Review Committee.

Preemptive Risk Management System

RM Conference

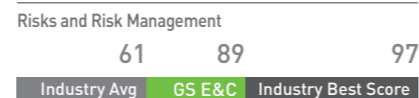
In order to reinforce risk management activities, the company holds the "RM Conference," which is a collaborative network for sector specific risk management. Sector RM conferences across five sectors —compliance, resource, fraud, HR and macro-index —operate weekly, monthly and quarterly to share risk issues, seek optimal solutions and take early action.



Integrated Risk Management System

In 2012, GS E&C established the Integrated Risk Management System (IRMS) to integrate risk management of each sector, identify correlations between individual risks and detect causes for preemptive actions. The company identifies 51 financial and non-financial risk factors which are classified into 10 categories —management performance, raw construction cost management, bond management, financial index, financial risk, safety management, insolvency symptom management, litigations & housing customer service, subsidiaries and major indices. The efficiency and effectiveness of risk management are improved through monthly and quarterly risk analyses.

2017 DJSI Assessment Results



Risk Management in Business Environment

Key Items

Key financial indices, financial risks, insolvency symptom management, etc.

Risk Factors

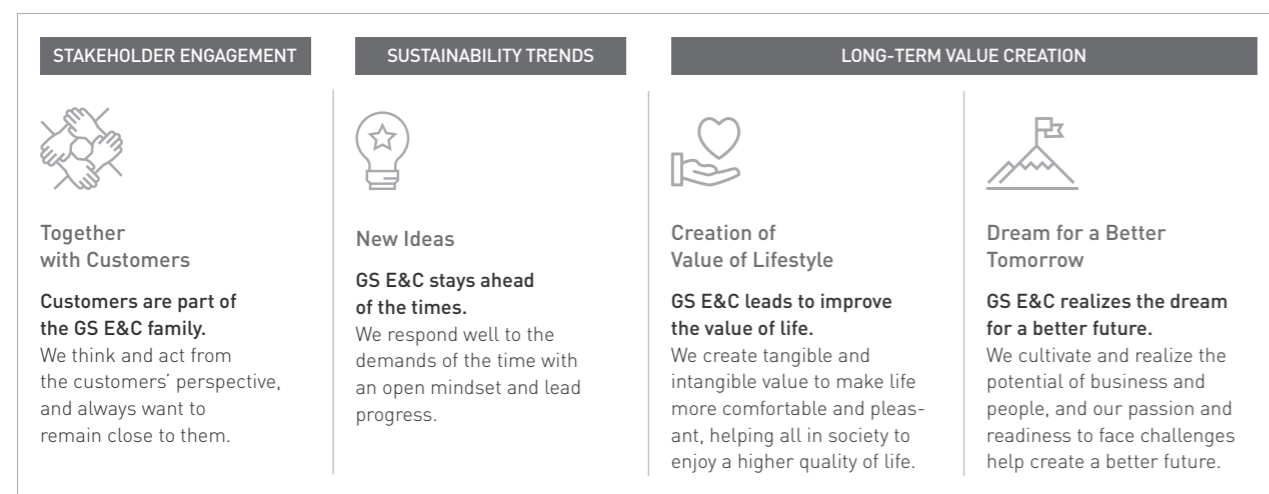
Global economic fluctuations, increased raw construction material prices, currency exchange rate instabilities, social and economic unrest in trading countries, policy and regulation changes, water shortage, environmental pollution, energy and fuel crisis, etc.

Annexes

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- 81 2017 Dow Jones Sustainability Index
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- 85 UNGC Advanced Level
- 86 Third Party Assurance Statement
- 88 Membership & Awards

GS E&C Philosophy

GS E&C Philosophy 102-16
 "Dreaming about Tomorrow with Clients, Creating New Values for Them"



Sales, Orders and Operating Profits by Business Sector

Unit: KRW Billion

	Architecture & Housing	Infrastructure	Plant	Power	Other	Total
Sales	6,646	1,298	2,927	728	81	11,680
Orders	8,465	491	1,970	297	-	11,224
Operating profits	926.9	0.3	[548.7]	[57.9]	[1.8]	318.7

Creation and Shares of Economic Value 201-1

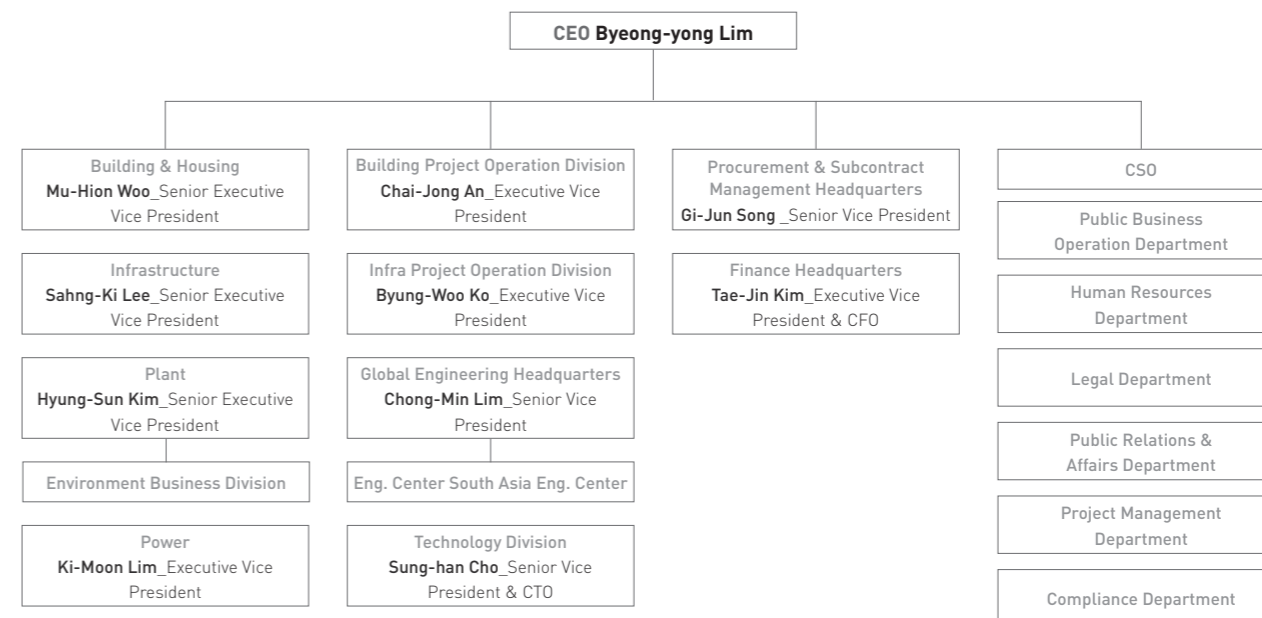
Units: KRW Billion, %

Category	Contents	2017	% of Sales
Employees	Labor costs, Benefit expenses	1,162.1	9.95
Shareholders & Investors	Dividends, Interest payment	191.4	1.64
Government Organizations	Corporate tax	1.7	0.01
Local Communities	Donations, Operational costs for community services	3.6	0.03
Suppliers	Purchasing cost, Service fee	7,904.2	67.68
Total Sales		11,679.5	80.9

* The economic value distributed to government organizations is the total of corporate tax, other taxes and dues, and penalties included in miscellaneous losses.

*19.1% of sales, including company retained earnings, are not included in total sales.

Organization



Shareholders Breakdown

As of Dec.2017

	Rank	Position	Share Ratio	Name	No. of Shares Owned	%	
Stock Ownership Ratio	1	Domestic Org. & Individual Investors	58.2%	Major Shareholders	Chang-Soo Huh	7,534,763	10.51
	2	Special Affiliated Shareholders	28.7%		Jin-Soo Huh	3,913,082	5.46
	3	Foreign Investors	11.1%		Jeong-Soo Huh	2,996,634	4.18
	4	Treasury Stock	2.0%		Myung-Soo Huh	2,443,576	3.41
					Tae-Soo Huh	1,529,727	2.13
				National Pension Service	9,931,715	13.86	

Sustainability Management Initiatives 102-12



Funding for Major Associations 102-13

As of 2017

Category	Unit	Funding	Membership Purpose
International Contractors Association of Korea	KRW 1 Million	389	Amendment of regulations related to overseas construction
The Federation of Korean Industries	KRW 1 Million	310	Improvement of rules and regulations related to domestic construction industry
Korea Federation of Construction Contractors	KRW 1 Million	104	Improvement of rules and regulations related to domestic construction industry
Korea Chamber of Commerce and Industry	KRW 1 Million	91	Improvement of rules and regulations related to domestic construction industry
Korea Employers Federation	KRW 1 Million	46	Improvement of labor laws and employment policies

Financial Value 102-45

FY 2017 : January 1 to December 31, 2017

FY 2016 : January 1 to December 31, 2016

FY 2015 : January 1 to December 31, 2015

Unit: KRW

Category	FY 2017	FY 2016	FY 2015	Data Scope*
Assets				
Current Assets	9,582,340,456,712	9,736,512,654,771	9,549,473,789,179	
Cash and cash equivalents	2,442,298,345,368	2,356,328,903,075	2,428,627,928,534	
Trade and other current receivables	4,763,280,007,248	4,996,915,667,256	4,748,788,878,719	
Inventories	1,090,697,679,575	825,250,796,366	795,522,346,925	
Short-term financial assets	295,942,692,534	353,076,458,144	368,869,286,556	
Other current non-financial assets	990,121,731,987	1,204,940,829,930	1,207,665,348,445	
Non-current assets	4,114,274,166,988	3,640,076,655,520	3,456,019,198,894	
Property, plant, and equipment	897,519,288,687	978,072,066,783	1,338,530,756,222	
Intangible assets other than goodwill	209,481,743,510	193,648,379,731	144,648,150,988	
Investment property	879,888,687,534	498,208,075,590	91,550,124,181	
Investment accounted for using equity method	44,388,994,778	57,583,540,419	36,020,002,177	
Long-term trade and other non-current receivables, gross	963,196,178,614	897,494,583,452	887,675,867,283	
Long-term financial assets	449,892,432,874	413,557,493,773	344,103,947,244	
Deferred tax assets	669,906,840,991	601,512,515,772	613,490,350,799	
Total assets	13,696,614,623,700	13,376,589,310,291	13,005,492,988,073	
Liabilities				
Current liabilities	8,581,252,537,034	7,224,983,499,459	7,139,321,408,218	
Trade and other current payables	2,473,848,534,723	2,387,755,424,912	2,066,786,857,664	
Short-term financial liabilities	3,061,155,238,241	1,823,609,101,727	2,085,439,998,566	
Current tax liabilities	72,198,114,046	7,706,450,482	8,617,333,856	
Other current financial liabilities	2,974,050,650,024	3,005,912,522,338	2,978,477,218,132	
Non-current liabilities	1,875,646,889,771	2,798,440,875,158	2,518,146,655,465	
Long-term trade and other payables	8,587,730,297	34,486,819,493	162,563,909,206	
Long-term financial liabilities	1,018,027,530,040	1,819,551,295,573	1,619,754,921,948	
Post-employment benefit obligations	55,406,565,763	84,295,110,108	124,149,639,068	
Non-current financial liabilities	441,020,168,525	464,295,445,491	402,672,688,826	
Deferred tax liabilities	27,544,489,545	50,519,321,671	58,744,641,239	
Other non-current financial liabilities	325,060,405,601	345,292,882,822	150,260,855,178	
Total liabilities	10,456,899,426,805	10,023,424,374,617	9,657,468,063,683	A~F
Equity				
Elements of other stockholder's equity	3,167,305,883,841	3,278,791,531,781	3,284,298,908,964	
Issued capital	358,376,185,000	355,000,000,000	355,000,000,000	
Capital surplus	627,155,740,008	610,856,422,454	610,648,899,087	
Other equity interest	(87,207,586,208)	(87,207,586,208)	(87,207,586,208)	
Other comprehensive income/loss accumulated amount	(65,364,922,725)	(104,053,373,216)	(131,459,629,404)	
New account for elements of other stockholder's equity	2,334,346,467,766	2,504,196,068,751	2,537,317,225,489	
Non-controlling interests	72,409,313,054	74,373,403,893	63,726,015,426	
Total equity	3,239,715,196,895	3,353,164,935,674	3,348,024,924,390	
Total equity and liabilities	13,696,614,623,700	13,376,589,310,291	13,005,492,988,073	

*GS E&C and its 23 affiliated companies are included in the financial data

Environmental Value¹⁾ 302-1, 306-2

Category	Unit	2015	2016	2017	Data Scope*	
Amount of Construction Materials Used						
Ready-mixed concrete	m ³	2,858,217	4,246,054	6,034,855		
Cement	Ton	99,982	185,405	128,306		
Aggregates	m ³	329,619	340,199	313,313		
Asphalt	Ton	230,986	163,726	186,468		
Sand	m ³	74,428	120,403	38,137	A~C	
Steel	Ton	344,294	470,264	556,349		
Plaster boards	Ton	16,671	27,748	44,564		
Improvement Rate of Raw Materials Consumption by Unit	%	1	79	[4]		
Amount of Recycle Aggregates Used	m ³	75,532	82,735	82,815		
Amount of Water Used*						
Total	m ³	2,256,554	2,762,239	2,698,668		
Service water	m ³	1,614,212	1,840,577	2,013,403		
Ground water	m ³	332,374	517,883	307,813	A~F	
River water	m ³	309,968	403,780	377,453		
Intensity of Building Water²⁾	m ³ /m ²	1.98	2.69	2.00		
Amount of Energy Used						
Total	TJ	4,504	4,581	4,602		
LNG (city gas, natural gas)	TJ	170	145	109		
Kerosene	TJ	22	45	159		
Diesel	TJ	2,738	2,760	2,560	A~F	
Gasoline	TJ	184	103	111		
Electricity	TJ	1,360	1,502	1,636		
Others	TJ	30	26	28		
Intensity of Building Energy³⁾	MWh/m ²	0.13	0.12	0.13		
Amount of Generated Waste						
Total	Ton	290,285	293,037	259,329		
Concrete waste	Ton	152,617	169,219	94,917		
Asphalt waste	Ton	59,204	15,146	16,905		
Sand and stone waste	Ton	19,988	21,921	6,252		
Construction waste	Ton	49,049	75,172	123,703		
Synthetic resin waste	Ton	9,017	6,242	10,156		
Timber waste	Ton	210	969	6,976	A~C	
Construction sludge	Ton	200	4,368	421		
Waste Disposal						
Recycling	Ton	280,858	281,458	241,777		
Landfill	Ton	200	4,368	421		
Incineration	Ton	9,227	7,211	17,132		
Amount of Debris Emission	Ton	91	33	547		
Amount of Wastewater Discharge						
Total	Ton	498,114	118,661	221,585		
Amount of Greenhouse Gas Emissions						
Total	tCO ₂ -e	283,499	286,412	285,234		
Scope 1[direct emission]	tCO ₂ -e	74,022	68,597	63,959		
Scope 2[indirect emission]	tCO ₂ -e	66,056	72,951	79,473		
Scope 3[other forms of indirect emission]	tCO ₂ -e	143,421	144,863	141,802		
Greenhouse Gas Emissions Reductions	Estimated cost reductions	KRW 1 M	8.299	9.685	8.487	A~F
Intensity of Greenhouse Gas Emissions by Buildings⁴⁾	tCO ₂ -e/m ²	0.08	0.08	0.08		
Amount of Greenhouse Gas Emissions by KRW						
Total	tCO ₂ -e/100 million KRW	2.90	2.63	2.47		
Green Procurement						
Total	KRW 100M	319.91	586.65	740.03		
HB certification	KRW 100M	32.61	32.46	202.3		
High energy-efficiency machinery	KRW 100M	149.39	275.22	288.49		
Energy consumption efficiency grades 1-2	KRW 100M	35.43	84.89	52.58	A~C	
Environmental certification	KRW 100M	100.17	192.96	196.64		
Other	KRW 100M	2.31	1.12	0		

Proportion of High Energy-efficient Buildings	%	31	36	39	A-C
Number of Environmental Disputes	Cases	21	26	4	
Number of Environmental Accidents	Cases	8	8	8	A-C
Environmental Dispute Adjustment Costs	KRW 100M	20.8	24.2	38.3	
Eco environment Course Completion Status	Persons (Accumulative)	913	937	944	A-C

1) 95% of revenues and business operations

2) Building water intensity = sum of annual water consumption / sum of floor area (11 buildings owned including the headquarters)

3) Building energy intensity = sum of annual electricity use / sum of floor area (11 buildings owned including the headquarters)

4) Greenhouse gas emissions intensity from buildings = sum of annual ton CO2 equivalent / square meters of floor space (11 buildings owned including the headquarters)

*2016 data on water use (total, service water) altered due to input errors

Industrial Value

Category	Unit	2015	2016	2017	Data Scope*
Proportion of Overseas Sales	%	56.7	44.9	21.9	
Rate of Overseas Projects Compared to Overall Overseas Projects of Korean Contractors Korean Contractors	%	12.0	7.4	5.1	A-F
New Overseas Markets	Country	3	1	0	

Intellectual Value

Category	Unit	2015	2016	2017	Data Scope*
Carbon Reduction through Green Concrete	tCO2-e	62,649	48,405	34,088	A-F
R&D Costs	KRW 100M	449	463	541	A, C
R&D Investment Rate	%	0.42	0.42	0.46	
Technology Application Financial Outcome	KRW 100M	142.8	173.5	225.7	B, E
Technologies Developed	Cases	16	34	24	A, C

Human Value 102-8, 405-1

Category	Unit	2015	2016	2017	Data Scope*	
Number of Employees	Total	6,520	6,262	5,961		
	Male	6,089	5,879	5,599		
	Female	431	382	362		
	Female ratio	%	6.6	6.1	6.1	
	Regular ratio	%	85.8	85.0	87.5	
	Contract ratio	%	13.2	15.0	12.5	
	Less than 30 years old	People	661	436	209	
	More than 30, less than 50 years old	People	4,687	4,608	4,374	A-F
More than 50 years old	People	1,172	1,218	1,341		
Employee Diversity	Female management ratio	%	2.3	2.8	3.4	
	Recruitment ratio of disabled	%	0.7	1.1	1.0	
	Disabled	People	71	96	135	
	Veteran families	People	94	93	95	
	Foreigner	People	175	123	86	
	Discharged commissioners	People	324	227	216	
	Retirement Rate	%	4.6	3.7	3.7	
Training Hours per Employee	Hours	86	94	38		
Employee Training Costs	KRW 100M	30.0	34.8	17.4	A-F	
Employee Performance Evaluation & Career	%	89.6	91.7	95.3		
Employee Satisfaction	%	62.2	61.5	62.5		

Labor Union	Union membership rate	%	39.9	41.8	41.4	
	Union membership	People	1,142	1,107	970	
Childbirth	Use of maternity leave	%	7.7	8.1	8.9	
	Employees who used maternity leave	People	35	31	32	
	Employees who used childcare leave	People	27	33	50	A-F
	Female employees who used childcare leave	People	19	24	31	
	Return rate after childcare leave	%	97	97	97	
On-site Employee Grievance Resolution	Total	Cases	16	10	13	
	Korea (Domestic)	Cases	10	8	8	
	Overseas	Cases	6	2	5	
Safety Innovation School	Graduates	People	1,020	1,429	2,881	A-G
	Training Visits	People	49	55	98	
Supplier Critical Casualties	Total fatalities	People	3	4	4	
	Industrial accidents	People	1	4	4	G
	Work & technological accidents	People	2	0	0	
Employee Sick Leaves	Occupational injuries	Lost time from injuries	0	0	0	
	Sick leaves	Lost time injuries, Sick leaves/ a million work hours	419.73	528.14	682.77	A-F

Foreigner Employees

Nationality	India	Philippines	Nepal	Bangladesh	Egypt	Vietnam	Other	Total	Data Scope*
No. of Employees	2,691	3,167	518	519	575	208	773	8,451	A-F

Social Relationship Value

Category	Unit	2015	2016	2017	Data Scope*	
No. of Suppliers	Company	956	1,106	1,063	G	
Local Economy Revitalization (rate of purchase from domestic suppliers)	%	33.9	32.5	31.6		
Social Contribution Employee Participation	People	274	391	729		
Type of Social Contribution	Charitable donations	%	3.7	0.1	7.1	
	Community investments	%	59.9	88.5	71.1	
	Commercial initiatives	%	36.3	11.4	21.8	
Contribution Costs (Total)	KRW 1M	6,709	3,598	3,976	A-C	
Exposure to the media	Cases	9	35	31		
Benefit recipients	People	1,156	1,090	3,674		
College students' favorite workplace	Rank	5	5	4		
Recruits' retention rate	%	98.4	100	100		
Educational Benefit Recipients	People	246	304	243		
External Awards & Recognition	Awards	2	1	1		
Cultural Support Beneficiaries	People	40,320	40,558	31,739		

Data Center

Housing Customer Complaints	Cases	532	610	896	
VOC System Complaints	Cases	282	498	436	A-C
Xi Brand GCSI Score	Score	72.9	73.0	73.3	
Substantive Association Funding	KRW 1 M	2,725	2,356	2,467	A-C

Other Performance

Category		Unit	2015	2016	2017	Data Scope*
Ethics Management	Individual Violations	Total	17	40	51	
		Dismissal	-	5	5	
		Recommended resignation	10	1	5	
		Demotion	-	1	5	
		Suspension	2	4	7	
		Other	5	29	29	
Reported Case Investigations	True	Cases	19	11	7	A-F
	False	Cases	25	24	24	
	Report	Cases	44	35	31	
Ethics Education	Attendees of ethical management education (off-line)	People	1,757	1,860	2,307	
	Attendees of ethical management education (on-line)	People	6,263	7,227	6,554	

*2017 Total Individual Violations include demotions pay cuts, warnings, etc.

*Data Scope

A	Headquarters
B	162 Sites in Korea
C	1 Technology Research Center
D	12 Overseas Subsidiaries
E	48 Overseas Sites
F	12 Overseas Branches
G	1,063 Suppliers

2017 Dow Jones Sustainability Index

To implement world-class sustainable management, global companies voluntarily assess their sustainability management levels through the Dow Jones Sustainability Index (DJSI) every year. GS E&C regards the DJSI assessment as an opportunity to objectively review its sustainability management and move forward by using assessment results for systematic improvements. Since its commitment in 2010, the company has been admitted to the DJSI Asia Pacific Index for eight consecutive years. In 2017, the company closed its gap with the industry best score to 3 points.

Economic Sustainability Management

Unit: Score (out of 100)

Economic Dimension	2015	2016	2017
	70	74	72
Corporate Governance	38	51	49
Materiality	-	93	73
Risk & Crisis Management	78	98	89
Code of Business Conduct ★	72	49	75
Customer Relationship Management	76	72	96
Policy Influence	-	-	100
Supply Chain Management ★	89	83	77
Impact Measurement & Valuation	-	-	0
Non-financial Project Evaluation	100	100	100

Environmental Sustainability Management

Unit: Score (out of 100)

Environmental Dimension	2015	2016	2017
	93	92	93
Environmental Reporting	97	100	100
Environmental Policy & Management Systems ★	87	90	100
Operational Eco-efficiency ★	88	78	76
Building Materials	90	90	90
Climate Strategy ★	99	100	100
Resource Conservation and Resource Efficiency ★	100	100	100

Social Sustainability Management

Unit: Score (out of 100)

Social Dimension	2015	2016	2017
	84	80	76
Social Reporting	83	87	87
Labor Practice Indicators ★	80	68	90
Human Rights ★	-	-	44
Human Capital Development ★	60	65	50
Talent Attraction & Retention ★	95	82	87
Corporate Citizenship and Philanthropy ★	100	98	97
Occupational Health & Safety ★	89	92	75

★ indicates material issues for GS E&C

Universal Standards
GRI 102: General Disclosures

Topic	Index	Disclosure	Page	Note*	ISO 26000	Verification
Organizational Profile	102-1	Name of the organization	ABOUT THIS REPORT, 14-15			V
	102-2	Activities, brands, products, and services	14-15, 18-25			V
	102-3	Location of headquarters	ABOUT THIS REPORT, 14-15			V
	102-4	Location of operations	ABOUT THIS REPORT, 14-15			V
	102-5	Ownership and legal form	14-15			V
	102-6	Markets served	14-15		6.3.10/6.4.1/	V
	102-7	Scale of the organization	14-15		6.4.2/6.4.3/	V
	102-8	Information on employees and other workers	78		6.4.4/6.4.5/	V
	102-9	Supply chain	16-17		6.8.5/7.8	V
	102-10	Significant changes to the organization and its supply chain	14-15			V
	102-11	Precautionary Principle or approach	72			V
	102-12	External initiatives	75			V
	102-13	Membership of associations	75, 88			V
Strategy	102-14	Statement from senior decision-maker	2-3		4.7/6.2/7.4.2	V
Ethics and Integrity	102-16	Values, principles, standards, and norms of behavior	74			V
Governance	102-18	Governance structure	68		6.2/7.4.3/7.7.5	V
Stakeholder Engagemnet	102-40	List of stakeholder groups	66			V
	102-41	Collective bargaining agreements	51			V
	102-42	Identifying and selecting stakeholders	66		5.3	V
	102-43	Approach to stakeholder engagement	66			V
102-44	Key topics and concerns raised	66			V	
Reporting Practice	102-45	Entities included in the consolidated financial statements	76			V
	102-46	Defining report content and topic Boundaries	84			V
	102-47	List of material topics	67			V
	102-48	Restatements of information	ABOUT THIS REPORT		5.2/7.3.2/7.3.3/7.3.4	V
	102-49	Changes in reporting	67			V
	102-50	Reporting period	ABOUT THIS REPORT			V
	102-51	Date of most recent report	ABOUT THIS REPORT			V
	102-52	Reporting cycle	ABOUT THIS REPORT			V
	102-53	Contact point for questions regarding the report	ABOUT THIS REPORT			V
	102-54	Claims of reporting in accordance with the GRI Standards	ABOUT THIS REPORT		7.5.3/7.6.2	V
	102-55	GRI Content Index	82-84			V
	102-56	External assurance	86-87			V

Topic Specific Standards

Topic	Index	Disclosure	Page	Note*	ISO 26000	Verification
GRI 200: Economic						
Economic Performance	103-1-3	Explanation, management approach (MA), and evaluation of the material topic and its Boundary	28-29, 84			V
	201-1	Direct economic value generated and distributed	14-15, 30, 74		6.8.1-6.8.2/6.8.3/6.8.7/6.8.9	V
Indirect Economic Impacts	103-1-3	Explanation, MA and evaluation of the material topic and its Boundary	56-57, 61, 84			V
	203-1	Significant indirect economic impacts	61		D 6.3.9/6.8.1-6.8.2/6.8.7/6.8.9	V

Anti-corruption	103-1-3	Explanation, MA and evaluation of the material topic and its Boundary	70, 84			V
	205-2	Communication and training about anti-corruption policies and procedures	70			V
Anti-competitive Behavior	103-1-3	Explanation, MA and evaluation of the material topic and its Boundary	7, 70, 71, 84		D	V
	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	71		6.6.1-6.6.2/6.6.5/6.6.7	V
GRI 300: Environmental						
Energy	103-1-3	Explanation, MA and evaluation of the material topic and its Boundary	8-9, 42-44, 84		Reported in accordance to Environmental Reporting Guidelines 2014-186	V
	302-1	Energy consumption within the organization	77		D 6.5.4	V
Biodiversity	103-1-3	Explanation, MA and evaluation of the material topic and its Boundary	42-44, 84			V
	304-2	Significant impacts of activities, products, and services	45		D Stickleback protection Region: East Sea, Daegu River Period: 2017.04.10-13, 2017.04.25-28, 2017.05.01-04	V
Effluents and Waste	103-1-3	Explanation, MA and evaluation of the material topic and its Boundary	42-44, 84			V
	306-2	Waste by type and disposal method	77		D Consignment processing 6.5.3	V
Environmental Compliance	103-1-3	Explanation, MA and evaluation of the material topic and its Boundary	42-44, 84			V
	307-1	Non-compliance with environmental laws and regulations	44		4.6	V
GRI 400: Social						
Labor and Management Relations	103-1-3	Explanation, MA and evaluation of the material topic and its Boundary	48, 84		D	V
	402-1	Minimum notice periods regarding operational changes	51		D 6.4.3/6.4.5	V
Occupational Health and Safety	103-1-3	Explanation, MA and evaluation of the material topic and its Boundary	6-7, 46-47, 52, 84		D	V
	403-2	Types and rates of injury, occupational diseases, etc.	54		D 6.4.6/6.8.8	V
Training and Education	103-1-3	Explanation, MA and evaluation of the material topic and its Boundary	46-49, 84		D	V
	404-1	Average hours of training per year per employee	48		D 6.4.7	V
Diversity and Equal Opportunity	103-1-3	Explanation, MA and evaluation of the material topic and its Boundary	50, 84		D	V
	405-1	Diversity of governance bodies and employees	50, 78		D 6.2.3/6.3.7/6.3.10/6.4.3	V
Non-discrimination	103-1-3	Explanation, MA and evaluation of the material topic and its Boundary	83		D	V
	406-1	Incidents of discrimination and corrective actions taken	83		D 6.3.3/6.3.4/6.3.5/6.3.8/6.3.10/6.4.5/6.6.6	V
Child Labor	103-1-3	Explanation, MA and evaluation of the material topic and its Boundary	83		D	V
	408-1	Operations and suppliers at significant risk for incidents of child labor	83		D 6.3.3/6.3.4/6.3.5/6.3.7/6.3.10/6.6.6/6.8.4	V
Forced Labor	103-1-3	Explanation, MA and evaluation of the material topic and its Boundary	83		D 6.3.3/6.3.4/6.6.6	V
	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor.	83		D	V
Human Rights Assessment	103-1-3	Explanation, MA and evaluation of the material topic and its Boundary	50, 84		D	V
	412-2	Employee training on human rights policies or procedures	50		D 6.3.5	V
Local Communities	103-1-3	Explanation, MA and evaluation of the material topic and its Boundary	10-11, 56-57, 84		D	V
	413-1	Operations with local community engagement, impact assessments, and development programs	83		D 6.3.9/6.5.1-6.5.2/6.5.3/6.8	V

Supplier Social Assessment	103-1~3	Explanation, MA and evaluation of the material topic and its Boundary	55-57, 58, 59, 84	D	V
	414-1	New suppliers that were screened using social criteria	58	6.3.5/6.4.3/6.6.6/7.3.1	V

***Reasons for Omissions**

Reason	
A	Not applicable
B	Confidentiality constraints
C	Specific legal prohibitions
D	Information unavailable

*Refer to GRI Standards Report for details

Boundary  103-1, 102-46

- : Topic Boundary (stakeholders that influence and/or are influenced by the relevant GRI Standards topic)
- ⊙: Reporting Boundary (scope of data disclosed in this report according to GRI Standards topics)

Category	Internal Boundary			External Boundary						Page
	Head-quarters	Domestic Sites (162)	Technology Research Center (1)	Overseas Subsidiaries (12)	Overseas Sites(48)	Overseas Branches (12)	Suppliers (1,063)	Customers	Local Community	
GRI 200: Economic										
Economic Performance	⊙	⊙	⊙	⊙	⊙	⊙	⊙		⊙	14-15, 30, 74
Indirect Economic Impacts	⊙	⊙	○	○	○	○	○	○	○	61
Anti-corruption	⊙	⊙	⊙	⊙	⊙	⊙	○	○	○	70
Anti-competitive Behavior	⊙	⊙	○	○	○	○	○	○	○	71
GRI 300: Environmental										
Energy	⊙	⊙	⊙	⊙	⊙	⊙	○			77
Biodiversity	⊙	⊙	⊙	⊙	⊙	⊙	○		○	45
Effluents and Waste	⊙	⊙	○	○	○	○	○		○	77
Environmental Compliance	⊙	⊙	○	○	○	○	○		○	44
GRI 400: Social										
Labor and Management Relations	⊙	⊙	⊙	○	○	○	○			51
Occupational Health and Safety	⊙	⊙	⊙	○	○	○	○			54
Training and Education	⊙	⊙	○	○	○	○	○			48
Diversity and Equal Opportunity	⊙	⊙	⊙	⊙	⊙	⊙	○			50, 79
Non-discrimination	○	○	○	○	○	○	○			-
Child Labor	○	○	○	○	○	○	○			-
Forced Labor	○	○	○	○	○	○	○			-
Human Rights Assessment	⊙	⊙	○	○	○	○	○			50
Local Communities	⊙	⊙	○	○	○	○	○	○	○	-
Supplier Social Assessment	⊙	⊙	○	○	○	○	○		○	58

UNGC Advanced Level

Category	Principle	Page	GRI Topic
1 Governance	This integrated report (IR) describes the discussions at the level of the CEO and the BOD regarding the strategic aspects of the implementation of the UNGC.	5	102-14
2	This IR explains the company's decision-making processes and corporate governance to achieve its sustainability.	68	102-18
3	This IR describes the engagement of all of the company's major stakeholders.	67	102-43
4 UN Goals and Issues	This IR describes activities designed to support comprehensive goals and issue of the United Nations.	75	102-12
5 Human Rights	This IR describes the company's strong commitment, strategies and policies in the area of human rights.	50	103-1
6	This IR describes an effective management system designed to integrate its human rights principles.	50	103-2
7	This IR describes effective monitoring and evaluation mechanisms about human rights principles.	50	412-2
8	This IR applies standardized performance indices (including GRI) about human rights.	50, 79, 83	405-1 406-1 408-1 409-1
9 Labor	This IR describes the company's strong commitment, strategies and policies in the area of labor.	48, 50, 75	103-1
10	This IR describes an effective management system designed to integrate its labor principles.	50-51	103-2
11	This IR describes effective monitoring and evaluation mechanisms about labor principles.	50	103-3
12	This IR applies standardized performance indices (including GRI) about labor.	51, 54, 48, 50, 79	402-1 403-2 404-1 405-1
13 Environment	This IR describes the company's strong commitment, strategies and policies in the area of environmental management.	42-44, 75	103-1
14	This IR describes an effective management system designed to integrate its environmental principles.	44	103-2
15	This IR describes effective monitoring and evaluation mechanisms about environmental management.	43-44	103-3
16	This IR applies standardized performance indices about environmental management.	44-45, 77	302-1, 304-2, 306-2, 307-1
17 Anti-Corruption	This IR describes the company's strong commitment, strategies and policies in the area of anti-corruption efforts.	5, 70-71	103-1
18	This IR describes an effective management system designed to integrate its anti-corruption principles.	70-71	103-2
19	This IR describes effective monitoring and evaluation mechanisms in the area of anti-corruption efforts.	70-71	205-2
20	This IR applies standardized performance indices about anti-corruption efforts.	70-71	205-2
21 Strategies, Governance and Engagement	This IR explains about the implementation of Global Compact Principles within the company's value chain.	58-59	-
22 External Assurance and Transparency	This IR offers information on the corporate profile and operational environments.	14-25, 78	102-1-10
23	This IR includes a high level of transparency and disclosure.	ABOUT THIS REPORT, 80-82, 86-87	102-50-56

Third Party Assurance Statement

Dear GS E&C management and stakeholders,

THE CSR (hereinafter the Assurer) was requested by GS E&C to conduct independent assurance on GS E&C Integrated Report 2017 (hereinafter the Report). The Assurer hereby presents its overall assessment results regarding the company's report content and reporting process. It shall not be provided to other organizations or for purposes other than the enhancement of the company's reliability. GS E&C takes full responsibility for all the information contained in the Report.

Assurance Standards

The Assurer undertook this assurance task in accordance with AA1000AS (2008) and GRI Standards Guidelines.

- The principles of inclusivity, materiality and responsiveness of AA1000AS (2008)
- The principles for determining report content and quality of the GRI Standards Guidelines
- Reporting standards in accordance to the GRI Standards Core option
- The appropriateness of the application of the IIRC IR Framework
- The propriety of the public information production for the Report

Assurance Level

The Assurer carried out a moderate level of assurance centered on the application of AA1000AS (2008) as a standard. The Assurer conducted a limited level of data sampling and interviews. Its main assurance activities included the following:

- Review of the reasonability of the materiality test processes involved in the selection of reporting issues
- Review of the agreement of the disclosed information in the Report with GS E&C's audited disclosure data
- Review of stakeholder engagement processes through interview with relevant managers
- Review of data production management systems and processes

Assurance Limitations

The Assurer viewed the appropriateness of information production as a criterion and managed to secure a satisfactory level of reliability about the reported contents, although it does not mean a 100% reliability. As for financial performance, the Assurer confirmed the agreement of accounting auditors' audit reports and disclosure data. As for environmental performance, the Assurer checked a professional assurance institutions' assurance report.

Assurance Independence

The Assurer has no relations with GS E&C and presents this assurance statement having secured independence and ethics compliance as a third party assurance entity.

Assurance Conclusions

Through a series of processes designed to verify the company's compliance with the internationally recognized AA1000AS (2008) assurance standards and international guidelines, the Assurer presents its assurance opinions as follows:

Review of GRI Standards Application

The Assurer has confirmed that the Report has complied with the GRI Standards Guidelines - Core Option, and properly covered a DMA (Disclosure on Management Approach), general standards disclosure and 18 aspects of specific standard disclosure. The reporting aspects confirmed during the assurance process are as follows:

Category	Topic			
Economic	Economic Performance 201-1	Indirect Economic Performance 203-1	Anti-Corruption 205-2	Anti-Competitive Behavior 206-1
	Environmental	Energy 302-1	Biodiversity 304-2	Effluents and Wastes 306-2
Social		Labor & Management Relations 402-1	Diversity and Equal Opportunity 405-1	Forced Labor 409-1
	Occupational Health and Safety 403-2	Non-discrimination 406-1	Human Rights Assessment 412-2	Supplier Social Assessment 414-1
	Training and Education 404-1	Child Labor 408-1		

Review of AA1000AS (2008) Application

The Assurer has confirmed that the Report applies the three main principles of the AA1000 assurance standards.

Inclusiveness	Are stakeholders engaged in the value creation processes of GS E&C?	The Assurer has confirmed that GS E&C implements stakeholder engagement through diverse channels in its sustainable value creation processes with stakeholders, and that no stakeholder group was purposely excluded from the stakeholder engagement processes.
Materiality	Does GS E&C make reports on its important sustainable issues?	The Assurer confirmed the procedures whereby GS E&C identified its sustainability issues and could not find any problems in the application of materiality test procedures.
Responsive-ness	Did GS E&C respond reasonably to its stakeholders' expectations?	The Assurer confirmed that GS E&C carried out activities to identify material aspects that affect stakeholders' performance and respond to the outcomes and that the contents are appropriately described in the Report.

Recommendations for Improvement

- It is crucial to reinforce linkages between the identified material issues and the company's long-term value creation process. Specifically, improvement efforts should be made regarding material issues that were deemed more important by external than internal stakeholders, including non-discrimination and human rights assessment. Reporting of the management approach, step-by-step goals and implementation progress is also recommended.
- Continuous monitoring and improvement efforts in categories identified in the DJSI assessment, such as governance, supply chain management and human rights, are needed. The Assurer also recommends that GS E&C integrates its comprehensive performance data to sustainability KPIs and the UN SDGs for sustained efforts in integrated long-term value creation.

Assurer Eligibility

THE CSR, requested to conduct assurance on the Report, is a global sustainability management agency. It has acquired an AA1000AS (2008) assurance certification accredited by Account Ability, UK and also obtained the status of gold community member at Global Reporting Initiative (GRI). Its CSR Expert Committee is composed of global experts from Korea, as well as the US, UK and Germany, equipped with research achievements regarding CSR.



May 31, 2018

THE CSR CEO

Se-woo, Jung

Memberships and Awards

Membership Status 102-13

Division	Name of Association
Plant	Construction Industry Institute, Korea Plant Industries Association, Korea-Qatar Friendship Association, The Korea International Trade Association, International Contractors Association of Korea, Korea-Egypt Economic Cooperation Committee, Korea-Oman Friendship Association, Korea Price Data System, AACE International, The Gasification Technologies Council, International Register of Certified Auditors, Korea Gas Union, Korea Plant Engineering Association
Power, Plant and Environment	Korean Society of Water and Wastewater, Korean Society of Environmental Engineers, The Membrane Society of Korea, Korean Society on Water Quality, Korean Society of Water Science and Technology, The Korean Society of Combustion, Korean Society of Thermal Environmental Engineers, Korean Organic Resource Recycling Association, Korean Society of Waste Management, Korean Fluid Machinery Association, Society of Odor Research and Engineering, Korea Associate Council of Incineration Technology, The Korean Institute of Electrical and Electronic Material Engineers, Korea Association of Waste to Energy Technology, Korea Water and Wastewater Works Association, Korean Institute of Chemical Engineers, Korean Society of Atmospheric Environment, Korean Society of Soil and Groundwater Environment, YU Environmental Research Institute, Automated Waste Collection Technology Association, Korea Electric Association, Korea Institute of Project Management Technology, Korea and Energy Industry Association, Korea Atomic Industrial Forum, Korea Institute of Nuclear Safety, The Korean society of Combustion, Korea Wind Energy Industry Association, Korea District Heating & Cooling Association, Korea Information & Communication Contractors Association, Korea Software Industry Association, Korea Urban Railway Association, KRSEA, KRETA
Civil Engineering	Korean Society of Transportation, Korean Society of Civil Engineers, Korean Society for Rock Mechanics, Korean Geotechnical Society, The Korean Society for Railway, The Korea Railway Association, Korea Port & Harbour Association, Korean Society of Coastal and Ocean Engineers, Korean National Committee on Large Dams, Korea Water Resources Association, Korean National Committee on Irrigation and Drainage, Korea Road & Transportation Association, Korean Society of Road Engineers, Korean Society of Steel Construction, Korea Geosynthetic Society, Korean Society of Coastal Disaster Prevention, Korea Rail Engineering Association, Korean Tunneling and Underground Space Association, Korea Concrete Institute
Arch. & Housing	Korea Housing Association, Korea Remodeling Association, The Korean Institute of Electrical Engineers, The Korean Institute of Illuminating and Electrical Installation Engineers, Korea Institute of Construction Engineering and Management, Korea Institute of Building construction, Society of Air-conditioning and Refrigerating Engineers of Korea, Korea Green Building Council, Korean Association of Air Conditioning Refrigerating and Sanitary Engineers, Korea Society of Geothermal Energy Engineers, Korea Solar Energy Society, Korea Council of Tall Building and Urban Habitat, Korea Air Cleaning Association, Korea Institute of Architectural Sustainable Environment and Building Systems, Korean Association for Energy Service Companies (ESCOs), Korean Institute of BIM(Building Information Modeling, Korea Institute of Ecological Architecture and Environment, The Korean Institute of Landscape Architecture, KASPS
Technology	Korea Engineering & Consulting Association, Korea Industrial Technology Association, The Korea Construction New-Technology Association, Building SMART Korea, Korean Geo-environmental Society, Korean Society of Hazard Mitigation, Architectural Institute of Korea, The Korean Society for Noise and Vibration Engineering, Korean Society of Road Engineers, Earthquake Engineering Society of Korea, DEMS, Korean Society of Ecology and Infrastructure Engineering; KSEIE, Korea Wind Energy Association, Computational Structural Engineering Institute of Korea
Management	Korea Business Council for Sustainable Development, Korea Federation of Construction Contractors, The Korea Employers Federation, Korea Chamber of Commerce and Industry, The Federation of Korean Industries, Korea IR Service, American Bar Association, Fair Competition Federation, KOSHA18001 Society, Construction Safety Manager Committee, Construction Safety Manager Association, Korea Society for Construction Quality, Korea Construction Quality Association, The Society for Environmental Construction, Construction Association of Korea, Korea Construction Engineers Association, Korea Specialty Contractors Association, Korea New & Renewable Energy Association, Korea Fire Construction Association, Korea Facilities Maintenance Association, Korea Mechanical Construction Contractors Association, Korea Electrical Contractors Association, Korea Information Communication Contractors Association, Korea Organization Management Development Association, Seoul Bar Association

Awards

Area	Award Description
Economic	<ul style="list-style-type: none"> · 2017 Korea Civil Engineering Technology Contest- Grand Prize in Operations Sector (Hana Financial Data Center, 12.16) · 2017 Korea Housing Construction Awards-Grand Prize- Ilsan Xi (12.19) · 2017 Asia Construction Industry Awards Technology and Construction Innovation Grand Prize- Pre-Construction (09.14) · 2017 E-Today Smart Construction Awards- Grand Prize in Brand Sector- Xi (10.17) · 2017 A Ju Economics Construction Awards- Grand Prize in Customer Service- Xi (10.30) · 2017 Environmental Housing Culture- Grand Prize- Gyeongguigung Xi (07.06) · 2017 Overseas Construction Awards- Grand Prize in Civil Engineering Sector- Vietnam Vam Cong Bridge (03.29) · 2017 Civil Engineering Structure Context- Silver Prize- Vietnam TBO Binh Loi Outer Ring Road (03.30) · 2017 Well-Being General Grand Prize (Ministry of Land, Infrastructure and Transport Grand Prize)- Green City Xi (06.27) · 2017 Individuals Promoting Korea's Economy Award-Korea Housing Sector Prize- Byeong-yong Lim (07.13) · 2017 Korea Premium Housing Awards- Grand Prize- Grand City Xi 2 (08.30)
Environmental	<ul style="list-style-type: none"> · 2017 Green Housing Culture Awards- Grand Prize in Brand Sector- Xi (12.01) · 2017 Environmental Housing Culture Awards- Grand Prize in Well-Being Apartment Sector- Ilsan Xi 2 (12.05) · 2017 Green Housing Awards- Grand Prize in Customer Service- Seo-Chung-Ju Park Xi (12.06) · 2017 Green Construction Awards- Smart Green Grand Prize- Hana Financial Data Center (12.14) · 2017 Seoul Construction Landmark- Excellence Prize in Green Architecture- Parnas Tower (09.01) · 2017 Eco-friendly Construction Industry Awards- Grand Prize- Osan City Xi (07.19) · 2017 Maeil Economics Best Apartment Awards- Excellence Prize in Green Architecture- Misa Gangbyeon Riverview Xi (08.08)
Social	<ul style="list-style-type: none"> · 2017 DJSI Sustainability Awards- Admitted to Asia-Pacific Index 8th Consecutive Year (11.01) · 2017 CustomerSelected Trusted Brand Awards- Grand Prize- Xi (03.30) · 2017 Korea Housing Service Awards- Grand Prize- Grand City Xi 2 (05.31) · 2017 Korea's Representing Apartment Awards- Brand Sector_ Hangang Metro Xi (06.09)

GS E&C INTEGRATED REPORT 2017

**Building world values with creative passion reliable
BEST PARTNER & FIRST COMPANY**

GS E&C strives to become the best company by creating a greater value in the global market and a reliable partner for our customers, shareholders, and employees around the world.

GS E&C will create sustainability values with stakeholders for everyone and build better futures by listening to the voice of stakeholders.

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