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GS E&C INTEGRATED REPORT 2016

GS E&C INTEGRATED REPORT 2016

CREATE
NEW
WORLD

GS E&C

ABOUT THIS REPORT

G4-3, G4-5, G4-18, G4-28, G4-29, G4-30, G4-31, G4-32, G4-33

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

GS E&C is rooted in the belief that its business activities should pursue both the creation of stable and robust financial outcomes and enhancing the value of both society and the natural environment.

Our corporate philosophy about the organization's social responsibility and sustainability management is perfectly captured in our vision statement - A Trusted BEST PARTNER & FIRST COMPANY by Building World-Caliber Values with Creative Passion - and it is implemented throughout our business activities across the world.

GS E&C publishes a consolidated report every year to disclose its financial and non-financial information to its stakeholders in a transparent manner. The report includes its sustainability management results in all its domestic and overseas worksites and across its major supply chains. The reporting period of this report is from January 1, 2016 to December 31, 2016.

We have based the financial results of this report on the consolidated K-IFRS while including our data and evaluation results reported to the DJSI in the non-financial information of this report, including our social responsibility activities, in an effort to further evolve the integrity of our information disclosures.

This report has been prepared in accordance with GRI G4 Guidelines – Core Option. No alterationshave been made to the previous report. External assurance is provided an independent global sustainability management consulting firm.

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

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GS E&C Creates New Values for Life

As delineated in its mission statement - Dreaming About Tomorrow with Clients, Creating New Values for Them - GS E&C continues to create new values for its stakeholders in particular and society in general.

Stakeholder Engagement

Customers are part of the GS E&C family
We think and act from the customers' perspective, and want always remain close to them.

Sustainability Trends

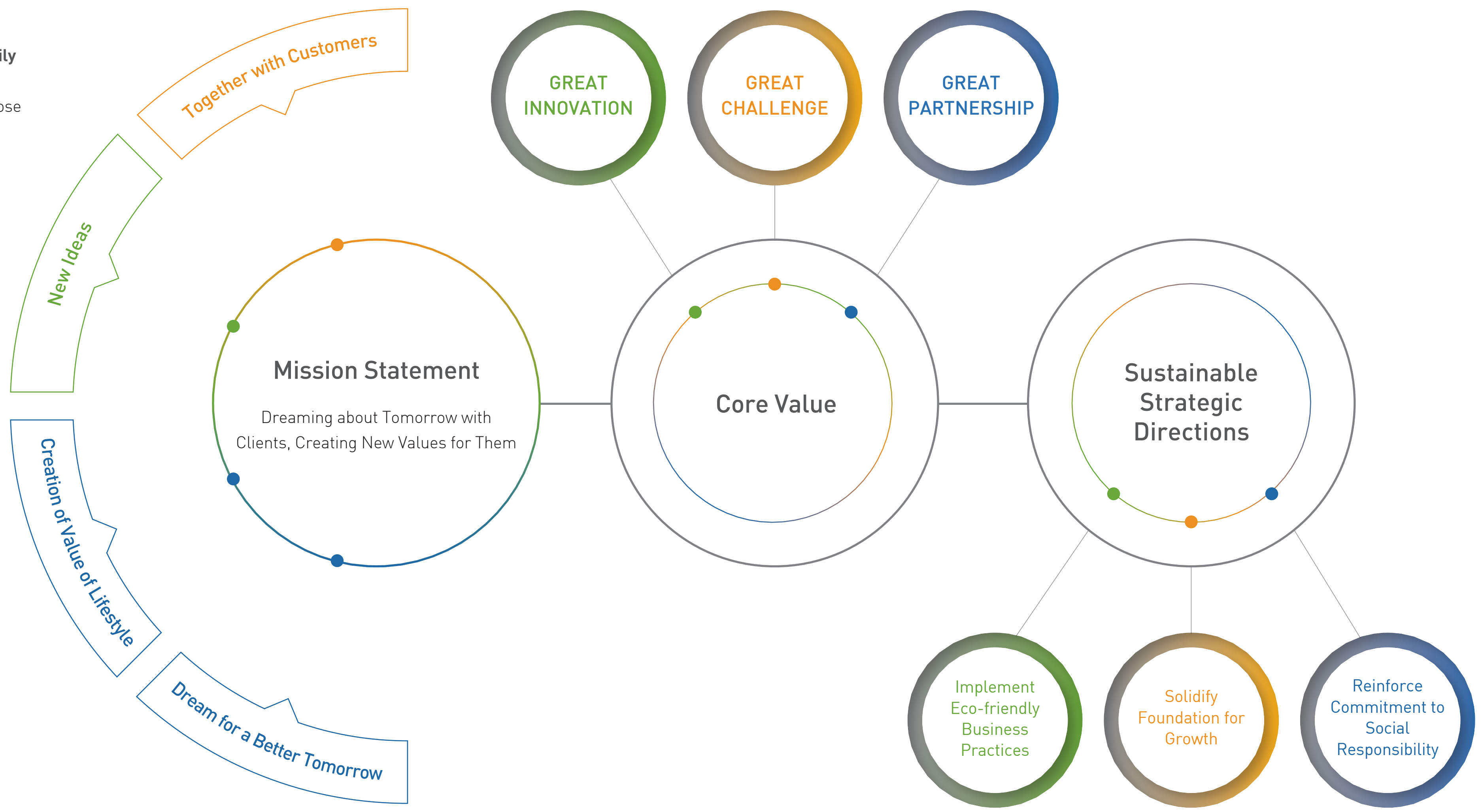
GS E&C stays ahead of the times
We respond well to the demands of the time with an open mindset and lead progress.

Value for Life

GS E&C leads to improve the value of life
We create tangible and intangible value to make life more comfortable and pleasant, helping all in society to enjoy a higher quality of life.

Value for Tomorrow

GS E&C realizes the dream for a better future
We cultivate and realize the potential of business and people, and our passion and readiness to face challenges help create a better future.



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CEO's Message G4-1

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 2016, GS E&C placed particular emphasis on restoring market confidence amid a difficult business management climate due to the drastic slowdown of overseas orders among others. The reason is that, these days, the success or failure of corporate management is determined by productivity improvements based on a sound corporate culture, a strong work ethic and readiness to make changes in perspectives, instead of the external environment such as countries' forecasted economic growth rates. GS E&C has set a 'Sustainable Global Company' as its Vision 2020. It continues to make headway in creating financial, environmental and social values based on its sustainability management.

First, GS E&C has been able to attain remarkable financial performance. In 2015, we surpassed the KRW 10 trillion mark in sales for the first time since our company's founding thanks to the business growth in the plant, power, infrastructure, architecture and housing sectors. In 2016, we achieved KRW 11.356 trillion in sales, recording annual sales in excess of KRW 10 trillion for two years in a row. In overseas business developments, we succeeded in entering the final stage for most of our projects even in the worst conditions that were negatively influenced by falling oil prices, thereby drastically reducing our financial risks and contributing to the normalization of our earning patterns. In domestic business affairs, we made remarkable performance improvements thanks to a boom in the housing sector that has contributed to improving the companywide financial performance since 2015.

Second, GS E&C is leading the way in complying with environmental policies and actively responding to climate change. Aiming to develop into an Eco Global Top-Tier Firm, GS E&C strives to reduce its greenhouse gas emissions by 7.1% by 2020 as part of its companywide efforts to respond to climate change, an agenda that is at the forefront of the minds of global citizens. We implement energy conservation across the company through our Energy Management Committee. Most notably, we apply cutting-edge, eco-friendly technologies developed by GS E&C Research Institute, among others, to our worksites around the world. We have reduced GHG emissions by 45,000 tons through the development and utilization of green concrete, which has enabled us to earn KRW 17.35 billion in direct benefits, an increase of 20% over our original estimates, as a result of our application of the new technology to worksites.

Third, GS E&C creates values for people. We strive to create people-centered values by supporting the professional development of our employees, operating the Shared Growth Council with our suppliers, and providing our employees with a flexible work environment. We recently completed 200th Study Rooms of Dreams and Hopes' to lay the groundwork for shared growth with local communities. In November 2016, we opened a Safety Innovation School in Singapore for the first time among Korean construction companies. The school is open to our competitors in the industry as well as our suppliers as part of our continuous efforts to create a safe working environment, one of the most important responsibility of the construction industry.

In order to maintain a world-class CSR system, GS E&C voluntarily allows to have its sustainability management assessed by international organizations on a yearly basis and make necessary improvements throughout the year. As a result, the company was admitted to the DJSI Asia-Pacific Index for seven consecutive years as of 2016. We will maintain our industrial leadership status in areas where we excel, such as environmental friendliness, while looking into areas where we have to perform better to fulfill our corporate social responsibility and make necessary improvements and communicate actively with our stakeholders in such areas.

Finally, on behalf of the entire company, I would like to take this opportunity to assure you that GS E&C will continue to create shared values with stakeholders for both mankind and nature.

Thank you.

July 2017
GS E&C Corp.
CEO Byeong-yong Lim

임 병용

2016 Dow Jones Sustainability Index

To implement world-class sustainable management, global companies voluntarily allows for their sustainability management to be assessed by the Dow Jones Sustainability Index (DJSI) every year. GS E&C regards the DJSI assessment as a great opportunity to objectively review its sustainability management status and uses the assessment results as a basis for systematic improvements. Since first committing to this process in 2010, the company has been admitted to the DJSI Asia Pacific Index for seven consecutive years. In 2016, the company was ranked sixth among 32 global construction companies, and its score exceed average.

DJSI Assessment Results on Sustainability Dimension

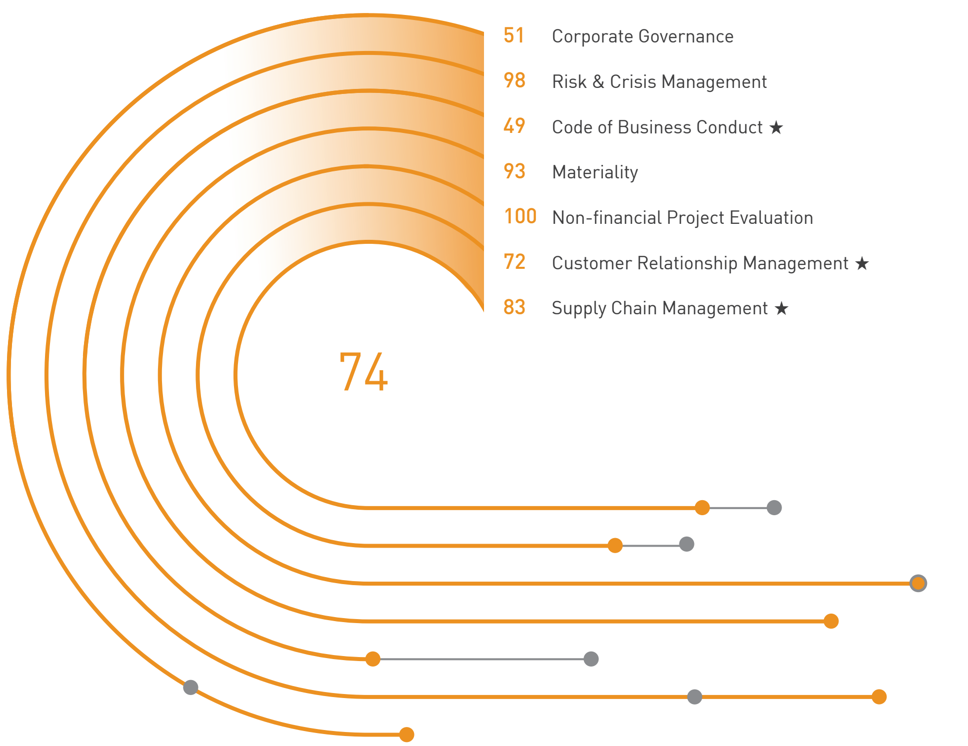
Unit: points (full score: 100)

Economy (▲4)	Environment (▼1)	Society (▼4)	Total (-)
■ Industry Average	■ Industry Average	■ Industry Average	■ Industry Average
■ GS E&C	■ GS E&C	■ GS E&C	■ GS E&C

Scores in the Economic Dimension

Unit: points (full score: 100)

● 2016
● 2015



Scores in the Environmental Dimension

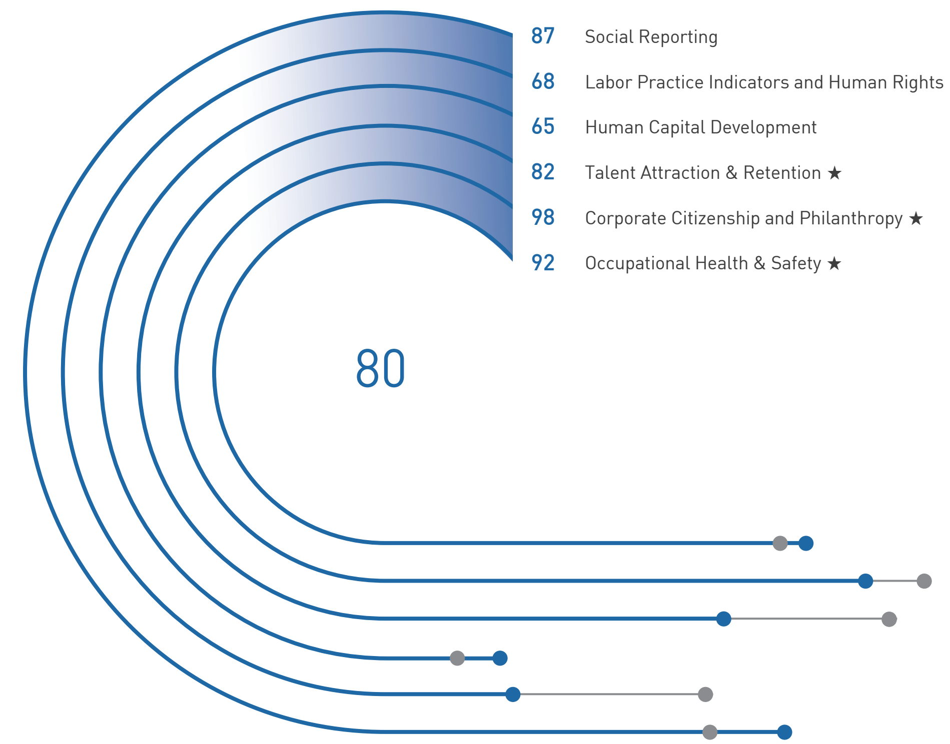
Unit: points (full score: 100)

● 2016
● 2015

Scores in the Social Dimension

Unit: points (full score: 100)

● 2016
● 2015

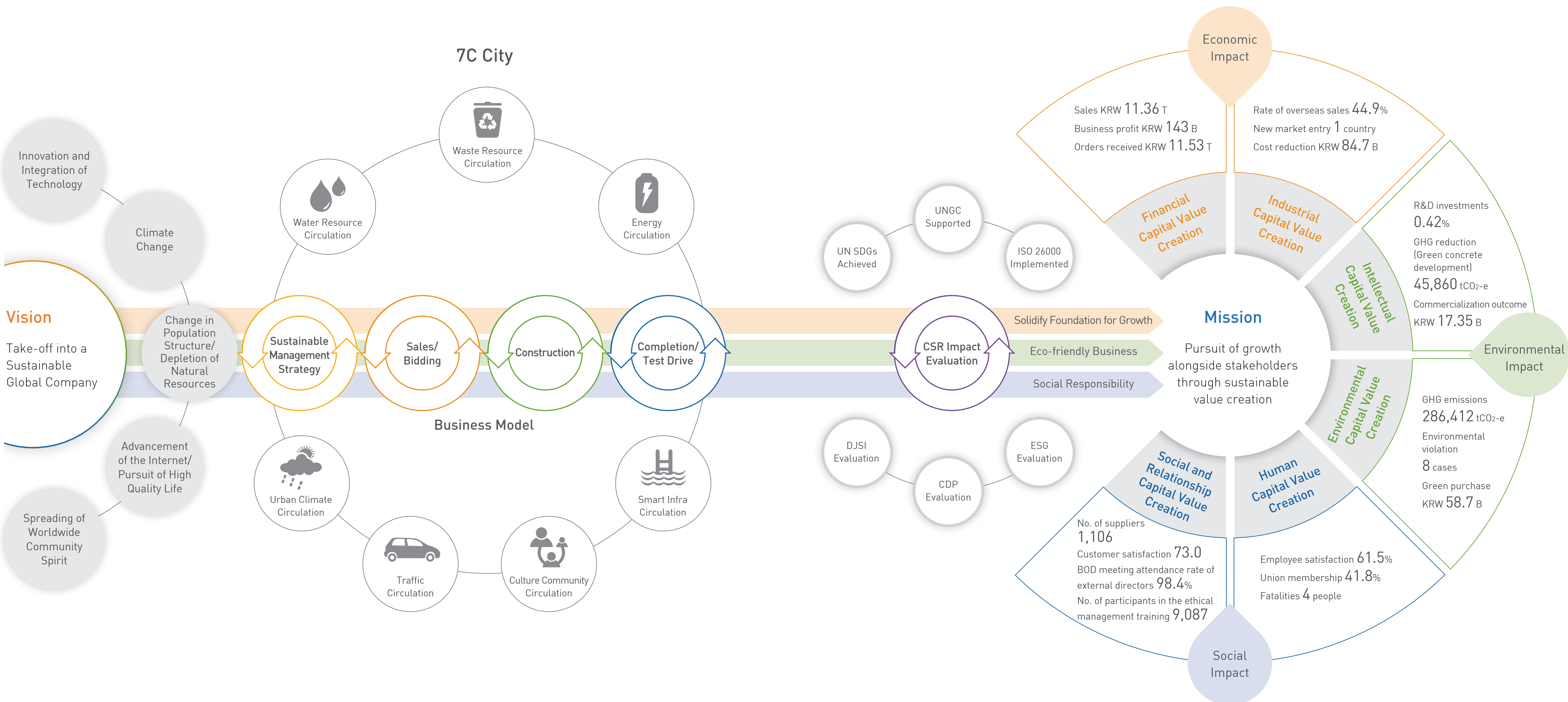


★ GS E&C's Key Issues drawn materiality test

GS E&C Value Creation Process G4-10

GS E&C pursues GS 7C City (Green & Smart 7Circulation City), a cutting-edge city that blends sustainability with changes in urban trends. From energy conservation to climate change response, safe transportation and community culture, GS E&C realizes future-oriented sustainability management practices.

MEGA TREND | STRATEGY | CSR INITIATIVE | 6 CAPITALS



RISK&OPPORTUNITY | SUSTAINABILITY | CSR COMMITMENT | VALUE CREATION

GS E&C at a Glance

GS E&C was launched in December 1969 as Lucky Development Co., Ltd. which changed its name to GS E&C in March 2005. The company has placed its utmost priority on customer value for 47 years. It now aims to become the BEST PARTNER & FIRST COMPANY in major business field it is involved in such as plants, power, environment, infrastructure, architecture and housing.

General Information _As of Dec.2016

G4-3, G4-5, G4-7, G4-8, G4-9

Corporate Name	GS Engineering & Construction Corp.(GS E&C)	Total Assets	KRW 13.37 trillion
Corporate Form	A corporation subject to external auditing, a KOSPI-listed firm	Turnover	KRW 11.36 trillion
Date of Establishment	Dec. 19, 1969	Total Contract Amounts	KRW 11.53 trillion
No. of Employees	6,210	No. of Project Sites	213 (160 domestic, 53 overseas)

* Architectural Design and Civil engineering parts are excluded on the number of project sites.

Shareholders Breakdown _As of Dec.2016

Major Shareholders

Name	No. of Shares Owned	Percentage(%)
Chang-Soo Huh	7,728,763	10.89
Jin-Soo Huh	3,913,082	5.51
Jeong-Soo Huh	2,996,634	4.22
Myung-Soo Huh	2,443,576	3.44
Tae-Soo Huh	1,529,727	2.16
Employee Stock Ownership Association	2,710,462	3.82

Stock Ownership Ratio

Rank	Position	Share Ratio
1	Domestic Investors	53.7%
2	Major Shareholders	29.0%
3	Foreign Investors	15.3%
4	Treasury Stock	2.0%

Organization

CEO Byeong-Yong Lim

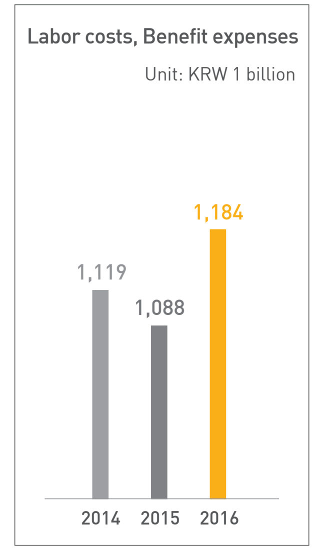
- Architecture — Mu-Hion Woo _Vice President
- Infrastructure — Sahng-Ki Lee _Executive Vice President
- Plant — Hyung-Sun Kim _Vice President.
  - Environment Business Division
- Power — Ki-Moon Lim _Executive Vice President
- Building Project Operation Division — Chai-Jong An _Executive Vice President.
- Infra Project Operation Division — Byung-Woo Ko _Executive Vice President.
- Global Engineering Headquarters — Chong-Min Lim _Senior Vice President
  - Eng. Center South Asia Eng. Center
- Technology Headquarters — Dong-Seorb Park _Senior Vice President
- Procurement & Subcontract Management Headquarters — Gi-Jun Song _Senior Vice President
- Finance Headquarters — Tae-Jin Kim _Executive Vice President(CFO)
- CSO
  - Public Business Operation Department
  - Human Resources Department
  - Legal Department
  - Public Relations & Affairs Department
  - Project Management Department
  - Compliance Department

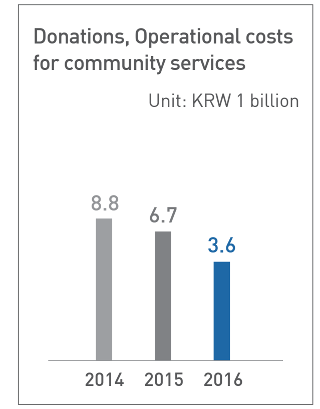
* Of particular note, on July 1, 2016, GS E&C upgraded the status of its compliance organization from a team to a department to enhance its ethical management

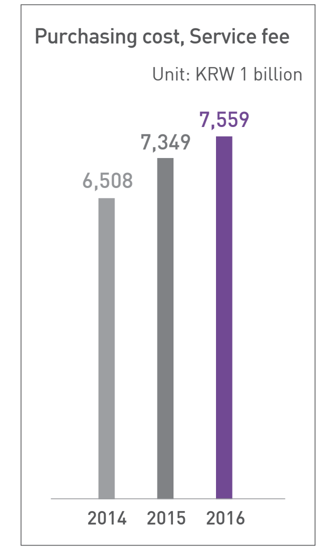
Sharing of Economic Values

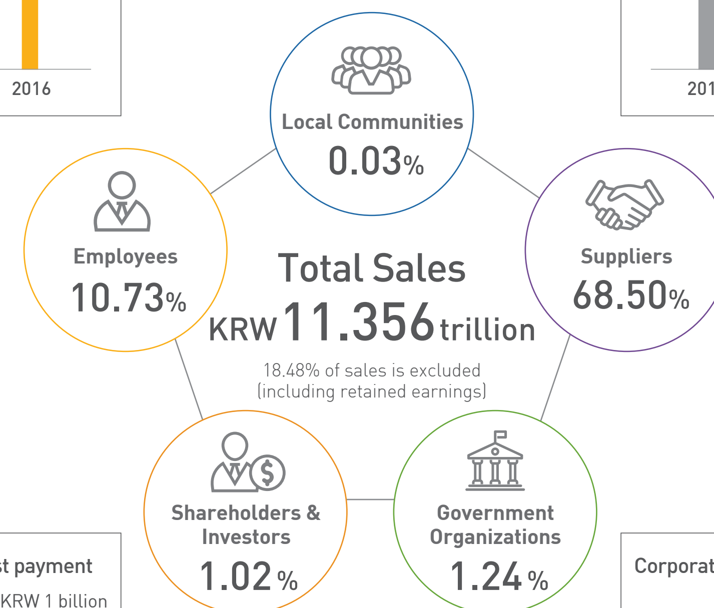
G4-EC1

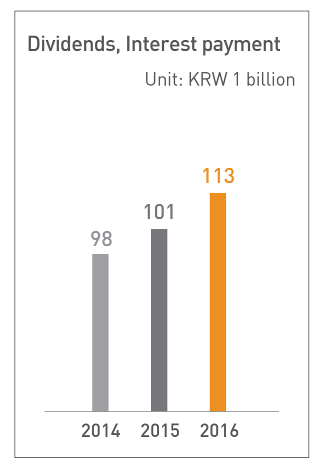
In 2016, GS E&C recorded KRW 11.356 trillion in sales and distributed its economic values to its major stakeholders such as employee, investors and suppliers. The values increased for three consecutive years. .

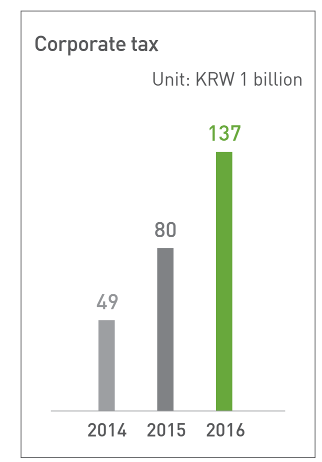












*The economic value distributed to government organizations is the total of corporate tax, other taxes and dues, and penalties included in miscellaneous losses.

GS E&C Business Model G4-4

GS E&C conducts business in a variety of areas such as architecture &housing, infrastructure, plants and power.

Architecture & Housing

Cheogdam Xi(Korea)

Trends and Outlook

The company's architecture business includes a whole range of building projects, including office buildings and manufacturing facilities, in both public and private sectors. With an advancement of IT industries, there is an increase in business contracts, such as Internet Data Centers (IDC), large-scale facilities for health care and tourist hotels. Such business in architecture is expected to grow continually.

The company's housing business offers top-of-the-line housing facilities for customers. The business plays an important role in stimulating economy through job creation. Following an economy-invigorating government policy and prolonged short supply of housing from the past, the business market condition has improved gradually.

Representative Areas

Residential facilities, Schools/R&D facilities/Hospitals, Clean rooms/factories, Domestic development, Offices, Culture/Leisure/Sports facilities, Retail centers/Remodeling, Overseas development

Architecture & Housing Performance

Sales — Sales ratio 43.6 %

Unit: KRW 1 billion

	Sales
2014	2,812
2015	3,311
2016	4,814

New Orders — New order ratio 76.5 %

Unit: KRW 1 billion

	New Orders
2014	3,238
2015	8,187
2016	8,825

Infrastructure

Second Namhae Bridge(Korea)

Trends and Outlook

The infrastructure industry builds large physical networks necessary for the functioning of a modern industrial nation. GS E&C has carried out a large number of infrastructure projects to build roads, bridges, railways, metro, water resources facilities, ports, industrial complexes and underground storage facilities. It has also secured strong competitiveness to fund huge infrastructure projects with private capital and construct and operate them.

The domestic infrastructure sector is expected to increase its reliance on private investment instead of public funding in order to boost the nation's economic recovery while the government is expected to increase its policy support for BTL (build-transfer-lease) projects following the institutionalization of the public-private partnership. The overseas infrastructure sector is estimated to see a continuous increase in orders for urbanization and transport-related infrastructure projects, particularly in Asia. Throughout the developed world, the number of infrastructure projects funded by contractors themselves is likely to increase because of the financial difficulties they are faced with.

Representative Areas

Roads/Bridges/Railways, Underground structures, Water Resources Facilities, Port

Infra Sector Performance

Sales — Sales ratio 12.5 %

Unit: KRW 1 billion

	Sales
2014	1,109
2015	1,278
2016	1,388

New Orders — New order ratio 17.0 %

Unit: KRW 1 billion

	New Orders
2014	1,027
2015	1,100
2016	1,955

Plant


NSRP(Vietnam)

Trends and Outlook

The plant industry involves the design, procurement and construction of various facilities used in oil, gas & petrochemical industries as well as the environmental industry (water and waste treatment). It is industry that can expand to other areas such as feasibility studies and plant maintenance and repairs.

Recently,the plant market has recovered as supply and demand have struck a balance after oil prices plunged in 2014 and beyond. Still, financial losses are continuing as part of the consequence of low-margin projects that the company secured through intense competition in the past. However, oil prices are projected to remain stable for the foreseeable future, and so the market is expected to gradually recover its vitality. GS E&C is in possession of world-class technologies required for core plant processes. It plans to concentrate on high-value-added projects to secure a reasonable profit margin and increase sales in the sector.

Representative Areas

Refining, Petrochemical plants, Gas, Environmental business

Plant Sector Performance

Sales Sales ratio 37.2 %

Unit: KRW 1 billion

2014	4,202
2015	4,907
2016	4,108

New Orders New order ratio 4.9 %

Unit: KRW 1 billion

2014	5,830
2015	2,838
2016	562

Power


Power Transmission(Saudi Arabia)

Trends and Outlook

Power generation, transmission and distribution business constructs facilities required to generate and supply electricity. GS E&C contributes to the country's sustainable power generation through the construction of nuclear, renewable, and eco-friendly thermal power plants. In the domestic market, public orders have declined due to an increase in the power reserve ratio. Still, the company's power sector is expected to maintain a stable level in its business thanks to its efficiency improvement coupled with the increasing demand for renewable energy. While the overseas market has become a red ocean due to the impact of lower oil prices, the global economic slowdown, and the increasing involvement of Chinese and Spanish EPC contractors. In these circumstances, the renewable energy sector continues to grow.

Representative Areas

Thermal/Nuclear/New and renewable energy, Power control

Power Sector Performance

Sales Sales ratio 6.0 %

Unit: KRW 1 billion

2014	1,062
2015	911
2016	663

New Orders New order ratio 1.6 %

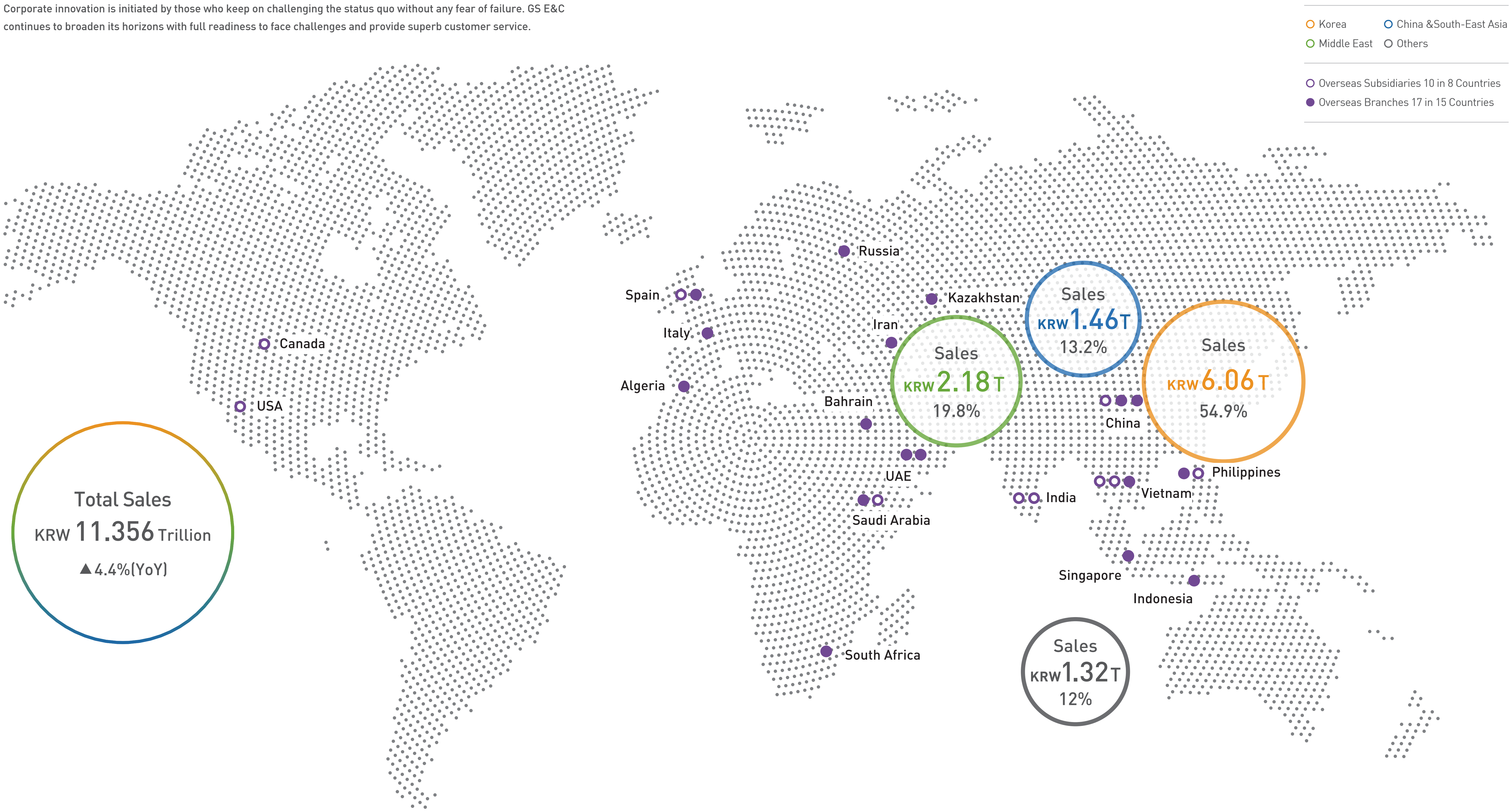
Unit: KRW 1 billion

2014	1,121
2015	1,259
2016	188

Others _The company's resort and lease business accounts for 0.7% of its overall sales.

GS E&C around the World G4-6, G4-13

Corporate innovation is initiated by those who keep on challenging the status quo without any fear of failure. GS E&C continues to broaden its horizons with full readiness to face challenges and provide superb customer service.



* GS E&C owns 9 domestic subsidiary companies, 10 overseas subsidiaries, and 17 overseas branches

GS E&C SUSTAINABILITY STRATEGIES

Estuary Dyke of Yeongsan River (Korea)

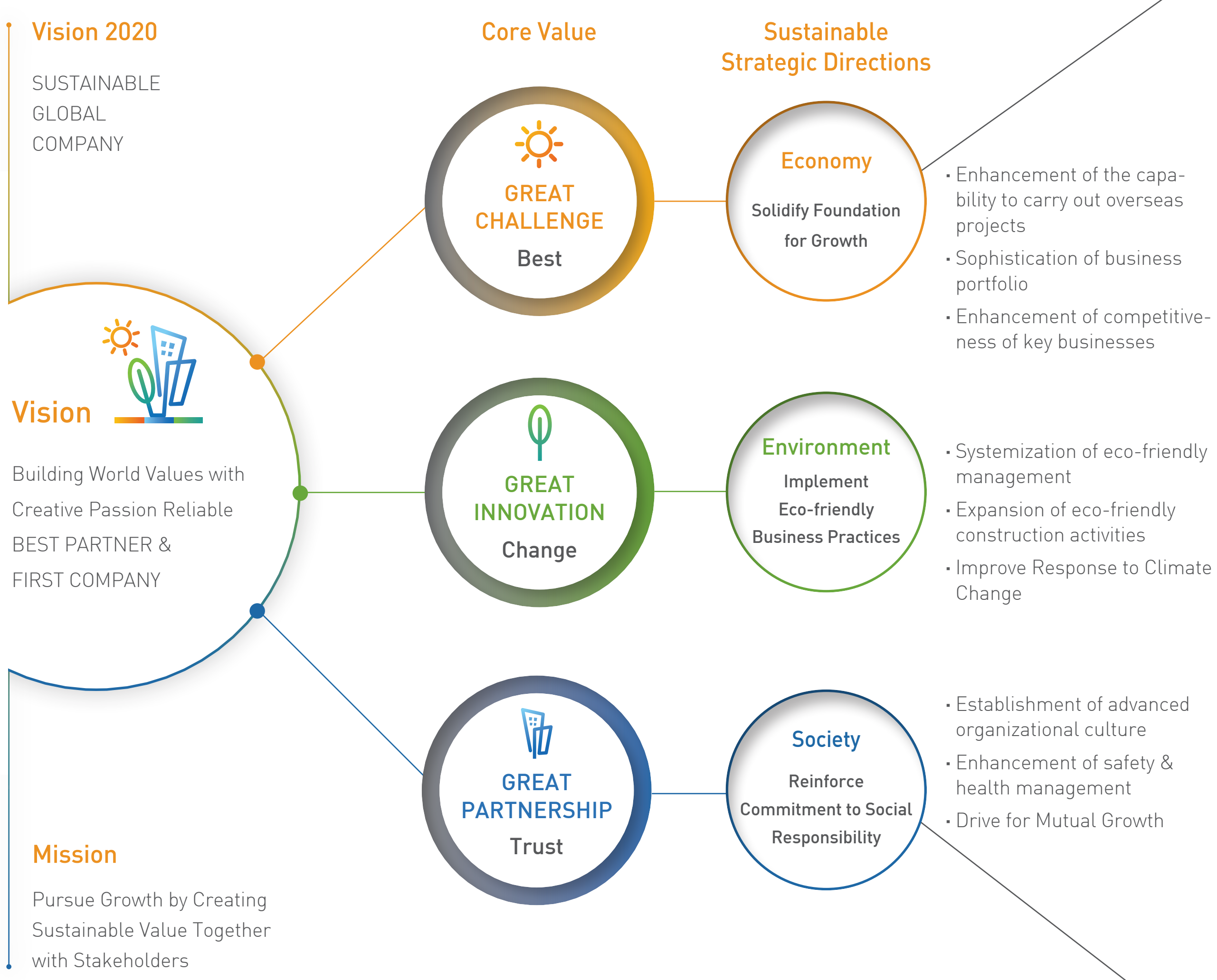
Power to Generate New Ideas!

GS E&C,
BEST PARTNER & FIRST COMPANY

Sustainability Strategies

GS E&C's mission statement and value system are centered around an especially strong commitment to achieving sustainable development by fulfilling its social responsibilities. GS E&C has based its sustainability management strategies on its commitment to emerging into a global top-tier contractor and providing its clients with the best values possible. The company has set becoming a 'Sustainable Global Company' as its Vision 2020 and is carefully monitoring its progress towards the realization of the vision in the three major areas - economy, environment, and society.

Sustainable Strategic System

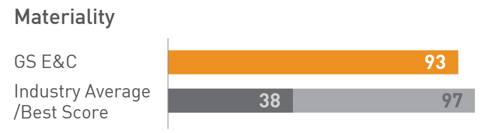


Key Performance

Strategic Directions	6 Capitals	Key Sustainability Performances Index	Unit	2014	2015	2016
Solidify Foundation for Growth	Financial Capital Value Creation	Sales	Trillion of KRW	9.488	10.573	11.036
		Operating profit	Billions of KRW	51	122	143
		New orders	Trillion of KRW	11.216	13.384	11.530
		Credit rating	Grade	A+	A	A
	Industrial Capital Value Creation	Ratio of overseas sales	%	58.1	56.7	44.9
		Proportion of new overseas orders among domestic contractors	%	9.0	12.0	7.4
		New foreign countries that GS E&C has entered	No. of countries	4	3	1
		Cost reduction (through a council)	KRW 100M	333.6	730.8	847.0
Implement Eco-friendly Business Practices	Intellectual Capital Value Creation	GHG emission reduction (through green concrete development)	tCO2-e	7,029	62.649	48,405
		R&D expenses	KRW 100M	484	449	484
		R&D investments	%	0.51	0.42	0.42
		Outcome of technology commercialization	KRW 100M	108.4	142.8	173.5
	Environmental Capital Value Creation	Amount of Greenhouse Gas Emissions	tCO2-e	248,276	283,499	286,412
		Amount of Water Used	m^3	2,793,820	2,256,554	3,506,709
		Amount of Generated Waste	ton	253,217	290,285	293,037
		Violation of environmental regulations	case	7	8	8
		Green Procurement Costs	KRW 100M	246	320	587
		High-efficiency energy building	%	38	31	36
Reinforce Commitment to Social Responsibility	Human Capital Value Creation	Employee satisfaction	point	69.3	62.2	61.5
		Training hours per person	hour	86	94	55
		Rate of union membership	%	38.8	39.9	41.8
		Major accident fatalities	Person	3	3	4
		Return rate after childcare leave	%	91	97	97
	Social & Relationship Capital Value Creation	No. of Suppliers	No.	914	956	1,106
		Participants in ethical management training	Person	7,923	8,020	9,087
		Amount spent on social contribution	KRW 100M	80	67	36
		Results of customer satisfaction surveys	point	72.8	72.9	73.0

Stakeholder Engagement & Materiality Test

2016 DJSI Assessment Results



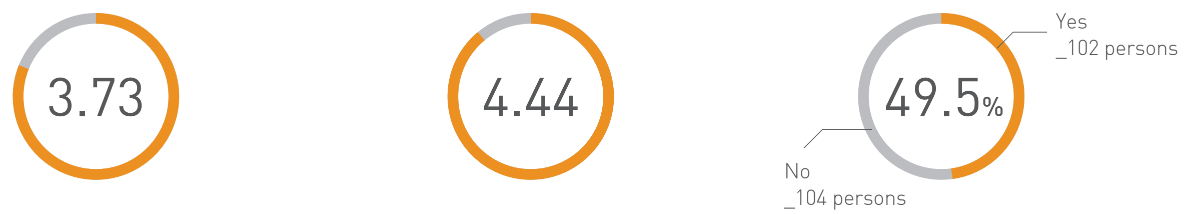
In order for a company to create sustainable values, it is important to analyze the organization's value creation factors and key issues in an integrated manner and ensure that its stakeholders share the same CSR mindset. GS E&C listens to its key stakeholders' feedback in order to evaluate their awareness of the company's sustainability management efforts and determine the company's value creation factors through ascertaining their interests and expectations.

Stakeholders' Awareness of Sustainability Management

Do you think that GS E&C strives to fulfill its social responsibilities? (full score: 5)

Do you think that GS E&C implements sustainable management? (full score: 5)

Are you aware of the fact that GS E&C publishes an integrated report?



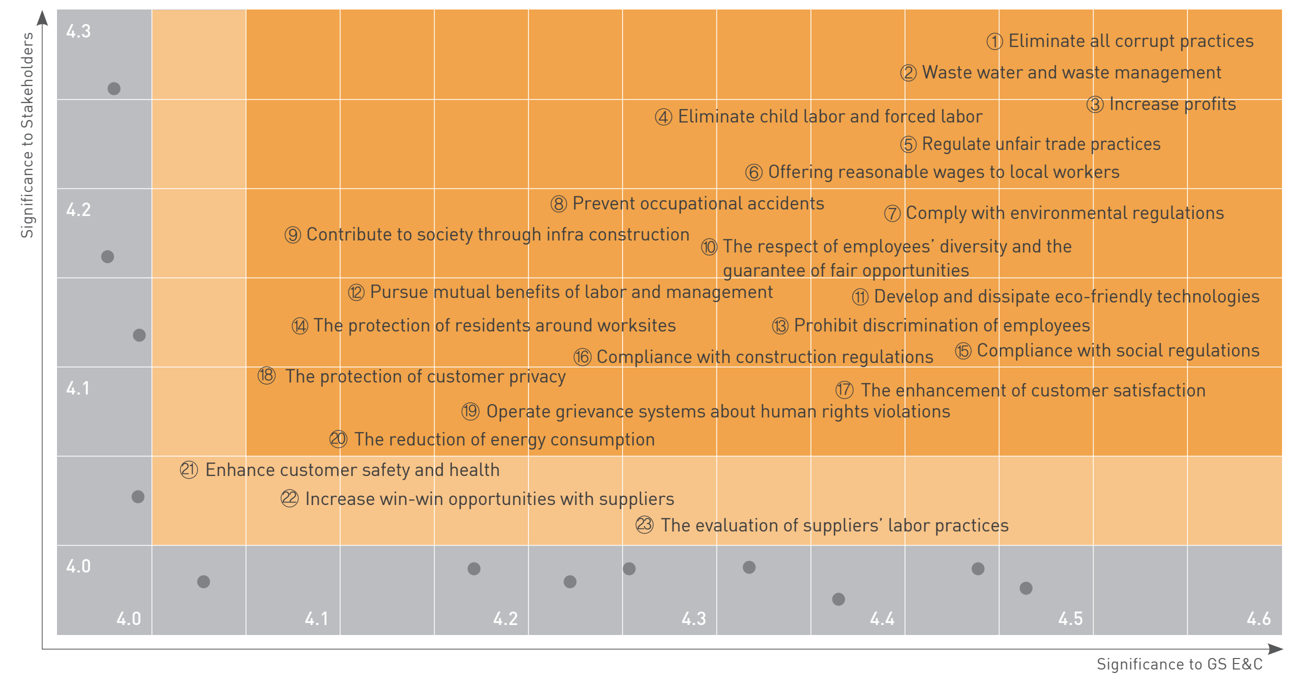
Stakeholders' Key Topics and Concerns

GS E&C identifies the key topics and concerns of its seven major stakeholder groups each year. The key topics and concerns of 206 respondents in the 2016 materiality assessment were reflected in the company's management activities during the year, and the results of the activities will be included in the 2017 integrated report.

Employees	• Enhancement of overseas social contribution activities • Enhancement of new business investments
The Media	• Enhancement of the transparency of technology costs and business expenses at worksites
Government Organizations	• Prevention of low-price bidding
Shareholders & Investors	• Creation of financial outcomes and enhancement of transparency
Suppliers	• Providing fair opportunities to diverse suppliers • Implementation of mid- to long-term win-win policies for suppliers
Customers	• Enhancement of standards for sanctions on unfair bidders • Prevention of fatal accidents • Improved treatment of irregular workers
Local Community	• Job creation • Implementation of social contribution from mid- to long-term perspectives

Materiality Test G4-18, G4-19, G4-20, G4-21

Sustainability Management TFT came up with 34 key issues through its relevance evaluation including media coverage analysis and benchmarking. These issues were evaluated through a stakeholder engagement survey. During the materiality test, a total of 208 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 Issues	GRI Aspects	Relevance to UN SDGs
Financial Capital Value Creation	③	Economic performance	
Industrial Capital Value Creation	⑨	Indirect economic impacts	17
Intellectual Capital Value Creation	⑪	Products and services	8, 9
Environmental Capital Value Creation	② ⑦ ⑳	Effluents and Waste, Compliance (Environmental Regulation), Energy	6, 11, 12, 15
Human Capital Value Creation	⑥ ⑧ ⑩ ⑫ ⑬ ⑲	Market Presence, Occupational health and safety, Diversity and equal opportunity, Freedom of association and the collective bargaining, Non-discrimination, Human rights grievance mechanisms	5, 8, 10
Social and Relationship Capital Value Creation	① ④ ⑤ ⑭ ⑮ ⑯ ⑰ ⑱ ㉑ ㉒	Indigenous rights, Compliance(Construction Regulation), Product and service labeling, Customer privacy, Customer health and safety, Anti-corruption, Child labor, Forced labor, Anti-competitive behavior, Compliance(Social Regulation)	4, 11

GS E&C VALUE CREATION FOR 6 CAPITALS

Cheongdam Xi (Korea)

GS E&C builds trust through responsible management practices and creates values for its six capitals in a balanced manner.

STAKEHOLDER IMPACT

Employees	The Media	Government Organizations	Shareholders and Investors	Suppliers	Customers	Local Community
3	1	1	3	2	2	2

Financial Capital Value Creation

"Social and Environmental Sustainability based on Successful Financial Performance"

Sustainability management must be pursued as vigorously in hard times as in good times. However, a company can only pursue social and environmental sustainability on the basis of its financial sustainability. As an economic agent, a company must focus on expanding its profitability based on technical superiority. However, pursuing only short-term gains eventually turns out to be unsustainable. GS E&C must continue to execute its basic strategy aimed at protecting both its stakeholders and the environment on the basis of its financial successes. In that context, it is a significant move that GS E&C publishes an integrated report that includes its social and environmental performance as well as its financial performance.

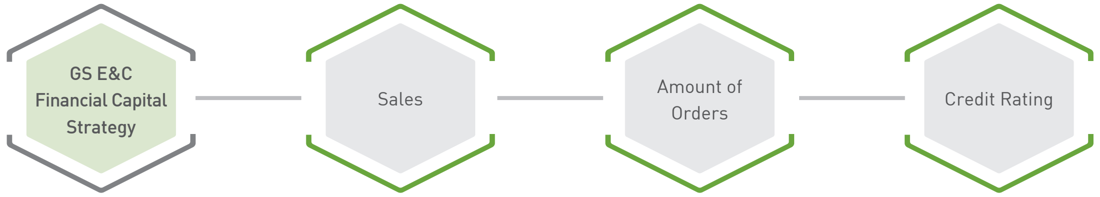
_In-Ki Joo, Outside Director

Importance of Financial Capital

GS E&C classifies the funds required to conduct its business into financial capital, whose size can be ascertained through its sales, operating profit, new order volume, and credit rating. Political uncertainty increases worldwide and global investments and trades begin to shrink. The world's financial capital decreases somewhat. The international construction market is expected to recover over a period of time, as oil prices decline. Yet the domestic market, particularly the housing sector that accounts for a large portion of the market, is anticipated to decline slightly.

GS E&C's Approach

Despite a significant operating loss in 2013, GS E&C succeeded in recording operating profits for the three consecutive years in 2016. The company's annual sales increased in 2016 largely due to a boom in the domestic housing market. The amount of new orders declined due to the delayed orders for overseas plants. The company's credit rating was highly recognized due to its business stability and stable financial structure. Yet the rating was not raised on the grounds that significant improvements in financial performance were anticipated to be hard to achieve.



Major Financial Capital Performances

Sales

Unit: KRW 1T

Operating Profit

Unit: KRW 1B

Amount of Orders

Unit: KRW 1T

Credit Rating

Unit: Grade

Source _Korea Ratings Corporation

Financial Indicators and Future Prospects

2016 DJSI Assessment Results

Economic Performance

GS E&C had a successful business turnaround by recording a trade surplus for three consecutive years from 2014 to 2016. The company also reduced overseas risk significantly by terminating many overseas projects and proceeding to the closing phase for most other projects as well. The company's annual sales increased in 2016 largely due to a boom in the domestic housing market. The amount of new orders declined due to the delayed orders for overseas plants. The rating maintained the same level.

Sales

Status in 2016

In 2016, annual sales grew by 4.4%. Domestic sales increased by 33% over the previous year largely due to the sales increase of the domestic housing sector while overseas sales declined by 17% over 2015 mainly due to a decline in sales in the overseas plant sector. In total, domestic sales accounted for 55%. Overseas sales accounted for around 45% of total sales. Approximately 73% of it came from plants. Overall architecture accounted for 43.6% of total sales while plant, infrastructure, power and others took 37.2%, 12.5%, 6% and 0.6%, respectively.

2017 Outlook

Revenue in 2017 is expected to increase by around 11%, reaching KRW 12.25 trillion. In terms of income, the recovery of operating profits is estimated to continue in 2017 because problematic overseas sites will come to close and uncertainty will be eliminated during the year.

Details of Sales Unit : KRW 1B

	2014	2015	2016	2017(E)
Sales	9,488	10,573	**11,036**	12,250
Overseas sales	5,509	6,002	**4,969**	-
Overseas sales (plants)	3,769	4,500	**3,605**	-

Sales Trends by Business Areas Unit : KRW 1B

	2014	2015	2016
Architecture	2,812	3,311	**4,814**
Infrastructure	1,086	1,266	**1,383**
Plant	4,202	4,907	**4,108**
Power	1,062	911	**663**
Others	326	178	**68**

New Orders

Status in 2016

In 2016, sales decreased by 13.9% compared to the previous year at KRW 11.54 trillion despite the rise in orders in the housing sectors, largely due to the postponement of the bidding process for new projects in the overseas plants following the decline in oil prices. Sales rose by 4.4% over the previous year to KRW 11.356 trillion, mostly because of increases in the plant and housing sectors. In terms of income, overseas business somewhat slowed down but the domestic residential construction business boomed. As a result, the company recorded KRW 143 billion and KRW 21.3 billion in operating profits and pretax profits, respectively.

2017 Outlook

In terms of new orders, the company goal for 2017 is KRW 10.9 trillion which is slightly smaller than the amount of new orders secured in 2016. GS E&C plans to strategically focus more on profitability than external growth in 2017. The market is expected to become more favorable than in 2016 as oil prices will stop plunging and orders for some of the delayed plant projects will resume. In Korea, the housing market may look a bit slower on paper than in 2015 and 2016 because of the base effect, but the real figures are expected to be around the same as those in the past.

Details of New Orders Unit : 1B

	2014	2015	2016	2017(E)
New orders	11,216	13,384	**11,530**	10,900
New overseas orders	6,902	2,994	**2,088**	3,851

Credit Rating

Status in 2016

The Korea Ratings Corporation evaluated the credit rating of GS E&C's 127th non-guaranteed bond as A in 2016 for two consecutive years. Our market position, outstanding business stability based on diversified project portfolio, and relatively stable financial structure were seen positively. However, our low operating profitability, high earnings volatility, and difficulties making significant improvements to our financial structure contributed to having the credit rating remain at the same level.

Major Credit Rating Factors

Business and financial factors	Diversified project portfolio Good sales basis Low profitability predicted in public and overseas sectors
	Limited business profitability Good financial structure following capital increase with consideration and sale of fixed assets
Analysis of liquidity	Excellent capacity to cope with liquidity needs
Future prospects	Business profitability expected to improve in an unsteady manner
	Difficult to make significant improvements in the financial structure in the short term
Other evaluation factors	A significant business and economical position in GS Group

2017 Outlook

Korea Ratings Corporation maintained the outlook of GS E&C's rating as 'negative'. Operating profitability is expected to improve but remain unsteady. Given sustained price increases, supply increases and government policy directions, the housing market is expected to slow down. However, the housing sector is most likely to drive the external growth of the company as well as recover its business profitability as the company will be paid for its housing under construction on a large scale in 2017. However, an excessive amount of unclaimed payments is expected to place a burden on our earnings improvement. However, it is unlikely that our financial structure will improve significantly in the short term. The company is expected to improve its cash generation capabilities in line with the full-fledged progress of its housing construction projects in 2017 while working capital volatility is likely to increase due to rapidly increased housing projects. The fact that more than KRW 100 billion of facility investment is being made annually in relation to its overseas business is expected to be a burden on its cash flow for the foreseeable future.

Credit Rating Trends Unit: Grade

	2014	2015	2016
Credit rating	A+	A	A

Source _Korea Ratings Corporation

GS E&C Story

GS E&C tops 'annual sales of KRW 10 trillion' for the second consecutive year

GS E&C exceeded the KRW 11 trillion in annual sales for the first time in 2016, achieving annual sales in excess of KRW 10 trillion for the second consecutive year. In 2016, the company recorded KRW 11.36 trillion and KRW 143 billion in annual sales and operating profit, respectively. The sales increase was driven by its domestic housing sector, although the company's sales goal for the year was not met as a result of the decline in orders in the Middle East market due to falling oil prices. To reduce our dependence on the housing sector in Korea and create sound financial performance, we will focus on securing infrastructure projects in Southeast Asia and Africa, among others.

STAKEHOLDER IMPACT

Employees	The Media	Government Organizations	Shareholders and Investors	Suppliers	Customers	Local Community
3	1	3	3	3	2	2

Industrial Capital Value Creation

"Focus on Enhancing Competitiveness to Secure New Overseas Contracts"

Contractors should continue to work to secure stronger global competitiveness for overseas projects, including plant projects. Their non-financial factors affect the outcome as seriously as their cost reduction efforts. GS E&C possesses competitiveness in its non-financial factors in addition to its cost competitiveness in the pre-construction business area, among others. The company supports local businesses by providing IT equipment and housing for the underprivileged in local communities. It executes its contracts most faithfully without compromising safety, health or the environment. I hope that all GS E&C staff will join forces as One Team, One Spirit and continue to move forward towards becoming a sustainable global company.

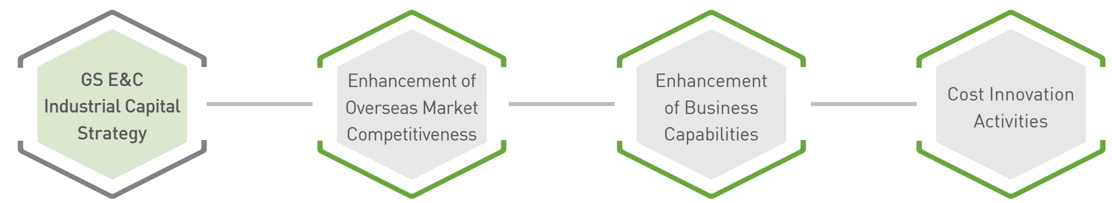
_**Ali Al Raisi**, Project manager for the client, LPIC EPC3 Project

Importance of Industrial Capital

GS E&C defines its industrial capital as part of its necessary strategies to drive its business effectively. Amidst a protracted global economic slowdown, competition for new contracts is becoming severe while large contractors in the developed world and new international contractors from emerging economies are increasing their market shares significantly. Thus, a number of major companies in the industry are making efforts in a variety of areas, including identifying and nurturing new growth engines while slashing costs.

GS E&C's Approach

For successful business performance, GS E&C strives to further strengthen its domestic business performance capability through cost reductions and business portfolio enhancement while expanding its presence in overseas markets based on its reinforced engineering capabilities. Notably, the company is enhancing its business portfolio by expanding into new business areas and equipping itself with capabilities to carry out seed projects of its existing projects while participating in select projects with our strengthened competitiveness to secure new contracts overseas.



Major Industrial Capital Performances

Advance into New Overseas Markets

Unit: Countries

Year	Countries
2014	4
2015	3
2016	1

Cost Reduction by Formation of a Council

Unit: KRW 100M

Year	KRW 100M
2014	333.6
2015	730.8
2016	847.0

The Proportion of Overseas Sales

Unit: %

2014	2015	2016
58.1	56.7	44.9

The Proportion of New Overseas Orders among Domestic Contractors

Unit: %

2014	2015	2016
9.0	12.0	7.4

Source _International Contractors Association of Korea

Enhancement of Overseas Market Competitiveness

Competition is intensifying in overseas markets due to underbidding of second-tier companies and falling oil prices. GS E&C focuses on strengthening its overseas competitiveness by improving its competitiveness in both project bids and project operations. Having learned from its past experience that winning a bid at a low price in overheated markets led to unbearable losses, the company is striving to acquire only excellent contracts while trying to further enhance its on-site project execution power capabilities.

Enhancement of Bidding Competitiveness

To heighten its success rate in global bids and win lucrative contracts, GS E&C participates in bidding selectively and strives to maximize its profits. In 2016, the ratio of its new overseas orders dropped to 18.1% and the proportion of its new overseas orders among local contractors declined to 7.4% due to sluggish orders for overseas plants where GS E&C demonstrates outstanding competitiveness. GS E&C will step up its overseas business competitiveness through the implementation of competitiveness enhancement strategies customized for each of its key business sectors.

Strategies to strengthen bidding competitiveness by Business Sector

Architecture	Enhancement of the company's marketing capability in targeted areas and selective participation in bids launched by highly recognized clients
Infrastructure	Selective participation in bids in the company's major markets or the infra areas where the company exhibits competitiveness through the restructuring of its new market advancement strategies
Plant	Enhanced participation in bids for projects inflexible to business environmental changes in the areas of refinery and petrochemicals
Power	Power: Enhancement of pre-marketing activities centered in Asia & Africa Power control: Placing focus on ODA projects with its existing infrastructure

New Overseas Orders by Business Areas

Unit : KRW 1B

	2014	2015	2016
Architecture	425	144	592
Infrastructure	644	606	1,339
Plant	5,477	2,163	145
Power	356	81	12
Total	6,902	2,994	2,088

Enhancement of Project Implementation Competitiveness

To enhance its project implementation capabilities, GS E&C has expanded its global project implementation system and strengthened its on-site project implementation competencies. The company has established design firms in Delhi and Mumbai, India to shore up its overseas project design capabilities. To reinforce its on-site project execution power capabilities, GS E&C enhanced its global networking including the execution of an agreement to share technologies with ARUP Group, the UK and Decision Science Institute (DSI), the United States, established a collaboration system between the headquarters and overseas subsidiaries, and hired high-caliber talent in the area of global project execution. It has also assigned relevant executives to its key overseas markets. It has reinforced the construction management and purchase units stationed in the UAE, Vietnam and Singapore. The company assigns an increasing number of technical staff to sites and continues to switch its domestic site manpower to its overseas site tailored through the operation of a plant school in particular.

Status of Overseas Subsidiaries

Unit : No.

	2014	2015	2016
Overseas subsidiaries	14	14	10
Overseas branch offices	23	20	17
Total	37	34	27

Enhancement of Business Competency

GS E&C engages in civil engineering, architecture, new housing construction, repair and maintenance, overseas general construction, and engineering services. Its performance is affected by supply and demand in each of its business areas as well as economic cycles which impact its long-term contracts in a significant way. GS E&C makes efforts to stabilize its restructured business portfolio and enhance its competitiveness in both domestic and overseas markets.

Create New Growth Engines

GS E&C continues to strive to discover its new growth engines and enhance its business competencies. The company continues to elevate its competency in its key business areas such as LNG liquefaction, ethane cracker, and coal-based electricity generation through continuous strategic investments. The company strives to discover new growth fields of engineering by taking into account its project execution capabilities and market attractiveness. Once selected, the engineering fields are fully supported so they can develop to a world-class level. GS E&C is actively seeking opportunities to carry out 'developer-type projects' for which it takes full responsibility for investment, development, construction and operations instead of traditional construction-centered project models. The company has established cooperative relations with competent 'developers' in key areas while building strategic alliances with world-class manufacturers to shore up its competitiveness in relevant fields. The company focuses on sole source contracts in Asia and Africa where continuous growth is expected.

Establish High Value-Added Businesses

GS E&C seeks to make inroads into domestic and overseas markets through the support of technical areas where it can build up technology barriers by incorporating the results of its R&D in new construction technologies into the projects that it is going to carry out. First, to further enhance the competitiveness of its core business, GS E&C has established the 'full potential' strategy and continued to make operational resources investments. By business sector, the company seeks mid- to long-term opportunities, secures next-generation growth engines, and advances into high value-added businesses through its strategies tailored to the three types of investments of strategic resources investment, operational resources investment, and seed investment. In addition, the company operates an exclusive organization equipped with core technologies and advances into the global market including the Middle East through alliances with global leaders in the industry.

Business Portfolio Strategies

New growth business	· LNG Liquefaction · Ethan Cracker
Developer type business	· Generation IPP (Independent Power Plant) · Environment Concession · Housing Lease Business
Core infrastructure products	· Oil·Gas·Electronic Power Plant · Traffic·Transport Infrastructure · Architecture·Housing
Technical and high value-added products	· Special Long-spanning Bridge · Deep Underground Traffic Network · Port

Market Diversification

GS E&C continues to explore new market opportunities with region-specific networking strategies for Africa, the CIS and Latin America in a bid to diversify its global market portfolio. Of particular note, it succeeded in securing its first contract in Botswana, Africa in 2016 to build two coal-fired thermal power plants worth USD 565.11 million. The company will build two units (No. 5 & 6) of 300MW-class circulating fluidized bed (CFB) power plants at the entrance to Morupule Coal Mine. The contract period is 46 months for engineering, procurement and construction. Currently, Botswana relies mostly on imports of electric power from the Republic of South Africa. The completion of the project will enable the country to meet its power needs in a stable manner.

The Representative New Project Site in 2016

Botswana	Morupule B Phase II coal fired Power Project. 2016.12~

Cost Innovation

2016 DJSI Assessment Results

Non-financial Project Evaluation

GS E&C	100	
Industry Average /Best Score	62	100

Cost reduction in the construction industry is particularly important because it is directly related to winning new contracts. Since 2014, GS E&C has gone much further from its existing cost innovation efforts based on action plans drafted by each business unit and has undertaken cost innovation activities tailored for each project and promoted by collaborative bodies established between field offices at sites and support divisions at headquarters. Through such collective efforts, the company saved KRW 84.7 billion in 67 sites in 2016.

Cost Innovation

To ensure proactive cost management, we eliminated risk factors prior to undertaking projects and explored opportunities for cost innovation through existing VE(Value Engineering) cases by applying lessons learned in practice. In consideration of the fact that there are more opportunities to reduce costs at the early stages of a project, we applied proactive cost control measures and organized a consultative group for cost innovation at all our new sites. After completing each project, we engaged in profit and loss improvement activities by organizing a consultative group to review the budget spending and generating new ideas for cost reduction. In addition, we select 12 tasks for each work stage and maximize our cost reduction effects through monthly performance monitoring.

Cost Innovation Process

1. Selecting target sites of cost reduction
2. Planning cost reduction for each consultative body
3. Big room meeting of cost innovation
4. Finalizing cost reduction plan
5. Tracking the progress

Major Cost Reduction Activities and Outcomes in 2016

EPC risk management (3 sites)	Preemptive risk identification of overseas EPC project sites and monitoring of on-site inspections
Design error review (6 sites)	Identification of design errors prior to construction Review of the standardization of construction designs and application of construction checklists Application to all civil engineering project sites
Enhancement of housing design competitiveness (24 sites)	Design reviews at each of 'Housing Construction Pre-Review - Project Approval - Shop Blueprint' Triggering of motivation through performance management for each participating organization
Site risk management (16 sites)	Innovations of process plans at the project outset through architecture / infra commencement councils Shortening of construction periods, elimination of waste factors and preemptive elimination of risks
Cost Reduction Implementation Council (67 sites)	Enhancement of cost reduction through the operation of the implementation organization Apply to all types of projects including architecture/infra/power/Environment/EPC
Work process innovations	Implementation of innovation tasks in architecture/electricity/plumbing Total cost reduction: KRW 11.7 billion

GS E&C Story

What is a pre-construction service?

It is a comprehensive concept that aims to reduce costs, shorten the construction period and improve work quality through careful review of construction designs and plans prior to work commencement. It creates new innovation by upgrading existing pre-construction measures taken at each project level with sophisticated technologies and management techniques and building platforms where all concerned parties (clients, designers and contractors) can come together and work in harmony to achieve common goals. In 2016, the company helped the Ministry of Land, Infrastructure and Transport introduce a public PCS (Pre-Construction Service). Since it adopted PCS in 2013 for the first time in Korea, the company has accumulated the country's highest level of PCS experiences, boosting its competitiveness in bidding for new projects.

An Example of PCS-based Cost Reduction: GS E&C carried out PCS for the construction of the DGB Data Center in Daegu. During 6 months of PCS periods, the company managed a trend of construction cost. Therefore, it maximizes owner's satisfaction by reducing the construction costs by KRW 14.9 billion, or 15%, from KRW 99.8 billion to KRW 84.9 billion.

Impact Evaluation G4-EC7

It has become an important sustainability activity to analyze and evaluate economic, social and environmental impacts. In keeping with this trend, businesses around the world analyze the economic, environmental and social impact of their business programs through SROI (Social Return on Investment) and SRI (Socially Responsible Investment) among others. As part of its impact assessment, GS E&C conducts an economic analysis to ascertain the economic, environmental and social benefits of its projects before it starts to work on them.

Implementation of Impact Assessment

Impact Assessment Process

For its impact assessment, GS E&C estimates the benefits and costs involved in its projects over a certain period of time. The company sets the period as 30 years starting from project completion, taking into account the time required for the design, financing and construction of infra investment projects.

Impact Assessment Stages

1	Setting analysis standards	· Assessment periods · Discount rates · Analysis scope
2	Setting analysis directions	· Ratio of cost and benefit · Net current values · Internal profit rates
3	Calculating benefits	· Reductions in transport sector · Travel time costs · Traffic accident costs · Reductions in air pollution costs · Noise damage costs
4	Calculating costs	· Calculation of business expenses · Calculation of operating expenses
5	Analyzing overall economic feasibility	· Finalize the cost-benefit analysis · Finalize the economic feasibility analysis
6	Analyzing sensitivity	· Benefit analysis at each discount rate

An Example of Impact Assessment

Oksan-Ochang Expressway Project

GS E&C carried out an impact assessment for Oksan-Ochang Expressway Project in Cheongwon-gun, Chungcheongbuk-do, Korea prior to commencement of work. The 12.1km-long expressway will halve the travel time between Cheongju/Ochang and Cheonan/Asan from an hour to between 30 and 40minutes. GS E&C carried out a 30-year cost-benefit analysis. Despite the high economic and environmental costs, The project was evaluated to give positive impacts on the society, reaching KRW 572.2 billion.

Results of the Impact Assessment of Oksan-Ochang Expressway Project

Unit : KRW 100M

	Economy	Environment	Society	Total
Impact	(3,657.1)	(278.1)	9,101.2	5,722.2
D/C rate application	(2,433.7)		2,757.1	323.4

*Discount rate: 5.5% discount rate is applied for calculating base year impacts.

Mandeok-Centum Underground Roadway Project

GS E&C conducted an impact assessment regarding Mandeok-Centum Underground Project that would run 30-50 meters below the road surface to mitigate the traffic jams that plague Busan. The 8-lane 8.92km-long underground roadway will alleviate the notorious traffic congestion on Mandeok-daero and Chungnyeol-daero. GS E&C carried out a 30-year cost-benefit analysis, whose results indicates that the project has positive impacts on the society, reaching KRW 969.4 billion due to high environmental and social benefits in spite of high economic costs.

Results of Impact Assessment of Mandeok-Centum Underground Roadway

Unit : KRW 100M

	Economy	Environment	Society	Total
Impact	(6,619)	1,868	14,445	9,694
D/C rate application	(3,751)		4,729	978

*Discount rate: 5.5% discount rate is applied for calculating base year impacts.

STAKEHOLDER IMPACT

Employees	The Media	Government Organizations	Shareholders and Investors	Suppliers	Customers	Local Community
3	2	2	2	2	3	2

Intellectual Capital Value Creation

"Intellectual Capital is a Prerequisite for Future Competitiveness"

In the Korean construction market, the lowest bid awarding system has been replaced by comprehensive evaluation-based awarding system, an indication that a contractor's competitiveness is now determined not by its price competitiveness so much as by its technological superiority and specialty. To cope with such a trend, GS E&C is focused on the development of original technologies and the convergence of its technologies in various business areas such as architecture, civil engineering, energy and environmental technologies to create synergistic effects among them. The company carries out future-oriented technological research and development to preoccupy future construction markets where information technology, artificial intelligence, and the Internet of Things are intertwined.

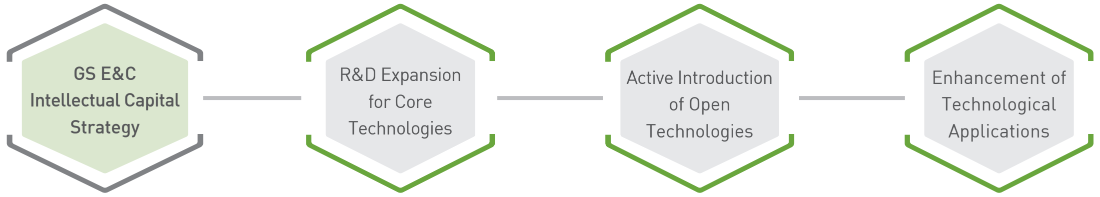
_**Sung-Il Lee,** Senior Researcher, Platform Technology Research Team, GS E&C

Importance of Intellectual Capital

As global competition intensifies in the construction industry, securing competitiveness by making the best use of knowledge capital has become an important factor in entering the global market. GS E&C defines its knowledge-based intangible assets such as technologies, patents, and intellectual property rights as its corporate knowledge capital. The company enhances market competitiveness through developing new and eco-friendly technologies based on its technology development strategies.

GS E&C's Approach

GS E&C focuses its resources on the development of cutting-edge technologies. It enhances research on its core technologies while actively introducing superior external technologies to its sites, boosting its on-site cutting-edge technological applications. In 2016, the company invested KRW 46.3 billion in R&D chiefly carried out by the Technology Division to develop new eco-friendly technologies that would considerably reduce GHG emissions and boost energy conservation.



Major Intellectual Capital Performances

Carbon Reduction (Green Concrete)

Unit: tCO₂-e

2014	7,029
2015	62,649
2016	48,405

R&D Investments

Unit: KRW 100M

2014	484
2015	449
2016	463

Technologies Applied On-sites

Unit: Technologies

2014	2015	2016
22	16	34

Benefits of Technological Applications

Unit: KRW 100M

2014	108.4
2015	142.8
2016	173.5

Strategies for Technological Development

2016 DJSI Assessment Results

Resource Conservation and Resource Efficiency

The construction industry is faced with new challenges due to low oil prices and the global recession. The industry has so far elected to focus on maximizing profits through productivity improvement. In the new global market environment, it has become the most important for construction companies to create differentiated values through technology. GS E&C enhances research on its core technologies while actively introducing superior external technologies to its sites, boosting its on-site cutting-edge technological applications.

R&D Expansion Centered on Core Technologies

To make the best use of limited resources, GS E&C concentrates its technology development on its core technologies. The company has developed a total of 41 technologies in the following three areas: technologies related to improving productivity, core technologies for promising businesses, and technology packages based on technological convergence. Most notably, among the 11 promising areas selected by the New Growth Business Team in 2011, the company has developed a hybrid HVAC(heating, ventilation, air conditioning) system for multifamily residential, smart urban energy management technology, and undersea pipeline design technology. It has developed them into its core specialized technologies.

Active Introduction of Open Technologies

GS E&C also makes the best use of outstanding external technologies in a bid to continue to secure diverse technologies deemed to be instrumental in executing its projects. In 2016, it leveraged 15 open technologies, such as the washroom for emergency evacuation and the salt damage control with Galva shield, through its outstanding external technology utilization system. Most notably, the company carried out a pilot project in association with the Korea Institute of Civil Engineering and Building Technology and Gangnam-gu Office to use washrooms as fire escape space in outdated apartment complexes without fire escapes. Currently, the company is building bathroom fire escape spaces in 10 flats of Cheongdam Jinheung Apartment Complex which was built in 1984 after having completed building escape space in two bathrooms in the senior center inside the complex.

Enhancement of Technological Applications

GS E&C has stabilized the operations of its technological application system since the establishment of the Technological Application Task Force Team in 2011. Following its organizational restructuring focused on infra and architecture, the company has accelerated the technological development applicable to all its business areas and the introduction and application of outstanding external technologies on its sites. In 2016, it developed a total of 34 technologies including green concrete technology on LG Science Park and a 2-vehicle parking module technology on Hillstate Xi, and applied the technologies to 86 construction sites, saving a total of KRW17.35 billion.

Outcome of Technological Applications

Financial Outcome of Applications

No. of Sites

Technologies Applied on-sites

Outcome of Eco-friendly Technological Development

Smart Water Treatment System

The amount of algae has been increasing year by year due to the increase in water retention time and climate change in major domestic rivers in Korea. When algae enter water purification plants, backwash water is generated; a source of trouble for water treatment facilities, causing severe economic and environmental losses. GS E&C has developed a technology that mitigates water pollution depending on algae types using a real-time portable algae measuring device. The technology enables a 20% reduction in operating costs compared to the existing membrane filtration technique.

G4-EN27

Development of Green Concrete and On-site Application

The production of cement, the main ingredient of concrete used in the construction industry, accounts for about 7% of the world's GHG emissions due to its carbon-intensive manufacturing processes. GS E&C developed green concrete made with harmless by-products and a far less amount of cement, securing both strength and quality through the establishment of pre-max facilities. In 2016, the company applied the technology to 13 construction sites including the site of LG Science Park and saved KRW 4.86 billion.

GHG Emissions reduced through Green Concrete

Unit : tCO_2-e, KRW 100M

	2014	2015	2016
Reduced GHG emissions	7,029	62,649	48,405
Saved amounts	25.7	50.2	48.6

Apartment Energy Conservation Technology

The Korean government has decided to mandate 'zero energy' in all private buildings by 2025 as a way to reduce GHG emissions from apartments and expand the renewable energy market. To respond to the government policy, GS E&C has improved heating and hot water systems and introduced LED lighting for underground parking lots, improving lighting performance and reducing costs. In 2016, the efforts have saved about 17% of energy consumption per household and about 15% in construction costs.

Outcomes of New Technology Development

Wastewater Reuse Technology

To meet increasing water demand and enter the water treatment market of water-stressed countries, GS E&C has developed a wastewater reuse technology. The previous business that used treated wastewater for industrial purposes was withheld due to financial burdens on the expansion of treatment facilities for reject water that cannot be reused in the wastewater treatment process. Thus, GS E&C has minimized power consumption required to reuse treated wastewater as industrial water. It carefully monitors power consumption patterns, predicts appropriate cleansing time of concentrate water generated the reusing process, and minimizes the operation of high-pressure pumps, among others. The company has obtained two patents as well as Green Certification about the new technology. It has applied the technology to the privately-funded Gumi Wastewater Reuse Project.

Introduction of PlanGrid

GS E&C has established a smart work system by introducing the 'Mobile Collaboration System (PlanGrid)' for its domestic construction sites. It enables field engineers to share the latest information on blueprint modifications and changes, which occur more often than not, in real time and prevent confusion in various construction processes. For effective site application, it has directed 57 sites under the control of Building Projects Operation Division to use PlanGrid. In addition, GS E&C provided all technical staffs at sites including project managers with tablets and accounts of the PlanGrid program, and training on the system. The company is planning to expand the application to all its construction sites under the control of the division.

* PlanGrid: PlanGrid is a blueprint sharing program developed in the USA, designed to prevent confusion in construction processes and rework at sites through real-time sharing information on blueprint changes and modifications. It is a system optimized for construction project sites

STAKEHOLDER IMPACT

Employees	The Media	Government Organizations	Shareholders and Investors	Suppliers	Customers	Local Community
1	2	2	1	2	1	3

Environmental Capital Value Creation

"Need to Take Eco-friendly Actions from a Future Perspective"

Because natural capital must be shared throughout society as a whole, it is important for corporate citizens to consider environmental values throughout their business performance. In keeping with government policies, GS E&C implements its greenhouse gas management system to the utmost. Yet I would like the company to consider carrying out more diverse environmental activities harmonized with its management directions, as well as social contribution activities to offset any environmentally unfavorable elements in its construction processes. In line with the increasing citizens' interest in health such as air quality and fine dust, I hope that the company will pay finely focused attention to relevant issues across all its conduction work.

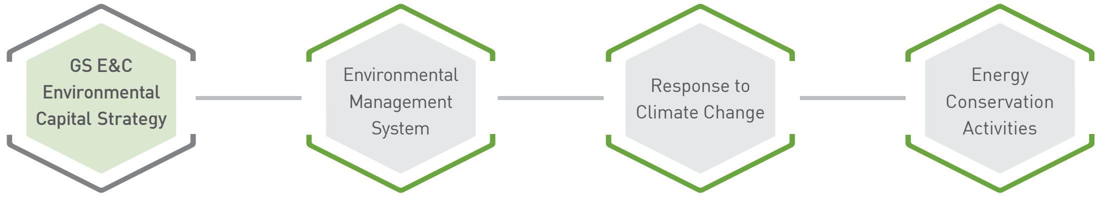
_Kyung-Sin Kim, professor, Dept. of Environment & Energy Engineering, Sungshin Women's University

Importance of Environmental Capital

GS E&C defines all the environmental resources and processes, renewable or not, as natural capital. Around the world, environmental issues such as climate change, resource depletion and water shortages have emerged as critical issues. Governments around the world continue to tighten their environmental restrictions. In Korea, the construction industry was incorporated into the Greenhouse Gas Target Management System in 2014. The importance of reducing GHG emissions in the industry has become even more important.

GS E&C's Approach

GS E&C has established its environmental management strategies with a 7.1% reduction in GHG emissions as the goal. To achieve the goal, the company has set up three strategic directions such as the creation of an eco-friendly workplace, the enhancement of the environmental management system, and the reduction of GHG emissions and energy consumption. The company has established nine strategic challenges aligned with the tasks. In addition, the company has selected six KPIs and established annual goals. It continues to monitor the progress.



Major Environmental Capital Performances

GHG Emissions (Unit: tCO_2-e)

2014	248,276
2015	283,499
2016	286,412

Green Purchase Costs (Unit: KRW 100M)

2014	246
2015	318
2016	586

The Ratio of High-efficient Buildings (Unit: %)

2014	2015	2016
38	31	36

Violation of Environmental Regulations (Unit: Cases)

2014	2015	2016
7	8	8

Environmental Management System

2016 DJSI Assessment Results

Environmental policy & Management systems

It is the most important for companies to minimize negative environmental impacts and to comply with environmental regulations. Based on its environmental management organization, GS E&C carries out environmental management activities through its strategies and performance management. Most notably, GS E&C selects and manages environmental KPIs, such as GHG emissions, rate of reused wastes, etc. by mid- to long-term perspectives.

Environmental Management Strategies

With a target of a 7.1% reduction in GHG emissions by 2020, GS E&C has established three strategic directions such as the creation of an eco-friendly workplace, the enhancement of the environmental management system, and the reduction of GHG emissions and energy consumption. The company has defined nine strategic tasks aligned with the directions.

Environmental Management Strategy System

Goal	Eco Global Top Tier Reducing GHG emission by 7.1% by 2020 (compared to BAU)		
1	Creating an eco-friendly workplace		
Tasks	Achieving zero pollution	Responding voluntarily to environmental regulations	Establishing a life cycle assessment system
2	Enhancing the environmental management system		
Tasks	Enhancing global environmental management	Beefing up environmental communication	Fostering an exclusive organization and experts
3	Reducing GHG and energy consumption		
Tasks	Strengthening GHG reduction activities companywide and for suppliers	Developing technologies designed to reduce GHG emissions and related technologies	Strengthening capabilities to measure GHG emissions & energy consumption

Environmental Management System

To support the environmental management at the project site level, GS E&C runs an environmental information system composed of environmental information; the KM Environmental Work Manual, and the Project Site Environmental Work Guidelines, for each work process. Most notably, the environmental information system offers information customized to each project site through the 'PDCA (Plan-Do-Check-Action)' model, including procedures, standards, cases, checklists and educational materials.

Environmental Management Organization

Green Environment Team under CSO(Chief Safety Officer) runs environmental management organizations companywide.Through communication with persons in charge of Q·HSE in all its business headquarters, the team exerts overall control of the company's environmental work planning, environmental risk management, and project site environmental management.

Environmental Management Outcome Management

GS E&C manages 19 indices according to its Green Management Performance Evaluation Procedures. Six of them are selected as KPIs.

Environmental Management Performance Indices

KPI	2016 Achievement	2017 Target	2020 Target
Direct GHG emissions	High 85%	5.3% reduction (compared to BAU)	7.1% reduction (compared to BAU)
Indirect GHG emissions	Achieved 109%		
Rate of waste reused and recycled	Achieved 117%	Above 84%	Above 90%
Rate of green procurement	High 82%	Above 11.2%	Above 11.8%
Environmental protection activities	High 96%	Over 50 cases per year	Over 50 cases per year
Rate of R&D investment to develop green products	Medium 50%	Above 64%	Above 70%

G4-EN29

Compliance with Environmental Laws and Regulations

GS E&C implements environmental conservation in planning and promoting all its businesses. Most notably, it acquires various licenses and permits about all its relevant activities ranging from planning, design, construction and maintenance while strictly complying with various environmental laws such as the Environmental Impact Assessment Act, the Clean Air Conservation Act, the Water Quality and Aquatic Ecosystem Conservation Act, and the Wastes Control Act. In 2016, the company paid KRW 4.4 million in fines for 8 violations of environmental laws.

Response to Climate Change

2016 DJSI Assessment Results

Climate Strategy

Climate change is one of the most serious problems for mankind. Most industries are heavily impacted by climate change. The construction industry damages its worker's productivity at sites due to extreme weather. To combat climate change, GS E&C simultaneously conducts activities related to the reduction of GHG emissions and energy conservation, registering with the Korea Voluntary Emission Reduction(KVER) program and making high-efficiency buildings.

GHG Emission Reduction Activities

Registration with the KVER Program

GS E&C has registered with KVER(Korea Voluntary Emission Reduction) program designed to reduce the six main greenhouse gases regulated by the Kyoto Protocol. In 2016, the company reduced a total of 48,980tCO_2-e with 48,405tCO_2-e through the use of green concrete, 4.92tCO_2-e from teleconferencing, and 570tCO_2-e through the heating system replacement at Elysian Gangchon Resort.

Status of Overseas Subsidiaries

Unit : tCO_2-e, KRW 1M

	2014	2015	2016
Total emissions	248,276	283,499	286,412
Achieved reductions	29,194	63,253	48,980
Saved amounts(Estimated)	5,100	6,300	9,325

Environmental Management among Suppliers

GS E&C has established a green purchasing system to manage information on businesses that have acquired eco-friendly materials certification and monitor its own green purchasing performance. Upon the registration of new suppliers, the company requires them to submit the list of their eco-friendly materials along with the relevant certification information. By giving credits to their performance in this area, the company urges its suppliers to secure green certification to the fullest extent possible. The company regularly updates its information on the major policies about green purchasing at GS-Constmat, an on-line communication channel with suppliers in an effort to maximize its green procurement.

Green Purchases per Certificate

Unit : KRW 100M

	2014	2015	2016
HB certification	104.37	32.61	32.46
High energy-efficiency machinery	19.79	149.39	275.22
Energy consumption efficiency grades 1-2	48.34	35.43	84.89
Environmental certification	73.07	100.17	192.96
Total	245.57	317.60	585.53

Energy Saving Activities

Development of High-efficiency LED Lighting

Given that GHG emissions due to power consumption are particularly high, GS E&C developed high-efficiency LED lighting for its temporary facilities. The new type of lighting can reduce energy consumption by more than 50% while maintaining the current unit price. The company began to apply the lighting to its project sites in November 2015. The arrangement is expected to reduce GHG emissions by 1,537tCO_2-e, worth around KRW 360 million in electricity bills.

LED Lighting Replacement Outcomes

Unit : KRW 100M, tCO_2-e

	2014	2015	2016
Reduced power consumption	-	3.0	3.6
Expected GHG emission reduction	-	1,309	1,537

Construction of High Energy-efficient Buildings

The government promulgated the "Green Buildings Support Act" in February 2013, which has expanded the range of energy management targets for buildings and strengthened the management standards. In order to meet the government's policies to reduce building energy consumption while expanding green buildings and homes, GS E&C has developed cost-effective design methods, and developed building energy optimization technologies that can save energy through building energy evaluations conducted in the design stage. These eco-friendly construction technologies have been applied to the Yongsan Relocation Plan (YRP) Communication Center for U.S. forces stationed in Korea, Jincheon Athletes' Village, and Ananti Penthouse Seoul. It plans to expand the application to public projects and turnkey projects.

Ratio of High Energy-efficient Buildings

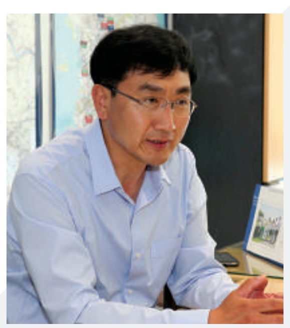
Unit : %

	2014	2015	2016
High energy-efficient buildings	38	31	36

STAKEHOLDER IMPACT

Employees	The Media	Government Organizations	Shareholders and Investors	Suppliers	Customers	Local Community
3	2	2	2	2	2	2

Human Capital Value Creation



"Continuing Substantial Efforts to Reduce Occupational Accidents through Communication"

Safety is a top priority for employees in a construction industry. Based on a communication between its operation divisions' staffs and site workers, GS E&C strives to establish a safety culture that encourages the workers to pay their keenest attention to safety. The company has introduced the Safety Traffic Signal System; any accident, irrespective of its size, that occurs at project sites is reported to safety officials and team leaders within 30 minutes. The company selects suppliers that excel in their safety performance and grants them two sole source contracts, respectively, each year in a bid to encourage its suppliers to actively improve their safety performance.

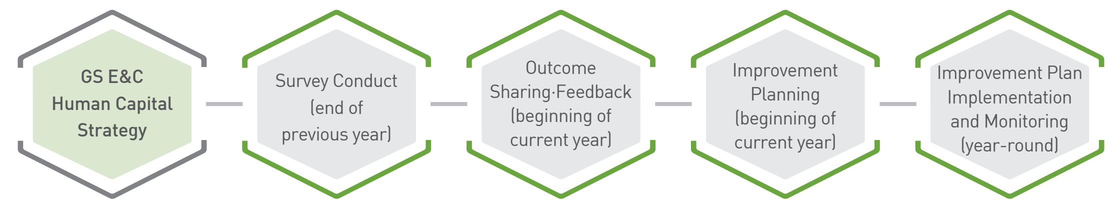
_**Chan-Jeong Park,** Senior Vice President, CSO, GS E&C

Importance of Employees

Employees are the most important stakeholders that generate profit for the company. Therefore, it is critical for a company's mid- to long-term value creation to create an environment conducive to employees' long-term service for the organization. GS E&C defines its employees' job competencies, potential, experience, and innovation capabilities as areas of value creation, and thus their employees can work with them for an extended period of time while exhibiting their full potential.

GS E&C's Approach

The corporate cultural identity that GS E&C pursues is 'Lead Innovation, Pursue Excellence and Grow Together.' Its management focus is placed on 'Safety First, Fair HR Policies, and Deeds over Words.' The company endeavors to create a desirable organizational culture conducive to its employees' value creation. For continuous improvements of job satisfaction, the company conducts a GS organizational capacity survey every year. It continues to make improvements based on the results to create more values for the organization and its employees.



Major Human Capital Performances

Employee Satisfaction (Unit: Points)

2014	2015	2016
69.3	62.2	61.5

Training Expenses per Person (Unit: Hour)

2014	2015	2016
86	94	55

Union Membership (Unit: %)

2014	2015	2016
38.8	39.9	41.8

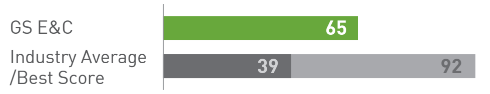
Fatalities (Unit: People)

2014	2015	2016
3	3	4

Employee Expertise Development

2016 DJSI Assessment Results

Human Capital Development



Employee training enhances employees' competencies and motivates them to have job satisfaction, and a sense of achievement. Employees' expertise in a knowledge-based society plays an important role in elevating a company's competitiveness. It can be improved with an integrated management system and an organized learning process. GS E&C focuses on its employees' competency improvement by offering training courses on leadership, job expertise and global competency.

Human Resource Development Strategy

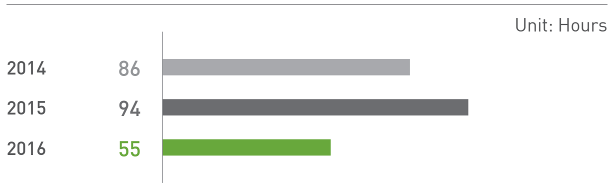
GS E&C aims to train global talents with competencies and leadership that can bolster organizational performance. The training system consists of the 'leadership course,' 'job expertise course' and 'global course.' The company continuously develops the most efficient training courses based on performance-oriented talent development strategies and support the improvement of its employees' job competencies. It also offers its employees various options such as on-line courses, video education and smart phone applications so that all its employees, irrespective of their locations, can benefit from its employee training service easily.

Talent Development Performance

No. of Trainees (cumulative)

Total Training Costs

Hours per Trainee



Strategies to Improve Organizational Performance

Cultivation System	Education Courses
Leadership Ideal leader cultivation	Education for executives and team leaders Leadership diagnosis → training Motivation of changes in leaders' behaviors Training expansion to lower level employees(planned)
Job Expertise Competent talent development	Courses for staff Courses to enhance executives' competences Job-specific training Job transfer training
Global Global talent development	Course for staff Improvement of overseas job performance Language education Collaboration improvement courses for Korean employees posted overseas

GS Organizational Competency Surveys

GS E&C diagnoses its organizational competencies and culture through surveys on organizational competency. The survey is designed to carry out diagnosis about 9 critical elements for business management, analyze the company's strengths and weaknesses in terms of management competencies, organizational culture, leadership and employee competencies, and make appropriate improvements. The survey is participated in by all the employees. In the 2016 survey, 61.5% reflected the company's management competencies positively, identical to the previous year's level. Employees were satisfied with the outcomes of the company's efforts towards financial performance while pointing to the accumulated sense of exhaustion as their key complaint. In 2017, the company will engage in a broader range of communication and improvement activities to heighten employee satisfaction, which builds a better workplace for all its employees.

Employees' Evaluation of Organizational Competencies

Unit : %

	2014	2015	2016
Employees satisfaction	69.3	62.2	61.5

A Great Work Place

2016 DJSI Assessment Results

Talent Attraction & Retention

Building a great work place(GWP) is crucial for attracting and retaining talented people. GS E&C thus strive to create fair performance evaluation, welfare, and flexible working environment for employee-centered working environment. GS E&C joins forces with its employees to create a workplace where they can work without grievances, pursue their future careers, and have pride in their organization.

Fair Performance Evaluation and Rewards G4-LA13

Cultivation-type Performance Management System

GS E&C operates a cultivation-type performance management system that pursues both performance improvement and talent development. Beyond the traditional performance management paradigm, it carries out performance evaluation in two areas - performance and competency. Employees set challenging yet practical performance and self-development goals. Regular feedback is made on their performance and competency improvements. Various methods are used for fair evaluation of employees' performance, including MBO (Management by Objectives) performance appraisals, multidimensional evaluations, and relative evaluations at the level of job groups. To boost the fairness and objectivity of evaluations, the company ensures that evaluation grades will be determined through evaluation review sessions participated in by all the executives of relevant business headquarters/groups and divisions. The fairness of the results is verified through the HR monitoring process.

Employee Performance Evaluation and Career Development Reviews

Unit : %

	2014	2015	2016
Performance evaluation ratio	89.6	91.7	95.0

Merit System and Remuneration

For suitable rewards for employees, GS E&C operates an HR management system that connects the performance of organizations and individuals to employee remuneration. Employees are rewarded through fair evaluations based on their performance and competencies. GS E&C reflects the employees' performance on their pay and promotion as a way to motivate them to work hard on improving their weaknesses. Executives are rewarded on the basis of their performance in all relevant areas including finance, corporate awareness, and environmental and social impact.

Welfare and Employee Culture

Childbirth Support G4-LA2

Low birth rates have become a significant issue for individuals and society as a whole. To improve its work efficiency through its female employees' continuous employment, GS E&C offers its female employees a variety of benefits such as support for childbirth by its employees or their spouses, operations of in-house childcare facilities, leave of absence for fertility treatments, and expansion of maternity leave and parental leave. The maternity leave rate has steadily increased. The rate of employees who work for the company for more than 12 months after their return to work stands at over 90%.

Status of Parental Leave

Unit : %, People

	2014	2015	2016
Rate of maternity leave (%)	4.6	7.7	8.1
Return rate after maternity leave (%)	91	97	97
No. of employees who used maternity leave	21	35	31
No. of employees who used parental leave	23	27	33
No. of female employees who use parental leave	19	19	24

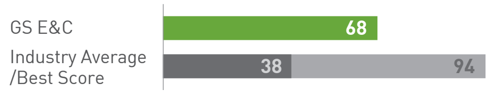
Operation of In-house Childcare Facility G4-LA3

To enhance work-life balance, GS E&C has been operating an in-house childcare center called 'The Playground of Dreams and Hopes' since 2010, providing its employees with a family-friendly working environment. The playground with 15 staffers runs six classes for children aged between 8 months and 5 years from 07:30 to 19:30. The priority to participate is given to single parents. The facility is so popular that some children have to remain on a waitlist for admission. In 2016, a total of 62 children received care at the facility.

A Great Work Place

2016 DJSI Assessment Results

Labor Practice Indicators and Human Rights



Respecting Human Rights and Diversity

Guarantee of Equal Opportunities

GS E&C implements employment policies free of discrimination. It offers opportunities for pay raise and promotion only on the basis of its business interests. Most notably, the company continues to pay keen attention to the proportion of the minority group including females, people with disabilities, and families of war veterans so that they can enjoy equal opportunity in all aspects of their service for the company. The company's rate of female employees remains low in light of the characteristics of the construction industry. Priorities are given to people with disabilities and families of war veterans in hiring decisions.

Social Minorities

Unit : People

	2014	2015	2016
Employees with disabilities	45	71	96
War veterans	94	94	93

Prevention of Human Rights Risks G4-HR5, G4-HR6

GS E&C respects the human rights of all its employees all across the world and makes sure that human rights will not be violated under any circumstances including child labor or forced labor. To that end, it conducts human rights education and strives to create an organizational culture where all its members can freely communicate with one another and their diversity is respected in all aspects. In 2016, it conducted a 2-hour sexual harassment prevention education for a total of 6,876 employees.

Protection of Foreign Workers' Human Rights

Employment Status of Foreign Employees G4-EC 5

GS E&C has hired 7,635 foreign workers in 17 countries, who are classified into GP (Global Permanent), GC (Global Contract), GA (Global Assistant) and GT (Global Technician) in terms of employment patterns. GPs have the same rights and responsibilities as domestic regular workers except for wages. GCs are shifted to regular workers depending on their individual performance.

Status of Foreign Workers

Unit : People

Nationality	India	Philippines	Nepal	Bangladesh
Workers	3,289	1,478	686	630
Nationality	Egypt	Vietnam	Others	Total
Workers	484	352	716	7,635

Human Rights Policies G4-HR3, G4-HR12

In 2015, GS E&C established an integrated personnel policy to prevent arbitrary personnel operations at sites and enhance its support for the early adaptation of foreign regular workers. The policy includes all the matters related to their human rights including employment, working conditions, prevention of sexual harassment and grievance mechanisms. Foreign regular workers are given the same rights and responsibilities as their counterparts in Korea in effort to maximize their work efficiency.

Interview

"Content with a Nondiscriminatory Human Rights Policy for Foreign Workers"

GS E&C has established a nondiscriminatory global HR policy to protect the human rights of foreign workers and provides the same conditions as Koreans in almost every aspect including vacation time, promotion and welfare. Notably, for vacations, drawing the greatest interest from workers, the company provides direct flight tickets to employees and their spouses every three-and-a-half to six months depending on their positions. In order to make improvements in a hierarchical corporate culture, language problems, and adaptation to local conditions, the company focuses on equal pay for equal work, regular surveys among foreign workers, English tests for promotion, and the one-on-one buddy program. As a result, the company has abolished discrimination against foreign workers and creates synergistic effects through intense communication efforts.

_**Marilyn Manalaysay**, Assistant Manager, Global HR Team, GS E&C

Labor Relations

It is prerequisite to have reasonable labor-management relations for companies to succeed. GS E&C listens to all its employees to continue to build an ideal corporate culture together with them. Through an open management program, it encourages continuous communication between employees and organizations. It seeks to narrow the gap in perspectives about the corporate state of affairs between employees and management through the transparent disclosure of management information and win-win cooperation between them.

Open Management Program

GS E&C has launched its Change Agent(CA) system designed to improve the organizational capabilities and efficiently collect the input of employees with the purpose of diversifying and enhancing direct communication between the CEO and employees. The company fully supports the invigoration of the CA system through various workshops and educational opportunities. It also takes advantage of its year-end corporate community involvement programs to further boost interaction between upper management and employees.

Operations of Management Issue Meetings

GS E&C discusses important management issues with employees through Management Issue Meetings and the Management Committee. Management Issue Meetings mostly deal with the company business environments, the company's strategies for the promotion of the year's core projects, and ways to enhance the organizational competencies. Management Committee addresses the matters discussed at Management Issue Meetings and the company's overall status, financial or nonfinancial, including the company's performance in the areas of safety and environmental protection.

Operations of Management Issue Meetings

On-line VOE G4-HR12

GS E&C installed a grievance bulletin board called "VOE(Voice of Employee) to receive and resolve grievances. When employees raise written grievances, the company responds to them within 2 weeks and the employees, in turn, evaluate the responses. In 2016, the company received 43 grievances including the replacement of the employee ID card with the smart phone NFC(Near Field Communication) feature, and carried out actions on them.

Shared Cooperation of Labor-Management G4-11, G4-LA4

GS E&C is running a labor union which consists of 1,107 permanent employees (41.8%) below the rank of deputy manager (excluding the administration position group of finance and economy, planning, personnel, and general affairs). We respect the primary rights of labor, and have made a collective agreement (biannually) and wages agreement (annually) with the labor union. GS E&C operates labor -management council meetings on a quarterly basis to discuss issues related to the common interests of labor and management including improvements in employees' working conditions, safety and health and find solutions to them as well as settle various types of employee grievances

Status of Labor Union Membership

Unit : %

	2014	2015	2016
Union membership ratio	38.8	39.9	41.8

No. of Union Members

Unit: Employees

Safety and Health Policies

2016 DJSI Assessment Results

Occupational Health & Safety

Employees' safety and health directly impact not only the corporate reputation and employees' morale but their productivity as well. GS E&C promotes advanced site-centered safety management to achieve "Let's Challenge Again - Zero Industrial Disasters" under the policy of 'Compliance with Fundamentals and Principles.'GS E&C promotes efficient safety and health management through an exclusive safety and health management organization. It places top priority on raising safety awareness through diverse programs.

Strengthening Safety and Health Management System

Safety & Health Management Organization

GS E&C promotes safety and health management to prevent any accidents related to safety or health through the Safety & Health Team, Construction Safety Team, and Safety Innovation School under the control of the CSO(Chief Safety Officer). The company also runs Q·HSE(Quality, Health, Safety and Environment) meetings presided over by the CSO and participated by the heads of business divisions twice a month (a total of 21 meetings in 2016) to dissipate upper management's commitment to safety and health to all employees and share issues on the topics with them. The committee places particular emphasis on discussion about and actions on the quarterly analysis of safety and health accidents, other companies' recent industrial accidents.

Building a Safety Culture

To eliminate the potential of major industrial accidents through the stabilization of its safety culture, GS E&C has defined the four stages of safety culture and has continued to make improvements. At the independent stage, employees complied with the company's safety rules according to their individual knowledge and commitment in 2015. In 2016, the company worked to establish a corporate culture that motivates its employees to stabilize their voluntary compliance with all the relevant regulations. It also completed the follow-up inspection required to maintain its KOSHA 18001 and OHSAS 18001 certification. Internally, it carried out self-diagnosis using the Q.HSE evaluation program and reinforced its safety and health management system.

Stages of Safety Culture

Stage 1	Reactive stage	2009
Stage 2	Dependent stage	2010~2012
Stage 3	Independent stage	2013~Present
Stage 4	Interdependent stage	In the future

Preventing Accidents

Operation of the Safety Innovation School

In March 2006, GS E&C opened the doors of Safety Innovation School for the first time among local contractors to offer site-specific training through on-site training courses. To mitigate the impacts of issues related to industrial accidents which account for a majority of construction site accidents, the school also provides the special worker license course and the safety innovation leader course to cultivate safety experts and prevent all sorts of accidents. On November 15, 2016, GS E&C established the Safety Innovation School in Singapore for the first time among Korean contractors. The school was visited by representatives of Hong Kong Association of Energy Engineers and Contractors Association of Tanzania. The school has become the Mecca for the company's education and training on employees' safety and health.

Graduates of Safety Innovation School

Unit: People

Safety Management through the Safety Traffic Signal System

GS E&C classifies the safety management level of each project site as 'green, yellow and red', like a traffic signal and enhances its supervision about violations of its mandatory safety rules as well as violations of orders for prompt correction. In 2016, it carried out 334 safety traffic signal inspections and identified 76 violations of its mandatory safety rules, for which it issued demerits among others, to enhance the on-site safety and health management. Site officers can keep track of their performance in real time, contributing to realizing a robust safety culture at sites.

Inspections by Equipment Experts

A group of five equipment experts conducts equipment inspections as requested by project sites to prevent accidents associated with construction equipment. In 2016, it carried out 235 equipment inspections, 33 technical support meetings, 284 pre-use equipment inspections, and 325 tower crane erection/dismantling services that are particularly susceptible to accidents. As a result, the company became the only top ten contractor in the country to achieve zero major equipment accidents for seven consecutive years.

Nurturing Healthcare Officers

In 2015, it became mandatory for contractors to appoint healthcare officers to their construction sites as part of the country's efforts to beef up the protection of workers' safety. To prevent injuries, the company strives to nurture its healthcare officers through customized education and training by duration of employment, the monthly selection of healthcare themes, and on-site support. In 2016, the company's Haeundae Xi Project Phase 2 won the certification of an excellent work site carrying out health promotion activities for its employees. Sinbanpo Xi Project Site won the grand prize in the excellent case presentation in the area of health risk evaluation during the annual Week of Safety and Health. It places particular attention to the management of three major health risk areas such as 'work in confined spaces,' 'hazardous materials,' and 'unsafe working environment' in order to enhance its healthcare management competencies and prevent accidents from occurring at sites.

Employees' Safety and Health Management Activities

GS E&C ensures that its CEO, executives and staff visit its project sites regularly to inspect safety management and encourage site workers to keep up with their outstanding work performance. In 2016, the CEO paid a visit to a total of 10 sites and the CSO visited 100 project sites including the Sinbanpo Xi Project site to check the risks involved with various projects and the performance of each of those project sites in terms of health and safety management. The project site visits by top management help prevent accidents through guidance on the safety officers' roles and the improvement directions of their job performance, in particular as well as communication with on-site staff.

Safety Accidents and Their Management

Current State of Major Accidents G4-LA6

To prevent any type of industrial accidents from occurring, GS E&C began by promoting a corporate culture of reporting all industrial accidents honestly. In 2016, in line with the increasing volume of its housing projects, the number of its sites and workers increased. The number of supervisors did not match reality. Falling fatalities increased during the year, because the supervisors overloaded. The company will strive to achieve zero accidents by promoting a safety culture based on workers' active engagement so that they can make improvements in regards to their unsafe work behavior.

Status of Major Fatalities

Unit : People

	2014	2015	2016
Industrial accidents	2	1	4
Work & technological accidents	1	2	0
Total fatalities	3	3	4

G4-LA6

Management of Losses Time Injure Frequency Rate

GS E&C regards safety as its top priority. It carefully keeps track of all the injuries of its employees and its suppliers' workers. It monitors its employees' injuries according to their severity and the associated periods concerning leave of absence. To minimize the injuries of its subcontractors, the head office monitors domestic subcontractors and the overseas branch offices manage overseas subcontractors.

Employees' Occupational Injuries

Unit : Lost time injures, Sick leaves/a million work hours

	2014	2015	2016
Occupational injuries	0	0	0
Sick leaves	531.77	419.73	528.14

STAKEHOLDER IMPACT

Employees	The Media	Government Organizations	Shareholders and Investors	Suppliers	Customers	Local Community
2	2	2	2	3	3	3

Social & Relationship Capital Value Creation

"Need to Carry Out Impactful Social Contribution Programs"

A contractor's contributions to local community developments and social contribution activities have a positive impact on corporate image and employee morale. ChildFund Korea has been conducting social contribution activities with GS E&C since 2006. Thanks to its continuous support, even during tough times, we have been able to make social contributions through 'Study Rooms of Dreams and Hopes' and 'Play-grounds of Dreams and Hopes' among others. I highly appreciate the company's social contribution programs that take full advantage of its operational competencies. I just hope that it will expand the horizon of its social contribution activities focused on collaboration with NGOs to include its clients and customers for more impactful social contributions from a financial point of view.

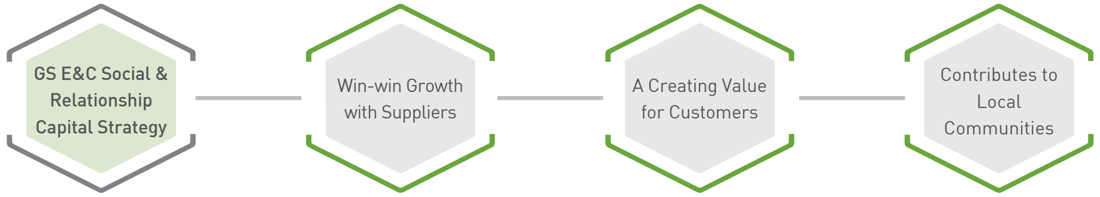
_**Jong-Hwa Lee,** Director, ChildFund Korea

Importance of Social & Relationship Capitals

GS E&C classifies local communities, customers, and suppliers as its social capital and strives to improve the welfare of individuals and groups. Under the global competition, establishing a solid corporate identity for differentiation is now directly or indirectly affecting the business. Corporate reputation management in the process of their business operations is as important as the quality of their work. Efforts to build desirable relations with their suppliers, customers and local communities guarantee contractors' sustainable future.

GS E&C's Approach

GS E&C has strengthened its management of and investment in its stakeholders engaged in its social relations. For the management of its supply chain, it considers not only its suppliers' economic risks but also their environmental and social risks. It ascertains and preemptively responds to the expectations of its corporate clients and apartment customers. GS E&C operates social contribution activities related to the construction industry so that the company continually supports local communities.



Major Social & Relationship Capital Performances

No. of Suppliers (Unit: Companies)

2014	914
2015	956
2016	1,106

Amounts of Social Contributions (Unit: KRW 100M)

2014	80
2015	67
2016	36

Grievances through VOC system (Unit: Cases)

2014	2015	2016
213	282	498

Customer Satisfaction Surveys (Unit: Points)

2014	2015	2016
72.8	72.9	73.0

*Source: Global Customer Satisfaction Competency Index

Shared Growth with Suppliers

2016 DJSI Assessment Results

Supply Chain Management

Subcontracting products and services involves work responsibilities and corporate reputation risks. Companies and investors are now keenly aware of the importance of supply chain risk management and thus seek effective management methods. GS E&C has established four basic rules to fulfill its obligation. In addition, the company induces its suppliers to consider corporate social responsibility (CSR) factors, when they carry out their business.

Strategies for Shared Growth with Suppliers

Four Basic Rules for Shared Growth with Suppliers

1. The rule for desirable contract execution
2. The rule for fair selection (registration) of suppliers
3. The rule for Internal Review Committee
4. The rule for desirable delivery of writing and keeping of documents in subcontracting transactions

Supplier Selection

GS E&S selects its suppliers through an automatic selection system based on the basic principles of 'fairness','objectivity', and 'transparency.' Candidates are registered in the supplier pool which consists of three categories such as main, preliminary and local. Scores are given to them. The full score (100 points) that a supplier (candidate) can get is composed of 20 points in selection frequency, 35 points in profitability (general evaluation), 40 points in quarterly performance (including 12 points in safety performance) and 5 points in local preference. In 2016, a total of 176 new suppliers were registered with the company with 94 and 82 suppliers in the first and second half, respectively. Equal opportunities are given to the suppliers, who are encouraged to further enhance their competitiveness through fair competition.

Operations of Internal Review Committee for Win-win Cooperation

The Internal Subcontracting Transaction Review Committee meets at least once a month to discuss diverse issues related to suppliers. It also makes decisions on major matters related to the company's subcontracting practices, including fairness in the subcontract execution and pricing processes, compliance with all relevant laws and regulations, and systems affecting shared growth. In 2016, GS E&C held 22 Internal Review Committee meetings to discuss the status of suppliers' work progress and the selection of suppliers to be recognized with the aim to establish fair relations with all its suppliers.

Enhanced Support for Shared Growth

Suppliers' Next CEO Training

GS E&C supports its suppliers' education and training for their qualitative growth. Most notably, in 2016, it ran the Next CEO Training for its suppliers to develop their next-generation CEOs' competencies. Specifically, through a two-day period of intensive training, the next CEOs were learned about leadership skills and safety management, among others, necessary for their functions as top management in their organizations. Depending on their feedback, the company plans to expand the training in terms of training hours and curricula.

Operations of Xi CEO Forum

GS E&C holds the annual 'Xi CEO Forum,' a communication program with its suppliers. Attended by the company's executives and its suppliers' representatives, the Forum has been held annually ever since 2004. The 2016 forum was attended by 100 CEOs of the company's suppliers. It further reinforced communication between the company and the suppliers as well as augmented their management mindset. Specifically, it featured in-depth discussions about major supplier-related systematic arrangements and associated issues and suppliers' particular demands which would be reflected actively in its policies. It also awarded outstanding suppliers as a way to motivate suppliers to work hard.

Financial Support for Suppliers

To financially support its suppliers, GS E&C operates various systems such as Management Support Funds, Win-Win Deposits, Improvements in Pay Conditions, and Contract Guarantees. In 2016, the company paid KRW 29.26 billion to suppliers in the form of advance payments through its Management Support Funds. It also offered preferential loans in the amount of KRW 19.72 billion to 26 recommended suppliers. GS E&C exempted the payment of contract fees worth KRW 20 million in 2016. The company also raised the proportion of cash payments in subcontractor progress payments. It shortened the payment term to within 10 days, the shortest period among the country's major contractors.

Inducement of Suppliers' CSR Activities

Suppliers' CSR Management Strategy

GS E&C has established a sustainability management system that includes its suppliers. The company induces them to fulfill their social responsibilities in economic, environmental and social dimensions according to the triple bottom lines in its sustainability management.

Supplier CSR Inducement Strategies

Economic activities	Corporate governance, risk management, ethical management, CRM
Environmental activities	Environmental policies, eco-friendly activities, climate change response strategies
Social activities	Compliance with labor laws, HR management and cultivation, social contribution activities, safety and health
Infra	External certification/disclosure, sustainability management strategies and systems

Identification of Critical Suppliers G4-13

As part of its risk management, GS E&C classifies those suppliers with a relatively higher impact. It then pays particular attention to their economic, environmental and social risk management status to minimize any of their negative impact on its mid- to long-term value creation. Generally, the company classifies those suppliers that it has maintained relations with over an extended period of time or dealt in large quantities of products/services, although the specific criteria differ depending on the areas of business. Out of 1,106 registered suppliers, the company classified 345 as its critical suppliers in 2016. Their sales ratio accounted for 74.5%.

Supplier Risk Management

GS E&C analyzes its critical suppliers' financial and nonfinancial risks in a way to deal with risks that could affect its value creation efforts. It classifies the associated risks into economic, environmental and social categories, evaluates and supervises the suppliers' performance according to strict criteria, and disqualifies any supplier that has failed to meet the mandatory conditions. As a result, its major suppliers exhibited a low level of risk in 2016 - 5.6%, 0% and 0.2% in economic, environmental and social risks, respectively.

Corrective Measures Imposed on Suppliers

To warn against their improper business operations while encouraging them to make improvements in their competitiveness, GS E&C carries out supplier evaluation on a regular basis and imposes sanctions when necessary. The sanctions range from warning to disqualification for suppliers given low points in comprehensive supplier evaluations in terms of credit rating, safety and customer satisfaction. In 2016, the company sent e-mail messages asking for corrective measures to seven suppliers that received low evaluation results. It strongly urged them to fulfill their social responsibilities.

Suppliers

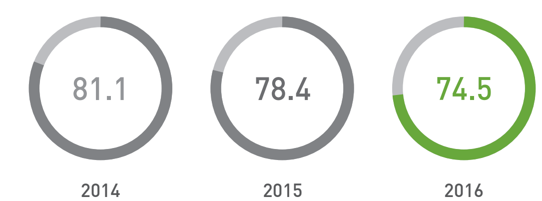
Unit: Suppliers

Critical Suppliers

Unit: Suppliers

Sales Ratio of Major Suppliers

Unit: %



Customer Satisfaction Activities

2016 DJSI Assessment Results

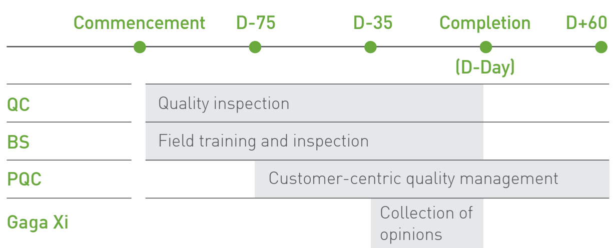
Customer Relationship Management

As the quality of global companies has become upwards standardized, it has become even more important to increase corporate reputation through increased customer value. Of course, due to the nature of the construction industry, repurchasing is not frequent, but the recommendation by third parties has an important influence on product selection. GS E&C strives to improve customer value including quality improvement for satisfaction of both its corporate customers and individual customers.

Pre Quality Control G4-PR1

GS E&C strives to complete the quality of its final products through pre-quality inspection activities by monitoring the technological status for each work process. The company undergoes thorough QC(Quality Control) efforts throughout the entire life cycle of a project, including the provision of BS(Before Service) to its customers. Starting from 75 days before the completion of its residential housing projects, the company launches the Homemaker Monitoring Group for PQC(Pre-Quality Control) from the perspective of the actual users of the products. A month before the completion, GS E&C launches a Gaga Xi Event to collect opinions and grievances from the potential occupants of its buildings to eliminate all possible causes of their grievances in advance.

Pre-Quality Inspection Process



Post Quality Control

Customer Privacy Protection G4-PR8

GS E&C has been operating the 'Personal Information Protection Commission(PIPC)' composed of executives in charge of related organizations across the company since 2012. The commission holds regular meetings 3-4 times a year. GS E&C encrypts customer information and other personal information of its employees and its suppliers' employees. In 2016, the Ministry of the Government Administration and Home Affairs conducted a comprehensive inspection of corporations' personal information management status and their information protection systems. The inspection found no flaws in the company's information protection. GS E&C had no data breaches in 2016, either.

Reinforcement of Communication with Customer G4-HR8

GS E&C immediately solves customers' grievances through its active collection of customer feedback. It has streamlined its grievance collection procedures based on the companywide Voice of Customer(VOC) system and the customer relationship management(CRM) system. On the basis of its highly efficient communication practices, the company solves its customers' complaints right away. Since 2010, the company has conducted its own customer satisfaction surveys on a quarterly basis and identified issues and made improvements to them according to established procedures.

Customer Complaints Received

Unit : Cases

	2014	2015	2016
Apartment customers' grievances	506	532	610
Complaints through VOC system	213	282	498

Performance in Customer Satisfaction G4-PR5

GS E&C continues to boost its customer satisfaction through diverse efforts, for which it has been affirmed by various professional organizations. In 2016, it won 73.0 points in customer satisfaction, registering a slight improvement over the previous year. 'Xi,' the company's flagship apartment brand, won the grand prize in the First-Class Brand Apartment Awards for 10 consecutive years and the Korea Luxury Brand Awards for nine consecutive years in 2016. During the year, GS E&C was also ranked first in GCSI (Global Customer Satisfaction Index), a feat that it has done for 13 consecutive years.

Customer Satisfaction Index

Unit : Points

	2014	2015	2016
Customer satisfaction index	72.8	72.9	73.0

*Source: Global Customer Satisfaction Competency Index

Social Contribution Activities

2016 DJSI Assessment Results

Corporate Citizenship and Philanthropy

Social contribution activities enhance overall corporate image. They also function as a form of catalyst for business performance. Thus, a social contribution strategy satisfactory to stakeholders should be established. GS E&C engages in social contribution activities reflecting its industrial strengths so that the company creates long term values. It has carefully analyzed its current social contribution programs to offer the effective programs in the futures.

Major Social Contribution Activities

Year-end Kimchi Support

Every year, GS E&C offers kimchi (seasoned & fermented vegetables) and heating oil to 1,004 low-income households and welfare facilities. Since 2013, it has joined hands with Miss Korea Leaders Volunteer Group to distribute year-end kimchi to the beneficiaries. In 2016, 90 GS E&C employees and their families joined forces with 9 Miss Korea 2016 contestants to deliver 800 kilograms of kimchi to four community child centers together with heating oil so that the children at the centers could stay warm during the cold winter months.

The Study Room of Dreams and Hopes

The company creates study rooms for children in low-income households and provides them with all the necessary facilities and stationery so that they can concentrate on studying at home. Its employees help the children with their studies through a mentorship program. The company also supports the children through a scholarship program so that they can continue their studies. Employees donate portions of their wages each month to that end and the company donates the same amount. In 2016, the company built study rooms for 30 low-income households in the capital area, with a running total reaching 200 households thus far.

The Playground of Dreams and Hopes

GS E&C operates 'Playgrounds of Dreams and Hopes' to help children play and grow safely physically and emotionally in safe spaces. The Playground of Dreams and Hopes is different from typical playgrounds. It is a very eco-friendly space with plenty of trees and small gardens. The company builds and donates Playgrounds of Dreams and Hopes to local communities. In 2016, GS E&C built 22 Playgrounds of Dreams and Hopes through four occasions. The company volunteers had cultural experiences with the children using the facilities.

Analysis of Social Contribution Activities

Social Contribution Activities Input Costs

GS E&C analyzes all the costs incurred with its social contribution activities with the aim to evaluate the effectiveness of its social contribution programs and deliver even better social contribution results. According to the London Benchmarking Group(LBG) Model, a social contribution evaluation tool, the company classifies its social contribution costs into four categories - cash, time, in-kind and management costs. The company's social contribution costs in 2016 fell from the previous year with cash donations accounting for the largest amount. The company will continue to measure the performance and impact of its social contribution activities on the basis of its input costs.

Social Contribution Activity Input Costs

Unit : KRW 1M

	2014	2015	2016
Cash	5,365	6,141	3,248
Time	210	91	97
In-kind	116	0	0
Management	605	477	253

Types of Social Contribution Activities

GS E&C categorizes and manages its social contribution activities with an aim to assess their structure and diversity. It categorizes its social contribution program costs into charitable donations, community investments, and commercial initiatives. GS E&C expands the proportions of community investments and commercial initiatives that are considered to be more effective than their counterpart.

Status of Social Contribution Activities by Type

Unit : %

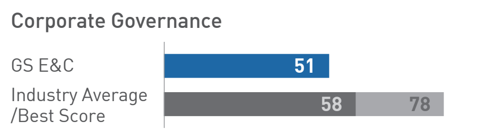
	2014	2015	2016
Charitable donations	13.1	3.7	0.1
Community investments	28.4	59.9	88.5
Commercial initiatives	58.5	36.3	11.4

GS E&C TRANSPARENT FUNDAMENTALS

Based on the Transparent Governance, GS E&C Does Their Very Best to Strengthen the Backbone of the Organization that Aims to Grow into a Sustainable Global Company.

Governance

2016 DJSI Assessment Results



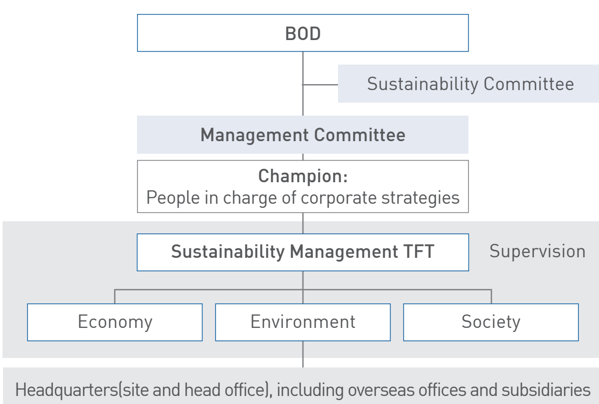
Corporate governance can make sustainable decisions, when it's established and managed in a way that can reflect stakeholder's expectations. To reflect its stakeholders' opinions, GS E&C has established sustainable governance centered around its BOD, the highest decision-making body. GS E&C runs the Sustainability Committee under the BOD to manage its economic, environmental and social issues from the perspective of sustainability management.

Governance System

Governance Operations

In terms of sustainability management, GS E&C's highest governance bodies are the BOD, Sustainability Committee and the Management Committee that directly report to the board. The head of the BOD is the chairman. The Sustainability Committee consists of outside directors. Operating under the committee is the Sustainability Task Force Team led by a director in charge of corporate strategies. The Task Force Team consists of 37 teams from economy, environment, and society fields. Those responsible for the implementation of sustainability management at GS E&C include the head office, the domestic and overseas subsidiaries and branch offices, project sites, and affiliated companies.

Governance Composition



Operations of the Sustainability Committee

To review the company's sustainability management activities and effectively share the results with its stakeholders, GS E&C operates the Sustainability Committee under the BOD and forms the Sustainability Task Force Team when necessary. The committee reviewed the company's overall sustainability management activities during the year. The Sustainability Task Force Team published integrated report, and implemented DJSI evaluation response.

BOD Operations

BOD Composition

The BOD is composed of seven directors including two inside directors, four outside directors and one non-resident director. The BOD holds ordinary and extraordinary meetings. Resolutions at the meetings are made by a majority vote with a majority of the current members being present. The BOD has seven ordinary meetings per year. It holds extraordinary meetings whenever resolutions need to be made. GS E&C has three sub-committees under BOD, and undertake it major responsibilities through supervision of management and management advisory in a variety of areas.

Committees

Name of the Committees	Main Works
Audit Committee	Supervision of accounting and major corporate decisions
Outside Director Recommendation Committee	Recommendation of outside directors to annual general meetings
Sustainable Committee	Sharing sustainability visions and strategies

Guarantee of the Independence of the BOD

GS E&C ensures that its outside directors can perform professionally within the BOD and its committees, maintaining their independence. GS E&C provides its outside directors with all the relevant data in advance, so that they can sufficiently review agenda items to be discussed at the BOD and its committee meetings. Whenever necessary, the company also holds briefings for them. In addition, it offers them information on the company's other major issues to help them enhance their competence as board members. All board members are appointed at general meetings. Candidates are selected by the BOD and Outside Director Recommendation Committee and included in the agenda of an annual general meeting to guarantee the independence of the BOD.

BOD Status and Performance

BOD Operations and Performance

In 2016, GS E&C's BOD held a total of 13 board meetings including seven ordinary and six extraordinary meetings. Each board member is required to attend at least 70% of the board meetings. Major agenda items included matters critical for corporate management including the report on 2015 performance results, the approval of the 2016 business plan and financial statements and business report, and matters crucial for business expansion including the approval of the establishment of a branch in Turkmenistan.

The Result of BOD Operations

Unit : Times, Cases, %

	2014	2015	2016
No. of board meetings	21	17	23
No. of BOD agenda items	11	11	13
Outside directors' attendance rate	90.9	81.8	98.4

Board Members

GS E&C has recognized the need of experts who can actively provide advice on its overall business operations on the basis of their in-depth expertise and diverse experiences engaging in business management. Thus it has appointed authoritative scholars in business management and prominent experts in construction business. Directors contribute to the company's mid- to long-term value creation by taking into account relevant ESG factors (non-financial performance) when making decisions. They are assigned only two tasks at a time so that they can perform more efficiently.

List of BOD Members

Category	Name	Date of appointment	Career
Internal director	Chang-Soo Huh	2014.03	Chairman of GS E&C & GS
	Byeong-Yong Lim	2016.03	CEO of GS E&C
Non-resident director	Tae-Soo Huh	2014.03	President of GS Home Shopping
Outside director	Byung-Hwa Jin	2015.03	Formal Chairman of Director on Korea technology finance corp.
	Jong-Eun Kim	2015.03	Formal CEO of LG Electronics
	In-Ki Joo	2016.03	Formal Dean of Yonsei University School of Business
	Do-Youp Kwon	2016.03	Formal Deputy Minister of Land, Transport and Maritime Affairs

Governance Evaluation

GS E&C's performance is evaluated by the Korea Corporate Governance Service. ESG refers to Environment, Society and Governance, the three central factors in measuring the sustainability of a company. GS E&C attained 'B+' or A' in the comprehensive evaluation from 2011 to 2015. The company received a 'B+' in 2016 with a 'B+' in governance, an 'A' in Environment and a 'B+' in Society.

Governance Evaluation Results

Unit : Level

	2014	2015	2016
ESG evaluation level	A	B+	B+
Governance evaluation level	B+	B	B+

Evaluation Group _Korea Corporate Governance Service

BOD Performance Assessment & Compensation

GS E&C carries out a self-assessment of the operations of the BOD and its committees every year in a bid of boosting the efficiency of the organizations. Assessment areas include their roles, responsibilities and duties, composition, and independence. The BOD's self-assessment scores for 2016 were the same as those for 2015. Remuneration for board members is made in accordance with the Executive Personnel Management Regulations subject to approval at general meetings. Each year, the company's Business Report discloses the remuneration made to all its directors and auditors as well as the pay of each director who receives more than KRW 500 million per year. The average pay for employees in 2016 amounted to 9.4% of that of the CEO, or 3.8% lower than that of the 2015 figure.

BOD Self-Assessment Results

Unit : Points

	2014	2015	2016
BOD self-assessment	4.5	4.7	4.7

Ethics Management

2016 DJSI Assessment Results

Code of Business Conduct

*27 points were deducted due to the LNG bid-rigging issue in 2016.

Corporate ethics constantly affect corporate reputation, employee morale, and business relationships. If a company's ethical backbone becomes compromised or eroded, the organization ends up suffering serious business problems. GS E&C established its Code of Ethics in 1994 as the basis for its ethical management to become a company trusted by its customers and society as a whole through transparent and fair business practices. It has continued to enhance its ethical management.

Ethics Management System

Enhancement of Ethics Management System

GS E&C establishes training courses on ethics and intensifies the roles of ethic-related teams, so that the company enhances an internal system of ethics management. In 2016, the Ethics Committee in GS E&C reviewed and resolved ethical management polices and rules, and monitored the company's ethical management practices. The company upgraded the status of its compliance organization from team to department. In order to make its leaders to be ethical role models, GS E&C newly established 17 training courses on ethics.

GS E&C Ethics Management System G4-56

Goal	A company trusted by customers and society through transparent and fair business practices			
Directions	Education·Promotion	Systems	Supervision	Culture
	Enhancement of training and PR	Improvement of ethical management systems	Management and supervision of employees' work ethics	Strict sanctions on unethical behavior

CEO's Commitment to Ethics Management

Ethics management is essential for sustainable development of a company as it is critical in relations between a company and its employees, in particular, and society, in general. GS E&C recognizes the CEO's commitment to ethical management as a key factor. GS E&C's CEO continually reasserts his decisive stance on ethical compliance to employees through various communication channels including his New Year Message.

CEO New Year Message 2016

Embrace your colleagues including your bosses and subordinates with camaraderie, and you will never be able to betray the companywide efforts towards virtuous business management practices. GS E&C will never tolerate not only corruption but also any negligence that causes losses to the company (part of the CEO's New Year Message 2016).

Promotion of Ethical Management

Expansion of Ethical Education G4-SO4

GS E&C's employees are educated about their individual roles in and responsibilities for the company's ethical management through ethical education. They also learn how to deal with ethical dilemmas they might face at work. The company offers the education in various formats including online courses, group lectures and on-site training. Each year, all GS E&C employees are required to complete an on-line ethical education course which consists of the latest trends and issues in ethical management. Most notably, through on-site ethical training, the company has expanded the targets of its ethical education to its suppliers' employees.

Ethical Education Performance

Unit : Employees

	2014	2015	2016
On-site training participants	1,591	1,757	1,860
Online education participants	6,332	6,263	7,227

Enforcement of the Improper Solicitation and Graft Act

The Improper Solicitation and Graft Act (hereinafter the 'anti-graft law') came into force on September 28, 2016 after a grace period of 18 months. The company has established guidelines and posted them on the EIP (Enterprise Information Portal) bulletin board. The company also featured a special article about a list of things that employees should know about the anti-graft law in its 2016 Ethical Management Newsletter.

Operations of Ethics Committee

GS E&C runs the Ethics Committee to assist the CEO in decision-making related to ethical issues. The CFO serves as chairman of the committee whose members are executives in charge of business planning at each division and heads of administrative departments. In 2016, the committee convened twice and discussed both preventive and audit activities to enhance companywide ethical management.

Transparent Communication with Stakeholders

Based on media reports, GS E&C delivers the details on issues which stakeholders are interested in, having opportunities to enhance senses of ethics. In 2016, the company communicated ethics violations including bid-rigging and personal unethical behaviors with stakeholders through annual and integrated reports. To adopt measures, we mandated all employees to sign anti-corruption pledge.

Job Ethics Management and Oversight

Operations of Unethical Behavior Reporting Channels

GS E&C operates reporting channels through which anyone who has become aware of the company's unethical behavior can report to the company. To facilitate whistleblowing, the company has secured a variety of reporting channels including online, phone and fax hotlines. GS E&C actively encourages whistleblowing. Regarding reported matters, the Compliance Team carries out investigations immediately. Relevant employees are required to fully cooperate with probes.

Investigation Results of Reported Cases

Unit : Cases

	2014	2015	2016
True	9	19	11
False	31	25	24
Report	40	44	35

Cases of Unethical Behavior

Cases of Individual Violations

GS E&C takes disciplinary measures against those engaged in unethical behavior and their relevant employees according to its personnel regulations. When a supplier is found to have been involved in any unethical behavior, the matter is brought before the Internal Subcontract Review Committee and sanctions are imposed according to its resolution. Most notably, when a supplier's employee files a report about unethical behavior committed by an employee of GS E&C and receives a reward for the act, GS E&C selects the supplier as an excellent supplier, which boosts the efficiency of the system. In 2016, there were cases such as the abuse of on-site lease deposits and special favors granted to a company in the supplier selection process, for which the company discharged the pertinent individuals and cut their supervisors' pay and issued warnings to them.

Punishments for Individual Violations

Unit : Cases

	2014	2015	2016
Dismissal	7	12	7
Recommended resignation	-	-	1
Suspension	-	2	4
Other*	-	-	16
Total	7	14	28

*The number of dismissal is including that of dismissals, cancellation of a contracts, recommended resignations, and voluntary resignations. A reprimand and warning are expected on punishments for individual violations

Cases of Corporate Violations G4-SO7, G4-SO8, G4-PR9

Date	Case	Result
2016.02	Violation of Occupational Safety and Health Act at Samcheok Power Station Boiler Project	Paid a fine of KRW 0.5M
2016.06	Total subcontracting of the electrical work for Songdo Bridge 4 (Jongno-gu Office)	Ordered to suspend business, for which a lawsuit was filed and an appellate court is reviewing the case.
2016.07	Unfair collaborative acts in bidding for an LNG storage tank project	Paid a fine, filed a lawsuit for revocation, and a district court is reviewing the case
2016.10	Total subcontracting of electrical work for Songdo Bridge 4 (Incheon Metropolitan City)	Paid a fine of KRW 67M
2016.10	An occupational accident at the site of the Suseo-Pyeongtaek High Speed Railway Project 3-2	Under review by a district court

Risk Management G4-14

2016 DJSI Assessment Results

Risk & Crisis Management

Due to the recent global economic crisis, effective risk management has become even more critical for long-term asset management and organizational flexibility. In particular, the construction industry is faced with expanded risks associated with value creation due to overseas mega-projects. The company operates an integrated risk management system in order to identify its internal and external risks in advance and prepares itself for any type of crisis.

Risk Management System

Operations of Risk Management System

Since the launch of a companywide RM organization in 2011, GS E&C has preemptively managed increasing risks. Through its independent activities, the RM organization analyzes risks objectively, classifies them into business environmental risks and business execution risks, and manages them through a companywide integrated risk management system. Two exclusive teams; Civil Engineering Project Support Team and EPC Business Support Team, consisting of experts in relevant fields carry out risk management under an organization that directly reports to the CEO, independent of their original departments/headquarters.

Business Environment Risk Management

GS E&C manages its business environment risks through analysis of the materiality, possibility and impact of the elements that influence the company's business environment directly or indirectly. Major management items include global economic fluctuations affecting major financial indices, financial risks, and insolvency symptom management; price increases of raw materials; currency fluctuations; social and economic instability in countries that the company is currently engaged in; changes in policies and regulations; water shortages; environmental degradation; and energy and fuel crises.

Business Execution Risk Management

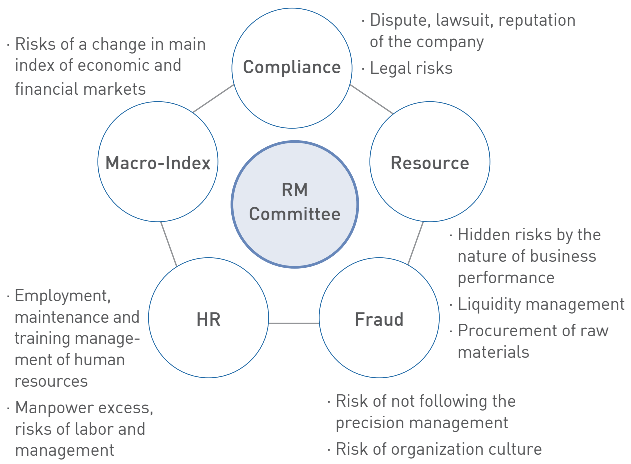
In order to efficiently deal with all the risks that may be detected in advance or occur unexpectedly throughout projects from the initial stages of the business to completion, GS E&C is establishing an organic risk management system within the business headquarters, domestic and overseas branches/ personnel and among the employees in their entirety. The Business Deliberation Committee together with relevant divisions carries out financial and nonfinancial risk evaluation for each business stage to review business feasibility.

Preemptive Risk Management System

RM Committee

At GS E&C, we are promoting the risk management collaboration network, "RM Meeting", to improve risk management practices. RM meetings are held in five key areas such as compliance, resources, fraud, HR, and macro indices on a weekly, monthly and quarterly basis. By doing so, we can share risk issues and explore our options for solutions by managing the fundamental aspects.

RM Committee



Operations of Integrated Risk Management System

GS E&C developed a companywide Integrated Risk Management System(IRMS) in 2012 to integrate risks managed by different divisions, identify the relationship between individual risks, detect causes of risks in advance and cope preemptively with risks. The company has defined 51 risks in 10 fields; business performance, fair cost management, receivable management, financial metrics, financial risks, safety management, insolvency symptom management, litigation/housing CS, subsidiaries, and main indices, as its financial and nonfinancial risks that affect its operations, and makes improvements in the efficiency and effectiveness of its risk management through monthly and quarterly monitoring and analysis.

ANNEXES

Data Center

Financial Capital Value Creation G4-17, G4-EC1

FY 2016 : January 1 to December 31, 2016
FY 2015 : January 1 to December 31, 2015
FY 2014 : January 1 to December 31, 2014

Unit : KRW

Category	FY 2016	FY 2015	FY 2014
Assets			
Current assets	9,736,512,654,771	9,549,473,789,179	8,652,947,213,879
Cash and cash equivalents	2,356,328,903,075	2,428,627,928,534	2,151,187,232,183
Trade and other current receivables	4,996,915,667,256	4,748,788,878,719	4,573,821,599,549
Inventories	825,250,796,366	795,522,346,925	613,224,584,568
Short-term financial assets	353,076,458,144	368,869,286,556	332,670,749,397
Other current non-financial assets	1,204,940,829,930	1,207,665,348,445	982,043,048,182
Non-current assets	3,640,076,655,520	3,456,019,198,894	4,441,761,716,468
Property, plant, and equipment	978,072,066,783	1,338,530,756,222	2,456,041,232,354
Intangible assets other than goodwill	193,648,379,731	144,648,150,988	169,962,416,561
Investment property	498,208,075,590	91,550,124,181	121,137,518,839
Investment accounted for using equity method	57,583,540,419	36,020,002,177	36,973,209,297
Long-term trade and other non-current receivables, gross	897,494,583,452	887,675,867,283	842,194,042,895
Long-term financial assets	413,557,493,773	344,103,947,244	347,466,189,539
Deferred tax assets	601,512,515,772	613,490,350,799	467,987,106,983
Total assets	13,376,589,310,291	13,005,492,988,073	13,094,708,930,347
Liabilities			
Current liabilities	7,224,983,499,459	7,139,321,408,218	6,127,182,857,828
Trade and other current payables	2,387,755,424,912	2,066,786,857,664	1,633,207,003,887
Short-term financial liabilities	1,823,609,101,727	2,085,439,998,566	1,709,989,267,311
Current tax liabilities	7,706,450,482	8,617,333,856	15,199,746,155
Other current financial liabilities	3,005,912,522,338	2,978,477,218,132	2,768,786,840,475
Non-current liabilities	2,798,440,875,158	2,518,146,655,465	3,385,914,054,659
Long-term trade and other payables	34,486,819,493	162,563,909,206	136,079,934,317
Long-term financial liabilities	1,819,551,295,573	1,619,754,921,948	2,487,229,619,975
Post-employment benefit obligations	84,295,110,108	124,149,639,068	93,538,999,238
Non-current financial liabilities	464,295,445,491	402,672,688,826	287,077,677,424
Deferred tax liabilities	50,519,321,671	58,744,641,239	148,853,912,627
Other non-current financial liabilities	345,292,882,822	150,260,855,178	233,133,911,078
Total liabilities	10,023,424,374,617	9,657,468,063,683	9,513,096,912,487
Equity			
Elements of other stockholder's equity	3,278,791,531,781	3,284,298,908,964	3,270,935,844,039
Issued capital	355,000,000,000	355,000,000,000	355,000,000,000
Capital surplus	610,856,422,454	610,648,899,087	610,634,032,903
Other equity interest	(87,207,586,208)	(87,207,586,208)	(140,811,144,570)
Other comprehensive income/loss accumulated amount	(104,053,373,216)	(131,459,629,404)	(87,938,056,407)
New account for elements of other stockholder's equity	2,504,196,068,751	2,537,317,225,489	2,534,051,012,113
Non-controlling interests	74,373,403,893	63,726,015,426	310,676,173,821
Total equity	3,353,164,935,674	3,348,024,924,390	3,581,612,017,860
Total equity and liabilities	13,376,589,310,291	13,005,492,988,073	13,094,708,930,347

Environmental Capital Value Creation[1] G4-EN3, G4-EN5, G4-EN22

Category		Unit	2014	2015	2016
Amount of Construction Materials Used	Amount of ready-mixed concrete used	m^3	1,707,088	2,858,217	4,246,054
	Amount of cement used	ton	110,039	99,982	185,405
	Amount of aggregates used	m^3	364,186	329,619	340,199
	Amount of asphalt used	ton	138,055	230,986	163,726
	Amount of sand used	m^3	51,918	74,428	120,403
	Amount of steel used	ton	223,093	344,294	470,264
	Amount of plaster boards used	ton	18,442	16,671	27,748
Improvement Rate of Raw Materials Consumption by Unit		%	19	1	79
Amount of Recycle Aggregates Used		m^3	70,896	75,532	82,735
Amount of Water Used	Total	m^3	2,793,820	2,256,554	3,506,709
	Amount of service water used	m^3	1,889,236	1,614,212	2,585,046
	Amount of groundwater used	m^3	589,663	332,374	517,883
	Amount of river water used	m^3	314,921	309,968	403,780
Intensity of Building Water[2]		m^3/m^2	2.91	1.98	2.69
Amount of Energy Used	Total	TJ	4,048	4,504	4,581
	LNG (city gas, natural gas)	TJ	157	170	145
	Kerosene	TJ	11	22	45
	Diesel	TJ	2,228	2,738	2,760
	Gasoline	TJ	92	184	103
	Electricity	TJ	1,534	1,360	1,502
	Others	TJ	26	30	26
Intensity of Building Energy[3]		MWh/m^2	0.13	0.13	0.12
Amount of Generated Waste	Total	ton	253,217	290,285	293,037
	Amount of concrete waste	ton	171,379	152,617	169,219
	Amount of asphalt waste	ton	7,021	59,204	15,146
	Amount of sand and stone waste	ton	10,129	19,988	21,921
	Amount of construction waste	ton	60,611	49,049	75,172
	Amount of synthetic resin waste	ton	3,680	9,017	6,242
	Amount of timber waste	ton	178	210	969
	Amount of construction sludge	ton	219	200	4,368
Waste Disposal	Recycling	ton	249,140	280,858	281,458
	Landfill	ton	219	200	4,368
	Incineration	ton	3,858	9,227	7,211
Amount of Debris Emission		ton	76	91	33
Amount of Wastewater Discharge		ton	704,678	498,114	118,661
Amount of Greenhouse Gas Emissions	Total	tCO_2-e	248,276	283,499	286,412
	Scope 1(direct emission)	tCO_2-e	45,162	74,022	68,597
	Scope 2(indirect emission)	tCO_2-e	74,498	66,056	72,951
	Scope 3(other forms of indirect emission)	tCO_2-e	128,617	143,421	144,863
Intensity of Greenhouse Gas Emissions by Buildings[4]		tCO_2-e/m^2	0.08	0.08	0.08
Amount of Greenhouse Gas Emissions by Korean won		tCO_2-e/100 million KRW	3.32	2.90	2.63
Green Procurement Costs		100 million KRW	246.12	319.91	586.65
Number of Environmental Disputes		Cases	15	21	26
Number of Environmental Accidents		Cases	7	8	8
Environmental Dispute Adjustment Costs		100 million KRW	18.2	20.8	24.2
Eco environment Course Completion Status		People(total)	1,477	913	937

1) 95% of revenues and business operations
2) Building water intensity = sum of annual water consumption / sum of floor area(12 buildings owned including the headquarters)
3) Building energy intensity = sum of annual electricity use / sum of floor area(12 buildings owned including the headquarters)
4) Greenhouse gas emissions intensity from buildings = sum of annual ton CO2 equivalent / square meters of floor space (12 buildings owned including the headquarters)

Industrial Capital Value Creation

Category	Unit	2014	2015	2016
The proportion of overseas sales	%	58.1	56.7	44.9
The rate of its overseas projects in all the overseas projects awarded by all Korean contractors	%	9.0	12.0	7.4
Advance into new overseas markets	Countries	4	3	1
Cost reduction by Formation of a council	KRW 100M	333.6	730.8	847.0

Intellectual Capital Value Creation

Category	Unit	2014	2015	2016
Carbon reduction with green concrete	tCO_2-e	7,029	62.649	48,405
R&D expenses	KRW 100M	484	449	484
R&D investment rate	%	0.51	0.42	0.42
Profit contributions by Technology Division	KRW 100M	544	676	889
Results of technology commercialization	KRW 100M	108.4	142.8	173.5

Human Capital Value Creation G4-10

Category		Unit	2014	2015	2016
Number of employees	Total number of employees	People	6,657	6,520	6,262
	Number of male employees	People	6,204	6,089	5,879
	Number of female employees	People	453	431	382
	Rate of permanent employees	%	86.1	85.8	85
	Rate of contract employees	%	13.9	13.2	15
	Less than 30 years old	People	850	661	436
	More than 30 years old and less than 50 years old	People	4,943	4,687	4,608
	More than 50 years old	People	864	1,172	1,218
Rate of employees with disabilities		%	0.7	1.1	1.5
Rate of female managers		%	1.4	1.4	0.06
Rate of retired		%	4.6	3.7	3.0
Training hours per employee		Hours	86	94	55
Training costs for employee		KRW 100M	30	34.8	32.8
Employee performance evaluation and career development review		%	89.6	91.7	95.0
Employee satisfaction		%	69.3	62.2	61.5
Rate of union membership		%	38.8	39.9	41.8
Childbirth	Use of maternity leave	%	4.6	7.7	8.1
	Persons on maternity leave	People	21	35	31
	Persons on childcare leave	People	23	27	33
	Female employees on childcare leave	People	19	19	24
	Return rate after childcare leave	%	91	97	97

Social & Relationship Capital Value Creation

Category	Unit	2014	2015	2016
No. of suppliers	Suppliers	914	956	1,106
Invigoration of local economies (rate of purchase from domestic suppliers)	%	30.5	33.9	32.5
Amount spent on social contributions	KRW 100M	80	67	36
Employees taking part in social contributions	Employees	1,698	274	391
Exposure to the media	Times	11	9	35
Benefit recipients	People	5,147	1,156	1,90
College students' favorite workplace	Ranking	6	5	5
Recruits' retention rate	%	98.6	98.4	100
Educational benefit recipients	People	270	246	304
External awards and recognition	Times	1	2	1
Cultural support beneficiaries	People	40,140	40,320	40,558
Housing customers' grievances	Cases	506	532	610
Grievances filed through VOC system	Cases	213	282	498
Xi brand GCSI score	Points	72.8	72.9	73.0
Substantive funding for associations G4-16	KRW 1M	2,725	2,356	2,356

Other Results

Category		Unit	2014	2015	2016
Ethic management	Violation of ethical management	Cases	7	14	28
	Attendees of ethical management education (off-line)	Employees	1591	1,731	1,860
	Attendees of ethical management education (on-line)	Employees	6,332	6,263	7,227

Sustainability Management Initiatives G4-15

UN Global Compact	DJSI(Dow Jones Sustainability Index)	ISO 26000	CDP(Carbon Disclosure Project)	ESG & SRI

Funding for Major Associations G4-16

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

GRI G4/ISO 26000

General Standard Disclosures

Aspects	Index	Name of Index	Page	ISO 26000	Verified
Strategy and Analysis	G4-1	Provide a statement from the most senior decision-maker of the organization and the organization's strategy for addressing sustainability.	3	4.7/6.2/7.4.2	V
Organizational Profile	G4-3	Report the name of the organization	8	6.3.10/6.4.1/6.4.2/6.4.3/6.4.4/6.4.5/6.8.5/7.8	V
	G4-4	Report the primary brands, products, and services.	8, 10, 11, 12, 13		V
	G4-5	Report the location of the organization's headquarters.	ABOUT THIS REPORT		V
	G4-6	Report the number of countries where the organization operates and the organization has significant operations	14		V
	G4-7	Report the nature of ownership and legal form	8		V
	G4-8	Report the markets served	8		V
	G4-9	Report the scale of the organization	8		V
	G4-10	Report the total number of employees	66		V
	G4-11	Report the percentage of total employees covered by collective bargaining agreements.	47		V
	G4-12	Describe the organization's supply chain	6		V
	G4-13	Report any significant changes during the reporting period	15		V
	G4-14	Report whether and how the precautionary approach or principle is addressed by the organization.	62		V
	G4-15	List externally developed economic, environmental and social charters, principles, or other initiatives	67		V
	G4-16	List memberships of associations	67, 74		V
Identified Material Aspects and Boundaries	G4-17	List all entities included in the organization's consolidated financial statements or equivalent documents	64	5.2/7.3.2/7.3.3/7.3.4	V
	G4-18	Explain the process for defining the report content and the Aspect Boundaries	21		V
	G4-19	List all the material Aspects identified in the process for defining report content	21		V
	G4-20	For each material Aspect, report the Aspect Boundary within the organization	21		V
	G4-21	For each material Aspect, report the Aspect Boundary outside the organization	21		V
	G4-22	Report the effect of any restatements of information provided in previous reports	ABOUT THIS REPORT		V
	G4-23	Report significant changes from previous reporting periods in the Scope and Aspect Boundaries	ABOUT THIS REPORT		V
Stakeholder Engagement	G4-24	Provide a list of stakeholder groups engaged by the organization	20	5.3	V
	G4-25	Report the basis for identification and selection of stakeholders with whom to engage	20		V
	G4-26	Report the organization's approach to stakeholder engagement	20		V
	G4-27	Report key topics and concerns that have been raised through stakeholder engagement	20		V
Report Profile	G4-28	Reporting period for information provided	ABOUT THIS REPORT	7.5.3/7.6.2	V
	G4-29	Date of most recent previous report	ABOUT THIS REPORT		V
	G4-30	Reporting cycle	ABOUT THIS REPORT		V
	G4-31	Provide the contact point for questions regarding the report	ABOUT THIS REPORT		V
	G4-32	Report the 'in accordance' option the organization has chosen	ABOUT THIS REPORT		V
	G4-33	Report the organization's policy and current practice with regard to seeking external assurance for the report.	ABOUT THIS REPORT		V
Governance	G4-34	Report the governance structure of the organization, including committees of the highest governance body	58	6.2/7.4.3/7.7.5	V
Ethics and Integrity	G4-56	Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.	60	4.4/6.6.3	V

Specific Standard Disclosures

Aspects	Index	Name of Index	Page	ISO 26000	Verified
Economy					
Economic Performance	DMA	Disclosure on Management Approach	28	6.8.1-6.8.2/6.8.3/6.8.7/6.8.9	V
	G4-EC1	Direct economic value generated and distributed	9, 64		V
Market Presence	DMA	Disclosure on Management Approach	42, 46	6.3.7/6.3.10/6.4.3/6.4.4/6.8.1-6.8.2	V
	G4-EC5	Ratios of standard entry level wage by gender compared to local minimum wage	46		V
Indirect Economic Impacts	DMA	Disclosure on Management Approach	33		V
	G4-EC7	Development and impact of infrastructure investments and services supported	33	6.3.9/6.8.1-6.8.2/6.8.7/6.8.9	V
Environment					
Energy	DMA	Disclosure on Management Approach	38, 41		V
	G4-EN3	Energy consumption within the organization	65	6.5.4	V
	G4-EN5	Energy intensity	65		V
Effluents and Waste	DMA	Disclosure on Management Approach	37, 40		V
	G4-EN22	Total water discharge by quality and destination	65	6.5.3/6.5.4	V
Products and Services	DMA	Disclosure on Management Approach	34, 36	6.5.3/6.5.4/6.5.5/6.7.5	V
	G4-EN27	Extent of impact mitigation of environmental impacts of products and services	36		V
Compliance	DMA	Disclosure on Management Approach	38, 40	4.6	V
	G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions	40		V
Society Labor Practice and Decent Work					
Labor/Mangement Relations	DMA	Disclosure on Management Approach	42, 47	6.4.3/6.4.5	V
	G4-LA4	Minimum notice periods	47		V
Occupational Health and Safety	DMA	Disclosure on Management Approach	42, 48, 49	6.4.6	V
	G4-LA6	Type of injury and rates of injury, operational changes	49	6.4.6/6.8.8	V
Society_Human Rights					
Non-discrimination	DMA	Disclosure on Management Approach	42, 45	6.3.6/6.3.7/6.3.10/6.4.3	V
	G4-HR3	Total number of incidents of discrimination and corrective actions taken	46		V
Child Labor	DMA	Disclosure on Management Approach	42, 45	6.3.3/6.3.4/6.3.5/6.3.7/6.3.10/6.6.6/6.8.4	V
	G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labor	46		V
Forced or Compulsory Labor	DMA	Disclosure on Management Approach	42, 45	6.3.3/6.3.4/6.3.5/6.3.10/6.6.6	V
	G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced labor	46		V
Indigenous Rights	DMA	Disclosure on Management Approach	50, 54		V
	G4-HR8	Total number of incidents of violations involving rights of indigenous peoples	54	6.3.4/6.3.6/6.3.7/6.3.8/6.6.7/6.8.3	V
Human Rights Grievance Mechanisms	DMA	Disclosure on Management Approach	42, 46		V
	G4-HR12	Number of grievances about human rights impacts filed	46	6.3.6	V

Aspects	Index	Name of Index	Page	ISO 26000	Verified
Society_Society					
Anti-corruption	DMA	Disclosure on Management Approach	60		V
	G4-SO4	Communication and training on anti-corruption policies and procedures	60	6.6.1-6.6.2/6.6.3	V
Anti-competitive Behavior	DMA	Disclosure on Management Approach	60		V
	G4-SO7	Total number of legal actions for anti-competitive behavior	61	6.6.1-6.6.2/6.6.5/6.6.7	V
Compliance	DMA	Disclosure on Management Approach	60		V
	G4-SO8	Monetary value of significant fines	61	4.6	V
Society_Product Responsibility					
Customer Health and Safety	DMA	Disclosure on Management Approach	50, 54		V
	G4-PR1	Percentage of significant product and service categories	54	6.7.1-6.7.2/6.7.4/6.7.5/6.8.8	V
Product and Service Labeling	DMA	Disclosure on Management Approach	50, 54		V
	G4-PR5	Results of surveys measuring customer satisfaction	54	6.7.1-6.7.2/6.7.6	V
Customer Privacy	DMA	Disclosure on Management Approach	50, 54		V
	G4-PR8	Total number of substantiated complaints regarding breaches	54	6.7.1-6.7.2/6.7.7	V
Compliance	DMA	Disclosure on Management Approach	60		V
	G4-PR9	Monetary value of significant fines for non-compliance with laws	61	4.6/6.7.1-6.7.2/6.7.6	V

UNGC Advanced Level

COMMUNICATION ON PROGRESS

	Category	Principle	Page	GRI G4 Index
1	Governance	This integrated report (the Report) describes the discussions at the level of the CEO and the BOD regarding the strategic aspects of the implementation of the UNGC	3	G4-1
2		The Report explains the company's decision-making processes and corporate governance to achieve its sustainability	58	G4-34
3		The Report describes the engagement of all of the company's major stakeholders	20, 21	G4-24~27
4	UN Goals and Issues	The Report describes activities designed to support comprehensive goals and issue of the United Nations.	67, 74	G4-15,16
5	Human Rights	The Report describes the company's strong commitment, strategies and policies in the area of human rights.	67, 74	G4-15,16
6		The Report describes an effective management system designed to integrate its human rights principles.		
7		The Report describes effective monitoring and evaluation mechanisms about human rights principles.	46	G4-HR12
8		The Report applies standardized performance indices (including GRI) about human rights.	47	G4-11
9	Labor	The Report describes the company's strong commitment, strategies and policies in the area of labor.	47	G4-LA4
10		The Report describes an effective management system designed to integrate its labor principles.	46	G4-LA5
11		The Report describes effective monitoring and evaluation mechanisms about labor principles.	46	
12		The Report applies standardized performance indices (including GRI) about labor.	66, 68, 49	G4-10, G4-LA6
13	Environment	The Report describes the company's strong commitment, strategies and policies in the area of environmental management.	3	G4-1
14		The Report describes an effective management system designed to integrate its environmental principles.	40	
15		The Report describes effective monitoring and evaluation mechanisms about environmental management.	40	
16		The Report applies standardized performance indices about environmental management.	38, 65	G4-EN3, 5, 8, 15~18, 22, 23, 27, 29
17	Anti-Corruption	The Report describes the company's strong commitment, strategies and policies in the area of anti-corruption efforts.	60	G4-56
18		The Report describes an effective management system designed to integrate its anti-corruption principles.	60, 61	G4-SO4
19		The Report describes effective monitoring and evaluation mechanisms in the area of anti-corruption efforts.	60, 61	G4-SO4
20		The Report applies standardized performance indices about anti-corruption efforts.	60, 61	G4-SO7
21	Strategies, Governance and Engagement	The Report explains about the implementation of Global Compact Principles within the company's value chain.	9, 19, 50	G4-12
22	External Assurance and Transparency	The Report offers information on the corporate profile and operational environments.	2~15	G4-3~16
23		The Report includes a high level of transparency and disclosure.	ABOUT THIS REPORT	G4-28~33

The 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 2016 (hereinafter the Report). The Assurer hereby presents its opinions about the company's non-financial performance disclosed in the Report according to the assurance standards below. GS E&C takes on full responsibility for all the information contained in the Report. This assurance statement is provided to the management and stakeholders of GS E&C. It shall not be distributed to other organizations. Nor shall it be provided for purposes or uses other than the enhancement of the company's reliability.

Assurance Standards

The Assurer undertook this assurance task in accordance with AA1000AS (2008). It also used GRI G4 Guidelines to review the reasonableness of the reporting procedures, principles for defining report quality, and information production processes of the Report. The Assurer looked into the IIRC IR Framework as well, which the Report faithfully followed, particularly in the following aspects:

- The principles of Inclusivity, materiality and responsiveness of AA1000AS (2008)
- The principles for determining report content and quality of the GRI G4 Guidelines in accordance with 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 the audited disclosure data
- Review of stakeholder engagement processes
- Review of data production management systems and processes

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 that can affect the assurance results of the Report. It complies with ethical standards as an assurance agency and presents this assurance statement as an independent body.

Review of GRI G4 Application

The Assurer has confirmed that the Report complied with the G4 Guidelines - Core Option, properly covered a DMA (Disclosure on Management Approach) and general standards disclosure and fulfilled the requirement of reporting at least one index among 21 aspects of specific standard disclosure. The reporting aspects confirmed during the assurance process are as follows:

Category	Economy	Environment	Society	
Reporting aspects	Economic performance_EC1	Energy_EN3, EN5	Labor/management relations_LA4	Anti-corruption_SO4
	Market presence_EC5	Effluents and waste_EN22	Occupational health&safety_ LA6	Anti-competitive behavior_SO7
	Indirect economic impacts_EC7	Products and services_EN27	Non-discrimination _HR3	Compliance_SO8
		Compliance_EN29	Child labor_HR5	Customer health and safety_PR1
			Forced or compulsory labor_HR6	Product and service labeling_PR5
			Indigenous rights_HR8	Customer privacy_PR8
			Human rights grievance mechanisms_HR12	Compliance_PR9

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 is pleased to present its assurance opinions as follows:

Inclusiveness	Are stakeholder engaged in the value creation processes of GS E&C?	The Assurer has confirmed that GS E&C implements stakeholder engagement through diverse communication channels in the stakeholders' value creation processes through sustainable management and that there were no stakeholder group 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 that material issues identified through reasonable procedures are reported without omission. Also, the Assurer could not find any problem in the application of materiality test procedures.
Responsiveness	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 outcome and that the contents are well described in the Report appropriately.

Recommendations

- In the reporting process, GS E&C has intensified stakeholder engagement by implementing experts' interviews on 6 major capitals. The Assurer recommends that GS E&C systemize strategies on 6 major capitals that affect environment and reinforce the system by following up on the commitment, established goals and progress.
- The Assurer recommends that GS E&C connect comprehensive performance data to sustainability KPIs through responses to DJSI and strive to create mid- to long-term values from an integrated perspective about sustainability and financial issues.
- GS E&C has reported its performances based on strategies and the flow of the capitals in a form of value creation process. The Assurer recommends that GS E&C systemize the evaluation of economic, environmental, and social impacts.

Assurance Team

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. It has also obtained the status of gold community member at Global Reporting Initiative (GRI). Its Assurance Team is composed of global experts equipped with sufficient knowledge about sustainability and expertise in assurance engagement.

THE CSR
SUSTAINABILITY REPORTING ASSURANCE

AA1000
Licensed Assurance Provider
000-167

June 30, 2017
THE CSR Assurance Committee

Assurer	Chief Assurer
Tawuya Katso, Ph.D	Se-woo, Jung

Memberships and Awards

Membership Status G4-16

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
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
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 Geosynthetice Society, Korean Society of Coastal Disaster Prevention, Korea Rail Engineering Association, Korean Tunneling and Underground Space Association, Korea Concrete Institute
Housing & Architecture	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
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

Awards

Area	Description
Economic	• 2016 Contest for the Civil Structure of the Year Completed in 2015 (Korea Society of Civil Engineers) - gold medal • 2016 Korea Good Brand Awards (DongA Ilbo) - grand prize in the apartment sector • 2016 National Urban Design Contest (Financial News) - the Minister of Land, Infrastructure and Transport Award • 2016 Building SMART International Awards (Building SMART) - Honourable Mention for Safety and Risk • 2016 Money IR Awards (Money Today) - Grand Prize in the construction sector • 2016 ITA Tunnelling Awards (ITA) - first prize in Tunnelling Project • The 12th Korea Civil Engineering Technology Awards (Maeil Business Newspaper) - GrandPrize in civil engineering sector
Environment	• HSE Excellence Award 2016(ASSE Kuwait Chapter) / Silver medal in project HSE management and environmental management sectors • 2016 Korea Housing Service Awards (Money Today) - grand prize in eco-friendliness sector • Eco-friendly Construction Industry Award (Joongang Ilbo) - Grand Prize in apartment construction • The 9th Green Housing Awards (the Hankook Ilbo) - the green community award • The 11th Korea Ecological Architectural Awards (Korea Institute of Ecological Architecture and Environment) - GrandPrize in technology sector • 2016 Green Construction Awards (Seoul Shinmun)
Social	• 2016 DJSI Asia Pacific incorporation for seven consecutive years • The 12th Construction Cooperation Promotion Awards (Construction News) - the award of the Chairman of the Federation of Construction Associations • Forbes CSR Award (the social contribution and the Jungang Ilbo) - grand prize in CSR

GS E&C
INTEGRATED REPORT
2016

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.

With stakeholders, GS E&C will create sustainability values for everyone, and build better futures by listening to stakeholders opinion.

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