HYUNDAI

2019

HYUNDAI ENGINEERING & CONSTRUCTION

**SUSTAINABILITY** 

REPORT

## **ABOUT THIS REPORT**

#### **Characteristics of This Report**

This report is the tenth Sustainability Report published by Hyundai E&C, which is mainly composed of the introduction of creating shared value-based corporatewide sustainability management strategies being propelled by Hyundai E&C, and value creation processes, major activities and performance by division in the economic, environmental, and social aspects to realize the strategies. Furthermore, it discloses long-term sustainability management goals and reinforces reports of practical strategies and performance indicators with a view to enhancing stakeholders' understanding

#### **Reporting Period & Boundary**

This report covers Hyundai E&C's economic, environmental, and social activities and performances of the headquarters as well as domestic and overseas sites from January 1, 2018 to December 31, 2018. In addition, we partially included activities and performances until June 2019 that have significant impacts on our business. For the quantitative performance, data of the recent 3 years is reported so that the yearly development can be analyzed.

#### **Reporting Standard**

This report has been written according to the Comprehensive option of the Global Reporting Initiative (GRI) Standards 100-400. It is reflecting the ten principles of the UN Global Compact and the main agenda of ISO 26000 as well. For the fnancial performance, Hyundai E&C reports its financial data based on the Korean International Financial Reporting Standards (K-IFRS).

#### **Third Party Assurance**

In order to secure the credibility and fairness of the writing process and contents of the report, a third-party assurance was conducted by an external, independent specialized agency and the results are available on p. 72~73 of this report.



#### 2019 COVER STORY

As a global sustainability management leader, Hyundai E&C has been leading the value creation in the global construction industry. Now, we have visualized the cohesiveness of Hyundai E&C, which is moving beyond value creation to the era of value empowement, is rising in the form of value for building a sustainable world.



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# HDEC **SUSTAINABILITY OF 10 YEARS**

## 10 Years of Hyundai E&C **Sustainability Management**

Hyundai E&C has published its first sustainability management report in 2010 and has been striving to find ways of innovation that will enable the company and society to coexist and grow together over the past decade. These true perspiration and effort have fruited, resulting in remarkable change and value empowerment.

## 2010

Published the sustainability management report for the first time

### 2011 Introduced

integrated reporting format





## 2012

We Build Tomorrow

Strengthened carbon management strategy

0

1

9%

## 2013

Introduced megatrend analysis for the first time in the global construction industry

1st rank in the construction industry of DJSI)





2014

Introduced creating

shared value (CSV) for

construction industry

1st rank in the



## 2015

Presented the value creation model for the first time in the global construction industry

1st rank in the construction industry of DJSI for three consecutive years

WE BUILD TOMORROW

.....

## 2016

Presented the UN SDGs implementation model for the first time in the global construction industry

### World's First

WE BUILD

1st rank in the construction industry of DJSI for four consecutive years

## standard GRI Standards

World's First

2017

1st rank in the construction industry of DJSI for five consecutive years

2017 19429 - 4479 2014 - 44

WE BUILD

A HYMRE

Preemptively applied

international reporting

the next generation



## 2018

Presented the creating shared value models by sector of the construction projects for the first time in the global construction industry

#### World's First

1st rank in the construction industry of DJSI for six consecutive vears



## Tenth anniversarv

of Hyundai E&C sustainability management

2019

#### **GREAT COMPANY**

Great People Great Culture Great Value



### NO. 1 in DJSI for Six Consecutive Years for the **First Time in the World**

Hyundai E&C's effort to propel sustainability management has been externally recognized so that Hyundai E&C has been selected as the number one company in the global construction industry in Dow Jones Sustainability Index(DJSI)\* for six consecutive years from 2013 to 2018 to enhance its status as a global leader in the construction sector.

\* DJSI is a global sustainability index developed by Dow Jones S&P, the world's largest financial information company, and RobecoSAM, a Swiss international investment firm.

## Message from the CEO



As a global general engineering company, Hyundai E&C aims to become a "Global Top Tier" beyond South Korea.

President & CEO of Hyundai E&C
Park Dong-Wook

D. Park

### **Great Company**

OVERVIEW

As a global general engineering company, Hyundai E&C aims to become a "Global Top Tier" beyond South Korea. In all sectors of the construction industry ranging from design and construction to planning, engineering and operation, we are opening up a sustainable future with advanced technology and differentiated services.

Sustainability is the foundation of Hyundai E&C's corporate management. The 'Great Company', a management vision for 2019, is also possible only on the basis of sustainability management. It is our dream to create a "Great Company" that creates win-win shared value from a macroscopic viewpoint beyond short-term business performance and maximizes the added value of all stakeholders including shareholders, customers, cooperating partners, local communities, and the government.

### **Stable Economic Performances**

Since its founding in 1947, Hyundai E&C has successfully completed 839 projects in 59 countries around the world over the past 72 years and has gained extensive business experience and technical capabilities. Based on the foregoing, we are concentrating strategically on winning orders for work types with competitive advantages while striving to develop new markets and new businesses thereby expanding our stable business portfolio.

In 2019, Hyundai E&C's successful global launch started in the first half with orders for the Marjan Gas and Oil Treatment Facility in Saudi Arabia worth KRW 3.2 trillion. With continued orders of large-scale projects such as the construction of the Basra Seawater Treatment Plant in Iraq in the second half, thereby we are anticipating the achievement of USD 130 billion in the cumulative amount of overseas orders at any moment for the first time among domestic construction companies. We are confident that 2019 will be a year to demonstrate out robust order-taking capability and growth potential by achieving KRW 13.9 trillion (seperate basis), which is the goal for the domestic and overseas order amount, in a breeze.

### **Global Sustainability Leadership**

After issuing the first sustainability management report in 2010, Hyundai E&C has been looking for ways for the company and society to coexist and grow together. Thanks to our steady efforts, Hyundai E&C was included in the DJSI World Index for the ninth consecutive year for the first time in the domestic construction industry last year and has achieved number one in the global construction and engineering industry in the evaluation of sustainability for six consecutive years from 2013 to 2018. Hyundai E&C is the only company in the construction and engineering industry in the world that has been ranked number one for more than three years.

We will continue to lead the qualitative growth of the construction industry by faithfully fulfilling our mission and role as a global leader in sustainability management through transparent corporate management, eco-friendly business operation, and win-win management with our suppliers.

Thank you.

02

## **Company Overview**

Based on its differentiated technological prowess and proven business momentum,

Hyundai E&C is creating a better future together with stakeholders around the world while providing them with better foundations of life. Hyundai E&C, which has been leading the global construction market while implementing 830 projects in 59 countries around the world since its founding in 1947, is expanding its business to and South American, African, and Commonwealth of Independent States (CIS) markets based on its stable business base in the Middle East and Asia to leap to become a company with greater potential and competitiveness. As of May 2019, a total of 6,173 employees are working at 147 domestic sites and 57 overseas sites centering on the headquarters, 2 domestic branches, and 25 overseas branches and offices.



#### **INFRASTRUCTURE**



#### We will challenge the unlimited possibility with the world as a stage.

development projects, port construction works, railroad, road, and bridge construction works, water environment and water treatment projects based on infinite imagination. Hyundai E&C, which is leading the architectural paradigm its best technology and rich business experience accumulated over 72 years, such as eco-friendly green buildings, high-rise buildings, and complex thereby playing the role of a tractor in the economic development of various development projects in a wide range of construction businesses area ranging countries in the world. In order to achieve our vision of creating new value in from commercial, medical, office, education, athletic and cultural facilities human life, we will become a Core Infra Solution Leader who provides core to cutting-edge industrial and public institution facilities, is expanding its infrastructure construction with differentiated advanced technology.

#### **BUILDING WORKS**



#### We will realize future architectural spaces that lead the times.

The Infrastructure Division has successfully accomplished national land The Building Works Division realizes the state-of-the-art space in imagination, where people, information, environment and technology coexist, with its business field into mega projects, CM projects, etc. to grow into a Constructor & Developer.



#### We will create a residential culture that thinks people first.

The Housing Works Division presents new standards in the residential culture The Plant Works Division is recognized for its outstanding technological of South Korea through innovative design and elegant services and maintains prowess in the field of construction of global mega petrochemical, gas the status of luxury brands throughout the housing business, including and refinery plants, based on its abundant construction achievements and highly skilled workforce and know-how accumulated in overseas markets. large-scale redevelopment and reconstruction, apartments, and residential complexes. Hillstate, the leading apartment brand in South Korea, is leading As a leader in the global plant market, Hyundai E&C will continue to pursue the construction of future-oriented portfolio through advancement into new the market while providing excellent residential space. We will continue to lead the future residential paradigm as a Lifestyle Leader. high value-added markets and groping of new growth businesses based on securing core technologies.

VALUE CREATION

#### We will lead the global plant market with our technology, experience, and strong momentum.

## Management **Philosophy & Vision**

### GROUP MANAGEMENT PHILOSOPHY

Based on its group management philosophy, 'realizing dreams of human society by creating new future through creative thinking and endless challenge', Hyundai E&C achieves a history of success through creative foreknowledge, aggressive will, and strong momentum and leads the sustainable development of the global construction industry.

#### Unlimited Sense of Responsibility

#### **Realization of Possibilities**

Our unlimited sense of responsibility for the safety and happiness of the customer is realized in our quality management, which leads to the creation of unlimited value for our society.

We always move forward to the next goal after each success, and create a bigger future with an entrepreneurial spirit to take the risk of failure. We offer value, better products and better services that help people to live more conveniently, and make their lives more affluent.

Respect for Mankind

## TOGETHER FOR A BETTER FUTURE

**GROUP VISION** 

Vision of Hyundai Motor Group, "Together for a Better Future" is a firm commitment to deliver the best satisfaction to customers beyond the external growth of the company. Synergy created by the Hyundai Motor Group is realizing new values through innovation in various parts of our lives.

### The Group's **Core Values**

For accomplishing the Group's vision of the Hyundai Motor Group, Hyundai E&C pursues the five core values as standards of their action and decision making. We have continuously stepped forward as a global construction company by accomplishing challenges and cooperation through the sharing and internalization of the core values and by reinforcing the creative corporate culture that respects customers and employees.

1 Customer	Challenge	3 Collaboration	4 People	Globality
We promote a customer- driven corporate culture by providing best quality and impeccable service with all values centered on our customers.	We refuse to be complacent, embrace every opportunity for greater challenge, and are confident in achieving our goals with unwavering passion and ingenious thinking.	We create synergy through a sense of 'togetherness' that is fostered by mutual communication and cooperation within the company and with our business partners.	We believe the future of our organization lied in the hearts and capabilities of individual members, and will help them develop their potential by creating a corporate culture that respects talent.	We respect the diversity of cultures and customs, aspire to be the world's best at what we do, and strive to become a respected global corporate citizen.
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Based on its group management philosophy, 'realizing dreams of human society by creating new future through creative thinking and endless challenge'. Hyundai E&C achieves a history of success through creative foreknowledge, aggressive will, and strong momentum and leads the sustainable development of the global construction industry.

### **HYUNDAI E&C'S STRATEGIC** DIRECTIONS

Striving to realize the future vision, Hyundai E&C has defined the three strategic directions of 'Enhancement of business structure.' 'Advancing into new growth feld' and 'Globalization of management infrastructure.

#### Enhancement of Business Structure

Business portfolio enhancement High value-added business model

## WE BUILD TOMORROW

For the vision of 'as a global leading provider of high-value engineering solutions, we will create the foundation for a better life through cross-business synergy and convergence with future technologies.' Hyundai E&C has endeavored to generate the best values through the harmonious and sustainable growth with stakeholders.

### Hyundai E&C's Mission

#### As a Global Leading Provider of High-value **Engineering Solutions**

Provide integrated construction services and diversify the type of overseas contracts · Establish an optimized management infrastructure

Synergy

· Enhance partnership with relevant industries to expand business areas Build a base for green growth

#### Advancing into New Growth Field

- Selecting new growth power businesses Advancing into new markets
- Maximizing the synergies effect with affiliates

#### Globalization of Management Infrastructure

Building an effective global organization Training global talents Establishing global cost price & quality control system

### **HYUNDAI E&C VISION**

## **2** Through Cross-business

#### Convergence with **Future Technologies**

· Ensure that individual technologies developed in separate sectors are integrated and utilized in new areas to create new growth drivers

· Fulfill the role as a catalyst of new business areas

#### **4** Create the Foundation for a Better Life

· Value 'people' as a top priority and create a better foundation for life by having a shared mindset with customers · Grow together with all stakeholders and contribute to

the society

#### http://en.hdec.kr/EN/Sustainability/Global.aspx

## **Sustainable Value Creation**

### Hyundai E&C Sustainability Management

Hyundai E&C recognizes the socio-environmental problems of climate change, population growth, energy and water shortage, and resource depletion faced by the world of today as a serious threat to human survival. Therefore, as an engineering-based global construction company, Hyundai E&C is committed to providing 'Sustainable Habitat for Humans' through sustainable construction products and eco-friendly construction technologies as its mission of the times. In 2014, Hyundai E&C established a sustainability management strategy based on the creating shared value model that simultaneously creates economic value and social value through convergence of social demands and problem solving for the first time among construction companies throughout the world and are pursuing corporate-wide sustainability management focusing on the five major sustainability areas of strategic management, environmental management, technology management, talent management, and shared growth management and seven propelling strategies.



#### Long-term Sustainability Target

Focal Area	Long-term Sustainability Target	Key Sustainability Indicators		
Increasing the Proportion of Sustainable Products	Increasing the proportion of sales of sustainable products to more than 45% against total revenues by 2022	Proportion of total sustainable products (%) Proportion of sustainable products in Infrastructure Works Division (%) Proportion of sustainable products in Building Works Division (%) Proportion of sustainable products in Plant Works Division (%)		
Securing Future Core Technologies	Investing over KRW 20 billion annually in securing future core technologies by 2022	R&D investments (KRW 100 millions) R&D human resource investments (KRW 100 millions) R&D expenses (KRW 100 millions) R&D asset acquisitions (KRW 100 millions)		
Reducing GHG Emissions	Reducing GHG emissions by 2.1% per year compared to baseline year 2015 by 2022	Total GHG emissions reduction $(tCO_2-e)$ GHG emissions reduction by energy efficiency $(tCO_2-e)$ GHG emissions reduction by energy saving campaigns $(tCO_2-e)$ GHG emissions reduction by operating environment-friendly vehicles $(tCO_2-e)$		

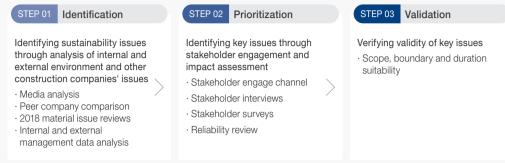
\* Defnition of sustainable products: Energy plants, products of green business, green buildings, and high-effciency buildings \* Defnition of R&D investments: R&D human resource investments, R&D expenses, and R&D asset acquisitions

Stakeholder Engagement	When a company promotes sustainability management, the activities to collect opinions from various stakeholders who exchange influences with management activities and reflect them actively in management activities are very important. Hyundai E&C defines six major stakeholders according to business and functional aspects and operates diverse communication channels to collect opinions. In addition, Hyundai E&C realizes creating shared value by fairly distribute the economic outcomes created through business activities to stakeholders.			
Distribution of Stakeholder Interests (Unit: KRW 100 million)	Communication Channels	Communication Channels	Engagement Policies	
3,625.6 Government Corporate tax payments Employees	Government, Media and Association	<ul> <li>Public Hearings</li> <li>Press Release</li> <li>Association Activities</li> </ul>	<ul> <li>Participate in the government's policy and comply with regulations</li> <li>Transparently disclose via media</li> <li>Build a constructive relationship with relevant associations</li> </ul>	
5,559.7 Total annual compensations		· Intranet, HDEC Newsletter, SNS, Blog	Provide fair appraisal and	
66,122.0 Suppliers Procurement and subcontracting expenses	Employee	Next Leader Board, Discussion with CEO     Employee Engagement Survey H·Dudrim	<ul> <li>Provide fair appraisal and compensation</li> <li>Support innovative capability</li> <li>Pursue work and life balance</li> </ul>	
144.9Local Communities Social contribution expenditures1,424.2Shareholders & Investors	Customer	<ul> <li>Call Center, Customer Center (web), SNS, Blog</li> <li>Customer Satisfaction Survey</li> <li>Hillstate Styler</li> <li>H-Dudrim</li> </ul>	<ul> <li>Maximize customer satisfaction through technologies</li> <li>Increase customers' trust and improve communication</li> <li>Construct a comfortable residential environment</li> </ul>	
Dividends and interests	Supplier	<ul> <li>Hi-partner System</li> <li>Joint Cooperation Committee, Win-win Growth Support Center</li> <li>Supplier satisfaction survey</li> <li>H-Dudrim</li> </ul>	<ul> <li>Establish fair and transparent business relations</li> <li>Share information and technologies</li> <li>Realize the shared growth and win- win management</li> </ul>	
	Society	<ul> <li>Social contribution activities</li> <li>Community meeting</li> </ul>	<ul> <li>Protect the environment around sites</li> <li>Enhance six 'MOVE' social contribution activities</li> <li>Actively communicate with local communities</li> </ul>	
	Shareholder and Investor	General shareholders' meeting     Investment presentation     Public disclosure	<ul> <li>Establish a sound governance</li> <li>Continuously enhance the corporate competitiveness</li> <li>Maximize the value of shareholders and investors</li> </ul>	

2016	2017	2018	2019 (Target/Estimation)	2022 (Target)	Link to UN SDGs
40.39 1.13 25.65 13.61	39.93 0.33 29.67 9.92	43.17 1.37 33.17 8.62	43.62 1.53 32.13 9.96	45.00 2.00 29.00 14.00	<b>()</b> Goal 11, 12, 13
227 183 39 5	9.92 222 181 40 1	189 159 27 3	203 161 42 0	14.00 229 180 47 2	<b>O</b> Goal 6, 9, 12
1,350,354.47 92,849.00 853.00 9.29	1,053,293.70 68,589.00 710.89 144.11	1,095,300.43 65,860.16 570.90 148.90	1,335,189.21 64,477.10 558.91 145.77	1,252,826.38 68,625.05 594.87 155.15	<b>O</b> Goal 12, 13

## Key Sustainability H Issues re ad

Hyundai E&C selects and reports key sustainability issues affecting the corporate sustainability management in accordance with the international standards for sustainability reporting, GRI Standards. Additionally, we reflected principles of the inclusiveness, materiality, and responsiveness which AA 1000 standard requires for the accountability of the issue selection process and evaluation result.



### STEP 01

Identification

#### PRINCIPLE: Inclusiveness

Hyundai E&C created the sustainability management issue-pool (includes total 342 construction sector issues) through the benchmarking of global guidelines, review on the domestic and global construction industry, media research, and review on the internal management data. As a result, we identified total 36 sustainability issues that have a high relevance to the managerial activities of Hyundai E&C.

Identification of Sustainability Issues Through Internal and External Environment Analysis

Benchmarking of Global Standards	Review on Domestic and Global Construction Industry
Conduct benchmarking on key sustainability management trends by analysis on GRI Standards, ISO 26000, DJSI, UN SDGs and CDP	Identify material issues in relevant industry by analyzing sustainability issues that domestic and overseas construction companies report
Media Research	Review on Internal Management Data and Interview

### STEP 02

Prioritization

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### PRINCIPLE: Materiality

Prioritization of Issues Identified through the Materiality Test

Hyundai E&C analyzed the materiality of each issue in aspects of external interest and internal impact by conducting the online survey about the Hyundai E&C sustainability issues, which total 2,146 internal and external stakeholders participated in.

#### Stakeholder Survey

Purpose	To identify major interests and expectations of various stakeholders
Period	April 10 to 19, 2019 (total 10 days)
Utilization	Establishment of long-term sustainability goals; review on the sustainability management approach; development of the Sustainability Report

STEP 03

Validation

Material Issues



Strategy & Agenda		GRI Standards Topic	
STRATEGY Sustainability Management	$\boxtimes$	Identified Material Aspects and Boundaries, Stakeholder Engagement, Governance, Ethics and Integrity	4 8 25
AGENDA 01 Strategic Management	k.	Strategy and Analysis, Organizational Profile, Economic Performance, Indirect Economic Impacts	1 wi 12
AGENDA 02 Environmental Management	Ø	Materials, Energy, Water, Biodiversity, Emissions, Effluents and Waste	2 2 3 3 3 3
AGENDA 03 Technology Management	\$	Products and Services, Marketing and Labelling, Customer Privacy	2 an so
AGENDA 04 Talent Management	Ŕ	Employment, Labor & Management Relations, Occupational Health and Safety, Training and Education, Diversity and Equal Opportunity, Equal Remuneration for Women and Men	3 co 19 an
AGENDA 05 Social Management	$\bigotimes$	Supplier, Local Communities	16 ca pro

#### Validation of material issues

#### **PRINCIPLE:** Responsiveness

Hyundai E&C thoroughly reviewed whether the issues identified have an important influence on the company. Comprehensively considering the validity of issues and their connection to management strategies, we subdivided issues into three categories: 20 material sustainability issues, 30 core issues, and general issues. In planning this report, we focused mainly on the 20 material sustainability issues that have the highest importance. Also, we endeavored to guarantee our stakeholders' right to know by including material and general issues.

- Propelling ethical and transparent management , 6 Securing the sustainability leadership, Proactive risk management, 12 Fair competition and fair trade, B Securing governance soundness, 23 Stakeholder engagement and communication Creating corporate performance and economic values, 9 Fostering new growth businesses ith core competencies, (3) Complying with regulations of governments where we operate, B Expanding global markets based on competitiveness-driven businesses, Improving cost competitiveness and profitability, 3 Maximizing all stakeholder's value added 2 Propelling environmental management, 27 Managing waste and expanding recycling, B Energy management and reduction, 1 GHG emission management and reduction, Materials and resource usage reduction, 😨 Responding climate change strategically, B Water management and reduction, 33 Protecting biodiversity in business operations 2 Fostering top-notch capability in key technology competitiveness, **5** Creating customer satisfaction and customer values, 7 Enhancing eco-friendly R&D and design competitiveness, 20 Value added to ociety by innovative products, services and quality, 23 Brand management and market leadership 3) Focusing on safety management and accident rate reduction, 10 Enhancing employee competitiveness and executive power, 11 Establishing and settling advanced corporate culture, Respecting employee diversity and pursuing their equal opportunities, 24 Protecting human rights and preventing violations in business, 33 Pursuing common interests of labor and management Strengthening sustainability in supply chain, 🕧 Advancing supplier evaluation for enhancing
- apabililites, 18 Propelling shared growth and supplier supports, 29 Strategic social contribution programs, 39 Contributing and investing for local communities

# HDEC VALUE CREATION

Since the introduction of sustainability management in 2010, Hyundai E&C has grown by pursuing long-term growth of the company and prosperity of mankind in a balanced manner.

Hyundai E&C has achieved remarkable growths over the last 10 years, creating sustainable values.

## VALUE CREATION

ENVIRONMENTAL MANAGEMENT TECHNOLOGY MANAGEMENT

TALENT MANAGEMENT



SOCIAL MANAGEMENT

## Hyundai E&C **Sustainability Management**

For the first time in global construction history in 2014, Hyundai E&C has established five areas of the sustainability for a tomorrow where the company and the society grow together based on the Creating Shared Value (CSV) model that is to pursue the long-term growth of a company and the prosperity of the mankind simultaneously.



Hyundai E&C will create a sustainable habitat for human with confidence that it can accomplish everything imaginable, indomitable determination, creative foreknowledge, and challenging spirit.

\* Creating Shared Value (CSV): The management principle by which economic value and social value are created simultaneously by accepting the demands of the society and solving problems Hyundai E&C accomplishes the shared growth with the society by empowering the entire value chain.

Sustainability Goal

Hyundai E&C pursues the sustainable

growth of the company and society

through the creation of shared value.



## STRATEGIC MANAGEMENT

Economy

The world is the land of infinite possibility and the stage where Hyundai E&C's dreams are realized. Backed by the outstanding competitiveness in construction, we have become the leading construction company through advancing business portfolios, developing new growth businesses, and expanding to emerging markets. we will step forward as a global integrated engineering company by providing solutions for socio-environmental issues that the earth is facing.

### 2010

First Korean construction company, achieved USD 10 billion of annual overseas orders

First Korean construction company, exceed USD 100 billion of overseas orders (accumulative)

- In

2013

2014 billion of annual overseas orders for 3 consecutive

vears

First Korean construction company, achieved USD 10

First Korean construction company, achieved KRW 1 trillion of operating profit

2017

2019 **GREAT COMPANY** Great People Great Culture Great Value

2010

11111

Establishment of GHG inventory and reduction targets 15.61

2012

First global construction company, acquired international energy management system certification

Sustainability Goal Hyundai E&C pursues the sustainable growth of the company and society through the creation of shared value. Sustainability Goal



Dubai-I Project, United Arab Emirates

16

## **ENVIRONMENTAL MANAGEMENT**

Environment

Environmental issues such as climate change, energy and water scarcity and resource depletion that companies are confronted with have emerged as new challenges and, at the same time, opportunities. Hyundai E&C has established strategies and goals for the environmental management and strived to improve the environmental efficiency through the systematic management. In addition, Hyundai E&C is striving to minimize the environmental impacts that can occur during the entire construction project.



Awarded CDP Carbon Management Honors Club for the first time



Establishment of the longterm environmental goal '2030 Global Green One Pionee



Awarded CDP Carbon Management Honors Club for the 5th consecutive years

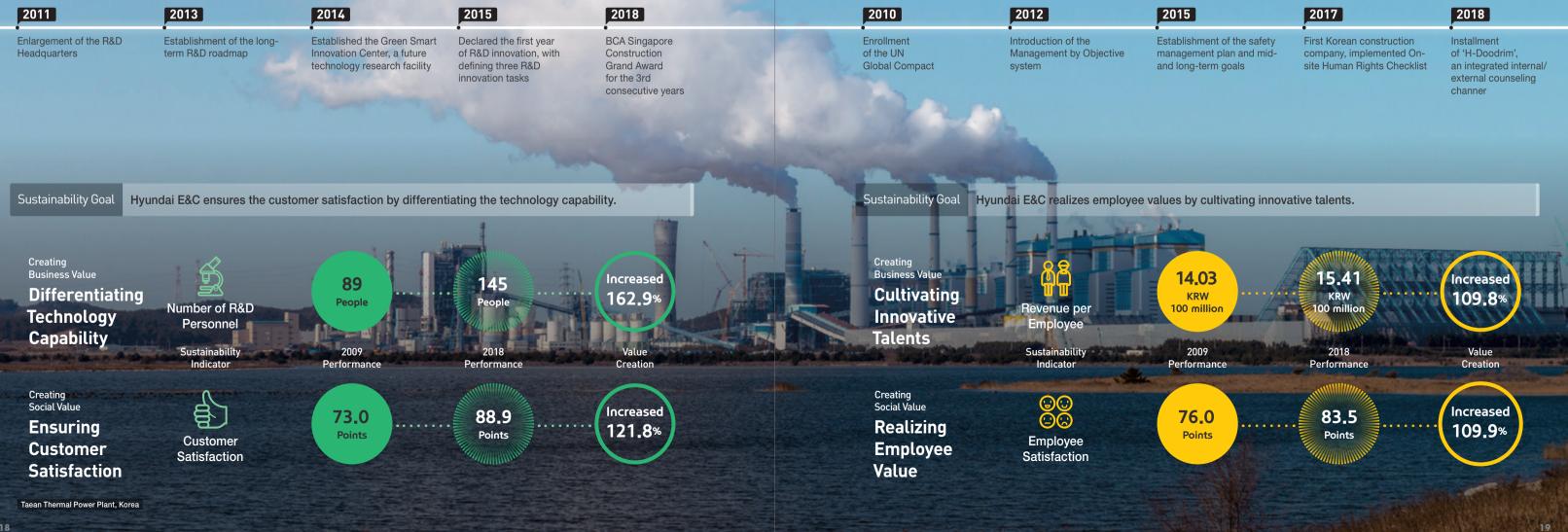
Hyundai E&C realizes a sustainable future by creating global values.

## **TECHNOLOGY MANAGEMENT**

#### Technology

Technology is the driving force of Hyundai E&C's future while its innovative DNA is the key to make the impossible possible. We will create a better tomorrow of the earth through the development and application of highefficiency and low-carbon source technology based on the analysis of mid- to long-term megatrends. Hyundai E&C will fortify the global cooperation for R&D and further differentiate its technology capability. We will do the best to deliver a sincere customer satisfaction through the constant quality. innovation.

Employees are the driving forces of the corporate innovation and the most valuable resources of Hyundai E&C. We have taken persistent steps toward the dream of Construction Korea by nurturing innovative talents who pioneers changes and innovations around the world. Additionally, we have strived for the value creation of individual employees by providing the best opportunity for the capability development as well as built a pleasant corporate culture where employees can work in a safe environment and maintain the work-life balance.



## **TALENT MANAGEMENT**

#### Employee

## **SOCIAL MANAGEMENT**

Society

While suppliers are Hyundai E&C's partners to accomplish the future growth, local communities are the base to execute the corporate activity. In order to become a sustainable construction company, Hyundai E&C is establishing a global supply chain and identifying and cultivating competent global suppliers. Furthermore, we have faithfully delivered our role and responsibility as a global corporate citizen by further expanding domestic and overseas social contribution activities and actively participating in communities.





#### Creating Sustainable Value

#### Industry leader of DJSI for Six Consecutive Years



Hyundai E&C has been recognized as the global leader, by achieving the 1st rank in the world-renowned Dow Jones Sustainability Index (DJSI) for the sixth consecutive year since 2013. The DJSI is the investment index developed by Dow Jones, the largest financial information company, and RobecoSAM, a Swiss assessment company. It annually evaluates the economic, environmental, and social sustainability of the top 2,500 companies in market capitalization by industries and thus announces the evaluation result.



**Creating Business Value** 

**Quality Excellence Award for Three Consecutive Years at Singapore BCA Awards** 



Hyundai E&C enhanced its position as a global construction company by becoming the first Korean construction company to receive the Platinum in Quality Excellence Award for three consecutive years at 2018 Singapore BCA Awards held by the Singaporean government; Singapore BCA Awards is the most authoritative construction-related award that evaluates projects completed or being executed in the country in various areas including construction, environmentfriendliness, engineering, safety, and quality.



Creating Environmental Value

2018, Hyundai E&C was selected as a member of arbon Management Honors Club' for five consecutive ars which is an award given to outstanding companies nd Carbon Management Sector Winners' in the industrial aterial sector for seven consecutive years from Carbon isclosure Project (CDP). In this evaluation, Hyundai E&C ccomplished the 'Leadership A' for high score in climate ange response strategy, GHG red tion efforts, and GH

Global

# HDEC VALUE EMPOWERMENT

Hyundai E&C, which has been leading the creation of sustainable value by the global construction industry, is now embarking on a new challenge, paying attention to its role and potential for 'value empowerment'.

While maximizing enterprise, environment and social values through the establishment of seven strategies for promoting value empowerment, Hyundai E&C is accelerating the creation of sustainable bases for mankind.

an ar shall a second

Fortifying Global Competitiveness

Securing Core Technology

Responding Climate Change

Enhancing Safety & Environment Infrastructure

**Cultivating Innovative Talents** 

Enhancing Value Chain Capability

Salar Mar

Advancing Strategic Social Contribution

C SEPTERAL

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#### Strategy 1

## Fortifying Global **Competitiveness**

The world is a vast stage where Hyundai E&C will follow its dream and a land of infinite possibilities.

Based on its differentiated technological prowess and proven business capabilities. Hyundai E&C is strengthening its competitiveness for the whole world as its stage beyond South Korea.

Hyundai E&C is pioneering the history of construction with the corporate spirit of 'creative challenge' and is growing as a Value Creator that provides future-oriented integrated services.

B

Creating Sustainable 69 Economic Value · Achieving stable financial

· Enhancing the global status

oriented Portfolio Business portfolio strategy Excavating future new tree species business

Expanding the Future-

Providing Total Service Providing total service in all fields

of construction industry value chair

Strengthening Global Business Competitiveness Expanding global value chain Expanding global market

http://en.hdec.kr/EN/Business/InfraWork.aspx

#### Value Empowering Case

#### Hyundai E&C Wins USD 2.7 Billion Plant Deal in Saudi Arabia

Hyundai E&C is spurring its global walking after winning an order for mega plant construction work from Saudi Arabia amounting to USD 2.7 billion in June 2019. Hyundai E&C confirmed its receipt of contracts for Packages 6 and 12 of Saudi Arabian oil giant Saudi Aramco Daran Headquarter's Marjan Development Programme, which is the main package of the gas and crude oil-processing development programs produced from offshore oil fields in the Marjan region. Especially, this order is more meaningful because it is recognized in all aspects including technology, quality and process of the construction of the Uthmaniyah ethane processing plant ordered by Aramco, which is the same client.

#### Uthmaniyah Ethane Processing Plant Project in Saudi Arabia



#### Hyundai E&C, Recorded Cumulative Overseas Orders Worth of USD 125 Billion

Achieving meaningful outcomes such as achieving yearly overseas order amount of USD 10 billion for the first time among South Korean construction companies in 2010, exceeding USD 100 billion in the cumulative overseas order amount in 2013, and achieving USD 10 billion in yearly overseas order amount for the third consecutive years in 2014, Hyundai E&C is continuing challenges toward the world today as well. By successfully winning the Saudi Arabian Marjan Gas and Oil Treatment Facility Project in June 2019, Hyundai E&C's cumulative overseas order amount exceeded USD 125 billion and will reach USD 130 billion very soon for the first time among South Korean construction companies. To achieve the yearly order winning goal of KRW 13.9 trillion for 2019 (seperate basis), Hyundai E&C is expanding order winning centering on construction types for which Hyundai E&C has competitive advantages.

#### Trend of Increases in Cumulative Overseas Orders

2019	USD 125 b	illion
2013	LISD 100 billion	

#### Performance in Receiving Overseas Orders



Achieved USD 100 billion in accumulative overseas orders for the first time as domestic construction company (in 2013)



exceeded USD 10 billion for three consecutive years (in 2014)

#### **Creation of Sustainable** Economic Value

Since its founding in 1947, Hyundai E&C has been unceasingly renewing first and highest records for the past 72 years to rewrite the history of global construction. Based on the experience and technological capabilities accumulated thus far while successfully carrying out 839 projects in 59 countries around the world, Hyundai E&C is expanding its global business through the strategy to receive orders centering on those construction types for which it has competitive advantages and portfolio diversification toward new markets and new businesses. The yearly sales target of Hyundai E&C for 2019 is KRW 17 trillion, the growth is expected to continue with the beginning of full-fledged processes of major overseas large construction works such as the Al Zour LNG terminal in Kuwait and the Uthmaniyah ethane processing plant in Saudi Arabia, and increases in domestic housing sales. Hvundai E&C plans to accelerate its entry into new markets such as Africa while expanding its order winning in the Middle East / Asia region where its competitiveness is high, centering on core construction types such as gas plants, combined-cycle power plants, and reclamation construction.

#### **Enhancing the Global Status**

Hvundai E&C was ranked 16th in the 'Top 250 International Contractors 2018' announced by the ENR (Engineering News Record), the world's leading construction and engineering magazine thereby keeping the highest rank among South Korean construction companies while ranging with leading global construction companies. Hyundai E&C once again confirmed its position in the global market, by being ranked 5th in sales in the Middle East region and 8th in Asian region among construction companies throughout the world.

Hyundai E&C

16<sup>th</sup>

#### **Expanding of Future**oriented Portfolio

Hyundai E&C is establishing and implementing business portfolio strategies based on analysis of capabilities by business division, market characteristics and future market prospects. By entering various business fields in the domestic and overseas markets. Hvundai E&C is operating a balanced business portfolios by domestic and overseas region and by type of construction such as civil / construction / plant, and this strategy is becoming a driving force to maintain stable growth without shaking even in rapidly changing external environments such as falling oil prices and exchange rate fluctuations. In the mid to long term, Hyundai E&C is promoting business area expansion and concretization of future industries.

#### **Excavating Future New Tree Species Business**

The global construction trend is rapidly changing due to the proliferation of the fourth industrial revolution. Hyundai E&C is excavating and promoting future new tree species of business in order to respond effectively to changes in the construction industry environment and create new revenue sources. New tree species of business refer to newly fostered businesses that can lead the future. Hyundai E&C conducts close market analysis and continuously monitors market trends to capture business opportunities considering changes in social and economic megatrends such as oil price fluctuations, warming, and ageing. In addition, based on the foregoing, Hyundai E&C is promoting business strategies step by step to create substantial results by business division. In addition, Hyundai E&C is promoting digital conversion throughout the company and plans to continue excavating areas that can be commercialized in the mid- to long-term such as smart city and hydrogen industry.

#### Hyundai E&C Opened A 36.1 km Long Sea Route across Kuwait



In May 2019, Hyundai E&C successfully completed the longest "Kuwait Sheikh Jaber Causeway Maritime Bridge" in the Middle East. This project is the largest civil engineering project won by any South Korean construction company after the Great Man-Made River in Libya. It was a mega project to simultaneously construct a 36.1km long marine bridge and two 330,000 m<sup>2</sup> wide large artificial islands based on the long-span bridge construction technological prowess of Hyundai E&C. Based on Hyundai E&C's rich long-span bridge construction know-how and unmatched technological prowess proven through the successful completion of this project, Hyundai E&C has preoccupied an advantageous position in winning SOC projects that will be added in Kuwait and the Middle Fast

#### Sheikh Jaber Causeway Maritime Bridge in Kuwait

24

#### **Achieving Stable Financial Performance**

Rankings in overseas sales of major Korean construction companies

(2018 ENR disclosure data)



#### **Business Portfolio Strategy**

Hyundai E&C has established the

appropriate local suppliers while

been maximized.

equipment suppliers and acquiring

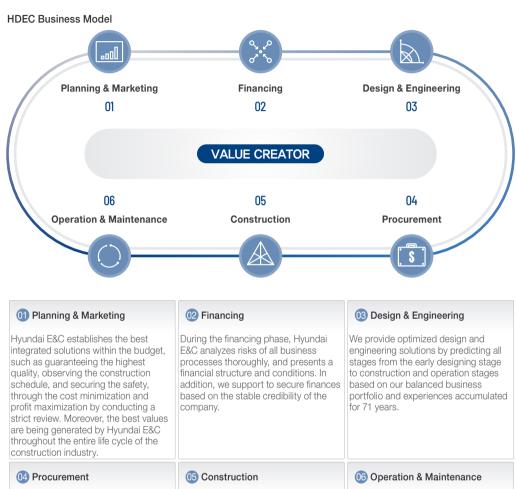
procurement experts. Consequently.

the efficiency in the procurement have

global procurement system and found

signing partnerships with material and

As a total service provider that provides integrated services across all areas of the value chain of the construction industry, that is, business planning, , financing, design & engineering, procurement, construction, and operation & maintenance, Hyundai E&C is expanding its influence based on differentiated competitiveness in the rapidly changing global market environment. In addition, based on its business experience and differentiated technological prowess accumulated since its establishment in 1947, Hyundai E&C is growing into a global company that creates diverse added values.



### **Enhancing Cost Competitiveness**

Hyundai E&C is spurring the enhancement of cost competitiveness with the aim of generating profits through maximizing added value. To that end, Hyundai E&C selected main construction works by business division and promoted business in 2018 with a target of 10% cost reduction. Hyundai E&C implemented multi-lateral strategies so that the enhancement of cost competitiveness can lead to the expansion of winning of good quality orders. In particular, in order to strengthen order winning competitiveness in bidding projects, Hyundai E&C excavated and utilized new LCC (Low Cost Country) companies to improve cost competitiveness while carrying out Document PQ and due diligence for local companies in order to minimize the risk of implementation .

The impeccable construction is the

of talents, Hyundai E&C provides the

best quality to its customers applying

technology development and cultivation transportational infrastructure,

solutions optimized for on-site condition. and Maintenance (O&M) service of the

most crucial factor of a successful

business. Through the constant

Hyundai E&C have accumulated

business experiences in various

areas such as complex building.

environmental plant, and power plant

while striving to offer the Operating

world's best level in the areas

In 2019, Hyundai E&C plans to expand LCC purchasing by securing the business headquarters and LCC regional branch suppliers. In addition, we will continue to prepare cost reduction measures by presenting bidding alternatives, improving construction methods, finding cost reduction cases, and making a database for the project being promoted. We will also support cost competitiveness by applying and verifying the reduction plan and improving the project management and execution method.

#### Strengthening Global **Business Capabilities**

Current Status of Overseas

Hyundai E&C Has Advanced

(As of May 2019, cumulative)

Countries into which

Continents

 $59^{\text{Continents}}$ 

h

Hvundai E&C operates 28 overseas branches and offices to promote successful global business. These overseas branches and offices deliver the management infrastructure to the sites and play the pivotal role of efficiently connecting the head office and the sites. In addition, they initiatively contribute to overseas order winning and performance competitiveness by firsthand excavating local companies, managing overseas supplier pools, as well as performing on-site management work.

In 2019, Hyundai E&C is striving to strengthen its global value chain by establishing new procurement branches in Saudi Arabia, Vietnam and Indonesia to strengthening order winning competitiveness and ensure consistent supplier management throughout the entire procurement processes. The procurement branches operate customized subcontracting strategies by country, performs order winning support activities, and support efficient local purchasing and prompt logistics / customs clearance.

#### Expanding into Global Markets

A market diversification strategy is important in order to flexibly cope with the rapidly changing global market environment. In order to expand its overseas business experience accumulated in the Middle East and Asia, Hyundai E&C selected Central and South America, the Sub-Saharan and Commonwealth of Independent States (CIS) as core new markets and countries is devoting all its energy to expanding emerging markets. In addition, to prevent and minimize business risks that may arise in entering new markets, Hyundai E&C has prepared a precautionary check system for legal, accounting, labor and regional backgrounds centering on the PRM Strategic Planning Office.

Through these efforts, Hyundai E&C has achieved the outcome of inning overseas projects such as the Singapore Tuas southern part reclaiming work and the Uzbek Naboi Combined Cycle Power Plant construction work in 2018 amid difficulties such as reduction in orders from the Middle East due to low oil prices. In 2019, Hyundai E&C will work closely cooperate with its local network, which has been established for many years, to secure projects with high possibility of order winning while pioneering a way out of difficulties in global business by propelling the winning of orders for PPP and financial projects beyond construction work centered order winning strategies.

#### Business Strategies by Overseas Region

839 Construction projects

#### Middle East / Africa Asia GCC\* countries, Iraq, Libya, Cambodia, Pakistan, Myanmar, Mozambique, Tanzania, etc. the Philippines, etc. Link with EDCF, JICA and Promote the expansion of new order winning through collaboration with Multilateral Development Bank suppliers that have strengths in to excavate new projects in certain construction work types developing countries and promote advancement into new countries Secure front-log of Africa regions that focus on the expansion of infra-· Maintain appropriate cost ratios structure to stimulate the economy at construction sites in progress in Singapore and Asia Watch market conditions / security situation in Iran, Iraq and Libya and conduct analysis and establish a strategy for market re-entry



Middle East / Africa

26

#### **Strengthening Global Value Chain Organizations**

#### CIS / Russia Uzbekistan etc.

Seek opportunities for plant construction projects winning through continuous cooperation with Russian Oil Maiors and expand participation in power generation projects according to the government's electricity supply and demand plan

Establish a plan to advance into the project with financing and PPP projects for CIS countries with poor financial status

#### Central and South America

Mexico, Panama, Chile, Peru, etc.

- · Construct complementary cooperative relationships with local companies and suppliers that have competitiveness in the local market
- Promote the expansion of new order winning through acquisition and analysis of information on new PPP project planned to be ordered







#### Strategy 2

## Securing Core Technology

Technology is the future of Hyundai E&C and a driving force that make impossible things possible.

Hyundai E&C is strengthening its R&D capabilities through continuous investment, and is devoting all its energy to securing future source technologies by expanding its global R&D networks.

In addition, Hyundai E&C is promoting collaboration with group companies to expand its R&D area into the new growth convergence field thereby strengthening its business creation base.

Improving R&D Competitiveness

 Initiative participating in the improvement of competitiven

Preemptive support for sites

· Excavating leading technology that will lead business divisions

Strengthening R&D Infrastructure

 Improving R&D organization efficiency
 Expanding R&D investment
 Proving research and development and securing patents Expanding R&D

 Developing group company synergybased convergence technologies
 Holding technical conferences and technical competition
 Strengthening technology competitivene Creating Economic Value through R&D

http://en.hdec.kr/EN/InnoTech/InnoRnd.aspx

technology application Winning projects and creating effects that contribute to profitability through technical support

#### Value Empowering Case

## Hyundai E&C's Technological Prowess Blooms into an Innovative Cutting-edge Building

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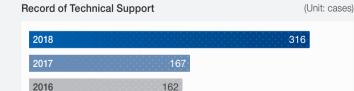
A building unprecedented in the world consisting of only curves made of 76,000 panels, 0 columns, and 316 different circular plates gathered together. The National Museum of Qatar was completed in April 2019 by realizing the geometric design of the world-renowned architect Jean Nouvel under the motif of the 'Desert Rose' with the state-of-the-art technological prowess of Hyundai E&C. To realize the atypical building unprecedented in the world, Hyundai E&C has introduced the 3D BIM (Building Information Modeling) into all processes of construction for the first time in the world thereby proving its differentiated technological prowess.

#### National Museum of Qatar

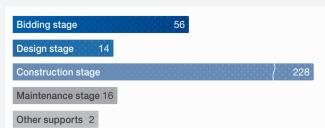


#### Realized Profitability Improvement and Order Winning Competitiveness through Technical Support

Hyundai E&C is strengthening its technological competitiveness such as reducing costs and shortening scheduled construction periods by applying new technologies and new construction methods developed through research and development to actual sites. In 2018, the Hyundai E&C R&D Center provided technical support for 316 cases (163 requested by sites and 153 preemptive supports) to domestic and overseas sites, thereby obtaining the effect to improve profitability such as prevention of increase in on-site construction costs and replacement of services by specialized companies. In addition, the Hyundai E&C R&D Center provided support at the bidding stage in a total of 56 cases thereby greatly contributing to improving the order winning competitiveness and realizing optimal designs based on the technologies held.



Number of Supports by Type of Construction Work in 2018 (Unit: cases)



#### R&D Competitiveness Enhancing Strategy

After establishing the Technology Institute in 1989, Hyundai E&C has been contributing to the development of the construction and engineering industry in South Korea as the lion of South Korea's construction technology for the last 30 years. In 2018, Hyundai E&C carried out business-contributing R&D aimed at improving technology / cost competitiveness and reduced risk preemptively by expanding communication with business divisions and sites. In addition, Hyundai E&C is striving to increase its order winning competitiveness by not only developing new technologies but also verifying and applying the technologies already developed technologies to sites in order to quickly secure technologies in step with the rapidly changing 4th industrial revolution era. In 2019, Hyundai E&C plans to expand research projects reflecting the technological needs of the construction and plant fields, expand the field of future new business research, and strengthen the introduction and application of new technologies through C & D.

#### 2019 R&D Strategy



#### Strengthening R&D Infrastructure

Current State of Patents Held

469

Regis- Rights Filed Registered

tered maintained in 2018 in 2018

(Unit: cases)

603

After expanding and reorganizing the existing Technology Institute into R&D headquarters with the goal of 'securing technologies to leap into an engineering-based construction company' in 2011, Hyundai E&C has been realizing technological innovation for future growth through active R & D-based investments. In order to respond quickly to changes in R&D trends such as the fourth industrial revolution, the R&D headquarters was reorganized into R&D headquarters in December 2018, and the organization was modified into a two-room system consisting of a technology solution room and a future technology innovation room. In addition, the efficiency of the R&D organization was improved by transferring 26 persons individual business headquarters to improve the engineering capacities of business headquarters and directly strengthening the technical capabilities of business headquarters utilizing specialized technical personnel.

Number of R&D Personnel

2018	
2011	

#### **Expanding R&D Investments**

Since 2011, Hyundai E&C has been continuously expanding investments to secure research facilities striving to strengthen R&D infrastructures by establishing new research and demonstration facilities, expanding laboratories, and replacing equipment. Hyundai E&C operates 7 demonstration facilities including 10 laboratories in the R&D Center and demonstration facilities for contaminated dredged soil purification in Singapore. In 2018, Hyundai E&C improved the wind tunnel laboratory experimental equipment, newly purchased 3D field management experimental equipment, and carried out a total of 45 research projects. In 2019, Hyundai E&C plans to invest in facilities such as improving laser displacement gauge experimental equipment to strengthen R&D infrastructures.

#### **R&D Demonstration and Securing Patents**

Hyundai E&C has been developing state-of-the-art construction technologies in-house based on the secured R&D infrastructures and has been strengthening its technological competitiveness through the demonstration of core technologies to promote the creation of businesses. In particular, the contaminated soil / dredged soil purification and recycling technology developed by Hyundai E&C in-house will be applied to the Singapore contaminated soil purification project and the returned US army base environmental cleanup project. In addition, Hyundai E&C is striving to secure good-quality patents, which are indispensable for the construction business. In 2018, Hyundai E&C applied for 42 patents and received 51 patents registered. In addition, Hyundai E&C has 15 effective new technologies in the fields of construction, environment and disaster prevention and has one green technology.

xcavating Leading Technologies nat will Lead Business Divisions	Initiative Participating in Improving Competitiveness	Preemptive Site Support
teexamining leading technologies through benchmarking of global vanced companies and excavating new technologies	Excavating universal technologies and expanding the application of developed technologies to sites	Grasping the causes of repeated flaws and preventing a recurrence
$\checkmark$	$\sim$	$\sim$
Improving Construction / Site Process	Preemptive Order Winning Support for City-based Projects	Securing Basic Technologies in the Field of Future New Business

#### Improving the Efficiency of R&D Organizations

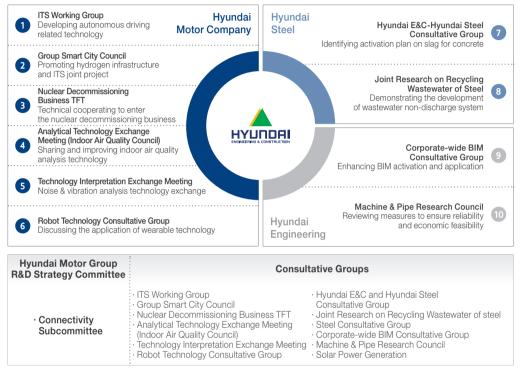


#### **Developing Convergence Technology Based on Group Synergies**

The Hyundai Automotive Group is establishing an eco-friendly circulation structure while achieving resource circulation in various fields such as automobile, steel. and construction. Based on the strong point of group companies as such, Hyundai E&C is promoting the development of convergence technologies in various fields such as transportation, environment, energy and smart city through joint research that can create synergy. To this end, 10 consultative bodies for active joint research and collaboration among group companies are operated, centering on the activities of the Connectivity Subcommittee under the Group R&D Strategy Committee.

In 2018, the Group Smart City Strategy was jointly established through participation in the Group Smart City Council and implementation tasks for strengthening internal capacity and securing track-record were jointly planned and are being promoted. The 'wastewater reuse system' that enables stable securing of industrial water was jointly developed with Hyundai Steel, was verified, and is being promoted for commercialization.

#### Current State of Group Cooperation for Technology Development



\* ITS : Intelligent Transport System \* BIM : Building Information Modeling

## 2018 Hyundai E&C

#### Holding Hyundai E&C Technology Conferences

Technology Conference



Hyundai E&C holds technical conferences every year to strive to excavate creative and innovative technologies and ideas in construction. The 2018 Technology Conference was a shared growth place to go one step further from the existing specialized technology exchange to promote the creation of new businesses through cooperation and measures to cooperate were sought together with suppliers while introducing smart construction technologies. Hyundai E&C shared newest technologies with leading suppliers such as LEICA from Germany (automatic survey technique), SOKKIA from Japan (3D Scanning), and ORACLE from the United State (Cloud Platform) through booth exhibition and pursued actual cooperation such as discussing ways to apply the technologies to sites. In addition, the R&D center and business headquarters cooperated to invited influential clients to share their new ordering plans and management strategies thereby preparing a foundation for global technical cooperation.

#### Interviews with Attendees of the 2018 Technology Conference



Rashid KIPIC

The attitude of the audience who participated in the Hyundai E&C Technology Conference was very active and the presentations of the lecturers were very helpful. In addition, the preparation and exhibition of the entire conference were also very good. Hyundai E&C, which I have experienced while I was participating in the AI Jur LNG project together with it, is a company that constructs buildings safely and efficiently based on its outstanding technological prowess. I look forward to working with Hvundai E&C on another project.



Humanity is facing energy depletion now, and the way of power generation using hydrogen as future energy is emerging. I think it will be realized soon with Hyundai E&C's technological prowess. I would like to work with Hyundai E&C to create energy for humanity. Since the coastal areas are developed in South Korea, there are many marine spaces that can be utilized. I think it would be helpful if we build floating food production facilities using the coast.

#### Enhancing Technology Competitiveness Based on Global R&D Cooperation

In order to secure the highest level of future core technologies, Hyundai E&C has established a research and development network with global leading research institutes and leading companies and conducts in-depth international joint research. In 2018. Hyundai E&C executed offshore wind power NDAs with Siemens Gamesa Renewable Energy (SGRE) in Germany, Senvion in Germany, and GE Wind France in France to prepare a global technical cooperation base in the field of offshore wind power. In addition, Hyundai E&C is striving to strengthen its core technological prowess through close cooperation with overseas advanced companies with original technology, such as signing NDA for floating structures with Blue Frontiers in Singapore. As of December 2018, Hyundai E&C has entered into technical cooperation agreements with 20 global companies and research institutes around the world.

#### Global Technology Cooperation Network

Europe	
1 France	3 Germany
GE Wind France	SGRE
· NDA* concluded	<ul> <li>NDA concluded</li> </ul>
Offshore Wind Power	Offshore Wind Pov
INSA Lyon	SENVION
· MOU/NDA concluded	<ul> <li>NDA concluded</li> </ul>
· Separable Foundation	<ul> <li>Offshore Wind Pow</li> </ul>
Terrasol	VOITH
· MOU/NDA concluded	$\cdot$ CA * concluded
· Separable Foundation	· Tidal stream powe
XtreeE	Herrenknecht
· NDA concluded	· MOU concluded
· 3D printing	· CPC
Lafrage Holcim	
· MOU/NDA concluded	4 Finland
· UHPC */concrete	Valmet
	· NDA concluded
2 Norway	· Biomass/MSW *
NGI	Gasification power
MOU concluded	· *30-
· Offshore Wind Power/	5 Spain
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· TBM*	
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#### Hyundai E&C Takes the Lead in Smart Construction Technology Development



Hyundai E&C, which has been leading the development of the South Korean construction industry, is concentrating its capabilities on developing and applying smart construction technology to lead the fourth industrial revolution era. As the first step, Hyundai E&C has started 'Drone automatic control technology development and demonstration at construction sites' with SK Telecom and Hyundai Construction Equipment in April 2019 and will continue to cooperate in the technology field using the 5G network of construction sites in the future. At present, more than 40 drones are supplied to domestic and overseas sites to use for surveying and progress management. In addition, more than half of all civil works sites successfully operate state-of-the-art surveying using drones equipped with laser scanners.

Introduction of State-of-the-art Surveying Using Drones



## Responding Climate Change

Responding to climate change is a future growth engine that creates new businesses.

Due to the global climate change and energy depletion, the capability to improve energy efficiency and reduce carbon emission is becoming the competitiveness of enterprises in most business types.

Hyundai E&C is promoting multilateral environmental energy management strategies and activities for preemptive responses while conducting corporate-wide carbon management activities in conjunction with the national greenhouse gas reduction targets.

gthening the Promotion ental Energy

 Establish long-term eco-friendly roadmap by 2030 Establish annual corporate-wide and by site environmental and energy policies and targets

mproving the Efficiency of Environmental Energy

• Operate integrated environmental and energy systems that meet international standards Integrated environmental performance managemer

#### Monitoring and Accident Response Ø

Strengthen environmental energy management evaluation and inspectio Response to energy accidents and expand education on environmental

Implement mid- to long-term carbon management strategies Greenhouse gas target management, greenhouse gas emission reduction activities

Ø

Strengthening Carbon Management Promotion

http://en.hdec.kr/EN/Sustainabilitv/GreenSaftv.asp

#### Value Empowering Case

#### Hyundai E&C Has Been Inducted into the CDP Korea Hall of Fame

Hyundai E&C has been inducted into the 'CDP Korea Hall of Fame' by acquiring the highest grade in the Carbon Disclosure Project (CDP), the world's most credible carbon management index, for five consecutive years. The 'CDP Korea Hall of Fame' is the highest honor awarded only to companies that have been awarded 'Carbon Management Honors Club' for the five consecutive years. Hyundai E&C is actively leading the reduction of greenhouse gas emissions by developing the "Site GHG Emission Estimation & Warning System" in 2018 and is leading greenhouse gas emission reduction by conducting green campaign activities and developing greenhouse gas reduction technology.

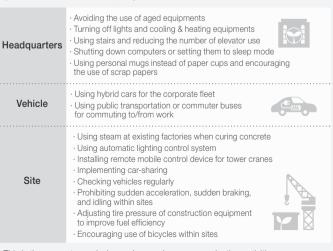
#### 2018 CDP KOREA Hall of Fame Award Ceremony



#### Reduced greenhouse gas and expenses through carbon management activities

Hyundai E&C contributes to cost reduction while minimizing environmental impact through promoting corporate-wide carbon management. The 'Green Campaign' is a representative greenhouse gas reduction campaign that encompasses both the head office and site. It excavates reduction items to reduce energy use at the site where most of the energy consumption occurs and applies them immediately to the work. The head office is carrying out living type reduction activities such as 'maintaining appropriate indoor temperature', 'turning off lights / room heating and cooling', and 'replacing elevators'. The greenhouse gas emissions reduced in 2018 is 66,585 tCO<sub>2</sub>-e, and the saved cost is about KRW 29.15 billion.\*.

#### Hyundai E&C 'Green Campaign'



\* This is the amount saved when only greenhouse gas reduction activities are considered, (see https://www.cdp.net)

To achieve 'Global Green One Pioneer', which is a vision of environmental energy management, Hyundai E&C has established a long-term environmental energy management roadmap including environmental management agendas until 2030 and is conducting multilateral environmental energy management activities with a view to strengthening its status as a representative global eco-friendly company. To this end, Hyundai E&C establishes environmental energy management policies and targets for the entire company and by site every year for all processes of business performance ranging from technology development, procurement, transportation, construction, demolition and operation and thoroughly manages to policies and targets according to detailed implementation plans. In 2018, in order to maximize the efficiency of environmental energy management, Hyundai E&C established 'realization of a sustainable company through environmental energy management' and 'the formation of eco-friendly and energyfriendly culture' as its environmental energy policies and intensively manage them.

Environment & Energy



#### **Environmental Energy Management Promoting Organization**

corporate-wide viewpoint.

BoD Organization Steering

Organization

Department of Energy & GHG Management

#### Leading Carbon Management by Spreading Greenhouse Gas Reduction Techniques

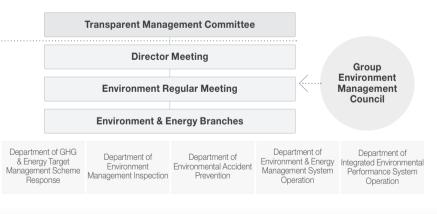


Hyundai E&C is taking the lead in carbon management in the construction industry by developing a greenhouse gas reduction technique that can estimate the amount of greenhouse gas emissions generated during construction and reduce it efficiently. The Hyundai E&C's efforts as such were recognized externally. In 2018, Hyundai E&C submitted the "Cases of Greenhouse Gas Reduction through Improvement of Concrete Curing Methods in Winter" to the 'Construction Environment Management Best Practice Contest' and won the award of the Chairman of the Environment Committee of the National Assembly. In 2019, Hyundai E&C plans to reduce wasted energy and greenhouse gas emissions by conducting energy diagnostics on sites where excessive emissions of greenhouse gases occur compared to the predicted values using the "Site GHG Emission Estimation & Warning System" developed by Hyundai E&C by itself.

Environment Management **Best Practice Contest** 

#### **Environmental Energy Management Strategy**

To promote strategic and substantial environmental energy management, Hyundai E&C regularly conducts regular environmental meetings under the Board of Directors and consults with the six major promotion departments from time to time to discuss and execute major issues related to environmental management from a



#### Improving the Efficiency of Environmental Energy Management

#### Integrated Environmental Performance Management System

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H-	Ы	VIS	5

#### Improving Integrated Environment & Energy System

Hyundai E&C has established an eco-friendly integrated environmental system since 2013 to promote efficient environmental energy management and manage the performance. Since 2016, Hyundai E&C has constructed and operated integrated environment & energy systems by applying the ISO 14001: 2015 standard in order to improve the environmental energy management system to meet the more improved international standards. In 2018, Hyundai E&C upgraded IT systems, including waste generation management systems and greenhouse gas emission management systems so the wider ranges of environmental impacts than before can be identified and managed. Currently, Hyundai E&C operates one environmental energy management manual, 15 in-house regulations, 4 processes, and 4 technical standards for the smooth operation of the environmental energy management systems.

#### Integrated Environmental Performance Management

Through the IT-based integrated environmental performance management system 'H-PMS(Hyundai-Project Management System)' established in 2013, Hyundai E&C has been efficiently tracing and managing environmental performance such as energy consumption, greenhouse gas emissions, waste generation, water consumption. emission allowance (BOD , COD, SS, fugitive dust, etc.) in all business places. Hyundai E&C also maximizes the efficiency of environmental management by integrating and managing diverse systems such as ISO 14001 (Environmental Management System), ISO 50001 (Energy Management System) management, greenhouse gas management and waste management by interlocking them with each other. It is possible to confirm the environmental performance directly on the H-PMS for all work sites under construction, thereby improving work efficiency on site. Hyundai E&C will continue to upgrade its integrated environmental and management system to practice more efficient eco-friendly management.

### **Environmental Energy** Management Monitoring and Response

#### Strengthen Environmental Energy Management Evaluation and Inspection

Every year, Hyundai E&C regularly conducts on-site evaluations and inspections at major domestic and overseas sites to strengthen its environmental energy management capabilities. Depending on the size and characteristics of the site, in-depth evaluations and inspections are is carried out additional evaluations and inspections are conducted at sites where the capacity is deemed insufficient. The results of the inspection are reflected in the performance evaluation of the site manager and the team leader, and the evaluation scores by the site are also included in the completion evaluation scores so that separate bonuses are paid for excellent sites. In addition, the ratio of evaluation is increased, and work improvement plans are established for identified vulnerable fields to raise attention to and interest in environmental energy management.

In 2018, sudden inspections, pre-emptive integration supports and initial site supports were carried out for 67 domestic and overseas sites. In addition, Hyundai E&C identifies environmental risks by site, and carries out differentiated support and inspections for sites with high environmental risks. Considering seasonal changes in environmental issues, Hyundai E&C is carrying out 'special inspections by the environmental theme' that intensively inspects dust scattering in spring and autumn, and rainy season soil erosion and water quality management in summer.

#### Site Environmental Risk Evaluation Process

Environmental risk map creation / submission	Site environmental risk rating	Operating on-site inspection / support system based on risk rating	Collecting environmental issues from sites
Within one month after the commencement of construc- tion and once a half year	Within 1 month after commencement of construction	Throughout the year	Constantly

#### **Environmental Energy Accident Response and Training System**

Compulsory Environmental Training

Carry Out Compulsory **n** times Environmental Training at All Sites Semi-Annually

Hyundai E&C established an environmental energy accident response system based on international standards and regularly conducts environmental energy accident response training. All Hyundai E&C sites conduct environmental emergency response training twice a year (once a half) in compliance with the environmental accident response system and in the event of the occurrence of environmental accidents responses and reporting are mandatorily required according to the environmental accident prevention and response guidelines.

In addition, Hyundai E&C is operating systematic environmental education programs to enhance employee understanding of eco-friendly management and promote their participation in eco-friendly management activities. In 2018, Hyundai E&C made on-site environmental management training mandatory for all sites in South Korea and requires all sites to carry out compulsory environmental training at least twice a year to secure the capacity necessary for site environment management. In 2019, Hyundai E&C plans to enhance its on-site environmental management capabilities and knowledge, by including environmental training in the job training courses by business division.

#### Strengthening the **Promotion of Carbon** Management

Reduce 52.5% of GHG Emissions by 2050



To reduce greenhouse gas emissions, Hyundai E&C selected representative sites by business sector from 2013 to analyze potential GHG reductions by site and based on this analysis, Hyundai E&C established a corporatewide response strategy for greenhouse gas emissions target management systems in 2014. From 2015, Hyundai E&C diversified and expanded its greenhouse gas reduction activities so that all employees actively participate in GHG reduction activities. In particular, in 2017, Hyundai E&C applied a patent for deep-running, big-data based "Site GHG Emission Estimation & Warning System" to minimize the amount of GHG emissions by estimating and monitoring accurate GHG emissions. In addition, Hyundai E&C is realizing efficient GHG reduction by linking its GHG reduction performance to performance evaluation such as headquarters' and responsible executives' KPIs.

Target: Reduce 52 (Scope 1~3 at Domestic

#### Green Sv

### Establishing Environmenta

System 1 Building the foundation f environmental manager

2 Improving image as an er company

3 Operating the Environme

#### Managing GHG Emissions Targets

Hvundai E&C, which is subject to the GHG & Energy Target Management Scheme according to the Framework Act On Low Carbon, Green Growth, has been endeavoring to reduce the GHG emissions by voluntarily managing the overseas emissions and comprehensive Scope 3 as well as Scope 1 and 2 beyond the government requirement for construction companies.

In addition, the GHG emissions data from 2011 to 2014 was recalculated in 2015 as the 'Monitoring, Reporting and Verification (MRV) Guideline of GHG Emissions for Construction Industry' was enacted and Hyundai E&C have been using the recalculated data to establish the estimation model of GHG emissions to devote its all energy to reducing GHG.

#### **Activities for Reducing GHG Emissions**

GHG reduction activities of Hyundai E&C are conducted in three areas: optimizing GHG reduction items, Green Campaign, and training on the GHG management. Through these efforts, we have been effectively excavating and applying GHG emissions reduction items to sites and headquarters while raising the employees' awareness of GHG emissions and energy use.



1,053,293

2017

1.095.301

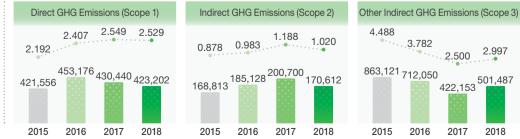
2018

1.350.354

2016

GHG Emissions

2015



#### Mid- to long-term Carbon Management Targets

To realize the vision of '2030 Global Green One Pioneer' and contribute to national greenhouse gas reduction targets, Hyundai E&C established a greenhouse gas reduction target to reduce Scope 1, 2, 3 (including domestic and overseas) greenhouse gas emissions by 52.5% by 2050 compared to 2015 thereby preemptively responding to climate change. This target was established including the greenhouse gas emissions generated by supplier equipment in addition to the greenhouse gas scope (scope 1, 2) generated by Hyundai E&C. Through the foregoing, Hyundai E&C will realize value chain greenhouse gas reduction to fulfil its social responsibility.

#### Mid- to Long-term Carbon Management Strategy

Target			Activity					
2.5% of GHG Emi c and Overseas, Con	ssions by 2050 npared to 2015 Level)	Reducing Energy Consumption and GHG Emissions						
stem	Green Project	Management	Green R&D					
al Management for the nent system environment-friendly ental Management	Creating Environment 4 Systematically reduci 5 Expanding environme 6 Operating sites in an manner	ng GHG emissions ent-friendly outsourcing	Expanding Environment-friendly Technologies 7 Securing core environment-friendly technologies 8 Dominating environment-friendly source technology in advance					



### Strategy 4

## Enhancing Safety & Environment Infrastructure

The construction of safety & environment infrastructure is prerequisites for leading sustainable business.

Hyundai E&C has been systematically minimizing safety accidents and reducing environmental impact by establishing a safety management system according to international standards and operating environment-friendly construction processes that cover the entire construction stages.

Strengthening the Safety Management System

Promote safety management Operate safety management
 organization

Expanding safety management activities ₽€

Strengthen the management of safety management performance Strengthen safety checks and training

**Eco-friendly Design** 曲 and Procurement

Upgrade eco-friendly design Perform eco-friendly procurement Eco-friendly Constructiom and Demolition

Realize eco-friendly transportation Eco-friendly demolition

http://en.hdec.kr/EN/Sustainability/GreenSaftv.asp

#### Value Empowering Case

#### Hyundai E&C established a Record of No Accident in All Processes after 2010

Since its founding, Hyundai E&C has taken "safety" as the top value of corporate management and has been working to establish a unique safety culture through the construction of systematic infrastructures. Hyundai E&C has strengthened on-site safety inspections every year in order to establish a through safe culture. In particular, safety management has been significantly strengthened since the number of safety inspections at domestic and overseas increased significantly from 582 in 2009 to 2,371 in 2010. As a result, a total of 111 domestic and overseas sites, which have been completed since 2010, have attained the record of achieving zero accidents in all processes. The total number of safety inspections conducted since 2010 is 22.365 times.

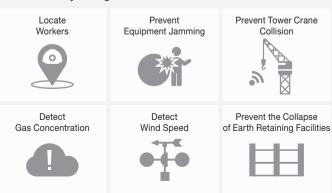
#### A Total of 111 Domestic and Overseas Sites Achieved 'No Accident in All Processes'



Introduced Cutting-edge IoT Based Safety Management Systems for the First Time in the Construction Industry

Hyundai E&C developed and applied 'HIoS', a construction site safety management system using the Internet of Things (IoT) in January 2019 for the first time in the construction industry. The HIoS safety management system transmits information measured through various sensors to the scanner using BLE communication (low-power Bluetooth communication) and analyzes it on the integrated platform to determine the risk. This system not only issues alarms to site staff and workers to effectively remove potential risk factors but also monitors diverse measuring sensor data such as gas concentration and wind speed in real time to provide epoch-making help in preventing accidents in.

#### Real-time Safety Management Information of 'HIoS'



#### **Strengthening Safety** Management Systems

HDEC 12 Safety Golden Rules Poster

HDEC 12 SAFETY GOLDEN RULES

8

A НҮUПОЯ

Hyundai E&C has set safety management as the first goal of corporate management and establishes and operates safety management policies and goals every year in order to effectively propel safety management. In 2019, Hyundai E&C set a safety management goal of reducing the accident rate by 50% compared to the previous year and is forming safe business place environments through systematic checks and training. Hyundai E&C acquired OHSAS 18001 and KOSHA 18001, international safety and health standards, to build a safety management system based on international standards and is practicing systematic safety management based on the 'HDEC 12 Safety Golden Rules'.

### Safety Management Strategy ment Strategy Set safety as the first goal of corporate management to establish a safety culture based unique to Hyundai E&C "A Company that Creates Safe Tomorrow Together" Safety Management Goal % Reduction Compared to the 2018 Lost Time Injury Frequency (LTIR \*) by 2019 Key Tasks Establishing Safety & Health System of Global Top Level **Innovating Safety Awareness** · Enacting HDEC Safety Fundamentals Establishing advanced integrated Safety & Health System · Promoting corporate-wide campaign to advance safety Improving IT-based Safety & Health System

					,	Δ	1	С	;	h	i	e	Э	V	/(	е	Ę	5	С	)'	9

awareness based on HDEC Safety Fundamentals

Safety Systems Linking special safety education for violation of safety rules and discontinuing work system to HDEC 12 Safety Golden Rules Safety Training Developing standard promotion draft, standard multilingual instruction (9 languages), and training employees & workers Safety Inspection Evaluating the level of safety standards and Implementing patrol inspection

Safety Management Organization

#### Safe

Safety system planning Personnel managemen of employees responsib for safety tasks

#### Strengthened Safety Management of Value Chain through Opening of the Safety Culture Experience Hall



Hyundai E&C has opened a Safe Culture Experience Hall in November 2018 and has been operating it to provide opportunities to experience diverse construction safety cases not only to its employees but also to affiliates, suppliers, and external applicants for training. Located in Hyundai E&C Technology Education Center, the Safety Culture Experience Hall connects the experience circles with the storytelling method and combines experience devices with virtual reality to provide realistic education as if you are experiencing real situations. It has 19 experiential facilities including those for 11 disasters such as falling, fire, drop, electric shock, collapse, emergency, etc., occurring at large sites and virtual reality safety experience.

Hyundai E&C Safety Culture Experience Hall

36

#### **Propelling Safety Management Strategy**

#### Safety Management System

#### **Operating Safety Management Organization**

Hyundai E&C identifies safety risks early by operating Safety Teams, which are dedicated to safety management, by business division. For efficient management of sites, Hyundai E&C has been operating a safety & health management system made by integrating the safety management system and the health management system since 2012. In addition, Hyundai E&C is inducing the establishment of autonomous safety & health systems of suppliers by mandating them to assign safety managers. In 2017, Hyundai E&C established a technical safety organization to serve as a control tower for technical safety work and expanded the number of technical employees by field to prevent accidents due to technical causes in advance and hired more safety experts to strengthen construction equipment safety management.

:	Management S				
	Safety Sup	port Group			
ety Plar	nning Team	Safety Su	oport Team		
g, system nt ble	<ul> <li>External &amp; governmental tasks</li> <li>Overseas bidding support</li> </ul>	Safety check & education     Statistics & follow-up     management	Technical Safety & equipment Safety management costs		

#### **Expanding Safety Management Activities**

#### Strengthen the Management of Safety Management Performance

Hyundai E&C has been promoting the participation of all employees in safety control by applying the safety management KPIs not only to on-site employees but also to the headquarters. In 2017, in order to strengthen the precautionary safety prevention system in addition to the post evaluation of accident rate, we implemented the safety management mileage system to link evaluation and compensation about individual safety management activities. As a result, safety activities such as inspection, education and information activities increased by 31.1% from the previous year.

Safety Management Activities Inspection Activities Education Activities Information Activities (Unit: times)

2018		270,551		110,195	1,682	382,428
2017	205,793	84,702	1,151	291,646		
<b>2016</b> 44,906	57,647 619 103,172					

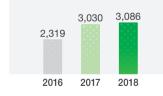
#### **Executive Safety Inspection**



Current State of Executive Safety Inspection (Unit: times)



Current Situation of Participation in Safety and Health Education (Unit: persons)



Satisfaction with Operation of Safety Job Training in 2018



**Implementing Safety Inspections** 

Hyundai E&C has continuously carried out 'Safety Inspection Day' every month, where the management participates at all domestic and overseas sites. In the Safety Inspection Day event, Hyundai E&C is striving to connect the strong will to achieve no accident of the Hyundai E&C to practice through not only on-site safety diagnosis but also improvement of all employees and workers' awareness of safety accidents, and inducement of active participation. In addition, Hyundai E&C identifies the actual state of operation of safety management by workplace in domestic and overseas sites is strengthening safety inspections to prevent disasters in advance. In 2018, a total of 1,689 executive-level safety inspections were conducted at domestic and overseas, including top

management.

#### **Enhancing Safety & Health Training**

Hyundai E&C is implementing regular safety & health training for all employees and subcontractors with an aim to advance the awareness of safety & health. In 2018, Hyundai E&C provided safety training for a total of 3,086 employees. In order to implement safety education tailored to the needs of workers, Hyundai E&C implemented virtual safety experience programs for six major dangerous tasks and developed 10 types of special safety education standard teaching plans, translated them into nine languages, and provided them to sites. In addition, Hyundai E&C increased the density of safety and health education by establishing educational networks on monthly excellent / failure cases through the introduction of the site manager propagation training system. In 2018, the satisfaction level of safe job training was 90.3%.

Results of Sa	Results of Safety and Health Education in 2018										
Category	Site manager	Head of the management team	Safety staff	Technical staff	Supplier	Total					
Number of Persons Educated	125	85	355	1,549	902	3,086					

#### **Enhancing Safety and Health Performance**

Hyundai E&C's accident rates are maintained at lower levels compared to the domestic average and construction industry average. This is attributed to active responses to prevent the occurrence of safety accidents such as the implementation of safety inspections led by example of the management level, the operation of the safety management system based on international standards, the expanded application of safety management KPIs, the strengthening of safety inspection and education, thorough investigation of the causes of accident. The following safety and health indicators were calculated using the Korea Occupational Safety and Health Agency accident rate data.

Safety Management Indicator			(Stand	(Standard: million man hours	
Category	2015	2016	2017	2018	
Lost-Time Injury Frequency Rate (LTFIR) - Employees	0.00	0.00	0.00	0.00	
Lost-Time Injury Frequency Rate (LTFIR) - Supplier	0.72	1.29	0.95	1.11	
Occupational Illness Frequency Rate (OIFR) - Employees	0.04	0.02	0.03	0.08	

#### **Eco-friendly Construction** Process

Hvundai E&C is devoting it's all strength to leading construction industry environmental infrastructures and minimizing the effects on environments by building eco-friendly construction processes throughout the entire construction processes ranging from designing, procurement, transportation, construction, demolition and operation.



02 Environmen Procuremen Increasing environme rocure

Establishing environr supply chain Operating the environment procurement process · Evaluating environmen

materials

#### Enhancing Eco-friendly Design

Hyundai E&C has established energy saving, water saving, ecological environment consideration and comfortable living environment as four eco-friendly design elements are making efforts to realize eco-friendly construction from the design stage. Because of the nature of buildings where large amounts of energy consumption occur at the use stage than the construction stage. Hyundai E&C is expanding high-efficiency eco-friendly design such as applying new & renewable energy, energy storage system, and indoor air quality improvement technologies aiming at the realization of 100% energy-saving housing.

Hyundai E&C acquired grade 1 in the identification of installation of the BEMS (Building Energy Management System), a key technology in the era of zero energy building in 2017 for the first time in South Korea. Hyundai E&C will complete the construction of Hill State Lake Songdo First and KT Kookmin Bank Integrated IT Center, to which the BEMS technology was actually applied, in 2019.

#### Considerations Factors for Environment-friendly Engineering

Category Efficien Energy Reduction Renewa

energy generati

Conserv

Water Saving Reuse

Topogra

Consideration Water qu for the Ecosystem

Natural I

Indoor air quali Ventilati

Comfortable Living Therma Environment

insulatio Noise

uction Stage	Construction Stage	Post Construction Stage	
nt-friendly 9	03 Environment-friendly Transportation	05 Environment-friendly Operation	
ent-friendly ng environmental ing technology	Minimizing environmental impacts caused by transportation Maximizing the energy efficiency	Increasing environment-friendly certifications Realizing sustainable construction	
t-friendly efficiency ent technology	<ul> <li>Increasing efficiency through the Environment-friendly Vehicles Guideline</li> </ul>	Expanding application of green items in building	
nment-friendly neering checklist nment-friendly	Operating environment-friendly work vehicles	Increasing environment-friendly building certification	
nt-friendly nt	04 Environment-friendly Construction	06 Environment-friendly Demolition	
ent-friendly nent-friendly	Minimizing environmental impacts caused by construction Maximizing resource efficiency	Reducing construction waste Establishing environment-friendly deconstruction standards	
ment-friendly	<ul> <li>Establishing and operating the Integrated HSE System</li> </ul>	Operating the Integrated Waste Management System	
nt-friendliness of	<ul> <li>Monitoring and reducing energy use at all stages for reductions</li> </ul>	<ul> <li>Observing the Environment-friendly Deconstruction Standards</li> </ul>	
	Publishing "Environmental Task Manual"	<ul> <li>Turning waste into resource with thorough management</li> </ul>	

	Design Factors Under Consideration	Key Technology
су	Thermal insulation methods, thermal-insulating materials, energy-efficient windows and doors, waste heat recovery ventilation system, high-efficiency system, etc.	Building Integrated Photovoltaic (BIPV) system that ensures visibility Hyundai Energy Recovery Ventilation
able tion	Photovoltaic solar, tidal, wind, geothermal, biogas, hydrogen fuel cell, etc.	(HERV) · Control & operation technology for micro energy grid · Smart Building Energy Management System (BEMS)
vation	Water-efficient toilets, greywater recycling systems, rainwater harvesting systems, decompression valves, etc.	· Rainwater harvesting system
	High-pressure filters, reuse of wastewater, ammonia stripping, collection of high-concentration liquid compound fertilizers, etc.	Wastewater reuse system
aphy	Fertile soil yard, contaminated soil washing technology, prevention of land subsidence, etc.	· Clearing technology for contaminated
luality	Installation of water shield, treatment of water contaminated from washing processes, treatment of organic wastewater, etc.	soil • Environment-friendly construction and soil dredging technology
habitat	Recycling of damaged plants and trees, creation of escape paths, ecological wetlands, island of artificial plants, river ecosystem, etc.	Restoration technology for river ecosystem
ity	Functional materials, composite sensors, energy-environment management system, etc.	Household Total Energy &
ion	Nature-friendly arrangements, topographic consideration, wind-resistant structure evaluation, etc.	Environment Management System (TEEMS) • Harmful substance absorbable
ıl on	Thermal-insulating compound materials, external heat insulation systems, lining thermal insulation, etc.	<ul> <li>Frainful substance absorbable</li> <li>functional wallpaper</li> <li>Technology for reducing floor shock</li> </ul>
	Acknowledge floor structure development, noise control, window, noise shield capability predicting technology, etc.	noise

\* BIPV: Building Integrated Photovoltaic \*\* HERV: Hyundai Energy Recovery Ventilation \*\*\* TEEMS: Total Energy & Environment Management System

#### **Executing Environment**friendly Procurement

Hvundai E&C has established the Hvundai Environmental Goods Standard (HEGS) as its own eco-friendly procurement classification standard in 2010 to promote corporate-wide procurement of eco-friendly products and materials and collects and manages related data. Eco-friendly products and materials are classified into a total of eight codes (HEGS 1 ~ 8) according to the certification standards. When materials are requested or ordered, the HEGS coded of the products to be purchased are entered into the eco-friendly procurement system. At each site, eco-friendly procurement is encouraged by managing data by code as individual track records of site and purchasing personnel and inducing the preferential procurement of eco-friendly materials for MRO \* items. In addition, when materials have been classified into environmentally hazardous materials, environmental hazard reduction education is conducted, and alternative materials or alternative substances are excavated to minimized environmental impacts.

\* Maintenance, Repair and Operation

#### **Environment-friendly Procurement Process**

1. Evaluate Environment- friendliness of Material	2. Request and Order Materials	3. Monitor Record of Environment- friendly Procurement	4. Goals
<ul> <li>Evaluate harmfulness of materials according to three standards of harmfulness, infringement of regulations, and usage amount</li> </ul>	<ul> <li>Input the HEGS* code of a given material through the Environment- friendly Procurement System</li> </ul>	• Monitor each site	Promote minimization of environmental impact from material use Encourage the use of environment-friendly products

#### Assessment of Materials' Environment-friendliness

Poisonous     Non-degradable     Destruction of ecosystem	Infringement . Wastes	rvices act s control act hemicals control act	• Average usage amount of all sites
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### **Realizing Environment**friendly Transportation and Construction

#### **Practicing Eco-friendly Transportation**

Hyundai E&C minimizes environmental impacts through efficient operation of equipment and vehicles. In particular, the Guidelines for the Business Vehicle Operation stipulate 11 economic driving practice items for improved fuel efficiency of the vehicles, and they are strictly observed when any vehicles and heavy equipment are operated by the head office and all sites. In addition, Hyundai E&C has been responding to domestic and overseas efforts to reduce greenhouse gases by changing business vehicles into hybrid vehicles with high energy efficiency. Hereafter too, Hyundai E&C will continue to expand the introduction of eco-friendly vehicles to actively participate in international efforts to reduce greenhouse gases.

#### Water Consumption (Unit: 1,000 tons)



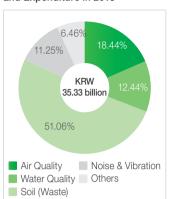
#### Advancing Eco-friendly Construction System

Hyundai E&C utilizes BIM (Building Information Modeling), a state-of-the-art building information system, to effectively calculate the exact quantities and costs of materials required for construction, thereby effectively preventing the use of unnecessary materials for eco-friendly construction. In addition, in construction sites, Hyundai E&C reduces water consumption by using rainwater storage facilities, de-watering facilities for underground water utilization, and sprinklers instead of water spray tank cars for scattering dust prevention. In 2019, Hyundai E&C established eight major environmental codes to take the lead in creating added value and realizing a sustainable enterprise through the construction of eco-friendly construction sites.

#### **Eight Environmental Standards**



## and Expenditure in 2018



In addition, in order to preemptively respond to the effectuation of the Special Act on the Reduction and Management of Fine Dust, Hyundai E&C created a 'Guide for Measures to Respond to Emergency Action to Mitigate Fine Dust' and requires all sites to implement the measures. When the fine dust reduction measures have been issued, the target areas and management methods are posted on the in-house homepage and thorough environmental management is carried out. In 2019, Hyundai E&C will create and distribute detailed management manuals by themes, such as dust scattering management, waste management, and noise management to continuously conduct environmental management during construction.

#### Kuwait Sheikh Jaber Causeway Construction Work in Which Alternative Habitats Were Formed



**Ecosystem Protection Activities** 

Replace H

Transplant trees and pla · Create ecological wetla Install an island of "artifi Develop natural streams

#### **Protected Species Around Sites**

#### Incheon New Port Container

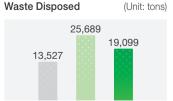
Ovstercatcher, Saunders gull, Far Eastern Curlew Kestrel, Spoonbill

## **Eco-friendly Demolition**

Since 2012, Hyundai E&C has been establishing and operating a waste management system that interlocked the 'Olbaro System', which is a waste management system of the Ministry of Environment, and the H-PMS(Hyundai-Project Management System), which is an integrated environmental performance management system, at all domestic sites. Through the foregoing, Hyundai E&C prevents the violation of environment-related laws in advance and sums up the total quantities and costs of wastes by business sector, company, and type in real time and utilizes the results as basic data related to ordering, bidding and budgeting. After enhancing the efficiency and appropriateness of waste management by the department through the subdivision of waste management system in 2016, Hyundai E&C promoted the upgrading of the waste management system to improve the linkage stability and usability of transferred information (DB) to strengthen the functions to manage and analyze waste statistics records in 2018.

#### (Unit: tons) Complying with Environment-friendly Demolition Guidelines

To minimize environmental impacts incurred during building deconstruction and demolition processes, Hyundai E&C established and strictly complies with Waste Management Guidelines, Air Quality Management Guidelines, etc. In particular, Hyundai E&C investigates the possible containment of harmful substances such as asbestos in advance of the deconstruction so that its employees are not directly exposed to danger. If the asbestos containment exceeds the standards of the Occupational Safety and Health Act and Asbestos Safety Management Act, Hyundai E&C treats it safely by entrusting to a specialized company of asbestos removal and waste. Recyclable wastes are sold to designated waste collection companies to increase resource utilization and it is recommended to purchase recycled materials and recycled aggregate first.



2018

\* Waste disposed after waster recycling.

2016 2017

Management

#### Environmental Protection Investment Inspecting & Managing for Eco-friendly Construction

40

Hyundai E&C annually conducts external and internal examinations for all sites at domestic and overseas and conducts systematic site environmental management by identifying environmental risks and opportunity factors by the site. In addition, in order to minimize the impact on the environments around the construction site during construction, Hyundai E&C identifies and manage stakeholders in and out of the site and environmental impacts. In particular, in the case of wastewater generating sites, water quality standards for effluent water are strictly controlled through installation and operation of purification treatment facilities and continuous water quality tests. In addition, Hyundai E&C pays special attention to dust scattering control. Hyundai E&C institutionalized special inspections of dust scattering by itself so that sits cannot neglect dust scattering control.

#### **Ecological Environment Protection**

Based on the Nagoya Protocol, Hyundai E&C strictly applies standards to prevent the loss of biodiversity around the site. In particular, Hyundai E&C preemptively analyzes the effects on the ecosystem from the time of establishing construction plans to develop and applying those design and construction methods to maximize the topography, environment, and biodiversity.

labitat	Install Protection Devices and Pathways	Consider Alternative Engineering
ants ands by settling icial" plants is and green areas	<ul> <li>Build escape paths and escape-leading fences for small animals</li> <li>Install pathways that utilize silt protectors, blocking paths, roadside trees, and other on-site structures</li> </ul>	<ul> <li>Change the construction location</li> <li>Apply low-vibration construction methods</li> <li>Downscale bridge foundations</li> </ul>

	Fire and Disaster Prevention Education Research Park	Haman - Jinju Section of Gyeongjeon Line	Changwon - Busan Highway	Icheon - Mungyeong Railway
rs' N,	Wildcat	Kestrel	Terrapin, Wildcat, Buzzard Kite, Hen harrier	' Copper-winged bat

#### Strengthen Integrated Waste Management System

#### Strategy 5

## Cultivating Innovative **Talents**

Innovative talents are the largest assets of Hyundai E&C and driving forces of corporate growth and development.

Hyundai E&C recruits excellent domestic and overseas talents through fair processes, cultivates them into global talents through talent development programs while enhancing smart working environments and improving the efficiency and executive ability of organizations thereby cultivating them into core talents that create new values for the world as their stage.

Recruiting Talents without Discrimination

Conducting fair employment · Securing human diversity

Cultivating the Capability of Innovative Talents

Enhancing the capability of innovative talents Improving organizational efficiency Corporate Culture of Communication & Trust

Fair evaluation and compensation Expansion of employee communication

Expansion of welfare benefit · Build trust in labor relations

Work-life Balance

'Common Land Removal'

**Campaign Poster** 

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http://en.hdec.kr/EN/Recruit/ConsPersonnel.asox

Value Empowering Case

#### Introduced 'Smart Work5240', a Working Hour **Management System**

Hyundai E&C has introduced 'Smart Work 5240' system, in which commuting hours are input and inquired with PC · smartphone, for systematic implementation of the 52-hour work week system. Through this system, employees manage their working hours autonomously and minimize unnecessary overtime work. In order to improve the quality of life through shortening of working time, the closing hour is advanced to 5:30 pm, Every Wednesday is operated as a "no meeting day", and every second / fourth Friday as a "family day" In addition, Hyundai E&C implements "intensive working hours" at 9:00 am and 2:00 pm every day to increase work concentration.

#### Introduced Smart Work5240



#### Made a Great Company with Fresh Corporate Culture Campaign

Hyundai E&C established the management policy of 2019 as 'Great Company' has planned and been operating a corporate culture campaign from the beginning of the year in order to settle the management policy in corporate culture. In February 2019, Hyundai E&C derived a slogan of change with the theme of 'Rapid Decision Making' and implemented a campaign. In March, Hyundai E&C implemented a campaign called 'Looking for astringent ripe persimmon' to settle the culture of 'tolerating failure' to receive fervent responses from employees. In May, Hyundai E&C made an effort to raise awareness of cross-organizational collaboration through the campaign 'common land removal'. The term 'Common Land' is a term derived from an anecdote that people who were sharing the grassland of the village released more livestock so that the grass became a wilderness



#### Innovative Talent Strategy

communicate.

Ideal Employee of Hyundai E&C

#### Value Cr

A talent who creat meeting challenge resting on their laur their crea

#### **Fostering Self-completed Talents**

Hyundai E&C has been accelerating the cultivation of self-completed talents in order to secure human competitiveness and enhance business execution capability. Hyundai E&C defines self-completed talents as outstanding individuals who has the highest level of business knowledge in the responsible area and accomplishes tasks with utmost efforts while voluntarily acquiring task-related knowledge such has laws, contracts and technologies and pursuing personal competitiveness. In addition, they have to do their best to accomplish their mission by taking full advantage of their own capabilities and utilizing internal and external networks. As such, Hyundai E&C will be able to demonstrate its capabilities to the top level in the world by leading the corporate culture centered on self-completed talents.

#### Securing Excellent Talents

127

Veterans Eligible

Foreian

Employees

Status of Talent Recruitment in 2018 (Unit: persons)

### 76 51 Career New

Total Recruits Recruits

#### Minority Statistics in 2018 $3^{\text{People}}$ The Handicapped



Manager Statistics

Status of Employees

#### Ideal Employee of Hyundai E&C

For Hyundai E&C has a firm belief that human resource development is directly related to the competitiveness of companies. Therefore, in order to create the best value, Hyundai E&C set up a concept of talent as 'talented person who overcomes the impossible and challenges to be the best in the new field' and makes best effort to hire and manage talented people who fit the foregoing. Hyundai E&C employees are being reborn as global talents to create innovative values based on their unwavering spirit of challenge, creativity and ability to

#### **INNOVATIVE CHALLENGER**

To create unrivaled value, the talents we want achieve what many think is impossible and strive to be the best in unexplored areas

reator	Synergy Builder	Global Developer
tes new value by es head-on, not rels, and utilizing pativity	A talent who creates synergy through cooperation and communication with diverse stakeholders	A talent who can realize their potential on the global stage, driven by a global perspective, openness and understanding of diversity

#### **Conducting Fair Employment**

Hyundai E&C excavates excellent talents that the concept of talents through fair and transparent talent securing procedures. In 2018, Hyundai E&C newly hired 51 new recruits and 76 career recruits. Besides, considering the characteristics of the construction industry, Hyundai E&C hires contract workers and treats them equally according to relevant regulations.

#### **Pursuing Human Diversity**

Hyundai E&C, which is active all over the world, is strengthening its global competitiveness by securing human diversity. Hyundai E&C is strengthening the recruitment of local employees in order to smoothly carry out business at overseas sites. In addition, Hyundai E&C works closely with its subsidiary Hyundai Engineering to efficiently manage available personnel. Hyundai E&C recognizes human diversity as a basis for enhancing competitiveness and realizing social responsibility and strives to enhance the human diversity of the organization by granting equal opportunity to social minorities such as women, migrant workers, national merit, and the handicapped. Hyundai E&C is expanding the employment rate of minorities each year for improving the company's human diversity.

Status of Employees (As of December 3		mber 31, 2018)				
Category			Total	Male	Female	Female ratio
Total Numb	er of Persons		5,024	4,750	274	5.45%
		Junior manager	977	913	64	6.55%
	By Grade	Middle manager	800	770	30	3.75%
Manager		Senior manager	1,146	1,134	12	1.05%
Statistics	Sales & marketing division	72	64	8	11.11%	
	By Division	Non-sales & marketing division	2,851	2,753	98	3.44%
		Total	2,923	2,817	106	3.63%

#### **Corporate Culture of** Communication and Trust

### **CEO** Meeting



https://dudrim.hdec.co.kr/Partner/Intro.aspx?g=c

In addition, Hyundai E&C has opened and operated an on-offline employee counselling center since 2015 to make an effort to enhance work immersion and organizational productivity through the relief of employee distress. In 2018, Hyundai E&C opened 'H · Dudrim', an internal and external unified civil complaint settlement counter, and achieved a total of 4,818 operating results. In 2019, Hyundai E&C formed a bond of sympathy between the CEO and employees through CEO meetings, which were held about 13 times with 2,500 employees and is expanding communication among employees.

#### Hyundai E&C Blog

🖪 H · Dudrim



Employee and Spouse Health Check

249 People Number of

KRW Billion Supported

Who Used Paid Leave (Unit: persons)

214

2017

196

2018

Status of Male Employees

30

2016

Support (As of 2018)

lunchtime

Hyundai E&C Blo http://blog.hdec.kr/

#### Work and Life Balance **Health Support**

Hyundai E&C operates an in-house medical office where professional nurses reside while operating health promotion programs to maintain and manage the health status of employees. In connection with the Jongno Public Health Center, Hyundai E&C conduct a metabolic syndrome test to check the health status of employees and conduct continuous management. In addition, Hyundai E&C conducted a corporate-wide anti-smoking campaign to lower the smoking rate of its employees and establish a culture of non-smoking in the company thereby distributing non-smoking kits, writing a non-smoking pledge, giving lectures on smoking cessation, and introducing government support programs. In 2019, Hyundai E&C plans to increase the frequency of diagnosing metabolic syndrome and continue to manage it while adding physical fitness test programs to support employees to manage their own health and care for themselves.

#### **Child Rearing Support**

Hyundai E&C supports childbirth, childcare leave, and school expenses so that employees can happily raise their children throughout their life cycle. In 2018, 10 female employees used 90 days of maternity leave and all of them returned to work after maternity leave to show100% return rate. In addition, the number of male employees who used paid maternity leave through internal encouragement was 196 employees so that increased values were maintained since 2016. In addition, Hyundai E&C supports female employees to work while rearing children by operating the Hyundai Dasom Nursery, a daycare center for children and through the childbirth subsidy support system, Hyundai E&C provides a monthly subsidy of KRW 100,000 per child, KRW 467,000 per quarter per high school student, and KRW 4 million for tuition per semester per college student.

### **Building Trust in Labor Relations**

Hyundai E&C, which has created a corporate culture that emphasizes trust and harmony between labor and management, guarantees workers freedom to join and leave trade unions in accordance with Article 5 of the Collective Agreement Trade Union Act. In addition, Hyundai E&C promptly notifies the labor union of any significant changes in business operations such as organizational and office restructuring in principle. As of December 2018, 3,777 out of 4,329 full-time employees are covered by collective bargaining agreements, accounting for 87.2% of the entire employees, and 735 employees who are members of trade unions and protected by collective bargaining rights.

### Strengthening Innovation Fostering Global Leaders Capabilities

Trained Employees in 2018 (cumulative)



Hyundai E&C is striving to enhance its global capabilities through various education programs such as language education, global job competency training, overseas worker education, language education, and advanced company training to smoothly carry out overseas business. In particular, Hyundai E&C focuses on enhancing the language competence of employees and provides English language intensive education programs. Hyundai E&C also supports second foreign language education. In addition, Hyundai E&C train its employees into global leaders by conducting leadership training and running global advanced company training programs. In 2018. Hyundai E&C operated 256 training courses to conducted training for a total of 9,464 employees. In 2019, Hyundai E&C plans to introduce the Education Cloud system to provide the same educational opportunities for employees at overseas sites.

#### **Fostering Construction Experts**

Hyundai E&C's efforts to nurture the best construction experts in the world are being realized through a sophisticated job training system. Hyundai E&C supports the development of customized job competencies by operating the required job training programs by position and job group through the e-HRD (Human Resource Development) system. In addition, Hyundai E&C trains employees with expertise into in-house instructors to deliver expertise learned from practice. In 2019, in order to strengthen order winning competitiveness, Hyundai E&C increased the number of outside professional training related to strategic jobs from 23 to 53 and reduced the number of courses from the existing 77 courses to 45 by merging overlapping educational courses while increasing the number of targets of education from 3,648 to 4,980.

#### Domestic Field Work Diet Workshop Improving Organizational Efficiency



Hyundai E&C is improving the competitiveness of the organization by forming efficient working environments and supporting employees to achieve work-life balance through the improvement of to improve work-life balance by improving work immersion. In 2019, Hyundai E&C held a 'Domestic Field Work Diet Workshop' for 417 domestic field officers to derive 700 items, reduced unnecessary work, and changed working methods to improve work efficiency and executive power. In addition, to prevent work efficiency decline and the risk of loss due to delays in decision-making, Hyundai E&C streamlined reporting and approval and made meetings and formality more efficient by implementing 'no meeting day' and abolishing conventional formality.

#### Results of Derivation of Items by Work Process

Work Instruction	Creating Documents	Reporting & Approval	Meeting	Other
125	61	218	119	177

**Fair Evaluation** and Compensation

#### **Evaluation System**

Hyundai E&C develops its employees' capabilities based on performance achievement, strengths, and improvement areas through the MBO (Management by Objective) -based HR system introduced in 2012 and educate major officers on performance management for a fair evaluation. In addition, Hyundai E&C an environment where more accurate evaluation and fair compensation can be made by upgrading the performance management system into goal setting - interim check - evaluation/grade finalization - evaluation calibration session. In addition, Hyundai E&C introduced the 'performance management one-line memo' system in which the evaluator leaves a memo about the performance and capability of the appraisee every day and utilize the memos in year-end evaluation to enhance the fairness of evaluation. In 2019, Hyundai E&C will reflect the quantitative performance (financial performance) of all site officers on the evaluation and make safety goals mandatory for all site employees thereby strengthening performance-based personnel system further.

#### **Compensation System**

Hyundai E&C is promoting the manifestation of employees' competencies through a performance evaluationbased compensation system. Hyundai E&C is implementing a promotion point system to ensure fair promotion based on achievements and competencies and encouraging its employees' will to work through the reflection of differential bonus amounts according to the head office performance reflection ratio and evaluation results. Hyundai E&C guarantees gender equality compensation only with compensation gap according to position and working conditions. In the future, Hyundai E&C will continue to develop a personnel system that will maximize the value of its employees.

#### **Strengthen Communication Programs**

Hyundai E&C is carrying out systematic activities to enhance the emotional competencies of its employees by improving the quality of life of employees and expanding the communication space within the company, based on a human-centered creative corporate culture that emphasizes communication and trust. To this end, Hyundai E&C operates a variety of employee communication channels to maximally reflect the difficulties felt by employees have in their working environments and suggestions. In addition, Hyundai E&C increased the lunchtime from 60 minutes to 90 minutes and has implementing diverse communication and healing programs such as 'mini-orchestra performance' and 'two-way communication special mini-lecture' utilizing the increased

#### **Expand Communication Channels**

Hyundai E&C has opened and is operating Hyundai E&C official 'blog', 'facebook', and 'YouTube' channels so that employees and their families working at domestic and overseas can communicate easily and interestingly. Hyundai E&C posts various postings such as major company news, corporate culture, projects and technology, construction trend information, etc. and implements events in which not only employees but also general followers can participate to make pleasant a 'communication venue'.

og	Hyundai E&C Facebook (domestic)	Hyundai E&C Facebook (overseas)	Hyundai E&C YouTube
	https://www.facebook.com/HDENC/	https://www.facebook.com/HDEC.Global/	http://www.youtube.com/c/현대건설tv

#### Strategy 6

## Enhancing **Value Chain** Capability

Suppliers are the most important partners to grow together with Hyundai E&C.

Hyundai E&C is leading the growth of suppliers by providing broad support such as finance, education and technology development to realize shared growth with suppliers.

In addition, Hyundai E&C is effectively strengthening the competitiveness of its value chain by presenting sustainability standards to its suppliers through sustainable supply chain management systems and conducting sustainability assessments.

Strengthening Shared Growth Cooperation 1111 with Suppliers Support for supplier financing Support for supplier training and technology developmen

Strengthening Supplier Communication Conduct joint growth seminars Conduct supplier satisfaction

survey

Support for Supplier Advancement to Overseas Countries Supplier overseas field trip program Supplier overseas advancement support training

Sustainable Supply Chain Manageme

http://en.hdec.kr/EN/Sustainability/WinWin.asp

Promoting sustainable supply chain policy Implement supply chain sustainability management evaluation

#### Value Empowering Case

#### Hyundai E&C Strengthens Supplier's Global **Construction Capacity**

Since 2009, Hyundai E&C has been providing 'Overseas Field Trips Programs' to excellent suppliers for suppliers' overseas advancement. In 2018, 17 suppliers toured construction sites in Indonesia and Singapore. Through the briefing of construction officials, the suppliers could understand the present situation of the local construction market and acquire the latest information on the fields of civil engineering and construction, which led to good responses of the suppliers who attended. Hyundai E&C supports all expenses of overseas field trips of excellent suppliers every year. Hyundai E&C plans to continue overseas field trips to promote shared growth cooperation with suppliers.

#### Overseas Site Visit by Hyundai E&C H Leaders



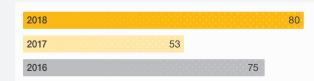
#### Hyundai E&C Paves the Way for Overseas Advancement together with Suppliers

Hyundai E&C conducts training to support overseas advancement every year in order to establish a supplier overseas advancement strategy and enhance overseas competitiveness. In 2018, Hyundai E&C trained a total of 80 suppliers on Kuwait and Vietnam and strived to improve the global capabilities of suppliers including the present situations of construction markets, taxation/accounting, customs clearance, manpower management and safety management by country. In addition, Hyundai E&C is implementing overseas field trip programs for excellent suppliers every year. The amount of approval for overseas orders for these suppliers who received free-of-charge training has risen sharply to KRW 1,599.1 billion in 2018, starting from KRW 255.1 billion in 2012.

#### Sales Increase of Suppliers taken Overseas Expansion Training (Unit: KBW 100 million)



Number of Benefiting Suppliers of Overseas Expansion Training (Unit: suppliers)



#### **Enhancing Shared Growth Cooperation with** Suppliers

2018 Shared Growth Index



**Overseas Advancement Support** 

Vietnam

Kuwait

Education in 2018

 $59^{\text{Suppliers}}$ 

Suppliers

Hyundai E&C has been making efforts for shared growth management through the enhancement of communication and cooperation as partners by providing active support for education, finance, and technology development to suppliers and operating communication enhancing programs. To this end, Hyundai E&C concluded a 'Shared Growth Cooperation and Fair Trade Agreements' with suppliers in 2010, and was recognized of multilateral efforts for shared growth cooperation so that it received a Minister of Land. Transport and Maritime Affairs prize at the '2012 Construction Cooperation Promotion Grand Prize', the best grade at the '2013 Mutual Cooperation between Construction Companies Evaluation', implemented by the Minister of Land, Transport and Maritime Affairs' and grand prize and commendation from the Minister of Land, Transport, and Maritime Affairs at the '2015 Construction Cooperation Promotion Grand Prize'. In 2018, Hyundai E&C achieved the highest score of the 'Shared Growth Index'.

Activities for Shared Growth Management

· Arranging Shared Gro · Providing fund directly · Shortening the payme 50% exemption of cor (planning 100% exem

· Operating welfare pro

· Delivering shared gro share Supporting research

 Supporting patent ar Adopting new technol subcontracting cont

#### Supporting Finance for Suppliers

Hyundai E&C is activating financial support to help small and medium-sized suppliers with a relatively low financial base. Through the network loan operation, Hyundai E&C supports suppliers by making financial institutions provide loans at interests rates lower than the base rate. In addition, Hyundai E&C creates and operates shared growth funds with commercial financial institutions to lead the relief of financial difficulties of suppliers, and monitors whether the payments made to the primary supplier is paid to the secondary supplier within a reasonable time thereby strengthening the sustainability of the entire supply chain. In 2018, Hyundai E&C areatly expanded the amount of supplier financial support. Hyundai E&C increased the shared growth fund that had been operated at a scale of KRW 30 billion to KRW 100 billion and lent KRW 29.8 billion and increased the amount of direct funding from KRW 3.8 billion to KRW 14.15 billion. In addition, Hyundai E&C contributed KRW 10 billion to the finance for investments in shared growth thereby increasing the scale of financial support for suppliers.

2018 Supplier Financial Support (Unit: KRW 100 million)

#### **Direct Support**

Mixed Support

Special Support

#### **Supplier Training Support**

Hyundai E&C provides diverse supplier training programs such as quality, process, and ethics education for supplier's qualitative growth, and implements support education necessary for overseas advancement such as taxation and financing education by country and overseas field trip programs to strengthen domestic suppliers' capability to participate in overseas construction works. In 2018, Hyundai E&C promoted excellent supplier overseas field trip programs for 17 supplier representatives so that the supplier visited work sites in Indonesia and Singapore regions and implemented overseas advancement education separately from the foregoing to provide education to 80 suppliers. In 2019, Hyundai E&C plans to implement excellent supplier overseas field trip to visit four sites in Kuwait and four UAE.

rowth Through Cooperation
Training Support
<ul> <li>Fostering on-site global construction technology talents by operating construction technical education institute</li> <li>Training on Health, Safety &amp; Environment (HSE) and quality for suppliers</li> <li>Supporting entering overseas market training and Overseas Site Trip Program</li> </ul>
Communication Support
<ul> <li>Bidding, contract, payment and guarantee tasks on-line through information system for cooperation</li> <li>Establishing annual shared growth plan through supplier satisfaction survey</li> <li>Assisting suppliers to settle ethical management system and gathering opinions</li> </ul>

#### Scale of Supplier Shared Growth Fund (Unit: KRW 100 million) 141.5 2018 1 000 1,000.0 2017 300 Int Finance) 100.0 2016 200

Enhancing Shared **Growth Cooperation with** Suppliers

#### Hyundai E&C Technology Conference



#### **Technology Development Support** in 2018



#### Supporting Technology Development for Suppliers

Hyundai E&C not only transfers and shares technology to suppliers through technology development support programs, but also actively supports suppliers' own technology development. In particular, Hyundai E&C holds 'Hyundai E&C Technology Conference' which is a platform to support technology development based on the world trend 'Open Innovation' every year to promote technology development of suppliers and excavation of excellent suppliers. The 'Hyundai E&C Technology Conference' is the only shared growth cooperative technology competition among domestic construction companies. Hyundai E&C pay a certain amount of research and development expenses to the awarded suppliers and give them incentives when registering as new suppliers. In addition, Hyundai E&C adopted 27 new technologies, concluded subcontracting contracts, and opened 77 patents owned by it to suppliers free of charge.

#### **Supporting Communication for Suppliers**

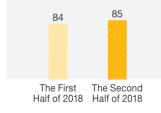
Hyundai E&C recognizes the communication with suppliers as the foundation of shared growth and strives to create greater synergy effects by building smooth partnerships and forming a bond of sympathy. The 'Supplier Council', which is a regular consultative body established for smooth communication with suppliers, is operated as five subcommittees reflected on the improvement of supplier systems through regular dialogues. In addition, Hyundai E&C holds shared growth seminar for all suppliers, listens to the supplier's voice through separate small meetings by construction work type and supplier visiting due diligence, and sends supplier newsletters composed of the major news of Hyundai E&C and exciting issues at domestic and overseas every quarter to strengthen fellowship. In addition, Hyundai E&C operates a shared growth support center on the 'Hi-Partner' portal, which is a supplier collaboration information system, for efficient work process and promotion of mutual cooperation of suppliers thereby establishing a permanent supplier communication channel and collecting suppliers' difficulties and suggestions.

#### Supplier Communication Channel

Supplier Council	Shared Growth Seminar
<ul> <li>Reviewing complaints and suggestions from suppliers through regular communication</li> <li>Improving systems related to suppliers based on the results of review</li> </ul>	<ul> <li>Holding Shared Growth Seminars by work types for all subcontractors</li> <li>Holding brief meetings by work types for all suppliers</li> </ul>
Supplier Satisfaction Survey	Shared Growth Support Center

#### Supplier Satisfaction (Unit: points)

#### Promoting Supplier Satisfaction Survey



Hyundai E&C has been pursuing the shared growth management by regularly conducting supplier satisfaction surveys since 2009 to actively collect suppliers' requirements and apply them to the management thereby promoting shared growth management. The supplier satisfaction survey system of Hyundai E&C was developed in-house using VOC and IPA methods and is optimized to reflect and understand suppliers' needs and solve dissatisfied matters. The supplier satisfaction survey is carried out every half-year in a system where each supplier evaluates and gives opinions about satisfaction with Hyundai E&C according to indicators prepared by item ranging from the selection stage to the payment stage. The supplier satisfaction in the latter half of 2018 was 85 points, which was higher by 1 point compared to the previous year. Hyundai E&C analyzes satisfaction survey results to classify suppliers into subjects of first improvement, subjects of progressive improvements, and subjects of continuous improvement in an effort to actively accept suppliers' voice and establish a basis for shared growth management.

#### Came Forward for Leap Into 'Construction Global Top Tier' Together with Suppliers



HDEC Supplier Sustainability Charter

Hyundai E&C held 'H Leaders Regular General Meeting and Management Seminar' at Haevichi Hotel in Jeju Island in March 2019. Through the event, which was first introduced in 2011 and greeted the 8th anniversary in this year, was held with the attendance of more than 220 persons including Hyundai E&C's employees and the representatives of 167 outsourcing and procurement suppliers. The suppliers frankly disclosed matters that must be improved and their requirements through the welcome receptions, which were meetings by subcommittees, and fruitful schedules followed the receptions such as the regular general meeting, excellent supplier awards, special lectures and membership enhancement events. Hyundai E&C plans to offer a variety of benefits to companies selected as H Leaders, such as a 50% reduction in contract performance guarantee, giving additional scores in bid recommended evaluation.

## **Supply Chain**

## Management Strategy

HDEC Supplier Sustainability Charter

http://en.hdec.kr/EN/Sustainability/ HDEC Supplier Sustainability Charter.pdf

#### **Supply Chain Management Strategy**

supply chain management.

#### Spend Analysis of Supply Chain

plier Category		Number of Suppliers (companies)	Proportion of Suppliers	Proportion of Purchase
Tota	I registered suppliers	3,922	100.00%	100.00%
	erials suppliers	2,298	58.59%	43.00%
1 Suppliers Con	struction contractors	1,624	41.41%	57.00%
Criti	cal suppliers	1,340	34.17%	61.05%
-tier 1 Suppliers Criti	cal suppliers	0	0.0%	0.0%

Non-

Tier

#### **Evaluation of Supply Chain Sustainability Management**

Hyundai E&C developed Supplier ESG Risk Assessment Framework so that the HDEC Supplier Sustainability Charter can be effectively reflected on business and has been diagnosing ESG (Environment- Society-Governance) risks of primary suppliers every year from 2014. In terms of economy, it evaluates the general status of business sites, quality capability, and credit rating. Hyundai E&C evaluates general present situations of business places, guality ability, and credit rating in the economic aspect, the compliance with environmental regulations, level of pollutant management, and acquisition of ISO 14001 environmental management system in the environmental aspect in order to measure the level of environmental management. In the social aspect, Hvundai E&C evaluates the level of safety and health management, whether ISO 18001 / OSHAS / KOSHA certification was obtained, and whether employees are overdue.

#### Results of Supplier Assessment and Corrective Actions

	Risk Category			sessment	<b>Risk Identification</b>		Risk Mitiga	iton
	Risk Type	Risk Level	Scope	Proportion	Identification Results	Proportion	Corrective Actions / Termination	Proportion
	Violation of the principle of ethics and anti-corruption	High	3,922	100%	0	0.00%	0	0.00%
	Delay in payments to tier 2 suppliers	High	3,922	100%	0	0.00%	0	0.00%
Economic Risks	Financial structure deterioration including credit rating	Medium-high	3,922	100%	7	0.18%	7	0.18%
	Lack of suppliers' capability	High	3,922	100%	5	0.13%	5	0.13%
	Other economic risks	Medium-high	3,922	100%	4	0.10%	4	0.10%
	Violation of environmental regulations	High	3,922	100%	0	0.00%	0	0.00%
Environmenta Risks	I Occurrence of environmental accident during construction	High	3,922	100%	0	0.00%	0	0.00%
	Other environmental risks	Medium-high	3,922	100%	0	0.00%	0	0.00%
	Occurrence of disputes and litigation	Medium-high	3,922	100%	0	0.00%	0	0.00%
	Violation of labor or safety regulation	High	3,922	100%	0	0.00%	0	0.00%
Social Risks	Occurrence of safety accident during construction	High	3,922	100%	1	0.00%	1	0.00%
	Other social risks	Medium-high	3,922	100%	1	0.00%	1	0.00%
Total			3,922	100%	18	0.46%	18	0.46%

48

#### **Supply Chain Sustainability Policy**

In October 2014, Hyundai E&C established the "HDEC Supplier Sustainability Charter" for the first time in Korea in October 2014 to expand responsible sustainable supply chain management to the entire supply chain and is practicing systematic supply chain management based on the guidelines. In May 2017, Hyundai E&C amended supplier human rights such as basic human rights, labor rights, and safety rights to strengthen them pursuant to the Hyundai E&C Human Rights Policy. These guidelines consist of three chapters: responsibility for sustainable business, responsibility for the environment, and responsibility for stakeholders, and present the sustainability management standards expected by Hyundai E&C across a total of 14 areas with 67 items.

In order to fulfil the actual compliance with and practice of the HDEC Supplier Sustainability Charter, Hyundai E&C signed sustainability management agreements with its suppliers in May 2019 to make effort to enhance competitiveness throughout the supply chain and minimize the risk. In addition, Hyundai E&C designated compliance with environmental safety and health as a mandatory contractual requirement when selecting suppliers to encourage suppliers to participate in sustainability management. Hyundai E&C suppliers are largely divided into material suppliers and construction suppliers. Among them, Hyundai E&C regularly selects and supports those that satisfy strict evaluation and auditing criteria such as financial stability, quality capability, environmental management level, and safety and health level as 'major suppliers' to maximize the efficiency of

(As of December 31, 2018)

(1000	f December	21	2010	I Init:	ounnlinro	١.
(AS U	December	ΟI,	2010,	Unit.	suppliers	)

#### **Social Contribution Promotion System**

Hyundai E&C aims to realize love for humanity by creating better bases of living with united mind with customers placing the highest priority value in 'human being'. To this end, Hyundai E&C, which has launched a social volunteer corps for the first time in the domestic construction industry in 2009 and has promoted corporatewide social contribution, has been developing systematic social contribution activities from 2018 based on six major moves reflecting the social responsibility vision and philosophy of Hyundai Motor Group in order to create a better world with customers and society. In addition. Hyundai E&C operates a 'transparent management committee' in the board of directors with an external consultative body specialized in social contribution to promote professional social contribution and transparently execute donations for transparent execution of donations, professional operation and management of social contribution and making communication channels with diverse stakeholders.

#### Hyundai E&C Social Contribution Promotion System

Social Contribution Vision <b>Trustworthy Partner for Today &amp; Tomorrow</b>				
	Social Contribution O	ganization		
	sparent Management Committee' on the board of directors	External Consultative Body Specialized in Social Contribution		
to ethical mana · Regular commi	iberation/resolution of major policies related gement and social contribution ttee meetings (quarterly) and temporary stings (occasionally)	Share social contribution performance/plans and collect professional opinions by field     Semi-annually (first / second half of the year)		
	Social Contribution	Strategy		
	Support second-class citizens' self-reliance and foster talents	Hillstate Dream Kium Mentoring Volunteer Corps		
	Employee and customer participating volunteer work	Cultural asset protecting activities, breadmaking of love volunteer work, Love Sharing Fund		
	Environmental Conservation and Response to Climate Change	Establish national park volunteer centers and provide programs		
	Social contribution utilizing the capability of the construction industry	H-CONTECH Overseas Volunteer Corps		
	Construction Safety and Community Safety Promotion	Disaster safety education project, donation of safety supplies		
	Improvement of movement convenience of the transportation vulnerable second-class citizer	Establish social enterprises, expand of mobility convenience facilities, provide vehicles to social welfare facilities		

_	Social Contribution Vision	y Partner for Today & Tomorrow
	Social Contribution	Organization
The 'Tra	ansparent Management Committee' on the board of directors	External Consultative Body Specialized in Social Contribution
to ethical ma · Regular com	leliberation/resolution of major policies related nagement and social contribution mittee meetings (quarterly) and temporary eetings (occasionally)	<ul> <li>Share social contribution performance/plans and collect professional opinions by field</li> <li>Semi-annually (first / second half of the year)</li> </ul>
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	Construction Safety and Community Safety Promotion	Disaster safety education project, donation of safety supplies
	Improvement of movement convenience of the transportation vulnerable second-class cit	Establish social enterprises, expand of mobility convenience facilities, provide vehicles to social welfare facilities

### **Social Contribution Performance Management**

#### Leading Global Construction Business CSV

Hyundai E&C established Vietnam Hyundai & Koika Dream Center, the first CSV project among construction companies in 2016 thereby supporting experience training equipment as well as providing specialized training by Hyundai E&C's safety experts and piping and welding technology experts to simultaneously pursue community development and training of construction manpower. In particular, the 'Hyundai-Koika Dream Center No. 4' opened in Hanoi Technical College in Vietnam in 2016 is leading to the creation of group synergy such as establishing 'Construction Safety School', which is a construction safety course in the college opened for the first time in Vietnam through cooperation with Hyundai Motor, and the "Automotive Maintenance Technology School" utilizing the capability of Hyundai Motor to foster experts. Hereafter too, Hyundai E&C will excavate global CSV businesses specialized in the construction industry to create new value so that the company and society can share growth.

#### http://en.hdec.kr/EN/Sustainability/ShareIntro.asox

Implementing UN

**Development Goals** 

Realize UN Sustainable Development Goals through six major move activitie

Sustainable

## Advancing **Strategic Social Contribution**

Communities are the foundation and core stakeholder group for Hyundai E&C to do business.

As a global leading construction company, Hyundai E&C is doing its best to coexist with local communities through strategic social contribution activities based on industry characteristics.

Hyundai E&C aims to create a brighter future by building the economic-social infrastructures of local communities centering on South Korea and overseas countries into which Hyundai E&C advanced and strengthening the business capacity of the company.

Strengthening Social **Contribution Activities** 

Establish and perform six major move Promote social contribution performance management

Social Contribution Expand the scale of global social

### Operate overseas technology exchange type volunteer corps

**Expanding Global** 

#### Value Empowering Case

#### **Developed Strategic Social Contribution Centered on Overseas Project Areas**

Reflecting the characteristics of the construction industry with many overseas projects, Hyundai E&C has been continuously promoting overseas social contribution activities. In 2018, Hyundai E&C promoted diverse activities such as dispatching the Happy Move overseas volunteer corps to six regions in a total of four countries; that is, Vietnam, India, Indonesia, and China, including the Cirebon area in Indonesia where the coal-fired power plant construction is in progress to new construction of houses for poor households in nearby areas. In addition, Hyundai E&C dispatched the 'H-CONTECH' overseas technology volunteer corps, a technology exchange type volunteer corps unique to Hyundai E&C, to Hanoi / Hai Phon, Vietnam, where rapid economic development is taking place to promote technical cooperation and cultural exchanges.

#### Happy Move Overseas Volunteer Corps' New Construction of Houses for Indonesian Poor Households



#### Strengthen Global Social Contribution Activities Reflecting the Characteristics of the Construction Industry

Developing Core Social

· H-CONTECH overseas volunteer corps

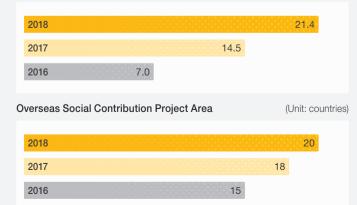
Contribution Activities

Hillstate Dream Kium mentoring

volunteer corps

Hyundai E&C is continuously expanding its overseas social contributions to realize its social responsibility as a global construction company. Starting with the establishment of a community center for low-income people in the Philippines in 2011, Hyundai E&C has been carrying out diverse social contribution projects in 20 countries around the world by 2018, including health hygiene, educational scholarship, cultural exchanges, and the relief of the poor. In addition, beginning with KRW 320 million in 2013, KRW 1 billion was executed as overseas social contribution costs in 2018 through continuous budget increases and activities such as educational scholarship, health hygiene, and new construction of village facilities were carried out in developing countries such as Iran, Indonesia, the Philippines, Bangladesh, Myanmar and Sri Lanka.

**Overseas Social Contribution Projects** (Unit: KRW 100 million, cumulative)





100.6

Social Welfare

Activities

Other\*

Center 4

Arts & Culture

investment source, etc.

144.9

Education and Academic Research

International Relief and Exchange

Environment and Disaster Relief

\* Support for suppliers and shared growth

Homepage

http://csr.hdec.k

**Strengthening Social Contribution System** 

Hyundai E&C Social Contribution

	MOVE
nation Expenditures 100 million)	
30.6 1.6	
	100 million)

To improve participation and systematicity of social contribution activities, Hyundai E&C has been operating the social contribution mileage system from 2010 and has reflected the performance of social contribution activities on the KPIs by division. In 2018, Hyundai E&C carried out evaluations split into two times, once in the first half of the year and once in the second half of the year so that corporate-wide social contribution activities can be evenly carried out throughout the year, and achieved 8.5 mileage per employee. In 2019, Hyundai E&C aims to achieve 10 mileage per employee per year.

## Vietnam Hyundai & Koika Dream



### Hyundai E&C Social Contribution Story

#### **Dream Move** Hyundai E&C is carrying out mentoring projects for construction and science education scholarship support for domestic and foreign children and adolescents in need of scholarship support and academic assistance for science and engineering students to pursue construction

business development and community development at the same time. Educational scholarship support for youth

· Community mentoring talent donation activities

· Hillstate Dream Kium Mentoring Volunteer Corps

#### **Next Move**

Based on the characteristics of the construction industry, Hyundai E&C is supporting the construction of public infrastructures in local communities at home and abroad and overseas developing countries and is actively contributing to strengthening the self-sustenance of local communities through fostering of local construction by manpower and technology exchanges.

Social contributions to the underprivileged and developing countries · Social contribution to overseas developing countries · Overseas volunteer corps for improvement of facilities and education in developing countries and technical exchanges

SDG 04. Quality assurance of education Ensure inclusive and equitable good quality education by 2030 and promote lifelong learning opportunities.



#### Hillstate Dream Kium Mentoring Volunteer Corps

The construction industry-science and engineering linked talent donation volunteer corps the 'Hillstate Dream Ki-ment Mentoring Volunteer Corps' founded in 2014 for the first time among South Korean construction companies is a social contribution project that strengthens youth self-reliance capacity jointly made by Hyundai E&C and the social welfare foundation 'Children and the Future Foundation'. It provides academic guidance and career counseling to low-income youth mentees, and give social experience, know-how regarding major/practice, and counseling for getting a iob to college student mentors. Youth mentees - College mentors - Employee mentors make up a group to have diverse experiences in not only studies but also growth while accumulating relationships through activities for about 10 months.



#### H-CONTECH Overseas Volunteer Corps

SDG 11. Realization of Sustainable Cities

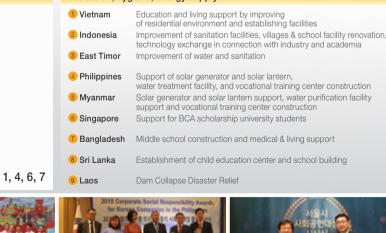
housing supply, traffic improvement,

and expansion of urbanization.

By 2030, sustainable cities will be built through

Hyundai E&C is actively promoting overseas social contribution activities after launching 'H-CONTECH', a technology exchange type overseas volunteer corps, for the first time in the domestic construction industry in 2017. In 2018, Hyundai E&C dispatched H-CONTECH Overseas Technology Volunteer Corps to Vietnam's Hanoi / Haiphong region into which Hyundai E&C advanced in 1966 to exchange technology at the local Traffic College and strive for cultural exchanges with local universities. In 2019. Hvundai E&C plans to visit Indonesia, a key strategic country of Hvundai E&C. to seek joint development for the future construction industries such as eco-friendly. energy / urban regeneration / energy efficiency and the future of mankind.

#### Residential environment, living support, medical care, ASIA education, hygiene, energy supply Vietnam 7 Bandladesh 2 Indonesia 🔊 Myanma aos 9 3 Fast Timor 4 Philippines 8 Sri Lanka Philippine 5 Myanma 6 Singapore 6 Singapore 2 Indonesia 3 Fast Timor 8 Sri Lanka SDG 1, 4, 6, 7 9 Laos



#### cognition Certificate of Hanoi **Domestic and International Prize** People's Committee of Vietnam awarded (October 2018) Winning for Social Contribution

Excellence Prize Platinum Award (October 2018)



### Happy Move

With a view to solving problems in the community and activate the participation based on its capabilities in construction business, Hyundai E&C is expanding the participation of employees, their families, and stakeholders, support the preservation of main facilities of Changdeok Palace every year, and contributes to the preservation of natural heritage and improvement of the beauty of the Bukchon area.

#### Support for Cultural Heritage Preservation and Improvement of Community

- · Established the national park volunteer center
- · Bukchon beauty improvement activities · Cultural assets guard (Changdeokgung)
- · Love sharing fundraising campaign

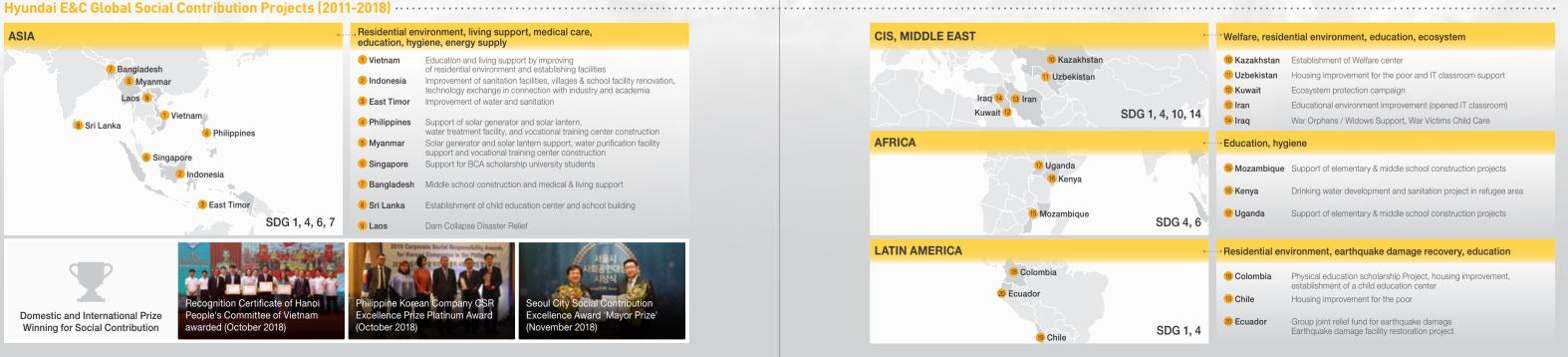
### SDG 16. Peaceful Society and Systems

Hyundai E&C seeks a peaceful and inclusive society and system for sustainable development by 2030.



#### Cultural Assets Preservation and Bukchon Beauty Improvement Activities

In 2018, 311 employees of Hyundai E&C and their family members carried out activities to repair old buildings in Changdeokgung, a world heritage, and environmental cleanup activities 11 times in total. In addition, Hyundai E&C replaced aged facilities in Jungdok Library, Jadeong Elementary School and Jongno Social Welfare Center and formed and supported infrastructures for convenience of local residents reflecting the cultural themes thereby developing the 'Bukchon Beauty Improvement Project' into a representative culture and arts social contribution project of Hyundai E&C. From the second half of 2019, Hyundai E&C plans to newly expand the cultural preservation support activities for the new Bukchon community, such as cultural experiences, historical exploration, and expansion of participation by stakeholders.



#### Safe Move

Hyundai E&C is carrying out social contribution activities in the field of disaster safety reflecting the characteristics of the construction industry. Hyundai E&C developed and is operating educational project models in the field of disaster and safety, supplies safety supplies, while striving to foster relevant social enterprises.

- Disaster safety education and supply of safety supplies Development and operation of disaster safety education projects
- Supply of safety supplies to prevent disasters
- Fostering social enterprises in the field of disaster safety



SDG 9. Pursuit of Sustainable Industrialization By 2030, Hyundai E&C will promote industrialization through improving resource efficiency, developing eco-friendly technologies, and innovation



Disaster Safety Education and Activities to Supply Safety Supplies

In May 2018, Hyundai E&C signed an MOU with the Construction Industry Social Contribution Foundation, the Plan Korea Committee, and Blue Indus to promote social contribution in the field of disaster safety. Plan Korea is a civic group that develops aid and relief and Blue Indus is a social enterprise that plays a special role in the field of disaster safety. Through the execution of the Memorandum of Understanding, they became to be in charge of comprehensive support, development of education project models, and development and support of safety supplies. With the participation of the social enterprises that play a professional role in the field of disaster safety and an international NGOs for relief development, Hyundai E&C plans to promote the development and delivery of disaster safety education projects and safety supplies that prevent disasters with the addition of expertise.

# **HDEC** VALUE **PRINCIPLES**

Hyundai E&C established five principles that are the core criteria for value judgment and builds a sustainable tomorrow based on them.

Securing Sound Governance

> Internalizing Compliance & Ethical Management

Managing Risk Proactively

The strength of Hyundai E&C, which has been the leading the sustainability management of the global construction industry, starts with 'value judgment' that considers economic, environmental, social changes and stakeholders when establishing management strategies.



Protecting Human Rights in Value Chain

Sound

Securing

Governance

#### **Board Independence Principle**

#### Outside Director Independence Standard

#### Outside directors shall have expert knowledge and experiences in the industrial, financial, academic, legal, accounting, and public sector, a

Records of being employ Records of direct/indirec the Company or employe of the management in the Records of direct/indirect between currently employ In the case that currently auditor, customer or bus

Policy for	Director Nomin	ating						
BoD Complementarity of Skills			Balance		BoD D	iversity		
Securing the complementarity for the duties of the BoD based on duty indicators				Enhanci	ng the divers on diversit	sity of the Bo y indicators	D based	
Skill Industry Expertise Educational Background				Gender	Age	Race	Nationality	
Basis: '2.5 Director Nominating' of HDEC Corporate Governance Charter								



Outside Director

Male

First Appointment March 2011

(independent lead director)

Former Vice-president, Education and Scholarship at Yonsei Univ.

Doctor of Law, University of Freiburg, Germany

Work Experience Law Chairman of the Audit Committee

July 1955

Current President of Conci Development Foru Former Professor of Archi Konkuk University

Doctor of Architectural Engi Hanyang University, Korea

#### Management Principle

In order to realize stable management activities and successful business execution based on checks and balances, Hyundai E&C is building a sound governance structure that is consistent with global companies. In addition, Hyundai E&C is constantly striving to create value for shareholders and stakeholders by strengthening the efficiency and transparency of the board of directors.

#### Hyundai E&C Corporate **Governance Principles**

HDEC Corporate Governance Charter

http://en.hdec.kr/EN/Download/HDEC\_Corporate\_Governance\_Charter.pd

Corporate Governance Reports http://dart.fss.or.kr/dsaf001/main.do?rcpNo=2

The corporate governance structure of Hvundai E&C is based on the establishment of sound corporate governance, which creates shareholder value under the supervision of an independent board and emphasizes the interests of internal and external stakeholders in a balanced manner. In order to realize this, Hyundai E&C has adopted the recommendation of corporate governance best practices in line with international standards and to establish a transparent corporate governance system centering on a professional management system and independent board of directors. Since 2017, Hyundai E&C has voluntarily disclosed corporate governance reports containing the governance principles and present situations of Hyundai E&C in an effort to enhance transparency. In addition, Hyundai E&C has established and is operating a corporate governance charter to establish sound corporate governance that creates shareholder value and attaches balanced importance to the interests of internal and external stakeholders.

#### HDEC Corporate Governance Charter

Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5
Shareholders	Board of Directors	Audit Organization	Stakeholders	Disclosure
3 articles, 8 clauses	9 articles, 42 clauses	2 articles, 9 clauses	1 articles, 3 clauses	1 articles, 3 clauses

#### **Board of Directors**

Financial Supervisory Service's Data Analysis, Retrieval and Transfer System (DART) http://dart.fss.or.kr

#### **Board Functions and Composition**

The board of directors is a key decision-making body of the company. It resolves major matters provided in the laws and the Articles of Incorporation and major matters concerning the execution of the company's business, supervises the performance of duties of directors and executives, and makes effort to maximize the corporate value and build stakeholders' trust through the foregoing. Hyundai E&C publishes information such as its articles of incorporation, major roles and resolved matters of the board of directors on its corporate website, and regularly discloses materials related to the Board of Directors, which are subject to disclosure under the Act, to the Financial Supervisory Service's Data Analysis. Retrieval and Transfer System (DART).

Hyundai E&C operates a board of directors consisting of a total of seven members comprising three executive directors and four outside directors to ensure transparent decision-making through efficient checks and expert advice. Due to the nature of the construction industry, in which fast decision-making is needed at business places located throughout the world, the CEO is also the chairman of the board of directors. Therefore, in order to allow the Board of Directors to function independently of the plural office system, more than half of the total number of directors is composed of outside directors, and an Independent Lead Director is appointed.

Current Status of the Board of Directors (As of June 30, 2019)		Inside Director Park Dong-Wook		Inside Director Lee Won-Woo		Inside Director Yun Yeo-Sung
	Gender	Male	Gender	Male	Gender	Male
	Birth	February 1962	Birth	February 1954	Birth	February 1961
	First Appointment	March 2018	First Appointment	March 2018	First Appointment	March 2018
	Work Experience	Construction & Engineering	Work Experience	Construction & Engineering	Work Experience	Construction & Engineering
* As of June 2019, the average service duration of Hyundai E&C board directors is 4.2 years	Former Manag Hyund	ent, Hyundai E&C jing Director, lai Motor Company iness Administration,	Former Vice-p Master of Const	iresident, Hyundai E&C iresident, Hyundai Engineering ruction Project Management, an Graduate School, Korea	Former Manag	ging Director, Hyundai E&C ging Director, Hyundai Mobis siness Administration, y, Korea

#### 56

To ensure the independence of outside directors. Hyundai E&C specifies independence criteria through the Corporate Governance Charter and appoints independent outside directors who have no significant interests with the Company for the past five years in accordance with relevant laws such as the Commercial Law. Outside directors enhance the fairness and transparency of corporate management, provide advice and related expertise for important decisions of the company, and perform objective monitoring and supervision of management activities, thereby fulfilling their duties as faithful advisers and assistants in corporate management. Hyundai E&C has designated a dedicated in-house department to faithfully provide the information necessary for business and support the smooth execution of duties by outside directors.

Sublic Sector, and must have no line	rests with the company in the last live years as follows.
	1
yed in the Company or its affiliates ct financial contracts and transactions with ed company's staff being part le affiliates ct financial contracts and transactions oyed organization and the Company ( employed organization is the external iness partner	<ul> <li>Records of currently employed organization's staff being part of the management in the Company</li> <li>Records of receiving non-wage rewards excess of KRW 10 million from the Company or its affiliates</li> <li>Records of immediate family members being employed in the Company or its affiliates</li> <li>Records of immediate family members' financial transactions with the Company or its affiliates</li> </ul>
	•

#### Basis: ' 2.4 Qualifications and Independence of Directors' of HDEC Corporate Governance Charter

#### **Procedures and Criteria for Nominating Directors**

In the case of Hyundai E&C, directors are appointed at the general shareholders' meeting after recommendation by the Board of Directors and the Outside Director Candidate Recommendation Committee based on the director appointment criteria specified in the Articles of Incorporation. Outside director candidates are recommended observing the gualification requirements under the related laws such as the Commercial Act, and those candidates who have expertise and experience in related fields such as law, financing, accounting, and construction considering the board diversity criteria such as gender, race, nationality, and age, and job complementarities such as jobs, experience in business types, expertise, and educational background so that directors with diverse perspectives and experiences are selected and cope with changes in management environments flexibly. The detailed director appointment policy is set forth in the clause "2.5 Appointment of directors" in the Corporate Governance Charter.

tside Director h Chee-Ho		Outside Director Park Sung-Duck		Outside Director Kim Young-Kee		
	Gender	Male	Gender	Male		
1953	Birth	November 1952	Birth	September 1956		
011	First Appointment	March 2014	First Appointment	March 2016		
ction & Engineering	Work Experience	Law	Work Experience	Finance & Accounting		
crete Industry	Current Lawye	r, Lee International	Current Presid	ent, Tax&People		
um itecture at		tion Commissioner, ard of Audit and Inspection of Korea		or, Research Bureau of al Tax Service		
/ ineering,		, Seoul National University, Korea Vonkwang University, Korea	Master, Chung-/ Graduate Schoo	Ang University of Public Administration, Korea		

Attendance Rate of Outside Directors

As of 2018

#### **Operation Status of the Board of Directors**

The Board of Directors operates as regular Board of Directors meetings held once a guarter and as temporary board meetings held when necessary. The Board of Directors prepared the "Board of Directors Regulations" for the efficient operation of the Board of Directors and minutes are written and kept at every meeting. The resolution of the board of directors shall be determined by the attendance of a majority of the directors and the affirmative votes of the majority of the attending directors, unless stipulated otherwise under the law. In 2018, the Board of Directors was convened nine times to resolve a total of 36 agendas, including approval of transactions with affiliates.

#### **Board Efficiency Assessment**

Hyundai E&C conducts an annual board efficiency assessment in 15 areas of three aspects: board roles and responsibilities, board efficiency, and appropriateness of committee activities to seek board development and matters that must be improved in operation. In 2019, the Board's Efficiency Assessment Score was counted as 4.8 points out of the full score of 5 points, and Hyundai E&C is making effort to strengthen the soundness and efficiency of its governance based on the results of the diagnosis. In addition, Hyundai E&C stipulates the introduction of the Board of Directors operation evaluation system in Article 18 of the Board of Directors' regulations for the longterm growth of the company and the improvement of corporate governance. In addition, the Corporate Governance Charter contains provisions for the evaluation and compensation systems for the board and each committee to create an executive compensation system that can contribute to long-term shareholder value increase.

#### 2019 Board Efficiency Assessment Result

(Unit: points /full score 5 points)

Aspect	Board Roles and Responsibilities	Board Efficiency	Appropriateness of Committee Activities	Total Score
Average Score	4.8	4.8	4.8	
ment	Securing Independence     Review of Financial Performance     Pursuit of Interests of All Shareholders     Pursuit of Long-term Interests of	Number of Board Meetings and Proposed Agendas		4.8

#### **Performance Compensation**

The directors' remuneration is paid within the limit of remuneration of directors including severance pay approved by the general shareholders' meeting every year, and the detailed execution is delegated to the board of directors. The present situations of remunerations of all directors and auditors are disclosed through quarterly, semi-annual business reports. In the case of the CEO, the compensation is paid according to the management personnel and treatment regulations in consideration of the position, assignment, ability, etc. within the limit of payment determined by the resolution of the general meeting of shareholders. In the case of directors whose total remuneration is over KRW500 million, the amounts of remunerations by individual and the calculation criteria are transparently disclosed. As a result of compensation according to the 2018 performance evaluation, the average compensation of top executives is 469 million won, which is 5.48 times the average salary of all employees.

#### Status of CEO Remuneration

(As of December 31, 2018)

(As of December 31, 2018)

Category		Number of Persons (n)	Total Amount of Remuneration (KRW million)	Average Remuneration (KRW million)
Board	CEO	1	669	669.0
of	Inside Director*	3	2,651	883.7
Directors	Outside Director	4	251	62.8
Employees	;	6,500	555,966	85.5
	Sub-total	6,507	558,868	85.887198
Ratio of CE	O compensation to the	total average of employee wag	es	7.79

\* The total amount of remunerations of inside directors include the renumeration of retired directors.

#### Calculation Criteria and Methods of Directors' Compensation

Incomes

Types of Total Amount Name Calculation Criteria and Method Remunerations (KRW million) In accordance with the [Management Personnel and Treatment Regulations] considering the position, assignment and ability, KRW 610 million was paid in Salarv 610 installments from April to December within the limits of payment determined by the resolution of the general meeting of shareholders. CEO Park In accordance with the [Management Personnel and Treatment Regulations] considering the position, assignment and ability, KRW 39 million was paid in Dona-Wook Incentive July and KRW 20 million was paid in December within the limits of payment determined by the resolution of the general meeting of shareholders Other Earned 0 Not applicable

#### Committees Under the BoD

Hyundai E&C is currently operating Audit Committee, External Director Nominating Committee, and Transparent Management Committee under the BoD for the Board's efficient operation, execution of its duty, and promotion of sustainability management activity. Each committee is entrusted with part of the authority of the BoD, except as stipulated by the related laws or the Articles of Incorporation. Operation and authority of the committee are subject to the rules stipulated by the board. The Articles of Incorporation and regulations of the Board clarify that the key committees established by Articles of Incorporation shall consist mainly of external directors. Thus, we have guaranteed the independence of the committees.

#### Audit Committee

The Audit Committee is a committee within the BoD, which is responsible for auditing the legitimacy of directors and executives in order to enhance corporate value, and is independent from management and certain shareholders. It is mainly audits the accounting, tasks and financial status of the company. Currently, four external directors are appointed to ensure transparency and independence. In addition, it conducts audits efficiently while communicating with external auditor about the audit plan and results of financial statement.

#### **External Director Nominating Committee**

The External Director Nominating Committee is a committee within the BoD, which is established to recommend candidates for external directors in accordance with relevant laws and regulations. It is responsible for confirming the background of the appointment of directors, the interests of the company including transactions over the past three years, and legal qualifications. Currently, it is composed of one internal director and four external directors, which are more stringent than legal standards requiring majority of external directors.

#### **Transparent Management Committee**

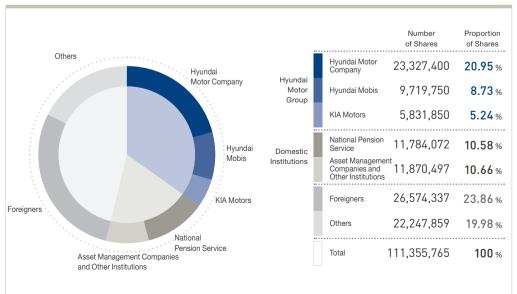
directors.

#### Protecting **Shareholder Rights**

Disclosure of Shareholders' Status http://en.hdec.kr/EN/IB/Stock0100.asp

As the owners of Hyundai E&C, shareholders have a right to attend the general shareholders' meeting and vote, right to share in the profit, and right to receive management information as stated on legislations including the Commercial Act. We observe a principle to preserve shareholders' rights in any cases when a significant change to the existence of the company or shareholder rights, such as adjustment of the Articles of Incorporation, merger or split off, and changes in capital; decisions in these circumstances are made at the general shareholders' meeting. In addition, Hyundai E&C guarantees the shareholders' right to be informed by disclosing management information in an explicit and prompt manner through various channels: the corporate disclosure system, business report, website, and general shareholders' meeting.

#### Major Shareholders



The Transparent Management Committee is a committee within the BoD, which is established to review transparency and ethical management of the company's internal transactions and to protect the rights and interests of shareholders. Through the resolution of the BoD on 29 MAR 2018, we have enhanced the independence and transparency of the committee by switching the name from the existing 'Ethical Management Committee' to 'Transparent Management Committee,' expanding the scope and functions of the deliberations, and changing the composition of the committee, which had included internal directors, to total four external

(As of December 31, 2018)

Internalizing

Compliance

Management

& Ethical

http://en.hdec.kr/EN/IB/Stock0100.aspx

#### Strengthening Ethical and Compliance Management

### Activities

#### Ethics and Compliance Education



Number of Ethical and Compliance Education in 2018

 $168^{\text{times}}$ 

Та Corporate-wide Educat

Education by Group

In order to enhance suppliers' awareness of ethics and establish fair and transparent trade culture, Hyundai E&C conducts supplier ethical management training annually and collects written pledges for ethical management based on 'HDEC Supplier Code of Ethics'. In 2018, Hyundai E&C conducted ethical management education for a total of 872 suppliers, shared the Hyundai E&C code of practice of ethics, and shared major cases of violation that may occur in the construction industry. In addition, Hyundai E&C is establishing ethical standards for joint ventures and overseas investment corporations over which it has no direct control and strives to share the value and experience of Hyundai E&C with them. Compliance with ethical management standards, including the ethical standards, is a key element of the Hyundai E&C business contract and Hyundai E&C necessarily requires compliance with ethical standards and the written pledge for ethical management from all joint ventures and joint ventures.

#### **Ethical and Compliance Management Related Reports and Measures**

Cyber Audit Office http://audit.hdec.kr

Hyundai E&C provides online training on the Code of Ethics and related regulations through the operation of the Cyber Audit Office, receives reports on irregularities, reports on unfair business practices, and system improvement requirements in real time, and transparently deals with the reports. For smooth reporting from overseas business sites, Hyundai E&C operates the English Cyber Audit Office and hotlines by overseas country 24 hours a day, while encouraging anonymous reporting and ensuring the secrecy of the identity of reporters and confidentiality of the reported information by not disclosing all reported contents. In addition, to increase effective reporting, Hyundai E&C posts cyber audit office informing pop-ups, and sends informing mails to persons in charge of domestic and overseas Hyundai E&C's suppliers for procurement and outsourcing.

Category	2015	2016	2017	2018
Disciplinary Dismissal	3	1	1	1
Suspension	5	0	0	0
Total	8	1	1	1

#### Management Principle

Hyundai E&C strives to build the trust of its stakeholders through ethical management activities and compliance with fair trade in all countries in the world where it leads to business. Hyundai E&C is taking the lead in the establishment of ethical corporate culture by internalization of ethical and compliance management into its employees as well as affiliates, suppliers and business partners.

#### **Ethical and Compliance Management System**

#### Hyundai E&C Ethics Chapter and Code of Ethics

http://en.hdec.kr/EN/Sustainability/EhticConduct.aspx

### Establishment of Ethical and Compliance Management System

In order to share ethical management visions with all employees and stakeholders and establish an ethical management culture as a responsible corporate citizen, Hyundai E&C established the Ethics Charter and the Code of Ethics and is striving to establish ethical management promotion systems and internalize ethical consciousness. The Ethics Charter and Code of Ethics apply not only to all employees but also to affiliates and suppliers and are regularly reviewed to reflect the rapidly changing industry trends and diverse needs of stakeholders. In addition. Hvundai E&C is promoting employees' understanding and utilization of the ethical standards by linking them with company visions and providing concrete practice guidelines and manuals.

#### Ethical and Compliance Management Promotion System



#### Strengthening Corporate-wide Compliance Organizations

To strengthen the corporate-wide compliance system, Hyundai E&C has established an ethics and compliance monitoring system in 2018 and has been operating the system. The Domestic Legal Affairs Office oversees the establishment and execution of compliance policies, appoints compliance officers by headquarters while appointing compliance practice leaders at team/site/branch units to conduct organizational unit compliance activities such as autonomous checks of ethics and compliance. As concrete activities, compliance monitoring has been carried out since September 2018 and compliance consultative bodies have been operated every month to constantly propagate compliance education materials.



#### **Establishing Autonomous Compliance with Fair Trade**

In order to create a transparent and fair-trade culture, Hyundai E&C operates a fair-trade compliance program and utilizes the program as an internal control standard. In addition, in order to systematically implement the autonomous fair-trade compliance program, Hyundai E&C holds in-house compliance consultative council every month and to share internal and external fair-trade issues and policies. In addition, Hyundai E&C is strengthening the mind to comply with fair trade-related laws and carry out shared growth cooperation with suppliers through customized fair trade education by the department, subcontractor visiting education by site base at home and abroad, and collection of a written oath to practice fair trade from all employees.

4. Training System

System

5. Monitoring & Supervisory System

6. Autonomous Regulations on Violation

7. Establishment of Documen-tation

#### Mandatory Ethical and Compliance Training

Hyundai E&C is continuously strengthening ethical management education and campaign activities to improve the corporate-wide level of internalization of ethical management. To this end, Hyundai E&C provides compulsory ethical management training to all employees including the CEO and management. From 2014. Hyundai E&C has been receiving written oaths to practice ethical management from all employees every year. In addition, Hyundai E&C operates an Ethical Management Practice Q & A within the Groupware Online Ethics & Compliance Consultation Center to help the employee make ethical decisions in actual work. In 2018. Hyundai E&C educated all employees on revised laws separately educated employees who were scheduled to be assigned to overseas offices on overseas anti-corruption laws so that they can proactively respond to changes in legal environments. In 2018, a total of 168 sessions of ethical and compliance management education were carried out and a total of 4,814 persons took the sessions.

#### Present Situation of Ethical and Compliance Management Education in 2018

arget of Education	Number of Education (session	on) Number of Trainees (person)
tion	15	3,191
Employees working i	n Korea 87	1131
Employees working a	abroad 48	262
Employees schedule be assigned to overs workplace		30
Employees who retu Kora	rned to 5	149
New recruits	2	51
Total	168	4,814

#### **Expanding Value Chain Ethical and Compliance Management**

#### Ethical Management Violation Cases and Measures

#### **Principle 3**

Risk

Managing

**Proactively** 

Strengthening Risk Management system

#### Improving the Efficiency of Risk Analysis and Evaluation

management work.

#### **Corporate-wide Risk**

For effective responses to risks, Hyundai E&C classifies risks largely into corporate-wide risk, project risk, and long-term strategic risk taking into account business areas activity markets macroeconomic environment and stakeholder characteristics for management of the risks. Corporate-wide risks refer to those significant risks that can affect Hyundai E&C's business objectives among various risks to which the whole company is exposed. These risks are largely divided into national risks and corporate/market risks. Of them, national risks include political, social, cultural and environmental risks due to changes in the external environments both at home and abroad and are managed at the level of the entire company. Corporate and market risks generally include market, business, and financial risks managed by the company. It is managed on a company-wide basis, including political, social, cultural and environmental risks due to change. Corporate and market risks include market, business, and financial risks generally managed by firms.

#### **Project Risk**

Project risks refer to important risks that can affect project winning and the achievement of project goals when projects implemented. Hyundai E&C is proactively blocking project risks by establishing and operating a consistent and efficient project risk management system throughout the project lifecycle. From 2014, Hyundai E&C is fundamentally blocking the winning of projects with apparent risks through the order winning stage multilayered filtering system. When projects have been selected and won through the foregoing process, high risks are intensively identified, and risks are divided into those that can be handled at the site and those that require head office's support so that appropriate responses can be carried out. In 2018, Hyundai E&C strengthened its risk identification role, improved its system so that order winning competitiveness can be improved, and expanded the range of risk management to introduce prior risk review systems from the stage of initial information acquisition in addition to order winning examination in the bidding stage.

### Long-term Strategic Risks

Long-term strategic risks are material risks which may significantly influence the future sustainability of Hyundai E&C. We have identified urbanization, water scarcity & environmental pollution, energy & fuel scarcity, and resource depletion as the key megatrends of the construction industry in a long term perspective. Hyundai E&C has devoted its efforts to defining risk & opportunity factors through the future analysis against 2030 for each megatrend and to respond effectively.

#### Construction Industry Megatrends Analysis against 2030

Main examination

of responding strategies

Headquarters examination

**Definition of Risks** 

Order Winning Stage Multilayered

Stage 2 Risk review and establishment

**Risk Filtering System** 

Stage 3

Stage 1

Urbani	zation	Water Scarcity & Environmental Pollution	Energy & Fuel	Resource Depletion
	44% increase in urban population increase, 60% of world's population living in cities <un division="" population=""></un>	53% increase in water intake, 39% increase in water shortage population <2030 Water Resource Group / WEF>	33% increase in world primary energy demand, 20% increase in GHG emissions <iea></iea>	55% increase in resource consumption, industrial resource extraction scale increase to 83 billion tons <seri kpmg=""></seri>
Risk Factor	Intensified socio-economic problems in urban areas due to population growth	Water crisis due to water supply shortage	Advent of severe crises on energy shortage caused by demand increase for energy	Weakening economic growth potential due to difficulty in acquiring resources
Opportunity Factor	Provision of large & smart infrastructure in accordance with expansion of the urban areas	Expansion of demand for water treatment and environmental restoration technology	Response to energy scarcity with renewable energy and low-carbon high-efficiency technologies	Expansion of business value in resource recycling and alternative materials development
Counter- measure	Development of state-of-the-art building technology to supply large & smart infrastructure	Development of water treatment and environmental restoration technology to overcome environmental risk	Development of renewable energy and low-carbon, high-efficiency technology to cope with energy depletion	Development of waste recycling technology and substitute materials to prepare for resource shortages
	Long span bridge construction technology, zero energy building, intelligent transportation system	Seawater desalination, wastewater treatment and water reuse	Environment-friendly bio energy, offshore wind power, tidal current generation, solar energy	Contaminated soil restoration technology

#### Management Principle

Hyundai E&C is striving to effectively secure business stability by identifying and preventing the potential crisis in advance through preemptive risk management. Hyundai E&C is also strengthening its competitiveness by conducting a systematic long-term strategic risk analysis to uncover new opportunities and integrate them into its business.

#### **Operating the Dedicated Organization to Integrated Risk Management**

As a global construction company, Hyundai E&C operates a variety of projects including civil engineering, architecture, plant, and energy throughout the world as its stage, and has established a corporate-wide support system to identify and manage the risks that can occur in various types of projects. The Project Support Division is a project risk control tower for all sites and is responsible for managing and controlling the risks throughout the entire project life cycle, from order winning to execution stages.

In addition, Hyundai E&C identifies risks through order screening and ensures the risks are minimized in the progress of bidding. In the implementation stage, Hyundai E&C conducts regular risk checks in the initial mobilization stage and every major stage of execution. In addition, in order to prevent the spread of on-site risks, Hyundai E&C is carrying out support activities through head office staffs' business trips to the site.

#### Advancing IT-based Integrated Risk Management System

Hyundai E&C operates an IT-based risk management system to effectively manage key information generated during a series of processes ranging from risk identification, analysis, evaluation and response. Following the development of an order wining examination and management system in 2014. Hyundai E&C constructed an integrated risk management system that encompasses even the risk management functions in the implementation stage in 2016. In 2017, Hyundai E&C upgraded the system to implement a risk information portal function that enables integrated inquiry of risk information for each business unit and established a system for real-time identification and support by the head office for individual site issues. In 2018, Hyundai E&C expanded the existing overseas project wining examination database to the examination of domestic private investment and overseas investment projects and developed a system to automate the examination procedure. In addition, Hyundai E&C strengthened initial risk management further by making the person in charge in the implementation stage create a risk check checklist and developing a function to manage whether head office's support activities are delayed.

#### Integrated Risk Management System

Watching & Warning	Function to Utilize Order Wining Information	Site Comprehensive Information Inquiry Function	Site Support Request Function	Head Office Support Status Management Function
Alarm before completion of the response plan Warning when not responding	Order wining stage risk history information can be viewed/utilized in the implementation stage.	risk management	Submit support requests to the support department in real time on receipt of a request for support Head office processing states can be checked in real time	Send alarm emails immediately upon request from sites Provide support status real-time inquiry screer

#### **Risk Reporting System**

Board of Directors	
High-level Risk	

· The CRO directly reports to the BoD and undertake the investigation of a given risk and the responsible personnel Fstablish a risk mitigation strategy, regular monitoring system, and countermeasures to a crisis situation

#### CEO Mid-level Risk

 The CBO directly reports to the CEO. · If a given risk is considered to be urgent and to have a significant effect on report to both the CEO and the Bo make a prompt decision

CRO Low-level Risk

· Reported to the Chief Risk Offcer

#### Systematizing Risk Monitoring and Reporting Systems

Hyundai E&C selects 15 key risks and monitors risks through monthly risk status analysis and regular scenario mapping. In addition, Hyundai E&C derives KRI (Key Risk Indicator) for each key risk and prepares countermeasure manuals by organization to take prompt action in the event of identifying anomalous signs. In addition, Hyundai E&C quantitatively analyzes the severity, likelihood, and spread of risks to establish reporting procedures and targets by stage in advance thereby ensuring efficient reporting.

#### Hvundai E&C's 15 Kev Risks

i project(s),											
3oD and	01	Rise of Raw Materials Prices	02	Currency Volatility	03	Intensified Competition	04	Failure to Accomplish Management Targets	05	Failure of New Projects	
		ability to Qualify with Global QC Standards	07	Liquidity Crisis	08	Changes in the Global Economy	09	Stagnant Domestic Construction Industry	10	Political Uncertainties in Foreign Countries	
r (CRO)	11	Inadequate SCM	12	Vulnerability in HR Management	13	Non-compliance with Laws	14	Occupational Accidents	15	Information and Technology Leak	

Hyundai E&C distributes checklists by project type for all project types and conducts risk assessments by experts from time to time. The results of the risk analysis are used as a basis for the establishment of management strategies and decision-making on similar projects. Following the strengthening of practitioners' risk analysis and evaluation activities by introducing a working group examination system in 2014, Hyundai E&C improved the risk management method in the order winning-implementation stages into the form of risk register for continuous risk analysis and evaluation in 2016. In 2017. Hyundai E&C constructed Sensing, Assessing, Tracking, and Feedback modules in the integrated risk management system to improve the risk analysis and evaluation system at the implementation stage. In 2018, Hyundai E&C derived key risks of projects through order winning stage risk analysis and evaluation and prepared to respond strategies to improve the efficiency of risk

Protecting

**Human Rights** 

in Value Chain

#### Management Principle

Hyundai E&C sets up the highest level of responsibilities to respect and protect human rights in all areas where it leads it business, fulfills social responsibilities and roles while making effort to minimize negative effects on human rights by analyzing the level of exposure to human right risks for all domestic and overseas businesses in order to prevent in advance, any infringement on human rights that may occur in any part of the value chain

#### **Human Rights Policy**

Hyundai E&C Human Rights Policy http://en.hdec.kr/EN/Sustainability/EhticConduct.aspx

UNGC Communication On Progress

https://www.unglobalcompact.org/what-is-gc/ participants/11559#co

As a responsible global construction company, Hyundai E&C officially supports global human rights and labor standards such as the 'UN Universal Declaration of Human Rights', the 'ILO Conventions', the 'OECD Guidelines for Multinational Enterprises', and the 'UN Guiding Principles on Business and Human Rights', and established and publicized the 'Hyundai E&C Human Rights Policy' in May 2017 to protect and promote human rights. Hyundai E&C faithfully observes the Constitution and labor-related laws of South Korea at all business sites around the world, conducts domestic and international operations under the principle of respect for human rights, and actively implements human rights protection and promotion through business.

#### Hyundai E&C Human Rights Definition

Respect for Basic Human Rights	Protection of Labor Rights	Provision of Workplace Safety
· No discrimination against gender, age, nationality, race, religion, disability,	<ul> <li>Prevent wrong labor practices such as forced labor and child labor</li> </ul>	<ul> <li>Thoroughly comply with health and safety related laws</li> </ul>
etc. • Guarantee political, religious and physical freedom and respect citizenship	<ul> <li>Comply with labor principles in accordance with the Constitution of South Korea, labor laws and international standards</li> </ul>	<ul> <li>Consider safety first when conducting business</li> </ul>

#### Human Rights Risk **Management System**

Hyundai E&C is propelling construction projects around the world, and deeply recognizes that unintended human rights violations may occur during the course of business operations due to cultural, customary, religious, ethnic, and institutional differences in the areas where Hyundai E&C leads business. Therefore, to identify in advance, potential issues that could cause human rights violations in the business operation process and the entire value chain and minimize negative human rights impacts, Hyundai E&C has established and is implementing organizations, operation structures, monitoring, action, and internal and external reporting processes according to the human right due diligence procedure stipulated by the UN Guiding Principles on Business and Human Rights'. Hyundai E&C's human rights risk identification procedures implemented after comprehensively reviewing the following depending on the targets of review; 1) On-site Human Rights Checklist Assessment, 2) Supplier ESG Risk Assessment, and 3) Business Risk Assessment results.

#### Major Human Rights Issues in Value Chain and Due Diligence Results

Man	Manufacturing & Supply		Business Operation			Sales & Management			
Collecting/logs		acturing	Before project During Development Constr © D &	$\mathcal{D}$	Parcelin	ng-out	Ex post facto m Custon Service	ner	
Major Human Rights Issues	Vulnerable Group	Targets of Review	Issue Definition	Risk Level	Evaluation System	Range of Survey	Issue Identification	Action	
Business Operation	Employees, community	Hyundai E&C	Potential human rights violations that may be caused by goods / services	Subjects of due diligence	On-site Human Rights Checklist Assessment	100%	7.89%	100%	
B Supply Chain Human Rights	Supplier employees, migrant workers, external contract workers	Supplier	Issue of the violation of supplier employees' basic human rights, labor rights, and safety rights	Subjects of due diligence	Supplier ESG Risk Assessment	100%	0.46%	100%	
C Indigenous People's Rights	Indigenous people, local communities	Local community	Direct infringement on the rights of indigenous persons, such as land and property due to the promotion of construction projects	Subjects of due diligence	Business Risk Assessment	100%	6.12%	100%	
Employee Human Rights	Employee	Hyundai E&C	Issue of the violation of basic human rights, labor rights, safety violation issues in the working environment of employees	Preliminary caution		-	-	-	
E Emotional Worker Protection	Counselor	Subsidiary company	Protect counselors who are exposed to unjust acts (such as profanity, ranting, intimidation, insults, sexual harassment) or unreasonable demands of customers	Preliminary caution		-	-	-	
F Illegal Logging	Indigenous persons, children	Wood Supplier	Issues of child labor exploitation in illegal logging process	Preliminary caution		-	-	-	

#### **Results of Due Diligence** of Major Human Rights Issues

In 2018, a total of 15,494 domestic and overseas workers at 38 overseas sites in 13 countries were completely evaluated through evaluation processes including self-check by sites, branch site visiting verification, and worker interviews. According to the results of evaluation in 2018, Hyundai E&C's global on-site human rights checklist implementation rate was 97.8%, which is a good level, and none of major human rights risks such as discrimination / abuse, child / forced labor and non-compliance with labor laws was identified. Based on the final inspection results, Hyundai E&C understands the improvement needs of each site and carries out improvement activities

#### Results of 2018 On-site Human Rights Checklist Assessment

#### Category

**Risk Evaluation** Risk Identification Corrective

Actions

#### **On-site Human Rights Improvements**

<ul> <li>UAE: Established workers 'council, newly established a grievance relief channel for mother tongue, placed suggestion boxes in new accommodations, repaired workers' counseling room facilities</li> <li>Kuwait: Operate consulting office during safety education</li> </ul>	<ul> <li>Saudi Arabia: Established workers' council, newly established a grievance relief channel for mother tongu furnished additional first aid kits in accommodations</li> <li>Qatar: Operate workers' suggestion box during safety education</li> </ul>
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#### 2018 On-site Human Rights **Checklist Implementation Rate**

97.8%

Protection of Labor Riahts Provision of Safety

Respect for Basic

Human Rights

Evaluation Area

### Welfare Benefits

#### 2018 On-site Human Rights Monitoring Site



#### **On-site Human Rights Checklist Assessment**

To prevent any human rights violations that may arise in a global site where actual construction projects are underway, Hyundai E&C developed 'On-site Human Rights Checklist Assessment' in May 2017 for the first time among South Korean construction companies to conduct close evaluation and inspections of every site every year. The 'On-site Human Rights Checklist' consists of a total of 30 indicators in four areas: respect for basic human rights, worker human rights protection, workplace safety assurance, and welfare benefits under the purpose operation of identifying human rights risks in global construction sites where multinational workers work in advance and actually improving the conditions.

Number of Site(n)	Ratio	Description
38	100%	100% of the global sites where sales occurred
3	7.89%	Sites where there is a lack of worker grievance relief system
3	100%	Operate counseling room and meetings to improve worker grievance relief system

#### 2018 On-site Human Rights Checklist Implementation Rate

Implementation Rate Major Assessment Indicators					
93.0%	Prohibition of discrimination / abuse, political / religious freedom, grievance handling				
100%	Prohibition of forced/child labor, payment of salary, observe working hours				
100%	Safety compliance, safety equipment provision, health promotion				
99.0%	Accommodation, restaurant, convenience facilities				

Results of Due Diligence of Major Human Rights Issues

#### Supplier ESG Risk Assessment

Hyundai E&C formulated the HDEC Supplier Sustainability Charter in October 2014 for the first time among domestic construction companies and promotes systematic sustainable supply chain management based on the foregoing. In May 2017, Hyundai E&C revised the guidelines in order to strengthen human right management in domestic and overseas supply chains following the enactment of 'Hyundai E&C Human Right Policy'. In addition, Hyundai E&C has developed 'Supplier ESG Risk Assessment Framework' so that the HDEC Supplier Sustainability Charter can be effectively reflected on work and has been diagnosing supplier ESG (Environment, Society and Governance) every year since 2014. This evaluation includes supply chain human rights, labor and safety evaluation indicators that may arise in the supply chain. Detailed information, including the results of the 2018 assessment, can be found in the sustainable supply chain management section of this report (p. 49).

#### Results of 2018 Supplier ESG Risk Assessment

Category	Number of Site(n)	Ratio	Description
Risk Evaluation	3,922	100%	100% of tier 1 supplier
Risk Identification	18	0.46%	High-risk supplier
Corrective Actions	18	100%	Induce the implementation of corrective measures and improvement; if no improvement, cancel the registration

#### **Business Risk Assessment**

When entering a new market, potential human rights risks can arise due to economic, social and cultural differences and they can have negative effects on the business of the company, such as delays or cancellations of projects, occurrence of community civil complaints, business right cancellation or difficulties in acquiring business rights. For successful promotion of projects, Hyundai E&C conducts 'Business Risk Assessment' and establishes and operates procedures so that risks should be identified without fail before projects. During Business Risk Assessment', detailed indicators such as the violation of laws and regulations related to human rights risks, safety, the political unrest in the host country, labor management, and the status of suppliers are included in evaluation.

#### Results of 2018 Business Risk Assessment

Category	Number of Site(n)	Ratio	Description
Risk Evaluation	147	100%	100% of projects being promoted
Risk Identification	9	6.12%	Projects promoted in high human right risk countries
Corrective Actions	9	100%	Devise measures to mitigate or avoid risks

#### Management of Potential Human Rights Issues

Participation Rate of Employee Human Rights Education in 2018

97.0%	Domestic Employee
91.3%	Overseas Employees
95.0%	Total

Continuous education and management are necessary to prevent wrongful acts such as sexual harassment and harassment in the workplace, which are social issues, or forced labor, child labor, or infringement of rights in working environments. Hyundai E&C made corporate-wide human rights education for all employees to be mandatory in order to guarantee basic human rights, labor rights and safety rights of employees. In particular, Hyundai E&C has been implementing annual "Sexual Harassment Prevention Education", 'Education to Improve Perception of the Disabled", and 'Personal Information Protection Education' for all employees.

#### **Emotional Worker Protection**

**Employee Human Rights** 

Customer center counselors are vulnerable to human rights violations because they may be exposed to abusive or unreasonable demands such as abusive and sexual harassment of customers during their work. Hyundai E&C regularly cooperates with customer center subsidiaries to conduct regular inspection and healing programs to protect the rights of counselors during customer consultations. In addition, to maintain and manage the health status of its employees, Hyundai E&C operates an in-house medical office where professional nurses reside and conducts health promotion programs.

#### **Illegal Logging**

Hyundai E&C recognizes that unauthorized illegal logging in the process of deforesting wood for the production of wood finishing materials used in construction projects is becoming an international issue. Hyundai E&C is supplied through suppliers who have obtained FSC (Forest Stewardship Council) certification and HB (Healthy Building Material) certification when purchasing finished wood products such as wood finishes used in the interior of buildings. Hyundai E&C also purchases 100% FSC certified paper when purchasing paper.

# APPENDIX

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#### **Financial Performance**

#### [Condensed] Consolidated Statement of Income

0	Description	Unit	2016	2017	2018
Sales		KRW 100 million	188,250	168,871	167,309
Cost of Sales		KRW 100 million	168,953	151,081	150,697
Gross Profit		KRW 100 million	19,297	17,790	16,611
Operating Income		KRW 100 million	11,590	9,861	8,400
Income before Income	Tax Expense	KRW 100 million	9,815	5,548	8,979
Net Income		KRW 100 million	7,317	3,716	5,353

#### [Condensed] Consolidated Statement of Financial Position

Description	Unit	2016	2017	2018
Current Assets	KRW 100 million	149,379	132,498	133,368
Non-current Assets	KRW 100 million	49,355	51,821	47,178
Total Assets	KRW 100 million	198,734	184,319	180,546
Current Liabilities	KRW 100 million	87,496	72,190	68,609
Non-current Liabilities	KRW 100 million	29,992	27,399	29,019
Total Liabilities	KRW 100 million	117,488	99,590	97,628
Capital Stock	KRW 100 million	5,573	5,573	5,573
Other Contributed Capital	KRW 100 million	10,354	10,282	9,979
Components of Other Capital	KRW 100 million	1,145	690	-2,675
Retained Earnings	KRW 100 million	46,218	48,132	49,864
Total Equity	KRW 100 million	81,246	84,729	82,919

#### Consolidated Financial Stability

Description	Unit	2016	2017	2018
Current Ratio	%	170.7	183.5	194.4
Debt Ratio	%	144.6	117.5	117.7
Net Worth Ratio	%	40.9	46.0	45.9

#### Compliance

Hyundai E&C strictly complies with tax laws and related regulations in all 59 countries where it operates business. In order to support the business operation and customer services more effectively, Hyundai E&C strives to pay tax effciently within the legal limits by optimizing its domestic and overseas business structures. Hyundai E&C maintains an honest and positive relationship with the tax authorities of each country such as a National Tax Service, pays its tax faithfully in accordance with each country's tax laws every year, and focuses on transparently disclosing all tax-related data. Every year, we specify the information of the corporate tax, deferred corporate tax, and effective tax rate on the audit report and disclose the information through the Data Analysis, Retrieval and Transfer System (dart.fss.or.kr). In addition, Hyundai E&C is transparently disclosing the status of its sanctions through its annual report, and no penalties or correction orders have been issued in the economic, environmental, and social fields in 2018. Hyundai E&C will endeavor to communicate with its stakeholders in a transparent manner.

### Key Sustainability Indicators

Focal Area	Sustainability Management Goal	Key Sustainability Indicators	2016	2017	2018	2019 (Target/ Estimation
Fortifying	Increasing the proportion of sales of	Revenues (KRW 100 million, consolidated)	188,250	168,871	167,309	170,00
Global Competitiveness	sustainable products to more than 45% against total revenues by 2022	Revenues (KRW 100 million, seperated)	110,411	101,680	100,161	103,00
		Proportion of total sustainable products (%)	40.39	39.93	43.17	43.6
		Domestic & overseas branches and offices (units)	27	27	30	2
Securing Core	Investing over KRW 20 billion	R&D investment (KRW 100 million)	226	222	189	20
Technology	annually in securing future core technologies by 2022	R&D human resource (persons)	178	165	145	14
		Patent applications (cases)	71	68	42	6
		Site technical supports (cases)	192	166	316	35
Responding Climate	Reducing GHG emissions by 2.1%	Scope 1 GHG emissions (tCO2-e)	453,176	430,440	423,202	423,20
Change	per year compared to baseline year = 2015 by 2022	Scope 2 GHG emissions (tCO2-e)	185,128	200,700	170,612	170,61
	sustainable products to more than 45% against total revenues by 2023 Investing over KRW 20 billion annually in securing future core technologies by 2022 ate Reducing GHG emissions by 2.1% per year compared to baseline year 2015 by 2022 y Reducing the Lost Time Incident Ra (LTIR) by 50% until 2019 compared to 2018 levels. tive Strengthening capability of talents and cultivating global construction experts Chain Improving sustainability manageme evaluation and risk management system	Total reduction of GHG emissions (tCO <sub>2</sub> -e)	93,711	69,449	66,585	66,58
		Energy consumption (TJ)	18,451	13,938	33       43.17         27       30         22       189         35       145         36       316         40       423,202         00       170,612         49       66,585         38       14,794         28       3,386         33       1,689         39       19,099         .9       746.6         33       127         46       5.45         51       4.50         39       82         53       53         60       1,360         30       298         24       84.5	14,79
Establishing Safety	onment (LTIR) by 50% until 2019 compared	On-site safety inspection (times)	3,742	3,028	3,386	3,72
		Management-driven safety inspection (times)	1,464	1,533	1,689	1,85
		Waste discharged (ton)	13,527	25,689	19,099	19,09
		Water usage (thousand ton)	717.0	781.9	.9 746.6	746
Cultivating Innovative		Recruitment (persons)	281	183	127	12
Talents		Percentage of women against total employees (%)	5.76	5.46	5.45	5.5
		Training satisfaction (points)	4.50	4.51	4.50	4.5
		Job capability evaluation (points)	81	89	82	8
Enhancing Value Chain Capability	0	Number of benefitting suppliers of Overseas Expansion Training Program (suppliers)	75	53	53	e
		Revenue generation due to Overseas Expansion Training Program (KRW 100 million)	446	1,360	1,360	1,40
		Amount of Win-win Growth Fund (KRW 100 million)	148	180	298	50
		Supplier satisfaction level of operation (points)	82.5	82.4	84.5	85
Advancing Strategic Social Contribution	Expanding global social contribution and implementing the UN	Donations at headquarters (KRW 100 million)	26.0	48.5	144.9	90
	Sustainable Development Goals	Overseas Social Contribution Investment (KRW 100 million)	7.0	7.5	10.0	11
		Overseas social contribution countries (countries)	15	18	20	
		Annual corporate-wide goal of employees' volunteer mileage program (mile per person)	10.8	10.7	8.5	10

### Sustainability Indicators

#### Energy Consumption (by energy source)

Category	Unit	FY2015	FY2016	FY2017	FY2018
Diesel	TJ	4,392.82	4,204.22	5,317.42	5,387.87
Gasoline	TJ	276.60	2,220.00	663.82	524.21
Kerosene	TJ	1,355.67	53.14	84.96	77.73
Subtotal	ТJ	6,025.09	6,477.36	6,066.20	5,989.80
LNG	TJ	44.18	51.99	44.12	59.24
LPG	TJ	4.20	5.85	1.43	10.09
Subtotal	TJ	48.38	57.84	45.55	69.33
Lump coal (brown coal)	TJ	10.53	16.80	44.62	12.57
Ignition coal (wood coal)	TJ	0.27	0.45	2.54	2.82
Hot water (district heating)	TJ	0.01	0.52	2.68	31.32
Electric power	TJ	1,643.53	1,811.68	1,798.87	1,587.14
Subtotal	ТJ	1,654.34	1,829.44	1,848.71	1,633.84
Total	TJ	7,727.82	8,364.64	7,960.46	7,692.98

#### Energy Consumption (by type)

Category	Unit	FY2015	FY2016	FY2017	FY2018
Non-renewable fuels	TJ	18,311.00	16,638.91	12,136.60	13,175.76
Non-renewable electricity purchased	TJ	1,643.53	1,811.68	1,798.87	1,587.14
Steam / heating / cooling and other energy purchased	TJ	0.01	0.52	2.68	31.32
Total non-renewable energy consumption	TJ	19,954.27	18,450.65	13,935.61	14,791.41
Renewable energy purchased or generated	TJ	0.27	0.45	2.54	2.82
Total costs of energy consumption	KRW million	179,078.28	192,214.75	194,167.03	192,959.26

#### Water Usage (by water source)

Category	Unit	FY2015	FY2016	FY2017	FY2018
Tap Water	1,000 ton	378.84	265.49	266.70	504.93
Surface Water (including lake, river)	1,000 ton	166.37	105.33	386.21	105.19
Underground Water	1,000 ton	390.28	260.37	107.07	121.61
Other	1,000 ton	4.76	85.84	21.95	14.85
Total Water Usage	1,000 ton	940.25	717.03	781.93	746.58
Wastewater	1,000 ton	990	2,743	4,299	5,450

#### Waste Generated

Category	Unit	FY2015	FY2016	FY2017	FY2018
Total waste generated	ton	638,609	437,972	358,228	834,665
Total waste used/recycled/sold	ton	618,758	424,446	332,539	815,566
Total waste disposed	ton	19,851	13,527	25,689	19,099
Waste recycle rate	%	96.89	96.91	92.83	97.71

#### **Customer Satisfaction**

Category	Unit	FY2015	FY2016	FY2017	FY2018
Customer satisfaction index	points	85.00	84.80	85.30	88.93

#### Material Usage

Category	Unit	FY2015	FY2016	FY2017	FY2018
Steel	ton	670,000	661,000	631,000	462,000
Ready-mixed concrete	m³	2,274,586	2,932,846	3,369,507	2,290,803
Cement	ton	137,332	128,696	70,611	128,810
Sand	m³	1,129,893	87,899	672,752	56,303
Aggregate	m³	7,566,771	3,152,822	2,343,503	1,290,656
Asphalt concrete	ton	423,703	366,528	604,610	235,727
LO2	l	1,427,935	1,442,701	915,746	948,482
Munition	kg	2,338,190	2,643,442	2,042,521	1,927,902

#### **Employee Satisfaction**

Category	Unit	FY2015	FY2016	FY2017	FY2018
Employee satisfaction index	Points	83.0	83.5	83.5	83.5

#### Status of Collective Bargaining Agreement Application

Category	Unit	Full-time Employees	Collective Bargaining Agreement Applied Employees*	Labor Union Member Employee	
Number of Employees	persons	4,329	3,777	735	
Proportion	%	100.0	87.2	19.5	

\* Number of employees who can join labor union (full-time employees of promotable general manager and below)

#### Social Contribution Activity Expenditures

Category	Unit	Cash Donation	Hours	Donation in Kind	Administrative Expenditure	Total
Charitable Donation	KRW million	6,260,461,500	0		0	6,260,461,500
Community Investment	KRW million	7,614,053,118	1,047,583,602	764,580,000	25,700,000	9,451,916,720
Commercial Programs	KRW million	277,000,000	0	4,327,702,602	723,471,981	5,328,174,583
Total	KRW million	14,151,514,618	1,047,583,602	5,092,282,602	749,171,981	21,040,552,803

#### Policy Support Expenditures

Category		Unit	FY2015	FY2016	FY2017	FY2018	
Political Donation		KRW million	0	0	0	0	
		KRW million	2,134.4	1,955.8	1,656.5	1,840.5	
	Industry Promotion	KRW million	606.0	560.2	641.7	739.1	
Policy Support Expenditures	Overseas Business Promotion	KRW million	300.0	388.6	396.7	372.6	
Experiatures	Association Dues & Sponsorship	KRW million	1,189.3	964.5	583.3	562.4	
	Academy Dues & Sponsorship	KRW million	39.0	42.5	34.8	166.3	

analysis and dissemination of overseas construction information

3. Korea Federation of Construction Contractors (KRW 100.0 million, 5.43%): A construction association operating for the purpose of studying policies & systems for development of construction business and improvement of international competitiveness for domestic construction companies.

4. Korea Chamber of Commerce and Industry (KRW 96.9 million, 5.26%): A private economic organizations for the purpose of promoting the Korean commerce and industry through

mutual cooperation with domestic and overseas economic organizations. 5. Korea Atomic Industrial Forum (KRW 75.0 million, 4.08%): A juridical foundation established to promote the peaceful use and industrialization of nuclear energy.

The Largest Organizations donated in 2018 (Top 5) 1. Construction Association of Korea (KRW 630.4 million, 34.25%): The Korean representative construction association conducting activities related construction industry including laws, systems, policy research, statistical survey and management analysis. 2. International Contractors Association of Korea (KRW 352.6 million, 19.16%): A construction association operating for the purpose of supporting overseas business through collection,

**Third Party Assurance Statement** 

#### **TO THE MANAGEMENT OF HYUNDAI E&C**

The management of Hyundai E&C (hereinafter 'the Company') engaged us to conduct an independent third-party assurance on the 2019 Hyundai E&C Sustainability Report (hereinafter "the Report"). The objective of this assurance is to provide an external verification that statements and data presented in the Report are free from material errors or prejudice, based on accurate and appropriate data collection systems and data reported reflect actual performance. The Report was structured and prepared by the management of the Company, who retains responsibility for the contents and data presented in the Report.

Assurance Methodology	The Assurance Provider's assurance work has been planned and performed in accordance with international assurance guidelines of AA1000 Assurance Standard (2008) and GRI Standards. The Report and its contents have been evaluated against the following criteria:
	<ul> <li>Completeness: completeness of information in relation to the Company's operations</li> <li>Materiality: materiality of Report contents in relation to internal and external impacts of the Company's business activities</li> </ul>
	·Reliability: reliability and correctness of the information and data presented in the Report
Assurance Scope	The Auditor's assurance engagement covers the following:
	<ul> <li>Provision of assurance on whether information related to policies and management systems presented in the Report are reflected adequately</li> </ul>
	<ul> <li>Provision of assurance on whether non-financial data in the Report is presented in full, and free from material errors or prejudice. The review covers the following data sets: environmental data, health &amp; safety data, as well as social data. Verification of non-financial data was conducted based on samples at corporate and site level</li> <li>Review of whether financial data has been derived adequately and correctly from the financial statements audited by an external third-party auditor</li> </ul>
	The scope of the work undertaken and verification of reported performance (qualitative and quantitative) represents "reasonable assurance" level according to international recognised assurance categorization.
Assurance Process	In order to provide reliable assurance to interested stakeholders on the information presented in the Report, the Auditor undertook the following procedures during the assurance engagement:
	<ul> <li>Reviewed the Company' processes for determining material issues and adequacy of results of this process</li> <li>Reviewed the Company stakeholder engagement processes and results</li> </ul>
	· Reviewed relevant policies, guidelines and management systems at corporate and site level
	Conducted interviews with operational managers of relevant business units to determine the adequacy     of the reported content
	• Reviewed the Company approach to, and monitoring systems of, data collection and data management at corporate level • Review of underlying reference data on key economic, environmental and social performance
	Sample testing of materiality issues to ascertain the completeness and accuracy of information contained in the Report     Review of the Report's compliance against GRI Standards reporting guidelines
Assurance Limitations	The scope of this assurance engagement is limited to the Company headquarter visited in Korea. The Auditor did not conduct any visits to overseas facilities or projects in which the Company holds interests. Our review of data processes and data reliability included the following data sets: environmental data, health & safety data, as well as social data. Verification of non-financial data was conducted based on samples at corporate level, i.e. site-level data has not been verified individually. Our review of the data processes at operations level was limited to the Company-operated businesses visited. The level of work undertaken leads to reasonable assurance according to internationally recognized assurance categorizations.
Findings	The auditor reviewed and provided feedback on drafts of the Report and the data presented within. On the basis of the work undertaken, nothing came to our attention to would suggest that the Report does not adequately reflect the Company's non-financial performance.

#### Conclusions

On the basis of our review and in accordance with the terms of reference for our work we provide the following conclusions on the Report. Our conclusions should be read in conjunction with the above section on "Assurance Process" and "Assurance Limitations"

### Completeness: to stakeholder concerns and information needs?

- and operations
- and content

#### Materiality:

#### Has the Company provided a balanced presentation of material issues concerning the Company's sustainability performance in its operations and business interests?

- excluded from the Report.

#### Reliability:

<ul> <li>We have reviewed internal polia and corporate level. Nothing ha and data presented in the Rep- reported at operations level.</li> <li>We have reviewed data collect to our attention that causes us misstatements</li> </ul>			
The following issues do not affe to the Company's sustainability			
<ul> <li>Develop group-level sustainab and describe yearly progress a</li> <li>Developing measurement systemanagement activities</li> <li>Further develop systems to quathroughout the value chain to explore the systematic systemati</li></ul>			
With the exception of this work, of the Subject Matters and the F of the Code of Ethics for Profess which is founded on fundament confidentiality and professional			



## Does the Report fully reflect the Company's operations and external impacts? How does the Report respond

We consider that the information contained in the Report sufficiently covers relevant aspects of the Company's business activities, sustainability management and performance according to the Company's specific business

We are not aware of any additional issues of stakeholder interest that are not currently included in the Report's scope

• The Company regularly conducts materiality test, by which the Company internally and externally measures the materiality of its sustainability related issues and challenges. We have reviewed internal materiality evaluation processes and external stakeholder-related information and stakeholder engagement process, and consider that the information presented in the Report responds to most stakeholder information needs and requests We are not aware of any material aspects concerning the Company's sustainability performance which have been

Nothing has come to our attention that causes us to believe that the Company's management has not applied its processes for determining material issues to be included in the Report, as described in "Assurance Methodology"

#### Are the contents and the data presented in the Report correct and free from material errors or misstatements?

icies, processes and management systems, and verified data samples both on site level as come to our attention that would cause us to believe that the Report contents port has not been properly collected, consolidated and reported from information

tion systems and verified samples of the presented non-financial data. Nothing has come s to believe that health, safety or environmental data are not free from material errors or

ect our conclusions, but represent recommendation for further improvements performance and reporting there of:

pility performance targets for the Company's sustainability management against these targets in the report

tems to quantify the monetary and nonfinancial value of sustainability

antify and pro-active management of sustainability risks and opportunities extend win-win co-operations with suppliers

, we have provided no other services relating to collection, preparation and presentation Report. We have complied with the independence and other ethical requirements sional Accountants issued by the International Ethics Standards Board for Accountants, tal principles of integrity, objectivity, professional competence and due care, l behavior.

> June 24, 2019 Sungwon Koo CEO, Nstein Co., Ltd.

Nstein Co., Ltd.

Sangun Goo

As the Auditor for this assurance, Nstein Co., Ltd. has developed into a specialized institution with broad expertise in the areas of sustainability management, environmental management, business ethics and CSR since 2013.

### **Greenhouse Gas Verification Statement**

	THIF	RD PARTY	'S VERIFICAT	ON STATEME	NT			
Introduction	Korean Foundation for Quality (hereinafter 'KFQ') has been engaged in Hyundai Engineering & Construction (hereinafter 'the Company') to independently verify its 2018 Report on the quantity of Greenhouse Gas Emissions from entire places of business nationwide (hereinafter 'Inventory Report').							
Verification Scope	KFQ's verification was focused on all of the greenhouse gas emission sources domestic and foreign (direct emission and indirect emission) controlled by the Company.							
Verification Criteria	The verification process was based on 'Greenhouse Gas and Energy Target Management Scheme (Notification No. 2016-255 of Ministry of Environment)'(hereinafter 'the Scheme') and 'ISO14064-3' for every applicable part. The indirect emissions(electricity) factor of foreign sites by country was based on IEA composite electricity/heat factor.							
Verification Procedure	The Verification has been planned and conducted by the "Greenhouse Gas and Energy Target Management Scheme", and to reach limited level of assurance. Furthermore, the entire verification process underwent internal review to ensure its methodology and effectiveness.							
Verification Limitation		an. For verifica	tion of foreign sites,	by the Company, sam the only document r In from Company as	eview was implement			
Conclusion & Opinion	Based on verificatio on the greenhouse g				sonable basis to deri	ive following conclusion		
	1) The Company's 2	018 Report on	Quantity of emitted	Greenhouse Gas wa		cordance		
			gy larget managen	ent Scheme" run by	the government.			
	of business nation under 500,000 tC 3) Please note that t	nwide in 2018, O <sub>2</sub> -e in accord he Scheme do	ment on the quantity material discrepanc ance with "Greenho es not concern Sco	of greenhouse gas y is less than the crite use Gas and Energy	emitted from every C eria of 5.0% for an o Target Management verification accuracy	rganization that emits Scheme" of Scope 3 emissions		
	of business nation under 500,000 tC 3) Please note that t may be limited as	nwide in 2018, $O_2$ -e in accord the Scheme do tit was conduc	ment on the quantity material discrepanc ance with "Greenho es not concern Sco ted with the data ca	of greenhouse gas e y is less than the crite use Gas and Energy pe 3 emissions. The lculated by the Comp	emitted from every C eria of 5.0% for an o Target Management verification accuracy pany Guidelines.	rganization that emits Scheme" r of Scope 3 emissions (Unit: tCO <sub>2</sub> -e		
	of business nation under 500,000 tC 3) Please note that t	nwide in 2018, O <sub>2</sub> -e in accord he Scheme do	ment on the quantity material discrepanc ance with "Greenho es not concern Sco	y of greenhouse gas y is less than the critu use Gas and Energy pe 3 emissions. The	emitted from every C eria of 5.0% for an o Target Management verification accuracy	rganization that emits Scheme"		
	of business nation under 500,000 tC 3) Please note that t may be limited as Company Hyundai Engineering	nwide in 2018, O <sub>2</sub> -e in accord he Scheme do it was conduc Site	ment on the quantity material discrepanc ance with "Greenho es not concern Sco ted with the data ca SCOPE 1 19,890	y of greenhouse gas of y is less than the critic use Gas and Energy pe 3 emissions. The loulated by the Comp Scope 2 53,390	emitted from every C eria of 5.0% for an or Target Management verification accuracy pany Guidelines. TOTAL	rganization that emits Scheme" of Scope 3 emissions (Unit: tCO <sub>2</sub> -e SCOPE 3 319,346		
	of business nation under 500,000 tC 3) Please note that t may be limited as Company Hyundai Engineering & Construction * The total amount of er	nwide in 2018, O <sub>2</sub> -e in accord the Scheme do it was conduct Site Domestic Oversea missions was trin	ment on the quantity material discrepance ance with "Greenho es not concern Sco ted with the data ca SCOPE 1 19,890 403,312	y of greenhouse gas of y is less than the critic use Gas and Energy pe 3 emissions. The of loulated by the Comp Scope 2 53,390 117,222 re decimal point in the su	emitted from every C eria of 5.0% for an or Target Management verification accuracy pany Guidelines. TOTAL 73,278 520,534 um of Scope 1 and 2.	rganization that emits Scheme" of Scope 3 emissions (Unit: tCO <sub>2</sub> -e SCOPE 3		
	of business nation under 500,000 tC 3) Please note that t may be limited as Company Hyundai Engineering & Construction * The total amount of er 4) Thus, KFQ conclu of Hyundai Engine	nwide in 2018, O <sub>2</sub> -e in accord the Scheme do it was conduct Site Domestic Oversea missions was trin ude that the Greeering & Const	ment on the quantity material discrepance ance with "Greenho es not concern Sco ted with the data ca SCOPE 1 19,890 403,312 mmed to the below of the eenhouse Gas Emis	r of greenhouse gas of y is less than the critic use Gas and Energy pe 3 emissions. The of loulated by the Comp Scope 2 53,390 117,222 the decimal point in the su sions and Energy Co rrectly calculated and	emitted from every C eria of 5.0% for an or Target Management verification accuracy bany Guidelines. TOTAL 73,278 520,534 um of Scope 1 and 2. nsumption	rganization that emits Scheme" of Scope 3 emissions (Unit: tCO <sub>2</sub> -e SCOPE 3 319,346 182,141		
	of business nation under 500,000 tC 3) Please note that t may be limited as Company Hyundai Engineering & Construction * The total amount of er 4) Thus, KFQ conclu of Hyundai Engine	nwide in 2018, O <sub>2</sub> -e in accord the Scheme do it was conduct Site Domestic Oversea missions was trin ude that the Greeering & Const	ment on the quantity material discrepance ance with "Greenho es not concern Sco ted with the data ca SCOPE 1 19,890 403,312 mmed to the below of the eenhouse Gas Emis ruction in 2018 is co	r of greenhouse gas of y is less than the critic use Gas and Energy pe 3 emissions. The of loulated by the Comp Scope 2 53,390 117,222 the decimal point in the su sions and Energy Co rrectly calculated and	emitted from every C eria of 5.0% for an or Target Management verification accuracy bany Guidelines. TOTAL 73,278 520,534 um of Scope 1 and 2. nsumption	rganization that emits Scheme" of Scope 3 emissions (Unit: tCO <sub>2</sub> -e SCOPE 3 319,346 182,141		

### **GRI Standards Index**

GRI	GRI Standards	s Contents	Page & Remarks	UN SDGs
		Universal Standards (GRI 100)		
	GRI 102-1	Name of the organization	4	
	GRI 102-2	Primary brands, products, and/or services	4-5	
	GRI 102-3	Location of organization's headquarters	4, Cover	
	GRI 102-4	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report	4, 27, 52, 65	
	GRI 102-5	Nature of ownership and legal form	4, 59	
GRI 102: Organizational Profile	GRI 102-6	Markets served (including geographic breakdown, sectors served and types of customers/beneficiaries)	4, 27	
	GRI 102-7	Scale of the reporting organization	4-5, 43	
	GRI 102-8	<ul> <li>a. Total number of employees by employment contract and gender</li> <li>b. Total number of permanent employees by employment type and gender</li> <li>c. Total workforce by employees and supervised workers and by gender</li> <li>d. Total workforce by region and gender</li> <li>e. Whether a substantial portion of the organization's work is performed by workers who are legally recognized as self-employed, or by individuals other than employees or supervised workers, including employees and supervised employees of contractors</li> <li>f. Any significant variations in employment numbers (such as seasonal variations in employment in the tourism or agricultural industries)</li> </ul>	39, 69	SDG 8
	GRI 102-9	Describe the organization's supply chain	46-49	
	GRI 102-10	Significant changes during the reporting period relating to size, structure, or ownership or its supply chain	About this report	
	GRI 102-11	Explanation of whether and how the precautionary approach or principle is addressed by the organization	49, 64-66	
	GRI 102-12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses	34-35, 52-53, 64	
	GRI 102-13	Memberships in associations	79	
	GRI 102-14	Statement from the most senior decision-maker of the organization	2-3	
GRI 102: Strategy	GRI 102-15	Provide a description of key impacts, risks, and opportunities.	62-63	
	GRI 102-16	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation	60	SDG 16
GRI 102: Ethics & Integrity		Report the internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity, such as helplines or advice lines.	61	SDG 16
	GRI 102-17	Report the internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity	61	SDG 16
	GRI 102-18	Governance structure of the organization	56-57	
	GRI 102-19	Report the process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees.	8, 57	
	GRI 102-20	Report whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body.	58-59	
	GRI 102-21	Report processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics. If consultation is delegated, describe to whom and any feedback processes to the highest governance body	56-57	SDG 16
	GRI 102-22	Report the composition of the highest governance body and its committees	56-59	SDG 5, 16
	GRI 102-23	Report whether the Chair of the highest governance body is also an executive officer (and, if so, his or her function within the organization's management and the reasons for this arrangement)	57	SDG 16
	GRI 102-24	Report the nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members	57	SDG 5, 16
	GRI 102-25	Report processes for the highest governance body to ensure conflicts of interest are avoided and managed. Report whether conflicts of interest are disclosed to stakeholders	56	SDG 16
	GRI 102-26	Report the highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts.	56-57	
	GRI 102-27	Report the measures taken to develop and enhance the highest overnance body's collective knowledge of economic, environmental and social topics.	57	
	GRI 102-28	Report the processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics	58	
GRI 102: Governance	GRI 102-29	Report the highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities. Include the highest governance body's role in the implementation of due diligence processes	58-59	SDG 16
	GRI 102-30	Report the highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics.	58-59	
	GRI 102-31	Report the frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities.	58-59	
	GRI 102-32	Report the highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material Aspects are covered.	58-59	
	GRI 102-33		58-59	
	GRI 102-34	Report the nature and total number of critical concerns that were communicated to the highest governance body and the mechanism(s)	45, 58	
	GRI 102-35	used to address and resolve them. Report the remuneration policies for the highest governance body and senior executives	58	
	GRI 102-36	Report the process for determining remuneration. Report whether remuneration consultants are involved in determining remuneration	58	
	GRI 102-37		58	SDG 16
	GRI 102-38	Proof the ratio of the annual total compensation for the organization's highest-paid individual in each country of significant operations to the median annual total compensation for all employees in the same country.	58	
	GRI 102-39	Report the ratio of percentage increase in annual total compensation for the organization's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees in the same country.	58	

### **GRI Standards Index**

GRI	GRI Standards	Contents	Page & Remarks	UN SDGs
		Universal Standards (GRI 100)		
	GRI 102-40	List of stakeholder groups engaged by the organization	9	
GRI 102: Stakeholder Engagement	GRI 102-41	Percentage of employees covered by collective bargaining agreements	45, 71	SDG 8
	GRI 102-42	Basis for identification and selection of stakeholders with whom to engage	9	
	GRI 102-43	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group	9	
	GRI 102-44	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting	9-11	
	GRI 102-45	<ul> <li>a. List all entities included in the organization's consolidated financial statements or equivalent documents</li> <li>b. Whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report</li> </ul>	68	
	GRI 102-46	<ul> <li>Explain the process for defining the report content and the Aspect Boundaries</li> <li>Explain how the organization has implemented the Reporting Principles for Defining Report Content</li> </ul>	10-11	
	GRI 102-47	List all the material Aspects identified in the process for defining report content	11	
	GRI 102-48	Explanation of the effect of any re-statements	About this report	
	GRI 102-49	Significant changes from previous reporting periods in the Scope and Aspect Boundaries	N/A	
	GRI 102-50	Reporting period	About this report	
GRI 102: Identified Material Aspects &	GRI 102-51	Date of most recent previous report	July 2018	
Boundaries	GRI 102-52	Reporting cycle	Annual	
	GRI 102-53	Contact point for questions regarding the report or its contents	Cover	
	GRI 102-54	'In accordance' option the organization has chosen	75-78	
	GRI 102-55	GRI Content Index for the chosen option	75-78	
		Reference to the External Assurance Report, if the report has been externally assured. GRI recommends the use of external assurance but i is not a requirement to be 'in accordance' with the Guidelines	t 72-73	
	GRI 102-56	a. Organization's policy and current practice with regard to seeking external assurance for the report b. If not included in the assurance report accompanying the sustainability report, report the scope and basis of any external assurance provided	72-73	
GRI 103: Management Approach	GRI 103-1 GRI 103-2 GRI 103-3	<ul> <li>c. Relationship between the organization and the assurance providers</li> <li>d. Whether the highest governance body or senior executives are involved in seeking assurance for the organization's sustainability report</li> <li>a. Why the Aspect is material. Report the impacts that make this Aspect material</li> <li>b. How the organization manages the material Aspect or its impacts</li> <li>c. Evaluation of the management approach</li> </ul>	10-11	
The second		Top-specific Standards (GRI 200, 300, 400)		
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	GRI 201-1	Direct economic value generated and distributed, including revenues, operating costs, employee wages and benefits, payments to providers of capital, payments to government	9, 49	SDG 2, 5, 7, 8
	GRI 201-2	Financial implications and other risks and opportunities for the organization's activities due to climate change	32-33	SDG 13
GRI 201: Economic Performance	GRI 201-3	Coverage of the organization's defined benefit plan obligations	Operating retirement pension plans (defined-benefit & defined- contribution type)	
	GRI 201-4	Financial assistance received from government	N/A	
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Presence	GRI 202-2	Propertion fo senior management hired from the local community at significat locations of operation	N/A	
GRI 203:	GRI 203-1	Development and impact of infrastructure investments and services supported	50-53	SDG 2, 5, 7,
Indirect Economic Impacts	GRI 203-2	Significant indirect economic impacts, including the extent of impacts	9	SDG 8, 10, 1
GRI 204: Procurement Practices	GRI 204-1	Proportion of spending on local suppliers at significant locations of operation	46-48	SDG 12
	GRI 205-1	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	49, 64-66	SDG 16
GRI 205: Anti- corruption	GRI 205-2	Communication and training on anti-corruption policies and procedures	60-61	SDG 16
-	GRI 205-3	Confirmed incidents of corruption and actions taken	61	SDG 16
GRI 206: Anti-				

GRI	GRI Standards	s Contents	Page & Remarks	UN SDGs
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	GRI 301-1	Materials used by weight or volume	70-71	
GRI 301: Materials	GRI 301-2	Percentage of materials used that are recycled input materials	70	
	GRI 301-3	Percnetage of products sold and their packaging materials that are reclaimed by category	70	SDG 8, 12
	GRI 302-1	Energy consumption within the organization	70	SDG 7, 8, 12,
GRI 302: Energy	GRI 302-2	Energy consumption outside of the organization	70	SDG 7, 8, 12,
	GRI 302-3	Energy intensity	70	SDG 7, 8, 12,
	GRI 302-4	Reduction of energy consumption	70	SDG 7, 8, 12,
	GRI 302-5	Reductions in energy requirements of products and services	70	SDG 7, 8, 11 12, 13
	GRI 303-1	Total water withdrawal by source	40, 70	SDG 6
GRI 303: Water	GRI 303-2	Water sources significantly affected by withdrawal of water	40, 70	SDG 6
	GRI 303-3	Percentage and total volume of water recycled and reused	70	SDG 6, 8, 12
	GRI 304-1	Location and size of land owned, leased, managed in or adjacent to protected areas and areas of high biodiversity value outside protected areas	41	
GRI 304:	GRI 304-2	Description of significant impacts of activities, products and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	41	
Biodiversity	GRI 304-3	Habitats protected or restored	41	SDG 6, 14, 1
	GRI 304-4	Total number of IUCN RED list species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	41	
	GRI 305-1	Direct greenhouse gas (GHG) emissions (Scope 1)	35	SDG 3, 12, 13 14, 15
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	GRI 305-3	Other indirect greenhouse gas (GHG) emissions (Scope 3)	35	SDG 3, 12, 13 14, 15
GRI 305: Emissions	GRI 305-4	Greenhouse gas (GHG) emissions intensity	35	SDG 13, 14, 1
	GRI 305-5	Reduction of Greenhouse gas (GHG) emissions	34-35	SDG 13, 14, 1
	GRI 305-6	Emissions of ozone-depleting substances (ODS)	N/A	SDG 3, 12
	GRI 305-7	NOx, SOx and other significant air emissions	N/A	SDG 3, 12, 14 15
	GRI 306-1	Total water discharge by quality and destination	70	
	GRI 306-2	Total weight of waste by type and disposal method	41, 70	SDG 3, 6, 12
GRI 306: Effluents & Waste	GRI 306-3	Total number and volume of significant spills	N/A	SDG 3, 6, 12,
	GRI 306-4	Weight of trnasported, imiported, exported, or treated waste deemed hazardous under the terms of the BASEL Convention Annex I, II, III, AND VIII, and percentage of transported wasted shipped internationally	N/A	
	GRI 306-5	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff	41	
GRI 307: Environmental Compliance	GRI 307-1	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	N/A	SDG 8, 16
GRI 308: Supplier	GRI 308-1	Percentage of new suppliers that were screened using enivronmental criteria	49	
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### **GRI Standards Index**

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GRI 401: Employment	GRI 401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	44-45	SDG 8
	GRI 401-3	Return to work and retention rates after parental leave, by gender	45	SDG 5, 8
GRI 402: Labor/ Management Relations	GRI 402-1	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	45	SDG 8
GRI 403: Occupational Health and Safety	GRI 403-1	Percentage of total workforce represented in formal joint management–worker health and safety committees that help monitor and advise on occupational health and safety programs	38	SDG 8
	GRI 403-2	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	38	SDG 3, 8
	GRI 403-3	Workers with high incidence or high risk of diseases related to their occupation	37-38	SDG 3, 8
	GRI 403-4	Health and safety topics covered in formal agreements with trade unions	38, 65	
	GRI 404-1	Average hours of training per year per employee by gender, and by employee category	44	SDG 8
GRI 404: Training & Education	GRI 404-2	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	44	SDG 8
	GRI 404-3	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	44	SDG 5, 8
GRI 405: Diversity	GRI 405-1	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership and other indicators of diversity	43	SDG 5, 8
and Equal – Opportunity	GRI 405-2	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	43	SDG 8, 10
GRI 406: Non- discrimination	GRI 406-1	Total number of incidents of discrimination and actions taken		
GRI 407: Freedom of Association and Collective Bargaing	GRI 407-1	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	49, 65-66	SDG 8
GRI 408: Child Labor	GRI 408-1	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	49, 65-66	SDG 8, 16
GRI 409: Forced or Compulsory Labor	GRI 409-1	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	49, 65-66	SDG 8
GRI 410: Security Practices	GRI 410-1	Percentage of security personnel trained in the organization's human rights policies or procedures that are relevant to operations	66	SDG 16
GRI 411: Rights of Indigenous Peoples	GRI 411-1	Total number of incidents of violations involving rights of indigenous people and actions taken	65-66	
	GRI 412-1	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	49, 65-66	
GRI 412: Human Rights Assessments	GRI 412-2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	66	
	GRI 412-3	Total number and percentage of significant invesetment agreements and contracts that include human rights clauses of that underwent human rights screening	65-66	
GRI 413: Local	GRI 413-1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	50-53	
Communities	GRI 413-2	Operations with significant actual and potential negative impacts on local communities	52-53	
GRI 414:	GRI 414-1	Percentage of new suppliers that were screened using labor practices criteria	49	SDG 5, 8, 16
Supplier and Social – Assessment	GRI 414-2	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	49	SDG 8, 16
GRI 415: Public Policy	GRI 415-1	Total value of political contributions by country and recipient/beneficiary	51, 71	SDG 16
GRI 416:	GRI 416-1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures	37-38	
Customer Health – and Safety	GRI 416-2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	N/A	
GRI 417: Marketing and Labeling	GRI 417-1	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements	N/A	SDG 12
	GRI 417-2	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	N/A	SDG 16
	GRI 417-3	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes	N/A	
GRI 418: Customer Privacy	GRI 418-1	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	N/A	
GRI 419: Socioeconomic Compliance	GRI 419-1	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	68	SDG 16

### Major Awards and Accolades

#### 2019 Major Awards

Award	Description	Host / Provider
2019 Money Today Overseas Construction Awards	Grand Prize (MOLIT* Minister's Prize)	Money Today
The 13rd Asia Economy Apartment Brand Awards	Grand Prize	Asia Economy
2019 Money Today Korea Residential Service Awards	MOLIT* Minister's Prize (Private sector)	Money Today
The 23rd Livable Apartment Contest	Grand Prize (General Apartment category)	Maeil Business News Korea
2019 Well-being Apartment Awards	Grand Prize (Trust category)	Newsway
2019 HanKyung Business Well-being Apartment Awards	MOLIT* Minister's Prize	Hankyung Business
2019 First-half HanKyung Residential Culture Awards		HanKyung
2018 Korea Joongang Daily JoinsLand Eco-friendly Construction Industry Awards		Joongang Daily

#### 2018 Major Awards

Award	Description	Host / Provider
2018 Money Today Overseas Construction Awards	Grand Prize (MOLIT* Minister's Prize)	Money Today
2018 Annual Asia Economy Apartment Brand Awards	Smart Home category	Asia Economy
2018 Money Today Korea Residential Service Awards	Engineering & Design category	Money Today
2018 Hall of Fame Housing Brand Grand Prize	Grand Prize (Quality category)	Newsway
2018 Well-being Apartment Awards	Grand Prize (Customer Satisfaction category)	Hankyung Business
2018 HanKyung Business Well-being Apartment Awards	Grand Prize (Customer Satisfaction Caregory)	HanKyung Business
2018 First-half HanKyung Residential Culture Awards	Grand Prize	HanKyung
2018 Korea Joongang Daily JoinsLand Eco-friendly Construction Industry Awards	Grand Prize (Residence Caregory)	Joongang Daily
The 4th Korea High-efficiency, Eco-friendly Housing and Building Material Awards	MOE* Minister's Prize	Energy Economic News
2018 Money Today Korea Luxury Housing Awards	Best of Best	Money Today
The 13rd Asia Construction Awards	Overall Grand Prize (Win-win Cooperation & Management Support category)	Asia Economy
2018 Etoday Smart Building Grand Prize	Grand Prize (Shared Growth Caregory)	Etoday
2018 Aju Economy Construction Awards	Grand Prize (Win-win Cooperation category)	Aju Economy
2018 Asia Today Green Construction Awards	Grand Prize (Brand category)	Asia Today
The 7th eDaily Construction Industry Awards	Grand Prize (Brand category)	eDaily
2018 Herald Economy Green Residence Awards	Best Brand Prize	Herald Economy
2018 Second-half HanKyung Residential Culture Awards	Grand Prize (Brand category)	HanKyung
11th Green Housing Awards	Premium Housing Grand Prize	Hankook Daily
The 9th Green Construction Award	Civil Grand Prize	The Seoul Shinmun
The 14th Korea Civil Engineering & Construction Technology Awards	Overall Grand Prize (MOLIT* Minister's Prize of Civil category)	Maeil Business News Korea
2018 Korea Construction Award	Overall Grand Prize (MOLIT* Minister's Prize)	The Dong-A Ilbo

\* MOLIT: Ministry of Land, Infrastructure and Transport \* MOE: Ministry of Environment

#### Memberships

Korean Society of Civil Engineers	Construction Association of Korea	The Society of Air-conditioning and Refrigerating Engineers of Korea	Korea Federation of Construction Contractors
Korean Institute of BIM	Architectural Institute of Korea	Korea Plant Industries Association	buildingSMART Korea
The Korea Railway Association	International Contractors Association of Korea	Korea Society of Geothermal Energy Engineers	Korea Management Association

\* SDG https://sustainabledevelopment.un.org/index.php?menu=1300

\* Partial list: 82 business and academic memberships in total.

### Acknowledgement

#### Sustainability Management Steering Group

Description	Department	Name
Comprehensive	Business Planning Team	Lee Jung-Hoon
Comprenensive		Min Yoon-Gun
	Procurement Planning Team	Lee Young-Je
Economic	Investor Relations Team	Choi Sung-Hwan
	Compliance Management & Administration Team	Jung Hoe-Kyung
Environmental	Environmental Management Team	Kang Young-Min
Environmental	R&D Planning Team	Park Jun-Yong
	Human Resources Planning Team	Kim Hyo-Jung
Societal	General Affairs Team	Kim Se-Won
	Safety Planning Team	Hong Se-Hwa

#### Relevant Teams

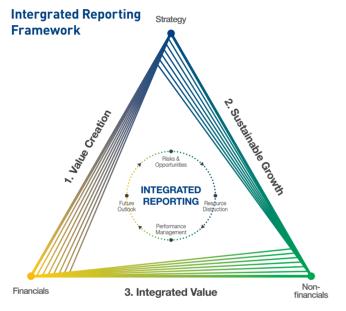
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Department	Name
Accounting Team	Kim Geun-Mo
Auditing Team 1	Noh Tae-Sun
Auditing Team 1	Lim Hyun-Jin
Brand Marketing Team	Han Eun-Kyu
Building Works Mechanical Team	Lee Jee-Hoon
Business Policy Team	Kim Dae-Wang
Business Strategy Team	Lee Yo-Soo
Corporate Culture Team	Kim Yoon
Corporate Culture Team	Park Yul-Woo
Corporate Culture Team	Park Hyun-Jun
Corporate Culture Team	Oh Se-Chan
Corporate-Culture PR Team	Kim Su-Jung
Corporate-Culture PR Team	Lee Seul-Ki
CS Center	Kwon Jung-Jin
General Affairs Team	Seo Soo-Yeoun
General Affairs Team	Ahn Cheol-Ho
Global Partnership Developing Team	Au Jong-Hoon
Global Partnership Developing Team	Jeong Byung-In
Housing Works Engineering Team	Cho Byung-Hyo
Housing Works Management & Administration Team	Kim Suk-Hyun
Housing Works Management & Administration Team	Kim Min-Ki
Human Resource Operation Team	Nam Sang-Woo
Human Resource Operation Team	Lee Ji-Yoon
Human Resource Operation Team	Jeong Hye-Ji
Human Resource Planning Team	Park Keon-Soo
Human Resource Planning Team	Cho Seong-Cheol
Human Resource Planning Team	Choi Sun-Ook
Human Resource Planning Team	Jung Yeong-Hun
Human Resource Supporting Team	Kim Sin-Young
Human Resource Supporting Team	Hwang Yun-Sub
Infrastructure Management & Administration Team	Kim Nak-Jun
Infrastructure Management & Administration Team	Kim Sung-Moon
International Marketing Team 1	Kim Hong-Soo
New Business Development Team	Koh Tae-Ik
Plant Management & Administration Team	Jung Jin-kyo
Public Relations Team	Shin Jai-Hoon
Public Relations Team	Song Min-Joon
Quality Management Team	Kim Yoon-Tae
R&D Planning Team	Kim Terry
Raw Material Procurement Team	Lee Ja-Hoon
Raw Material Procurement Team	Choi Dae-Hun
Risk Management Team	Lee Sang-Kyu

## **INTERGRATED REPORTING**

#### **Integrated Reporting**

Hyundai E&C has been publishing its annual sustainability report in an integrated format since 2011 to disclose the economic, environmental, and social values to the stakeholders in faithful and balanced manner; the integrated reporting refers to a method of sustainability reporting that covers both financial and nonfinancial performances. It is a way to improve the understanding of stakeholders about the interrelationship of economic, environmental and social aspects. Hyundai E&C has participated in the Integrated Reporting Pilot Program of the International Integrated Reporting Council (IIRC) and has lead the global sustainability management.



#### 01. Value Creation

- Hyundai E&C's value creation process
- · Future outlook based on the analysis of megatrends
- · Strategies on a new growth business and new market entrance

#### 02. Sustainable Growth

Establishment of mid- to long-term strategies on sustainability management
 Activities and accomplishments in economic, environmental, and social sectors
 Catalogue of sustainability management targets and KPIs

#### 03. Integrated Value

- $\cdot$  Connection between financial information and non-financial information
- Analysis on the efficiency of sustainability management activities
- Report of the sales increase and cost reduction cases due to sustainability management

#### Contact Us

The Hyundai Engineering & Construction Sustainability Report is also available on our website (http://en.hdec.kr). Should you want more information or have any enquiries, please do not hesitate to contact us via the contact information below. We appreciate your feedback.

Business Planning Team, Business Planning Group, Strategic Business Planning, Hyundai E&C Bldg., 75 Yulgok-ro, Jongno-gu, Seoul, Korea, 03058

Tel: 02-746-0275 Fax: 02-746-4856 E-mail: ygmin@hdec.co.kr

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