



CREATING SUSTAINABLE HABITAT FOR HUMAN

**2023 HYUNDAI ENGINEERING & CONSTRUCTION
SUSTAINABILITY REPORT**

ABOUT THIS REPORT

Overview

This report is the fourteenth sustainability report published by Hyundai E&C. The company publishes a sustainability report every year in order to transparently disclose the directions and outcomes of sustainable management from the perspective of the economic, environmental, social and governance to stakeholders. This report introduces the company's 4P sustainable management strategy (Prosperity, Planet, People, Principle) and focuses on major economic, environmental, social and governance activities and achievements based on eight propelling strategies. In the process of preparing this report, materiality issues were selected by conducting a materiality assessment in order to collect the opinions of stakeholders, and the efforts of Hyundai E&C to address these issues, as well as the outcomes, are incorporated faithfully in this report. Furthermore, we have demonstrated the construction industry's growth opportunities in relation to climate change risks through disclosing climate-related financial information based on TCFD guidelines, and we have also disclosed the calculation details of green revenue based on EU Taxonomy standards, providing important information for decision-making by investors and other stakeholders. Hyundai E&C will continue to transparently disclose and manage its strategies to improve sustainable value and its management status in these sustainability reports.

Reporting Period & Scope

This report covers major sustainable management activities and performances from 1 January 2022 to 31 December 2022 and includes performances of some major activities until June 2023. Major outcomes of sustainable management at the headquarters as well as domestic and overseas sites are included and where it is necessary to indicate the reporting scope, the information is presented separately. Hyundai Engineering(HEC), which accounts for the largest share among the subsidiary companies consolidated into Hyundai E&C, is excluded from the reporting scope as it publishes its own sustainability report, but is included in the consolidated financial statements. Other than accounting and financial information, other quantitative and qualitative data covers 96.4% of consolidated sales, excluding Hyundai Engineering. Data from the most recent four years, from 2019 to 2022, is reported so that yearly trends can be analyzed.

Reporting Standards

This report complies with the GRI (Global Reporting Initiative) Standards for 2021 in order to ensure that the company's sustainable management outcomes are disclosed more transparently. In addition, this report has incorporated indicators of the SASB (Sustainability Accounting Standards Board), TCFD (Task Force on Climate-related Financial Disclosures) and WEF Stakeholder Capitalism Metrics and the content of the United Nations Global Compact (UNGC) 10 Principles. It also reflected the standards of the International Sustainability Standards Board (ISSB) Sustainability Reporting Standards (IFRS S1 and S2) to report on the governance structure, strategy, risk management, Metrics and targets of key issues. For the financial performance, Hyundai E&C reports its financial data based on the K-IFRS (Korean International Financial Reporting Standards).

Third Party Assurance

In order to secure the credibility, fairness and completeness of the content of this report, third-party assurance was conducted by the KMR (Korea Management Registrar), an independent agency. The third party assurance was conducted based on AA1000AS (Assurance Standard), which is an international assurance standard.

Additional Information

Hyundai E&C discloses data on management periodically in order to provide information to investors and stakeholders transparently. Additional information related to this report is available on the company's website, in its business report and audit report, and on the website for disclosure of the Financial Supervisory Service.

Relevant department

Sustainability Management Team,
Hyundai Engineering & Construction

Contact

Hyundai E&C aims to incorporate the valuable input of stakeholders into the sustainability management report. We highly appreciate your opinions and invite you to share any necessary information via the email below. Through a comprehensive assessment of their significance, we will ensure the inclusion of such content in the upcoming 2024 publication of the report.

Address. 75 Yulgok-ro, Jongno-gu, Seoul,
South Korea
Tel. 82-2-746-2935
Fax. 82-2-746-4846
E-mail. csr31@hdec.co.kr
ch.ahn@hdec.co.kr

Hyundai E&C website

<https://www.hdec.kr>

CONTENTS

OVERVIEW

CEO Message	04
Chairman of the Corporate Governance & Communication Committee Message	05
About HDEC	
We Build Tomorrow	06
Total Solution Creator	07
Global Network and Business	08
Creating Sustainable Value	
2030 Future Strategy	09
Business Portfolio	10
Sustainability Management	
Sustainable Strategy	14
Sustainability Management Organization	15
Sustainability at a Glance	16
Sustainability Target & KPI	17
Stakeholder Engagement	18
Materiality Assessment	19

HDEC PROSPERITY Sustainable Innovation Created by Hyundai E&C

STRATEGY 1. Creating Sustainable Economic Value	24
STRATEGY 2. Future Technology and Customer Value Innovation	26

HDEC PLANET Sustainable Habitat Led by Hyundai E&C

STRATEGY 3. Response to Climate Change (TCFD Report)	35
STRATEGY 4. Eco-friendly Management	47

HDEC PEOPLE Sustainable Growth Accompanied by Hyundai E&C

STRATEGY 5. Talent and Safety Management	55
STRATEGY 6. Enhancing Value Chain Capability and Creating Values for Local Communities	67

HDEC PRINCIPLE Fair Value Implemented by Hyundai E&C

STRATEGY 7. Sound Governance and Ethics & Compliance Management	76
STRATEGY 8. Integrated Risk Management and Protecting Human Rights in the Value Chain	86

APPENDIX

ESG DATA	98
GRI Standards Index	110
ISSB Index	115
SASB Index	116
TCFD Index	117
WEF Stakeholder Capitalism Metrics	118
UNGC	122
Major Awards & Memberships	123
Greenhouse Gas Verification Statement	124
SBTi Approval Certificate	126
Independent Assurance Statement	127
Preparation of the Report	128
ESG Policies and Norms	129

CEO MESSAGE



**“Under the vision of “GLOBAL GREEN ONE PIONEER,”
we are creating a sustainable tomorrow.”**

Preparing for a Greater Leap

Since setting sail in 1947, Hyundai Engineering & Construction has established itself as a global construction leader, driven by unwavering determination and exceptional technical capabilities. With 881 global projects across 62 countries, we continue to strive for higher goals under the vision of “GLOBAL GREEN ONE PIONEER.” In 2022, the COVID-19 pandemic prolonged, and the uncertainty of the global economy deepened, consequently making it unavoidable for the construction industry to face difficulties. The construction industry also faced difficulties as a result. However, Hyundai E&C successfully secured a series of large-scale global projects in Saudi Arabia, the Philippines, and other countries, achieving approximately KRW 35 trillion in new orders, around KRW 21 trillion in revenue, and an operating profit of KRW 574.9 billion. We also secured a record-high order backlog of KRW 90 trillion and entered the KRW 20 trillion club in terms of domestic and international large-scale project progress. Hyundai E&C aims to transform into a “Total Solution Creator” that encompasses all aspects of construction by strengthening its EPC competitiveness and securing new future growth drivers. We recognize the demands of the era, such as energy transition and climate change, as business opportunities. We seek to diversify their new business portfolio by securing relevant technologies, including offshore wind power, small modular reactors (SMR) for nuclear power generation, hydrogen production facilities, carbon capture, utilization, and storage (CCUS) technologies, and power trading. We also aim to take the lead in the market by preempting future technological competitiveness, such as urban air mobility (UAM) and smart city construction.

Leading Sustainable Management

Hyundai E&C aims to provide customers with more than just satisfaction but also awe-inspiring experiences. We are committed to delivering uncompromising quality that ensures safety and trust. Moreover, we strive to create a path where both the company and society can grow together. Through the development of employee capabilities, We foster performance generation and encourage organizational change and innovation. Based on transparent principles, we are dedicated to establishing Hyundai E&C’s unique organizational culture and aiming to become a trusted and proud global leader. Hyundai E&C publishes its 14th sustainability report this year, transparently disclosing its sustainable management performance, including partial adoption of the International Sustainability Standards Board (ISSB) indicators. We actively respond to the rapidly changing global ESG management environment and lead sustainable management in the construction industry. By reporting and approving sustainability issues through the Corporate Governance & Communication Committee within the Board of Directors, We solidify the ESG implementation system and focus on embedding sustainability throughout the organization through the Sustainability Steering Committee. We make efforts to enhance ESG management in areas such as safety, quality, governance, and climate change. In October 2022, we became the first listed construction company in Korea to declare Net-Zero (by 2045) based on the Science Based Targets initiative (SBTi), aiming to address climate change and achieve a sustainable future. Moving forward, Hyundai E&C will faithfully fulfill its mission as a global construction leader and its role and responsibility as a member of the international community. We kindly request unwavering support and encouragement on their journey to contribute to the advancement of human happiness.

Thank you.

CEO of Hyundai E&C Yoon Young-Joon

Young Joon Yoon

CHAIRMAN OF THE CORPORATE GOVERNANCE & COMMUNICATION COMMITTEE MESSAGE



**“We support Hyundai E&C’s centennial plan
and sustainable future.”**

This is Hong Dae-Sik, the Chairman of the Corporate Governance & Communication Committee at Hyundai Engineering & Construction.

Corporate Governance & Communication Committee at Hyundai Engineering & Construction

Hyundai Engineering & Construction is establishing a transparent corporate governance system based on the recommendations of the Corporate Governance Model Guidelines. The Corporate Governance & Communication Committee, which operates under the Board of Directors, is a committee composed entirely of outside directors and is established within the company to review matters related to internal transaction transparency, ethics management promotion, and protection of shareholder rights. The committee deliberates and decides on the establishment of sustainable management vision and strategic tasks, as well as current issues related to sustainable management and ESG activities. In 2022, the Corporate Governance & Communication Committee held nine meetings to review and approve matters concerning fair trade, safety and health, and environmental management, among other aspects of sustainable management. The Sustainability Steering Committee under the Corporate Governance & Communication Committee establishes KPIs (Key Performance Indicators) for ESG improvement tasks by division and discusses performance improvements, and in 2022, we completed 82% of the implementation tasks. Through reports to the board of directors, we reward outstanding departments for their implementation of tasks and share achievements, with the aim of enhancing our members’ understanding of and participation in sustainable management. In the future, the Corporate Governance & Communication Committee will play a central role in Hyundai Engineering & Construction’s sustainable management, as we make every effort to internalize ESG management throughout the organization.

Creating a Sustainable Foundation for Humanity

Hyundai Engineering & Construction aims to create a sustainable foundation for humanity and continues to strive for global problem-solving by setting the 2030 Sustainable Management Goals and constantly pursuing new challenges. Through the sustainable management strategy of sustainable innovation (prosperity), sustainable foundation (planet), co-prosperity (people), and the value of fairness (principle), we aim to create value for the company and society. This year’s sustainability report follows the GRI (Global Reporting Initiative) standards for 2021, as well as the WEF, SASB, TCFD, and ISSB guidelines. We identify significant issues from internal and external stakeholders and analyze risks and opportunities in each area, including financial and non-financial impacts on our business activities. We actively communicate with stakeholders by providing meaningful indicators for their decision-making. As the first construction company in Korea, we disclose revenues from environmentally friendly business activities based on the EU Taxonomy and also actively disclose various ESG information, such as the enhancement of safety and quality management systems, human rights and supply chain risk management, the integration of ethical and legal compliance management, and greenhouse gas reduction efforts to achieve Net-Zero by 2045. The members of the Corporate Governance & Communication Committee, including myself, are committed to fulfilling international standards and recommendations such as the UN SDGs (UN Sustainable Development Goals) and the OECD Guidelines for Multinational Enterprises. We will carry out our responsibilities with a sense of accountability to ensure that the sustainability related issues of Hyundai Engineering & Construction progress in the right direction. We ask for your interest and support in Hyundai Engineering & Construction’s pursuit of a sustainable future.

Thank you.

Chairman of the Corporate Governance & Communication Committee at Hyundai E&C **Hong Dae-Sik**

A stylized, handwritten signature in black ink, likely belonging to Hong Dae-Sik.

ABOUT HDEC

We Build Tomorrow

Hyundai E&C is leading customer satisfaction through continuous technology innovation and quality improvement based on the capabilities and expertise it has accumulated in various business areas, including infrastructure, buildings, housing, plants, power, and energy including nuclear power. Hyundai E&C aims to be ‘a company creating the future’ and a leader in the market by providing customized solutions and responding to changes in the construction environment quickly based on flexible, creative thinking and an open mindset.

Company Profile

Name	Date of Foundation	CEO	No. of Employees
Hyundai Engineering & Construction	May 1947	Yoon Young-Joon	6,799 (excluded overseas site technicians)
HQ Address	Business Area		
75 Yulgok-ro, Jongno-gu, Seoul, South Korea	Infrastructure, buildings/housing, plants, others		

Financial Performance

(As of 31 December, 2022, consolidated basis)

Sales	Order Backlog	Operating Profit
KRW 21,239.1 billion	KRW 88,367.1 billion	KRW 574.9 billion
Korea Ratings	Korea Investors Service	NICE Investors Service
AA-	AA-	AA-

Management Policy

Realizing the dreams and imagination of mankind

- Securing total value chain capabilities for nuclear power
- Leading global future cities/housing
- Expanding smart construction technology to improve productivity

Sustainability

Sustainable growth

- Customer satisfaction beyond imagination
- Safety with no compromises
- Quality to payback the trust given to the company

A global construction leader that's leading the future

Strategy Execution

Transparent and fair organizational culture

- Generating outcomes by establishing a talent-oriented culture
- Encouraging changes and innovation
- Promoting transparent principles and fair opportunities

Sustainable Management Outcomes

(As of the end of 2022)

DJSI (Dow Jones Sustainability Indices)

Member of
Dow Jones
Sustainability Indices
Powered by the S&P Global CSA

DJSI World
(13 consecutive years)

MSCI (Morgan Stanley Capital International)

MSCI

BBB

Korea Institute of Corporate Governance and Sustainability

한국ESG기준원
Korea Institute of Corporate Governance and Sustainability

Total **A**
Environmental: A
Social: A
Governance: B+
(5 consecutive years)

CDP (Carbon Disclosure Project)

CDP
DRIVING SUSTAINABLE ECONOMIES

A-
Included in the Climate Change Leadership Group
(Hall of Fame for 5 consecutive years)

WBA (World Benchmarking Alliance)

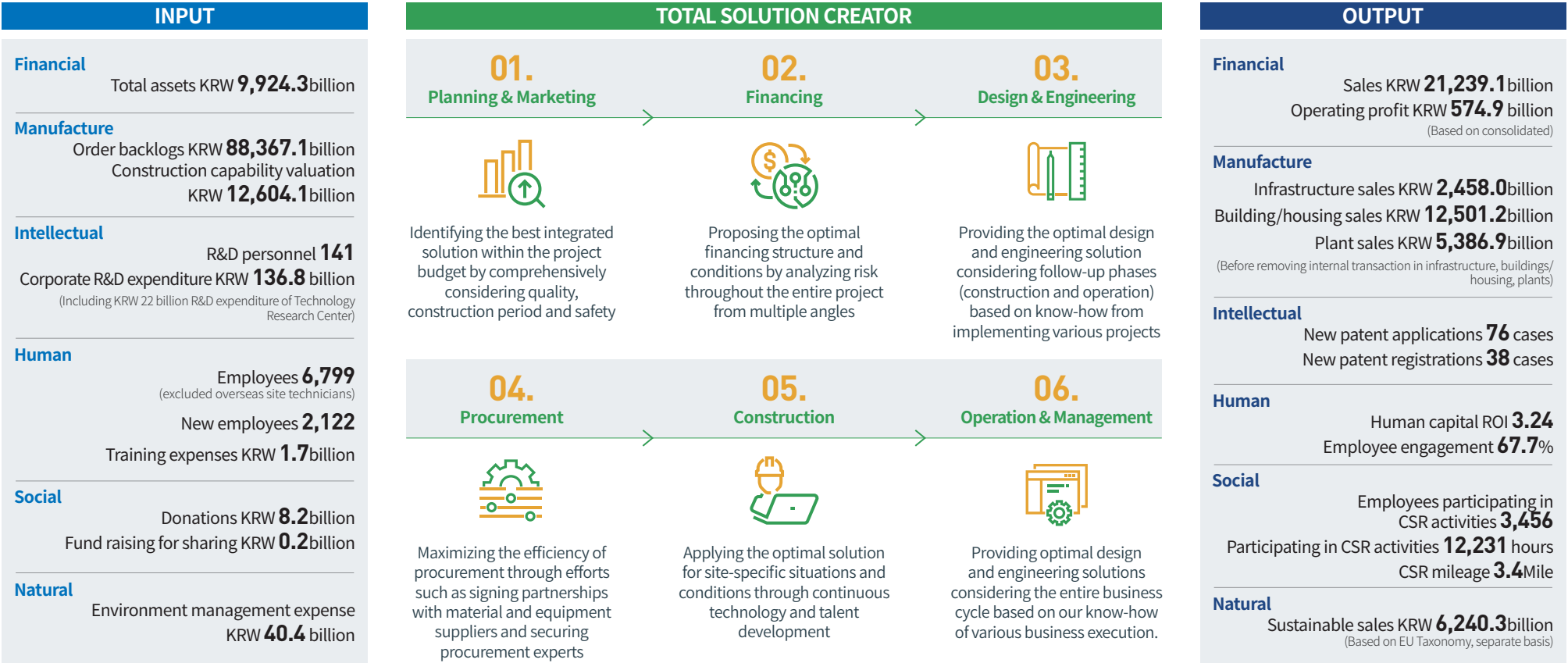
World Benchmarking Alliance

Ranked No. **1**
in Korea in Nature
(selected as SDG2000)

ABOUT HDEC

Total Solution Creator

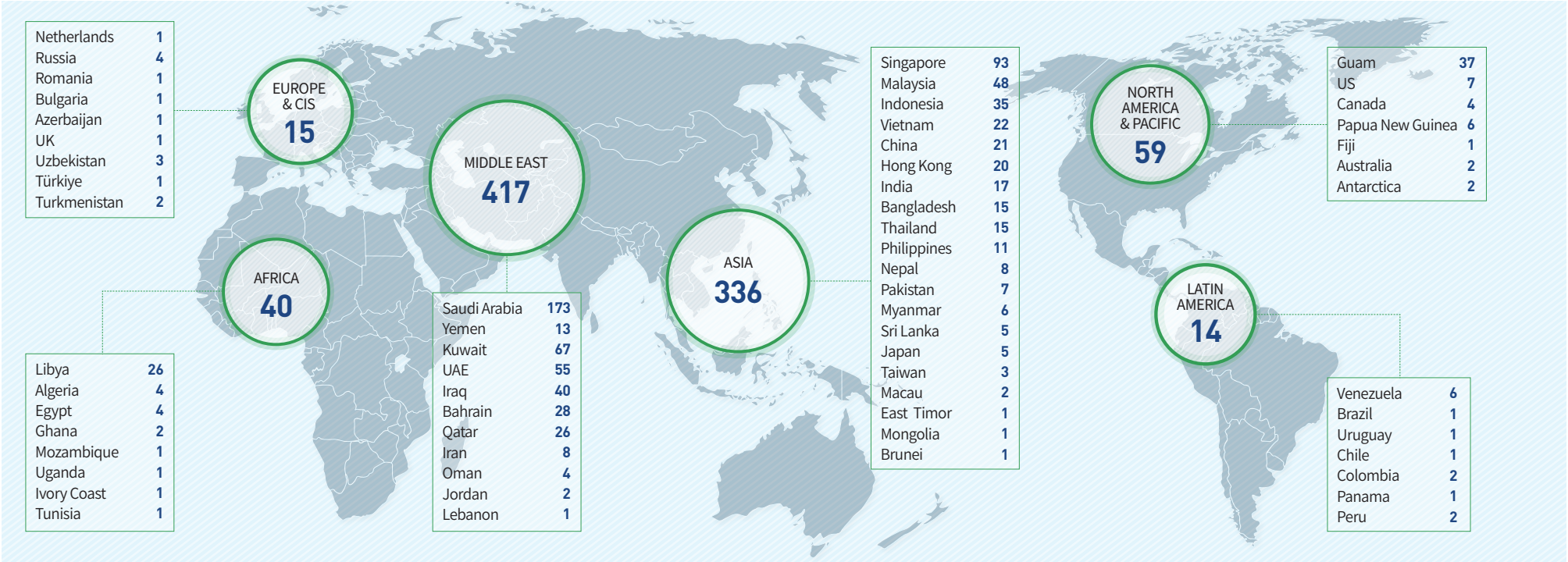
The importance of change and innovation is growing as the convergence between industries is emphasized due to changes in the market environment, such as the digital transformation and strengthened regulations. Hyundai E&C is creating a sustainable future for the construction industry through continuous innovation and efforts as a ‘total solution creator’ that creates integrated services covering not only construction but also the whole value chain of the construction industry. Hyundai E&C will pioneer a new history of the future construction industry as a global leader covering all areas of construction by converging its business with relevant industries such as energy, mobility, infrastructure, safety in daily lives and IoT.



ABOUT HDEC

Global Network and Business

Since its first overseas project in 1965, the construction of the Pattani-Narathiwat Highway in Thailand, Hyundai E&C has successfully carried out 881 projects in 62 countries. It has leaped forward as a global construction leader based on its accumulated technology and proven business execution capabilities. As of the end of 2022, a total of 6,799 employees (excluded overseas site technicians) were working at 192 domestic and 63 overseas sites centered around 2 domestic branches, 16 overseas branches and 18 offices.



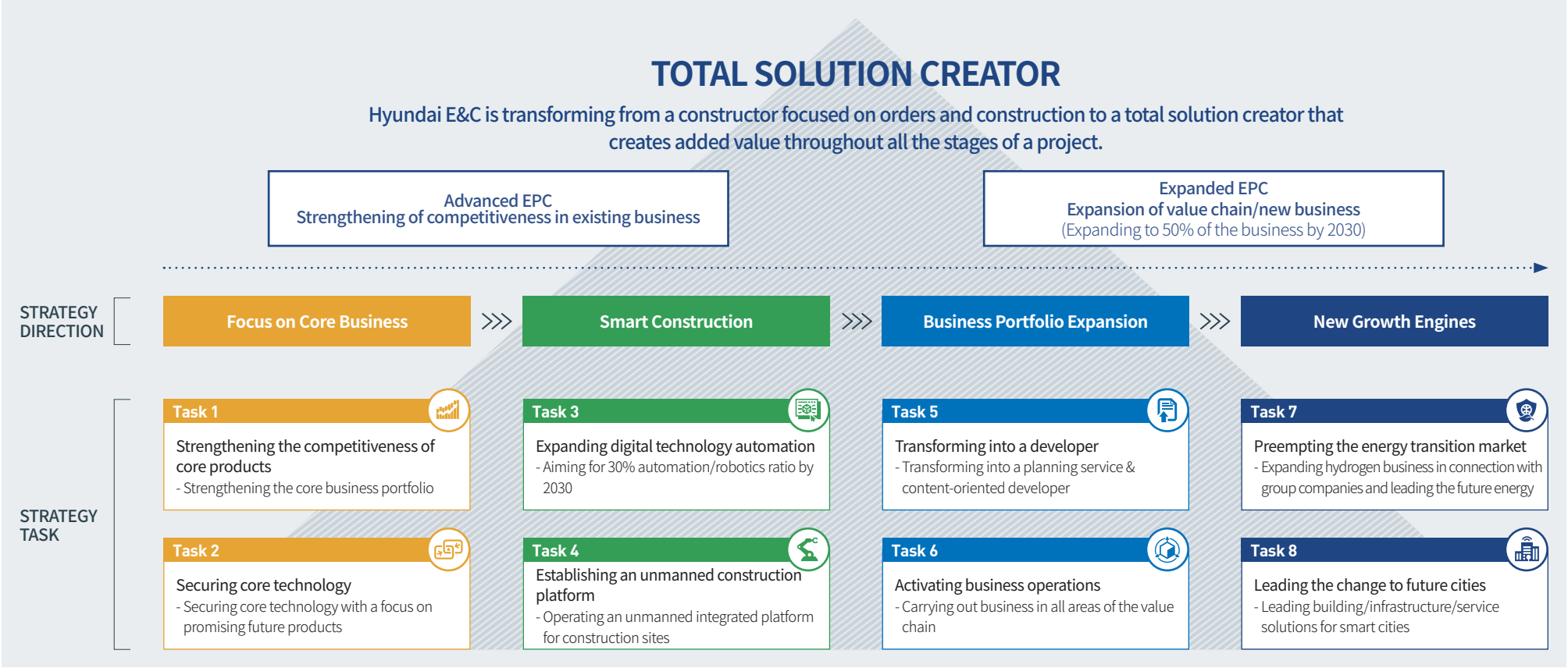
Overseas Branches

1. UAE / Abu Dhabi Branch
P.O. Box 46101, #1601, Makeen Tower, Tourist club Area, Abu Dhabi, UAE
2. Iraq / Baghdad Branch
Baghdad Salihiya Karada Maryam District No.(220) Lane No.(10) House No.(24), Baghdad, Iraq
3. Kuwait / Kuwait Branch
P.O.Box 24314 Safat 13104, State of Kuwait Rumaithiya, Block No. 9, Street No. Villa No 16A, State of Kuwait
4. Saudi Arabia / Al Khobar Branch
P.O.Box 77249, Al-Mousa Tower Office No. 2038204 Prince Turkey Street, Al-Khobar, Kingdom of Saudi Arabia
5. Qatar / Doha Branch
Alshoumoukh Towers Tower A, 5th Floor, C-Ring Road, Freej Bin Mahmoud, Area No. 23, Doha, Qatar(P.O.Box : 24466)
6. Singapore / Singapore Branch
9 Temasek Boulevard Suntec Tower 2, #09-04/05, Singapore
7. Indonesia / Jakarta Branch
Office 8, 32nd Floor (Unit F), Jl. Jend. Sudirman kav 52-53, SCBD Lot 28, Jakarta, Indonesia
8. Vietnam / Hanoi Branch
8th Floor, Viglacera Tower, No.1 Thang Long Avenue, Me Tri ward, Nam Tu Liem dist., Hanoi, Vietnam
9. Bangladesh / Dhaka Branch
6th Floor, Star Centre, Road-138, Block-SE(C), Plot-2A, Gulshan Avenue, Gulshan-1, Dhaka-1212, Bangladesh
10. Philippines / Manila Branch
Unit 803, The Boni Prime Building, 20th Drive, McKinley Business Park, Bonifacio Global City, Fort Bonifacio, Taguig City
11. Hong Kong / Hong Kong Branch
Room 801, 8/F, New Kowloon Plaza, 38 Tai Kok Tsui Road, Tai Kok Tsui, Kowloon, Hong Kong
12. China / Beijing Branch
Room No.1605, Tower 3-B, Wangjing SOHO, No.1 Futong East Street, Chaoyang District, Beijing, China(100102)
13. Algeria / Algeria Branch
2nd Floor, 16 Rue Hamdani Lahcene, Cooperative Mohamed Boudiaf, Sidi Yahia, Hydra, Alger, Algeria
14. Panama / Panama City Branch
41E de la Torre 1000 (No. 396814 del P.H. Oceania Business Plaza Sección de Propiedad Horizontal, Provincia de Panamá)
15. Peru / Lima Branch
#503, Av. Camino Real 1281, San Isidro, Lima, Peru
16. Uzbekistan / Tashkent Branch
5C-07 office, block-C, 107-B bldg. "International Business Center", Amir Temur Avenue, Tashkent, Republic of Uzbekistan
17. Japan / Tokyo Branch (Office)
Room No. 912, Shin-Nisseki Building, Marunouchi 3-4-2, Chiyoda-ku, Tokyo, Japan

CREATING SUSTAINABLE VALUE

2030 Future Strategy

In order to prepare for the uncertainties in the global market, it is necessary to not only enhance competitiveness in existing business but also to secure differentiated competitiveness by expanding the company's business portfolio to secure future growth engines. Hyundai E&C has set four strategy directions for each business model and implemented 2030 future strategies, including eight strategy tasks, in order to grow continuously in the midst of global changes.



CREATING SUSTAINABLE VALUE

Business Portfolio | Infrastructure Works

“INNOVATE TO BUILD, BUILD TO INNOVATE”



Core Technologies

Port	Underground space	Bridge/Structure	Ground/Foundation
Breakwater design/caisson method Dredging and reclamation/ floating structure design	Large/large section underground space construction TBM* design/construction technology <small>*TBM: Tunnel Boring Machine</small>	Long-span bridge design Rapid construction technology	New foundation design Basic technology for offshore wind power

Advanced EPC Strengthening Existing Business Competitiveness

Core competitiveness: Ports, Underground spaces, Long-span bridges

Our Infrastructure Works Division has realized the imagination of mankind by creating new spaces such as roads, railways, ports, tunnels and bridges based on its experience and technological capabilities. It is maintaining its status as an undisputed top-tier infrastructure company and strengthening the competitiveness of existing business by developing new methods for saving costs and shortening the construction period while exploring new global markets.

Expanded EPC Expanding the Value Chain & New Business

New business areas: Offshore wind, Bio gas

With growing demand for the implementation of carbon neutrality due to global climate change, the demand for new and renewable energy is growing continuously. Accordingly, the Infrastructure Works Division is accelerating its efforts to win and implement eco-friendly new business projects such as offshore wind and bio gas. It aims to lead the global market by identifying new businesses continuously based on the know-how of Hyundai E&C.



Jeju Hallim Offshore Wind Power

Hyundai E&C has demonstrated technology for offshore wind power, a representative eco-friendly form of power generation that does not produce waste as it uses wind energy instead of fuel, through projects such as Seonamhae Wind Power Construction and Jeju Tamra Offshore Wind Power. Recently, Hyundai E&C has been working on Jeju Hallim Offshore Wind Power together with the Korea Electric Power Corporation and Korea Midland Power. The project aims to construct a system of 18 units generating 5.56 MW of wind power, and it is possible to produce 264 GWh power a year, which will be the largest capacity in Korea after the completion of the project.

CREATING SUSTAINABLE VALUE

Business Portfolio | Building Works

“BUILDING FOR TODAY, DESIGNING FOR TOMORROW”



Core Technologies

Smart construction



Construction
automation
ICT convergence

Building structure



Seismic/wind
proof design
OSC* design

*OSC: Off-Site Construction

Construction materials



High-performance/
Special purpose concrete
Reduction of cracks,
low heat control

Eco-friendly energy



Building energy
management technology
Indoor air purification
technology

Advanced EPC Strengthening Existing Business Competitiveness

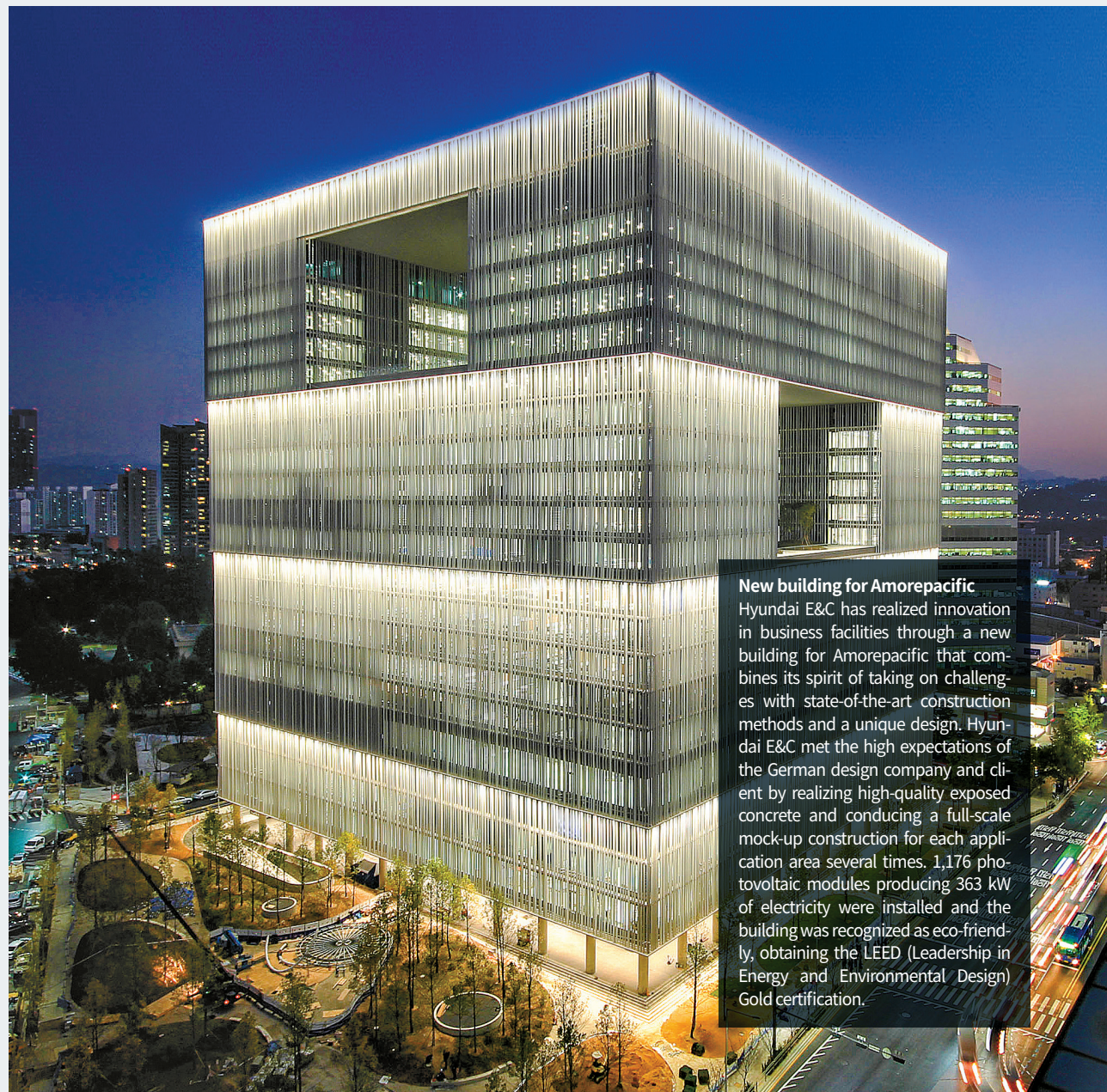
Core competitiveness: Project execution and design management competencies

Hyundai E&C's Building Works Division is leading eco-friendly construction paradigms (e.g., green buildings, high-rise buildings, smart building technologies) in a broad range of facilities—from commercial, medical, educational and cultural facilities to cutting-edge industrial facilities such as data centers and distribution centers—based on its infinite imagination and technological prowess. Hyundai E&C is growing as a Constructor & Developer in the eco-friendly and smart construction market by shortening construction periods by using OSC (Off-Site Construction) methods, establishing a low-carbon construction system through the reduction of construction waste, dust and greenhouse gas emissions and providing a pre-construction service where uncertainties and risks are removed in advance using BIM (Building Information Modeling).

Expanded EPC Expanding the Value Chain & New Business

New growth areas: Smart cities, Data centers, Vertiports

With the acceleration of globalization due to technological advancement, not only are technological capabilities becoming more important, but so is entry into global markets. Hyundai E&C is exploring new markets and strengthening its competitiveness as a global developer by starting to develop vertiport design and construction technology, through its participation in the K-UAM (Korea Urban Air Mobility) demonstration project of the Ministry of Land, Infrastructure and Transport, and by establishing a data center and smart city development and operation system. We will preoccupy global markets and strengthen our global network by continuously improving development and operation capabilities.



New building for Amorepacific

Hyundai E&C has realized innovation in business facilities through a new building for Amorepacific that combines its spirit of taking on challenges with state-of-the-art construction methods and a unique design. Hyundai E&C met the high expectations of the German design company and client by realizing high-quality exposed concrete and conducting a full-scale mock-up construction for each application area several times. 1,176 photovoltaic modules producing 363 kW of electricity were installed and the building was recognized as eco-friendly, obtaining the LEED (Leadership in Energy and Environmental Design) Gold certification.

CREATING SUSTAINABLE VALUE

Business Portfolio | Housing Works

“BUILDING LIFE STYLES,
INNOVATING LIFE STYLES”



Core Technologies

Noise/vibration



Inter-floor noise reduction
Noise/vibration control

Building structure



Seismic/wind proof design
OSC* design
* OSC: Off-Site Construction

Construction materials



High-performance/
Special purpose concrete
Reduction of cracks,
low heat control

Eco-friendly energy



Building energy
management technology
Indoor air purification
technology

Advanced EPC Strengthening Existing Business Competitiveness

Core competitiveness: Strengthening the housing brand, specialized housing products

Hyundai E&C's Housing Works Division holds the status of a luxury brand in among domestic housing businesses due to its trendy design and premium residential spaces and services that put customer satisfaction first. With its advanced technological prowess, Hyundai E&C will lead residential trends in Korea by providing future housing technologies to meet the demands of the fourth industrial revolution era together with Hill State, which is creating new lifestyles, and THE H, which is setting new standards for premium residential space. We will continuously develop specialized housing products unique to Hyundai Engineering & Construction, proactively responding to the demands of the market and customers, and leading the innovation of residential culture in South Korea by changing the framework of the market.

Expanded EPC Expanding the Value Chain & New Business

New growth areas: Development of products and services that will lead future housing trends

Residential trends are changing rapidly in line with acceleration of technological advancement, demographic changes caused by the increase in the elderly population and the low birth rate, and the diversification of lifestyles. Hyundai E&C is developing and offering products and services that will lead future residential trends, including customized residential styling and smart residential services for both interior and exterior in line with the changes of our times, while creating future residential spaces and providing higher standards of living. Furthermore, we will lead sustainable residential culture by incorporating recycled materials, utilizing environmentally certified materials, constructing model houses, planting endangered species, implementing upcycling landscaping, and promoting zero energy buildings (ZEB) throughout the entire life cycle of our projects.



THE H
Hyundai Engineering & Construction is introducing a new paradigm for premium housing in South Korea through 'THE H'. The 'THE' in THE H stands for 'Originality', representing the unique standard of premium living that cannot be possessed by just anyone in South Korea. THE H not only presents a one-of-a-kind premium living space, but also aims to provide 'Total Life Care' by establishing the 'THE H Mobile Service Platform'. From the pre-occupancy stage to all aspects of post-occupancy life, it meticulously and perfectly differentiates itself by offering high-end residential services.

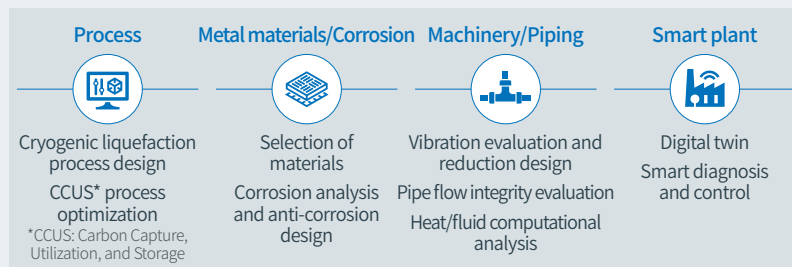
CREATING SUSTAINABLE VALUE

Business Portfolio | Plant Works

"BUILDING A SUSTAINABLE FUTURE WITH GLOBAL PLANT SOLUTIONS"



Core Technologies



Advanced EPC Strengthening Existing Business Competitiveness

Core competitiveness: Natural gas treatment facility, LNG, Oil & gas plants

Hyundai E&C's Plant Division has gained competitiveness in core businesses by developing base technologies and supporting specialized designs based on its world-class technological prowess and know-how. We are becoming a total solution creator by establishing a smart diagnosis and control system and upgrading corrosion analysis and anti-corrosion design technologies in order to implement core projects such as LNG plants where natural gas is cooled and liquefied for convenient transportation, oil & gas projects, and petrochemical plants.

Expanded EPC Expanding the Value Chain & New Business

New growth areas: Hydrogen plants, Next-generation nuclear power plants, Renewable energy

The demand for hydrogen and eco-friendly energy is increasing due to increasing resource depletion and environmental pollution. Accordingly, we are strengthening our competitiveness in hydrogen energy projects by conducting hydrogen production plant projects based on water electrolysis, strengthening the total value chain by internalizing core decommissioning technologies and designing and constructing SMRs (Small Modular Reactors) and attempting to secure source technology by participating in domestic and overseas CCUS/CCS projects including FEED (Front End Engineering Design).



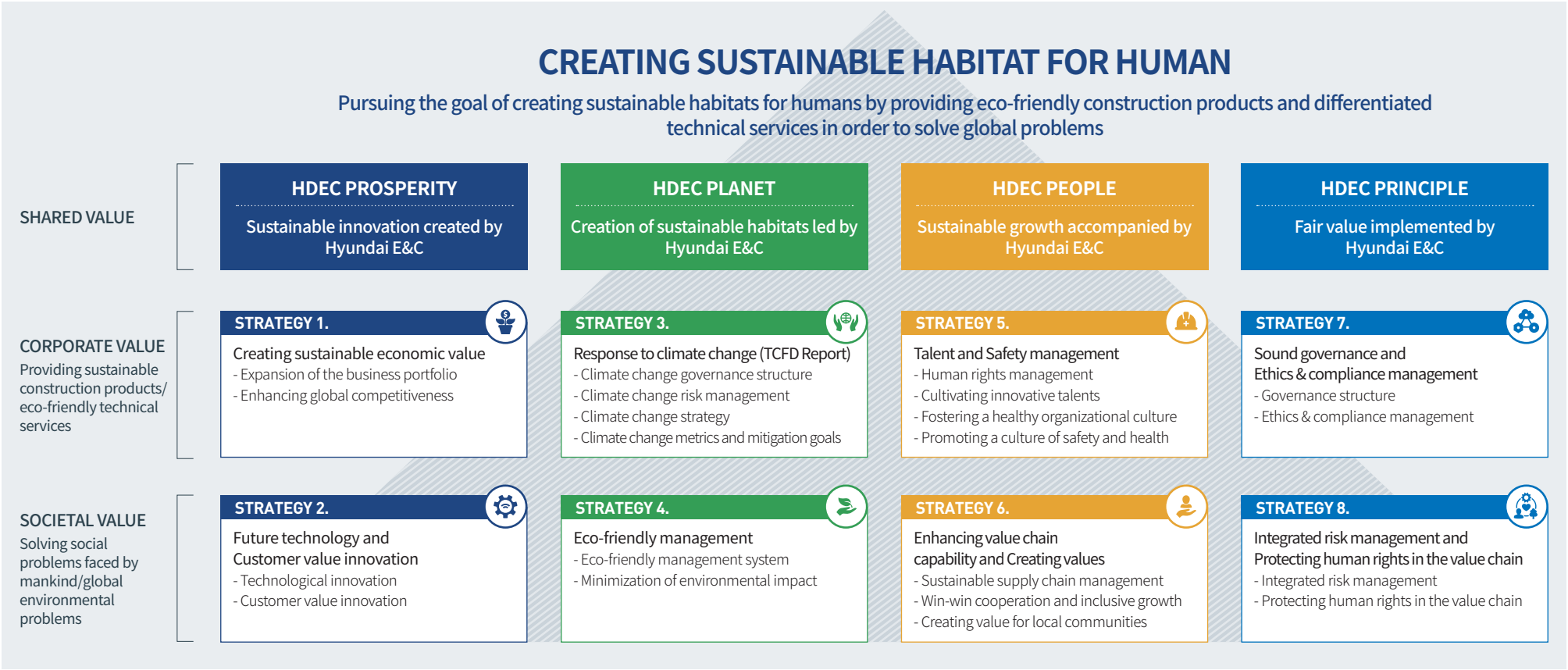
Kuwait Al Zour LNG Terminal

Hyundai E&C completed the Kuwait Al Zour LNG Terminal, the world's largest LNG tank construction project, by constructing eight units of LNG storage tanks on an area of 225,000 m² in the Al Jour region that was created by reclaiming the sea. The hydrostatic test period was completed in 52 days, 66 days faster than normal, due to the application of a method of injecting sea water into the lateral side of the tank, a first for a domestic construction company. Costs were also reduced by lowering the specifications of the pumps required for filling and draining water, maximizing both economic and time efficiency.

SUSTAINABILITY MANAGEMENT

Sustainable Strategy

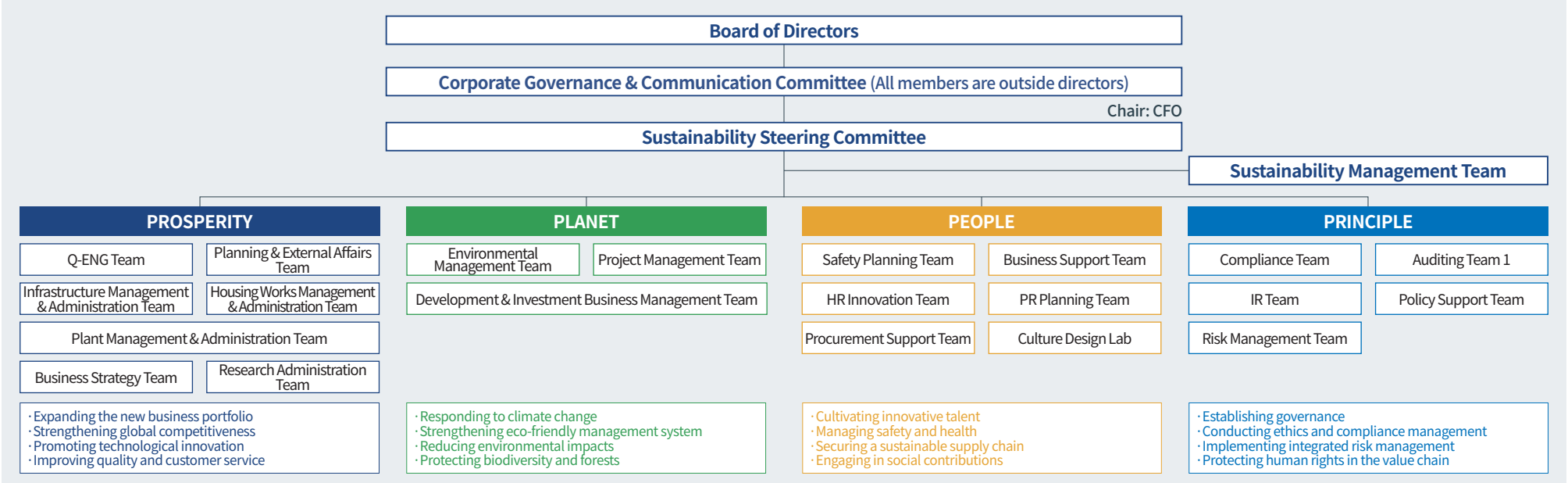
A sustainable future is part of the right of mankind to an abundant life and an obligation for the survival of the next generation. As a global construction leader, Hyundai E&C is making continuous efforts to resolve global issues through the creation of a virtuous cycle between corporate value and social value by providing eco-friendly construction products and differentiated technical services with the aim of creating sustainable habitats for humans.



SUSTAINABILITY MANAGEMENT

Sustainability Management Organization

Hyundai E&C established the Sustainability Steering Committee led by CFO under the Corporate Governance & Communication Committee in 2020. Major ESG issues such as the climate change response, safety and health and fair transaction are discussed by the Corporate Governance & Communication Committee, the highest decision-making body, and the Sustainability Steering Committee. In addition, we are striving to incorporate ESG management throughout the company by establishing area-specific performance objectives and reflecting the outcomes in department-specific and employee-specific KPIs.



Annual Sustainability Management Process



* Throughout the year: Identification and analysis of risks related to ESG → deliberation by/reporting to the board of directors

SUSTAINABILITY MANAGEMENT

Sustainability at a Glance



Environmental

Announcing a **2045 Net Zero Roadmap** aligned with SBTi for the first on among the construction company to be listed domestically

46.2% for scope 1 and 2 emissions and 16.7% for scope 3 emissions compared to the base year
(Reducing of greenhouse gas emissions by 2030 based on the SBTi)

Sustainable product sales ratio

52.1%

Compared to the previous year, there was a 6% increase, and we are aiming to expand the revenue by over 60% by 2030
*Based on EU Taxonomy standards

Diversification of
renewable energy
businesses

Expansion of renewable energy businesses including offshore wind power and small modular reactors (SMRs), as well as integration with renewable energy intermediation trading

CDP **5-year consecutive**
Hall of Fame

CDP Platinum Club 2-year consecutive



Social

Investment of KRW **165.8** billion in safety and health

Investing KRW 165.8 billion, 23% of the planned budget for 2022, in safety and health areas such as CCTV, smart technologies, safety facilities and training

Introduction of third-party construction quality assessment 'Q-TPI' and Development of real-time concrete quality prediction management system 'Q-Con'

Establishment of on-site evaluation system conducted by a specialized quality diagnosis firm

Highest grade for
4 consecutive years
in the Win-Win Growth Index Evaluation

Obtaining the highest grade for the fourth consecutive year in the 2022 Win-Win Growth Index Evaluation and being selected as the 'Best Honorary Company' for 3 consecutive years

12,231 hours of
social contribution activities

Operating a social contribution mileage system since 2010 with the engagement of 3,456 employees for a total of 12,231 hours in 2022



Governance

Board efficiency evaluation score

4.81 out of 5

Every year, board activities are evaluated, which includes assessing the roles and responsibilities of the board and the board efficiency, evaluating the activities of committees under the board, and performing a self-assessment

Introduction of a
due diligence system for trading counterparties

In order to proactively manage potential legal risks inherent in domestic and international trading counterparties, the regulations for conducting due diligence on trading counterparties were revised in 2021, and the due diligence system was implemented from January 2022

Operation of the
Fair Trade Voluntary CP
(Compliance Program)

Operating the Fair Trade Voluntary Compliance Program to establish a trading order based on fairness. We utilize this program as an internal control standard

ESG-related agenda **21** Cases
Board of Directors (8 cases)
and committees (13 cases)

Compared to the previous year, there was a 31.3% increase with 16 cases presented to the Board of Directors (4 cases) and committees (12 cases) in 2021

SUSTAINABILITY MANAGEMENT

Sustainability Target & KPI

Hyundai E&C has established and manages mid- to long-term sustainability targets in eight focal areas by incorporating the requirements of major stakeholders. In the second half of 2022, Hyundai E&C established a 2045 Net-Zero roadmap based on the SBTi, the first time for a domestic listed construction company, and strengthened its response to climate change by establishing sustainability KPIs. Hyundai E&C pursues sustainable growth and development by managing mid- to long-term sustainability targets.








Focal Area	Long-term Sustainability Target	Sustainability KPIs	2020	2021	2022	2023 target
Creating sustainable economic value	Expanding the ratio of sustainable product sales* to 60% or higher of total revenue by 2030 *Recalculation due to change in criteria for sustainable product (EU Taxonomy) eligibility	· Revenues (KRW 100 million, consolidated) · Revenues (KRW 100 million, separated) · Revenue from sustainable products (KRW 100 million) · Sustainable product revenue ratio (%)	169,709 93,201 43,067* 46.21*	180,655 102,463 47,412* 46.27*	212,390 119,784 62,402 52.10	255,000 133,700 73,535 55.00
Innovating future technologies and customer services	Investing about KRW 20 billion annually in fortifying the core technology competitiveness of the value chain by 2030	· R&D investments by the Technology Research Center (KRW 100 million) · Investment in clean tech development (KRW million) · R&D human resources (persons) · Patent registration (no. of cases)	183 209 114 46	178 3,716 140 60	220 4,410 141 38	264 6,169 152 50
Responding to climate change	Reducing greenhouse gas emissions based on the SBTi by 2030 (46.2% of scope 1 and 2 emissions and 16.7% of scope 3 emissions compared to the base year)	· Scope 1 GHG emissions (tCO ₂ e) · Scope 2 GHG emissions (tCO ₂ e) · Scope 3 GHG emissions (tCO ₂ e) · Total GHG emissions reduction (tCO ₂ e)	167,071 140,669 9,484,466 24,130	174,227 122,614 9,281,746 10,899	309,762 75,074 6,658,746 12,687	347,696 148,292 9,009,295 14,147
Conducting eco-friendly management	Minimizing environmental impacts by achieving zero environmental penalties by 2030	· Total energy use (TJ) · Water usage (thousand tons) · Waste water discharged (thousand tons) · Waste recycling rate (%)	4,067.59 1,277.80 8,311.2 99.22	4,864.90 1,478.01 4,234.5 99.36	5,837.41 1,229.82 3,371.5 99.68	6,477.78 1,373.00 3,763.2 99.88
Managing safety	Maintaining the fatality rate at zero until 2030	· Investment in safety management (KRW 100 million) · On-site safety inspection (number of times) · LTIFR-employees (number/million hours worked) · LTIFR-contractor (number/million hours worked)	1,099 1,688 0.105 1.024	1,349 2,576 0.140 1.644	1,658 4,735 0.317 1.988	1,706 6,948 0.300 1.890
Managing talent	Securing and fostering talent in design/engineering expertise and key core technologies	· Recruitment (persons) · Total annual wage for employees (KRW 100 million) · Employee engagement (%) · Training expenses per trainee (KRW)	1,153 5,464.9 65.1 362,841	1,217 6,097.5 63.3 400,172	2,122 6,749.9 67.7 391,116	1,700 7,087.4 70.0 391,178
Strengthening value chain capabilities	Expanding the sustainability management evaluation of suppliers and the action rate to 100% by 2030	· Signing new contracts for entry into overseas markets together with suppliers (KRW 100 million) · Total amount of procurement from suppliers (KRW 100 million) · Amount of the Win-win Growth Fund (KRW 100 million) · ESG inspections of suppliers (number of companies)	1,540 87,257 868 -	800 86,844 1,600 30	2,751 117,596 1,600 44	2,500 94,731 1,600 54
Creating value for local communities	Improving social value as a global citizen through global social contributions in connection with the United Nations SDGs (Sustainable Development Goals)	· Donations at headquarters (KRW 100 million) · Overseas social contribution investment (KRW 100 million) · Overseas social contribution countries (No. of countries, cumulative) · CSR mileage (mile)	62.4 8.9 20 3.8	135.8 2.5 20 3.9	82.0 1.6 22 3.4	71.0 4.0 22 5.0

SUSTAINABILITY MANAGEMENT

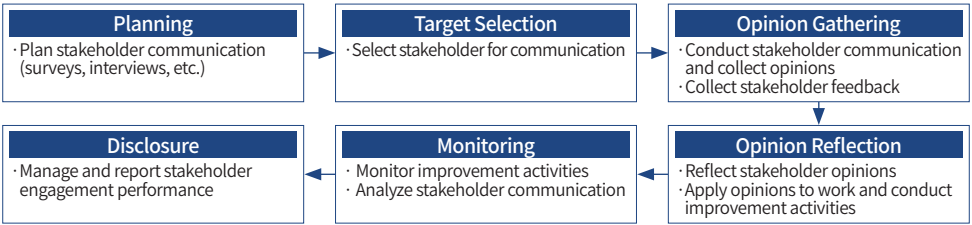
Stakeholder Engagement

Hyundai E&C has determined seven major stakeholders from the perspective of business and functional areas and is striving to strengthen communication by operating communication channels suitable for each stakeholder group. The opinions of stakeholders were incorporated in the process of identifying materiality issues, and Hyundai E&C will continue to identify the major interests of each stakeholder and incorporate these interests into the sustainability management of the company.

Stakeholder Communication Channels

Stakeholder	Interests	Communication channels
 Employees	<ul style="list-style-type: none">Improving employee satisfactionEstablishing a horizontal corporate culturePursuing work-life balanceEstablishing a fair performance evaluation and reward systemCultivating innovative talent	<ul style="list-style-type: none">Intranet, SNSs such as blogs and YouTubeDiscussions with the CEOEmployee engagement survey, H-DudrimSustainability Steering Committee
 Customers	<ul style="list-style-type: none">Maximizing customer satisfaction through technological innovationContributing to the resolution of social issuesEstablishing pleasant residential environmentsSharing ESG policies of the supply chains of domestic/overseas sponsors	<ul style="list-style-type: none">Website, newsroom, SNSs such as blogs and YouTubeCustomer center on the website (H-Dudrim), call center
 Suppliers	<ul style="list-style-type: none">Pursuing win-win partnershipPursuing fair trade, technological cooperationManaging ESG in the supply chainSharing information and technology	<ul style="list-style-type: none">Hi-partner SystemWin-Win Management Committee, Win-win Growth Support CenterSupplier satisfaction surveyH-Dudrim
 Local communities, NGOs	<ul style="list-style-type: none">Protecting the environment near business sitesStrengthening implementation for three focal areasImproving contributions to the resolution of social issues	<ul style="list-style-type: none">External Social Contribution CommitteeCommunity meetingsLocal social contribution activitiesCivil society and environmental groups
 Government, media, associations	<ul style="list-style-type: none">Complying with laws and regulationsFulfilling social responsibilitiesStrengthening transparency in tax paymentsDisclosing information transparently through the media	<ul style="list-style-type: none">Policy meetingsPublic hearingsPress releasesActivities of associations
 Shareholders and investors	<ul style="list-style-type: none">Establishing sound governanceStrengthening corporate competitivenessImproving shareholder valueDiversifying the business portfolio	<ul style="list-style-type: none">Shareholders' meetingsInvestment presentationsIR meetingsDisclosure information
 Sustainability experts, academia	<ul style="list-style-type: none">Strengthening the disclosure of sustainability informationEstablishing sustainability management strategiesPromoting the internalization of ESG	<ul style="list-style-type: none">Sustainability reportParticipation in external evaluationsESG seminars

Stakeholder Engagement Process



Stakeholder Communication and Participation in ESG Initiatives

(As of 2022-2023)

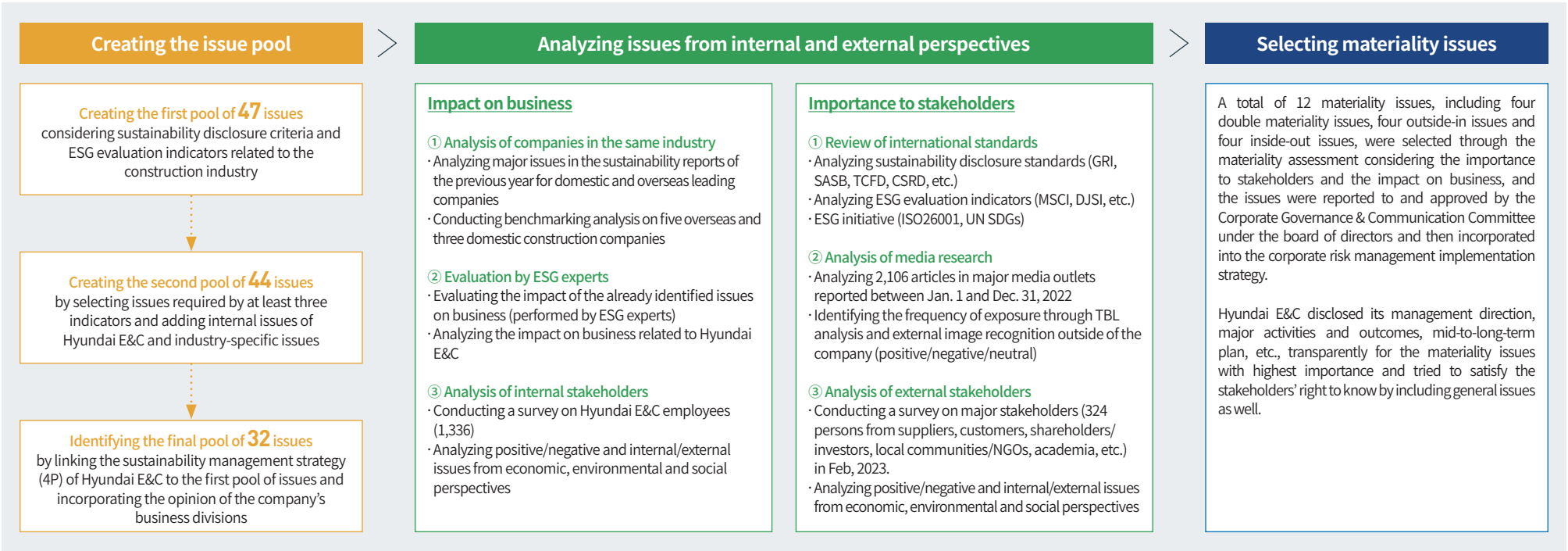


SUSTAINABILITY MANAGEMENT

Materiality Assessment

Hyundai E&C conducted a double materiality assessment in order to determine the content of the 2023 sustainability report and identify and select issues that require focused management in the future in terms of sustainability management. Double materiality assessment refers to the evaluation of significant issues in a company by considering both the financial importance of the external environment (environmental/social) to the company (financial materiality) and the impact of the company on the external environment (impact materiality). This assessment follows the reporting content determination process of GRI (Global Reporting Initiative) and incorporates global disclosure standards, evaluation indicators, industry trends, media research for the relevant year, and assessments of ESG experts' importance. A total of 32 key focal points were divided into financial and impact aspects to measure their priority, and the impacts of each issue (positive, negative, or mixed) were analyzed. Finally, the activities and performance of Hyundai E&C related to the 12 selected significant issues were reported in detail following the ISSB framework (Governance-Strategy-Risk Management-Metrics and Target). These significant issues will be integrated into future sustainable management strategies, goal setting, and overall business operations.

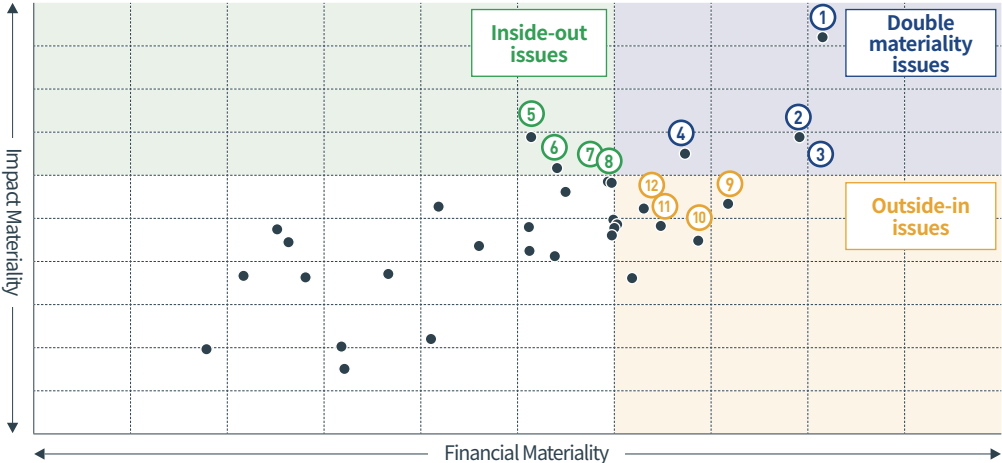
Double Materiality Assessment Process



SUSTAINABILITY MANAGEMENT

Double Materiality Assessment Results

Out of 32 issues, four double materiality issues with high priority, four inside-out issues and four outside-in issues were selected using a materiality issue matrix that took into account financial, environmental and social impacts. The content and priority of the materiality issues have changed from last year. The analysis results and the management direction and major targets of Hyundai E&C for the materiality issues are as follows.



No.	Name	Changes between 2022 and 2023
Double materiality	① Safety first management and achievement of zero accidents	-
	② Implementation of Net-Zero strategy and reduction management of greenhouse gas emissions	New
	③ Cultivating talent and developing capacities	-
	④ Strategic response to climate change risk	New
Inside-out issues	⑤ Economic profit generation and continuous growth	-
	⑥ Strengthening win-win growth and joint cooperation with suppliers	New
	⑦ Sustainable supply chain management and strengthening the value chain	-
	⑧ Satisfying customers through quality and safety control	-
Outside-in issues	⑨ Leading smart construction technology through technological innovation	-
	⑩ Improving organizational culture and innovation	New
	⑪ Reducing energy consumption and leading the transition to eco-friendly/renewable energy	-
	⑫ Integrated risk management	-

○ Low ↔ ● High

Issue	Stakeholder							Impact Positive/ negative/ mixed	Materiality	
	Employees	Suppliers	Customers	Shareholders, investors	Local communities	ESG experts, academia	Government, media, associations		Financial (Inward)	Social- Environmental (Outward)
S Safety first management and achievement of zero accidents	●	●	●	●	●	●	●	Positive	●	●
E Implementation of Net-Zero strategy and reduction management of greenhouse gas emissions	●	●	●	●	●	●	○	Mixed	●	●
S Cultivating talent and developing capacities	●	●	●	○	●	●	○	Positive	●	●
E Strategic response to climate change risk	●	●	●	●	●	●	●	Positive	●	●
G Economic profit generation and continuous growth	●	●	○	●	○	●	○	Positive	●	●
S Strengthening win-win growth and joint cooperation with suppliers	●	●	●	●	●	●	●	Positive	●	●
S Sustainable supply chain management and strengthening the value chain	○	○	●	○	●	●	○	Mixed	●	●
S Satisfying customers through quality and safety control	●	●	●	●	○	●	●	Positive	●	●
G Leading smart construction technology through technological innovation	●	●	●	○	●	○	○	Positive	●	●
S Improving organizational culture and innovation	●	●	●	●	○	●	●	Positive	●	○
E Reducing energy consumption and leading the transition to eco-friendly/renewable energy	●	●	●	●	●	●	●	Mixed	●	○
G Integrated risk management	●	●	●	○	○	●	○	Positive	●	●

SUSTAINABILITY MANAGEMENT

Materiality Issue Management

Corporate Risk Management System 

Materiality Issue	Direction of Issue Management				Page
	Governance	Strategy	Risk Management	Metrics and Target	
Safety first management and achievement of zero accidents	There are 2 working-level organizations under the chief safety officer: the Safety Support Group and Project Support Group. Major issues related to safety and health are presented to the board of directors and the Corporate Governance & Communication Committee for discussion.	We Hyundai E&C established 10 key tasks and four implementation strategies to be the global top leader in safety and health management. The safety and health strategy system is applicable to all business areas of Hyundai E&C.	Risk type: Safety and health We conduct safety and health risk assessments every year, and effectiveness evaluations after taking immediate action in the case of nonconformities. We make multifaceted efforts to prevent risks, such as by obtaining ISO45001 and KOSHA MS certifications, introducing smart safety systems (HloS and disaster prediction AI), conducting safety and health training for employees, and increasing safety and health investment.	We have established the 12 safety regulations, along with detailed strategies and tasks, and set a goal to achieve 'Zero Serious Accidents' for the entire company and its partner companies by 2030, aiming to reduce the accident rate by 5% annually. Additionally, in 2023, there are plans to invest KRW 170.6 billion in safety incentives, smart safety, and other related initiatives. Various indicators such as LTIFR (Lost Time Injury Frequency Rate) and OFIR (Occupational Fatal Injury Rate) are being monitored, and safety-related indicators such as mortality rate and the number of severe accidents are included in the key performance indicators (KPIs) for the safety sector management. Impact metric: The amount of fines and social costs avoided through accident prevention activities	62-66
Implementation of Net-Zero strategy and reduction management of greenhouse gas emissions	Through discussions and collaboration between executives and practitioners in the Sustainability Steering Committee, which is responsible for promoting ESG management, we have developed a Net-Zero strategy. This process involved deliberations on greenhouse gas reduction measures and carbon neutrality, leading to the establishment of a Net-Zero roadmap. The strategy was approved by the management team and the Board of Directors, resulting in the declaration of Net-Zero by 2045 and the publication of a Net-Zero report. The Board of Directors will oversee and manage the implementation of the targets and detailed reduction measures to ensure their successful achievement.	We established a Net-Zero promotion strategy, G-O.P.I.S, with step-by-step implementation plans including the establishment of an on-site low-carbon operating system, the expansion of the eco-friendly portfolio, continued investment in eco-friendly technology development, and the strengthening value chain cooperation.	Risk type: Environment We establish ESG improvement tasks for Hyundai E&C's risk management, including climate change responses, as department KPIs every year, and these are reported to the Sustainability Steering Committee every quarter to monitor implementation performance. Through H-PMS, an IT-based environmental performance management system, we are efficiently managing environmental performances such as energy consumption and greenhouse gas emissions at business sites.	We are managing detailed indicators in accordance with SBTi to achieve Net-Zero by 2045. We have successfully reduced greenhouse gas emissions by a total of 12,687 tCO ₂ e, surpassing the target set for 2022 by more than 49.4%. As part of our interim goals, we aim to achieve a 46.2% reduction in scope 1 and 2 emissions, and a 16.7% reduction in scope 3 emissions by 2030, compared to the baseline year. Additionally, Net-Zero-related indicators are included in our environmental management KPIs. Impact metric: The amount of fines avoided through greenhouse gas emission reduction projects, and compliance with environmental laws and regulations	35-46
Cultivating talent and developing capacities	All employees, including top management, are building a talent-centered culture under the management policy of "transparent and fair organizational culture." We provide equal opportunities for all employees, without discrimination, to fully showcase their abilities and contribute to the growth-oriented culture of the organization.	We prioritize selecting the most suitable candidates rather than just the best ones such as job-oriented recruitment, diversification of recruitment channels, or vitalization of regular recruitment. In addition, we support growth as an innovative challenger that constantly pursues new fields.	Risk type: Business We operate diversified training programs and smart learning systems to strengthen the work capabilities of executives and employees. In addition, we operate a Technical Education Institute to nurture talent tailored to the construction industry.	We are managing indicators such as average training time and investment costs to ensure efficient talent management. The management KPIs also include organizational culture indicators related to the development of talent capabilities. We have established a goal of investing more than KRW 18 billion in research and development personnel until 2030 in order to cultivate excellent talents and enhance capabilities. Impact Metric: Return on investment in human capital development costs	56-57
Strategic response to climate change risk	Climate change issues are discussed in the Sustainability Steering Committee and reported to the management team and the Corporate Governance & Communication Committee. Important issues related to climate change are reviewed and approved by the Board of Directors. Climate change mitigation strategies, including risk identification, scenario analysis, and greenhouse gas reduction targets, are managed as part of the overall key management strategies of the company.	In accordance with the climate change risk management process, we identify and assess risks that could have a significant impact on our company in the short term (by 2025), medium term (by 2030), and long term (by 2045). We then develop measures to minimize these impacts and incorporate them into our management strategies. Through this process, we have established the Net-Zero promotion strategy called G-O.P.I.S, which includes implementation plans for greenhouse gas reduction and the expansion of eco-friendly portfolios.	Risk type: Environment Following the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), we define climate change risks and opportunities and evaluate their financial and non-financial impacts. The risk management process is conducted by considering the characteristics of the construction industry and follows the steps of risk identification, assessment, and response, which are performed at both the business and project levels. The process is integrated into overall risk management through reporting to the Sustainability Steering Committee.	Hyundai E&C aims to contribute to the Paris Agreement's goal of limiting global temperature rise to below 1.5°C compared to pre-industrial levels. In line with this commitment, we have established Net-Zero targets in accordance with SBTi (Science Based Targets initiative) and are managing relevant indicators through our detailed implementation strategy called 'G-O.P.I.S'. Impact Metric: The economic and social losses avoided through physical risk mitigation	35-46
Economic profit generation and continuous growth	Each business division (infrastructure/plant/housing) analyzes the performance of the year and establishes its mid-to-long-term business strategy for the next year to strengthen competitiveness in EPC and diversify the portfolio for new-growth-engine business.	In order to respond to changes in the business environment in the future, we are establishing and implementing the 2030 Future Strategy. This strategy consists of four major strategic directions and eight tasks, and is designed to secure new growth engines through securing base technologies, innovation in production methods, and energy conversion.	Risk type: Business Financial We are dedicated to generating revenue and expanding into emerging markets, with a focus on the Americas, Sub-Saharan Africa, and the Commonwealth of Independent States (CIS) region. To achieve this, we have established a global network to explore new overseas projects and maintain relationships with key customers. We operate systematic international operations to effectively manage our overseas business endeavors.	Based on the stability of our business in 2023, we aim to achieve KRW 29 trillion in new orders and KRW 25.5 trillion in revenue. Additionally, we plan to expand the proportion of future energy and smart construction projects to approximately 50% by 2030. In 2022, we successfully achieved revenue from sustainable products of KRW 6.2 trillion (52% of total revenue) based on the EU Taxonomy, including renewable energy production and zero-energy buildings. Our plan is to further expand this to over 60% by 2030. Impact Metric: The economic value redistributed to internal and external stakeholders	24-25
Strengthening win-win growth and joint cooperation with suppliers	We have multi-faceted response groups beyond the operation of a task force for each area in order to disseminate a culture of fair trade and joint cooperation. The Compliance Council, Policy Support Team 1, the Global Cooperation Team, the Win-Win Management Committee, and the Shared Growth Council are involved in establishing an optimal cooperation system for fair trade, compliance and the operation of shared growth programs.	By setting 'mutual growth through mutually beneficial cooperation' as our core strategic direction, we are striving to create an ecosystem where we can grow together with our suppliers. In addition, we are establishing an advanced supply chain management process so that our suppliers can gain their own competitiveness in the uncertain business environment.	Risk type: Supply chain We are improving our competitiveness by providing training and consulting to suppliers with insufficient quality and safety. In addition, through H-Dudrim and Hi-partner supplier satisfaction surveys, we actively collect difficulties and suggestions and communicate with our suppliers.	We operate various support activities for partner companies, including a Win-win Growth fund of KRW 160 billion and strategic purchases totaling KRW 1 trillion. In 2022, we achieved a new contract value of KRW 275.1 billion for overseas joint ventures with partner companies. Our goal for 2023 is to exceed KRW 250 billion in new contract values. Impact Metric: Indirect employment effects generated through partner companies, social benefits of co-prosperity funds	70-71

SUSTAINABILITY MANAGEMENT

Materiality Issue Management

Corporate Risk Management System 

Materiality Issue	Direction of Issue Management				Page
	Governance	Strategy	Risk Management	Metrics and Target	
Sustainable supply chain management and strengthening the value chain	The Procurement Support Team under the Procurement Planning Group conducts supply chain sustainability management evaluation and risk management. In addition, major agendas related to the sustainability of business partners and supply chains at the company level are reported to the Corporate Governance & Communication Committee under the board of directors. Furthermore, in the event of a major supply chain problem, the Supplier Sanctions Review Committee is convened to determine whether and how much to sanction the supplier.	We follow authoritative codes of conduct, such as the 10 UNGC principles to build a sustainable supply chain. Based on this, we have enacted the Hyundai E&C Supplier Code of Conduct to require all suppliers to follow the best operating practices.	Risk type: Supply chain We conduct supply chain ESG assessments to manage supply chain risks. To do this, we first conduct a on-desk assessment and on-site due diligence for companies where key risks are identified. Depending on the results, appropriate improvement measures are implemented and implementation is continuously managed.	We plan to expand the number of companies subject to on-site ESG inspections in the supply chain from 44 in 2022 to 54 in 2023. Additionally, we plan to introduce a supplier incentive system based on the evaluation results of sustainable management in the supply chain. Impact Metric: Number of suppliers with identified ESG risks, Avoided social costs from reduced supply chain risks.	67-69
Satisfying customers through quality and safety control	We have established operational units within the Quality Strategy Group under the Strategy Business Planning Division to perform systematic quality management. The Quality Strategy Team oversees quality planning, the Q-ENG Team manages the quality system, and the Quality Audit Team conducts quality inspections and evaluations.	To ensure customer satisfaction and secure high quality, we have established a corporate quality management policy and implemented seven quality norms strategically. We are spreading a policy emphasis on quality and proactively managing quality issues to minimize quality risks, particularly in response to the increase in housing defects and customer complaints.	Risk type: Quality We operate an evaluation system to evaluate the product quality of our suppliers and to respond to risks in advance. Headquarters and on-site evaluations are conducted, and these cover the frequency of nonconformities, participation in quality activities, and post-construction defect management, etc. Based on the evaluation results, we classify partner companies under priority management by registration group and conduct customized management.	In 2023, we aim to make 'Zero Major Quality Defects' a core objective, focusing on improving quality standards, risk management, and leading in smart quality systems. We strive to take a leading role in customer value innovation based on diversified goals. Impact Metric: Customer satisfaction rating index, social costs incurred from customer complaints	30-33
Leading smart construction technology through technological innovation	We have organized an R&D department under the Technology Research Center in order to secure technological competitiveness. We have R&D teams under the Fundamental Technology Research Group, Advanced Business Research Group, and Smart Construction Research Group. In addition, there are the Research Administration Team and Future Frontier Team.	We are building a sustainable technology platform for implementing future transformation strategies. In order to enhance EPC competitiveness, we are securing base technologies, leading innovation in production methods linked to the digital transformation, and securing new growth engines in response to the energy transition and carbon neutral trends.	Risk type: Business Financial Changes in industrial structure and customer needs due to digital transformation are significant risk factors that affect Hyundai E&C's receipt of orders and management performance. In order to respond to this, Hyundai E&C is leading smart safety technology, such as by expanding the function of its IoT safety management system in 2022, a first in Korea. In addition, we are strengthening our digital business management capabilities by establishing a remote site management system prototype.	In 2022, we carried out 44 research tasks registered 38 patents, and invested a total of KRW 5.1 billion in the R&D budget. In 2023, we are aiming for 68 research tasks and we plan to increase our R&D budget to KRW 5.5 billion. In addition, we plan to actively develop eco-friendly solutions by increasing investment in clean tech to KRW 6.2 billion in 2023. Impact Metric: Social costs reduced through the development of new technologies, employment generation effect through the hiring of R&D personnel	26-29
Improving organizational culture and innovation	The Culture Design Lab under the Strategy Business Planning Division was established to improve corporate competitiveness through changes in corporate culture, organizational culture and ways of work. In addition, we are striving to improve employee engagement by improving our systems related to work.	In order to improve employee engagement in the organization, we operate various welfare systems such as a smart work system, childcare support system, vacation/leave system, and health care system. We conduct an annual organizational culture diagnosis to diagnose the factors and levels of organizational culture that affect the work environment and performance, and strive to improve employee satisfaction through internal improvements.	Risk type: Human rights Creating a healthy corporate culture is an essential element that forms the basis for enhancing employee production capacity and preventing the outflow of talent. Hyundai E&C is strengthening employee engagement and motivation through various welfare programs including the smart work system.	We conduct an employee engagement survey for all employees. Organizations with less than a 50% positive response rate as a result of the survey will go through an in-depth assessment. A survey was conducted on 3,113 people in 2022, and the average positive response rate was 67.7%. Impact Metric: Recruitment costs avoided through prevention of workforce loss, number of employees utilizing parental leave	59-61
Reducing energy consumption and leading the transition to eco-friendly/renewable energy	Hyundai E&C reviews policies and strategies on climate change responses, including the expansion of securing renewable energy and the implementation of new and renewable energy, through the Corporate Governance & Communication Committee under the board of directors. We respond to issues at the corporate level through the Sustainability Steering Committee.	Hyundai E&C has declared Net-Zero by 2045, and is promoting the use of renewable energy and improvements in energy efficiency at business sites. To secure technological competitiveness, we are driving initiatives such as on-site solar panel and Energy Storage System (ESS) installations. Additionally, we have joined the K-EV100 program and are expanding the purchase of eco-friendly vehicles. Furthermore, we are actively pursuing renewable energy power intermediation trading to contribute to the stable supply of renewable energy.	Risk type: Environment Business Customer demand for green buildings and green construction sites are increasing. Hyundai E&C is building a system to expand the use of on-site renewable energy, and is expanding its sustainable portfolio, which includes renewable energy, hydrogen business, and zero-energy buildings, based on its accumulated EPC competitiveness.	By establishing a renewable energy conversion roadmap, we established the goal of procuring 100% self-generation and renewable energy by 2045 and the goal of 100% eco-friendly conversion of business vehicles (K-EV100) by 2030. Impact Metric: Number of protected species in construction sites requiring conservation, environmental costs avoided through low-energy buildings	39, 44-45
Integrated risk management	We appoint the chairman of the Risk Management Committee as the chief risk officer to monitor corporate risk and establish countermeasures. In addition, we manage non-financial risks through the Sustainability Steering Committee under the Corporate Governance & Communication Committee within the board of directors and report risks to the board of directors regularly.	We operate a company-wide integrated risk management system to prevent financial/non-financial risks in advance. This system is divided into business and finance, safety and health, the environment, supply chains, human rights, ethics and compliance management, information security, and quality.	Risk type: Business Financial We identify emerging risks and opportunities and incorporate them into our business both internally and externally in line with trends in construction industry and changes in society and the environment in order to manage risks in the long-term.	Based on the corporate standard Risk Breakdown Structure (RBS), we evaluate the corporate-wide risks. Additionally, we manage risk ratings by analyzing the likelihood of occurrence, frequency, and impact level of risks based on accumulated experience and case studies throughout the project execution process. Impact Metric: Exposure of external stakeholders to risks, likelihood of occurrence, impact level of risks	86-89

HDEC PROSPERITY

Sustainable Innovation
Created by Hyundai E&C

**STRATEGY 1. Creating Sustainable
Economic Value**

- Expanding the New Business Portfolio 24
- Strengthening of Global Competitiveness 25

**STRATEGY 2. Future Technology and
Customer Value
Innovation**

- Technological Innovation 26
- Customer Value Innovation 30



Qatar Lusail Tower

STRATEGY 1.

Creating Sustainable Economic Value

Since its foundation in 1947, HDEC has become a leader in the global construction industry through continuous efforts and innovation over 76 years. Hyundai E&C will turn the current crisis into an opportunity for growth by promoting various low-carbon and eco-friendly new businesses and exploring domestic and overseas markets more actively. HDEC intends to lead a future-oriented construction industry that realizes sustainable development by establishing its 2030 Future Strategy and growing into a Total Solution Creator.

2022 Achievements

Global network

881

global projects (cumulative)

New orders

KRW **35,426** billion

Sustainable product sales ratio

52.1%

Expanding the New Business Portfolio

Pursuing the 2030 Future Strategy

Hyundai E&C is implementing a transition to an eco-friendly and low-carbon business structure by expanding its value chain and the share of new business to 50% by 2030 based on its EPC capabilities accumulated through the operation of a comprehensive construction business covering infrastructure, building, housing and plant works. We are securing new growth engines by securing base technologies, innovating ways of production through digital transformation and responding to the energy transition and carbon neutrality trends based on the 2030 Future Strategy composed of four strategic directions and eight strategic tasks in order to secure sustainability and respond to changes in the future business environment. We have set the innovation of eco-friendly technology as our core business strategy by securing proprietary technology for new growth and future products based on the analysis of mega trends such as urbanization, energy transition, fuel, resource depletion and environmental pollution in order to lead future innovation in the construction industry. In addition, we plan to lead the development of eco-friendly technologies with an aim to increase the share of sustainable products in revenue from 52.10% in 2022 to 60% by 2030.

2030 Future Strategy System

Business Structure	4 Strategic Directions	8 Strategic Tasks	Strategic Targets
Strengthening Existing Business Competitiveness	Focusing on Core Business	· Strengthening the Competitiveness of Core Products · Securing Core Technology	· Transforming the portfolio through product eliteization · Securing core technology with a focus on promising future products
	Smart Construction	· Expanding Digital Technology Automation · Establishing an Unmanned Construction Platform	· Expanding the digital transformation and smart construction technology · Promoting the development of an unmanned platform
Transformation			
Expanding the Value Chain & New Business	Business Portfolio	· Transforming into a Developer · Activating Business Operations	· Transforming into a developer centered on business planning and content/services · Carrying out business in all areas of the value chain, from planning to operation
	New Growth Engines	· Preempting the Energy Transition Market · Leading the Change to Future Cities	· Expanding hydrogen business in connection with group companies and leading the future energy business · Leading building/infrastructure/service solutions in smart cities

Diversifying the New Business Portfolio

Hyundai E&C is diversifying its portfolio of new business in areas such as energy transition, smart cities and power brokerage transactions based on existing technological capabilities, as the new and renewable energy market is expected to grow further with growing demand for low-carbon solutions and eco-friendliness and the implementation of coal phase-out policies due to global climate change. For our power brokerage transaction business, we promoted investment in and the joint development on energy IT startups and platforms in order to launch products in the power transaction platform market in 2022, and completed the development of the RE100 portfolio simulator. In 2023, we will promote an integrated platform for power transactions (PPA/VPP) to improve the stability of the power transaction market and transaction efficiency by reducing power transaction costs. Hyundai E&C is planning to lead the energy transition in the construction industry through early entry into the domestic offshore wind power market based on the production of vessels dedicated to offshore wind farms and the development of construction technology, by implementing an organic bio gas energy center establishment process, by securing CCUS technologies and by participating in next-generation nuclear power projects (SMRs, etc.)

Major New Growth Businesses

Classification	Implementation Direction	Major Business
Energy transition	Hydrogen plants	Secure hydrogen energy business projects and strengthen market competitiveness · Jeonbuk Hydrogen Production Base Based on Water Electrolysis
	Next-generation nuclear power	Strengthen the total value chain by promoting next-generation nuclear power projects · UAE Barakah Nuclear Power Plant · Shin Hanul Nuclear Power Plant Units 1 and 2 · Detailed design for a standard model for the commercialization of SMR-160
	CCUS (Carbon Capture, Utilization and Storage)	Secure CCUS technology and participate in global carbon neutrality projects · Optimizing hybrid CO ₂ capture and liquefaction process and demonstration to produce blue hydrogen
	New and renewable energy	Expand EPC contracts for offshore wind power projects and strengthen O&M capabilities for bio gas · Sarulla Geothermal Power Plant · Seosan Solar Power Plant · Chungju Food Bio Energy Center · Daesan Biomass Power Plant · Southwestern Coast Offshore Wind Farm Demonstration of complex turbines and basic-structure EPC · Jeju Hallim Offshore Wind Power Project · Sineung Clean Energy Private Investment Project
Smart cities	Urban mobility hubs	Realize urban air mobility successfully and establish an ecosystem · Conducting the design for a vertiport pilot site
	Future housing	Use eco-friendly construction material, and construct zero-energy buildings · Hillstate Lake Songdo I · Amorepacific building · LH headquarters building
	Data centers	Enter the global data center market and strengthen the network · Pacific Sunny Data Center, Juljeon, Yongin
Power brokerage transactions	Integrated power transaction platform	Sell power from renewable energy to private electricity users · PPA project to supply electricity from renewable energy
		Supply power stably by collecting diverse power generation sources · VPPs (Virtual Power Plant), integrated power generation service business

Strengthening of Global Competitiveness

Creating Global Economic Outcomes

Hyundai E&C has grown stably at home and abroad based on its proven competitiveness and solid business models. We recorded KRW 21.2 trillion in revenue, KRW 574.9 billion in operating profit and KRW 35.4 trillion in new orders amid the recession in construction business due to COVID-19 and the Russia-Ukraine War. With the full-scale progress of overseas plant projects such as Panama Metro Line 3 and the upgrading of equipment at Basra Refinery in Iraq, our revenue has increased by 17.6% compared to the previous year. Furthermore, we have secured a record-high order backlog of KRW 90 trillion since our establishment. In 2023, we established the goal of winning orders of KRW 29 trillion and achieving KRW 25.5 trillion in revenue by differentiating strategies for each sector to improve our competitiveness in winning orders and maintaining a sound financial structure and management stability under continued uncertainties such as the decrease in demand for housing caused by high interest rates and instability in the project financing market. We will continue to strengthen our future core competitiveness by promoting new businesses such as offshore wind farms, SMRs (Small Modular Reactors), private PPA projects, UAM (Urban Air Mobility) and smart cities and entering advanced markets such as Australia and the US.

Expanding Entry into New Markets

Hyundai E&C is making an all-out effort to expand into emerging markets after selecting the Americas, Sub-Saharan Africa and the CIS (Commonwealth of Independent States) as major new markets. Accordingly, we have secured continuous profit from the Middle East and Asia and started exploring new markets by winning an LNG FEED (Front End Engineering Design) project in Papua New Guinea in 2022. In addition, we have strengthened our expertise by establishing an SMR (Small Modular Reactor) organization in order to respond to the energy transition and digital transformation. In addition, we are planning to enter the US nuclear power market, including SMRs and decommissioning, and are striving to win power transmission and substation projects in Australia. Moreover, we are pushing ahead with entry into new markets from the perspective of the construction type, product and region and considering the possibility of market contraction caused by a global economic recession. To this end, we are trying to maximize our capabilities in major areas by maintaining a balanced portfolio, identifying good local suppliers and expanding the supply chain to respond preemptively to local demand.

Strengthening the Global Network

Hyundai E&C is managing overseas projects systematically through the establishment of a subcontracting strategy and the management of sites by identifying new overseas construction projects and maintaining relationships with major clients based on its extensive global network. We are connecting the headquarters and sites through overseas branches and offices and focusing on improving competitiveness in overseas projects by identifying local companies and managing the pool of suppliers. Hyundai E&C reviews and implements the establishment of local branches and corporations in order to win overseas projects and secures construction project while minimizing competition through the establishment and operation of local bases. We are striving to achieve sustainable growth through localization from a long-term perspective. In 2022, we established an overseas office in Tokyo, Japan, to build deep cooperative relationships with local companies including Japanese trading companies. In addition, we are planning to participate in US SMRs projects actively based on our US corporation established in 2022. We are planning to establish a differentiated and strategic global network for each country, such as the establishment of a new corporation in Saudi Arabia which is managed by an overseas branch, in order to win more orders.

Business Strategy for Overseas Markets

Middle East	America	Asia / CIS	Europe/Africa
<ul style="list-style-type: none">Expanding new orders through cooperation with companies with expertise in the petrochemical areaEntering new areas such as hydrogen/renewable energy projects/ promoting LNG projects in Qatar, the UAE, etc.Participating in large-scale new city development and infrastructure projects in Saudi Arabia and the UAE under the GCC (Gulf Cooperation Council) national industry diversification policy (Neom New City in Saudi, etc.)Promoting the establishment of a joint construction corporation to win more projects and strengthen construction competitiveness in Saudi Arabia (National EPC Champion-local RTCC)Keeping a close eye on oil price trends, international situations and security situations, and establishing a market strategy to enter Iraq, Libya and Iran to prepare for the relaxation of sanctions	<ul style="list-style-type: none">Focusing on PMO-based infrastructure construction projectsPromoting strategic cooperation by forming partnerships in advance for ports, metros and bridgesParticipating in PPP investment and development projects proposed by the private sector for hospitals, roads, etc. (Peru, Chile, etc.)Expanding the sales activity base in Central America on the back of the successful hosting of Korean Office of the CABEL (Central American Bank for Economic Integration)Accumulating advanced nuclear power technologies by participating in decommissioning and SMR (Small Modular Reactor) projects in the US	<ul style="list-style-type: none">Identifying infrastructure projects in developing countries and entering new markets by cooperating with EDCF, JICA and multilateral development banksExpanding and maintaining the profitability of construction sites in Asia, including in SingaporeExpanding market competitiveness based on winning sections 4, 5, and 6 of the Philippines Southern Urban RailwaySecuring bridgeheads to enter the PPP market in advanced countries (including Australia)	<ul style="list-style-type: none">Preemptively promoting investment development construction and construction accompanied by financing by strengthening the network with the European IOC and leading developersEstablishing a strategy to resume construction of a power plant in Libya and enter the market againParticipating in infrastructure and petrochemical projects in Africa through strategic cooperation with leading local companiesExploring ways to participate in nuclear power plant construction in European countries such as the Czech Republic, Poland and the UK

STRATEGY 2.

Future Technology and Customer Value Innovation

Hyundai E&C is concentrating all of its capabilities on developing unrivaled technologies and promoting technology-driven business in key areas that are in line with the Future Transformation Strategy of the company in order to respond to the rapidly changing internal and external environment and lead the future. We are striving to identify and apply base technologies and smart construction technologies to strengthen our competitiveness in winning orders and implementing projects. We are also leading new businesses such as carbon neutrality and energy transition. We are striving to strengthen our competency in quality management across the company by operating a global top-level quality management system(QMS) to maximize customer satisfaction.

2022 Achievements

Technology support

226cases
(Technology support for requests from the site: 180 cases, preemptive technology support: 46 cases)

R&D expenses of the Technology Research Center

KRW **22**billion
(Increase of KRW 4.2 billion from the previous year)

Quality evaluation of suppliers

607companies
(385 domestic companies and 222 overseas companies)

Technological Innovation

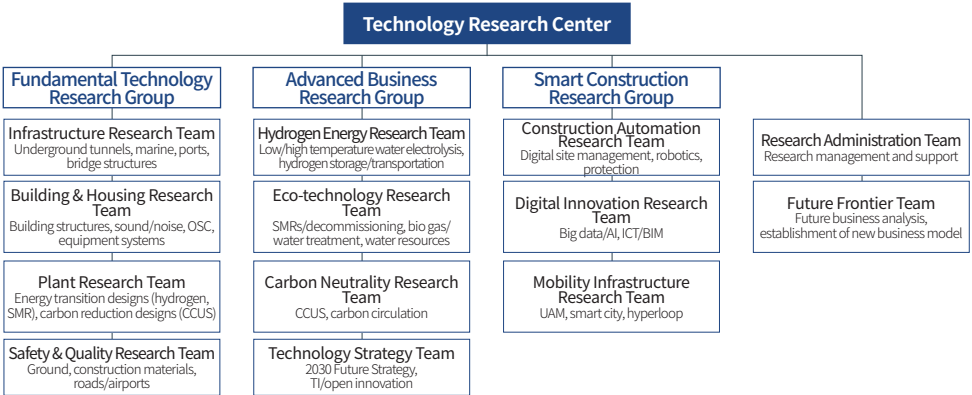
Technological Innovation Strategy

Hyundai E&C is establishing a sustainable technology platform to implement its Future Transformation Strategy. The company is securing base technology to upgrade its EPC capabilities and is focusing on environmentally friendly and energy-related businesses to expand our future-oriented ventures. By integrating digital transformation technologies such as IoT and AI, we are revolutionizing production methods and leading the transition in the construction paradigm.

Focusing on Core Business	Infrastructure	Developing new methods to create new space, reduce costs and shorten construction periods
	Buildings and housing	Developing differentiated technology in the market
	Plants	Developing base technology and supporting special designs
Expanding Future New Business	Eco-friendliness	Commercializing technology through the demonstration of eco-friendly technology on site
	Energy transition	Developing core low-carbon energy technologies
Changing the Construction Paradigm	Smart construction	Developing construction automation technology and a digital-based project management system
	Smart cities	Leading future mobility and smart city solutions

R&D Organization

Hyundai E&C operates R&D organizations under the Technology Research Center in order to secure technology competitiveness through technology demonstration and in-house development. Area-specific research teams are organized under the Fundamental Technology Research Group, Advanced Business Research Group and Smart Construction Research Group and there are the additional Research Administration Team and Future Frontier Team. The Fundamental Technology Research Group develops sustainable construction technologies by studying new construction materials, technologies, and solutions with a focus on core technology development and innovation for the construction industry. Advanced Business Research Group studies new business models and cooperation systems and focuses on the development of new market entry strategies and innovative services. The Smart Construction Research Group develops smart construction technologies and solutions utilizing automation of construction sites, data analysis and AI. In addition, various smart technologies are studied and applied in order to improve processes and productivity and manage safety. Our Research Administration Team provides efficient and strategic support for research activities and plans and manages the execution process of research projects. The Future Frontier Team analyzes industrial and technological trends, and explores business areas and opportunities for future growth.



#1. Focusing on Core Business

Hyundai E&C is strengthening its capabilities in EPC, the core technology required to prepare for mega trends and secure a competitive edge in the construction industry. In addition, it is strengthening its technological capabilities by securing EPC competitiveness in the infrastructure, building and housing and plant works areas. In the infrastructure sector, the company is focusing on developing new methods for new space creation, cost reductions and shortened construction periods. In the building and housing sector, it is developing technologies that are differentiated from technologies currently available on the market. In the plant sector, it is supporting the development of base technology and special designs.

Infrastructure

Marine ports | Floating structures and subsea spaces
Bridges/structures | Rapid construction of bridges
Underground spaces | TBM design and construction
Ground/foundations | Foundations for offshore wind farms

Building/housing

Noise/vibration | Reducing inter-floor noise
Construction materials | High-performance special concrete
Building structures | Off-site construction
Eco-friendliness | Building energy/indoor air purification

Plant

Process | Cryogenic liquefaction/CCUS
Machinery/Piping | Flow and integrity check
Corrosion | Corrosion assessment/corrosion proof design
Smart | Smart diagnosis and control

Hyundai E&C, Leading the Commercialization of Inter-floor Noise Reduction Technology



H Silent Lab

Hyundai E&C is leading the reduction of inter-floor noise by obtaining grade 1 for light and heavy weight in the floor impact noise performance evaluation for the first time in Korea in August 2022. We apply high-performance cushioning material using high-density specialized mortar, special materials such as polyester and polyurethane, maximizing the performance of floating floors and effectively preventing heavy-weight impact noises and vibrations delivered via low-frequency vibrations. In addition, we established the H Silent Lab in 2022 to push ahead with the commercialization of technology in our inter-floor noise research system, covering the basic research, development, demonstration and application of inter-floor noise reduction technology all in one place.

#2. Expanding New Future Business

Hyundai E&C is focusing its efforts on environmentally friendly projects and energy transition businesses, aiming to secure competitiveness in the field of eco-friendly technologies through the commercialization of technology demonstrated on-site. By converting organic waste into biogas, it achieves both resource recycling and environmentally friendly energy production. It effectively purifies contaminated soil, creating a sustainable environment. In the water treatment process, it utilizes reverse osmosis desalination and next-generation MBR (Membrane Bio-Reactor) technology to maintain clean water quality and contribute to the efficient management and protection of water. Additionally, Hyundai E&C is actively engaged in energy transition sectors such as small modular reactors, hydrogen production, offshore wind power, and solar power, aiming to realize sustainable energy production and environmentally friendly power supply.

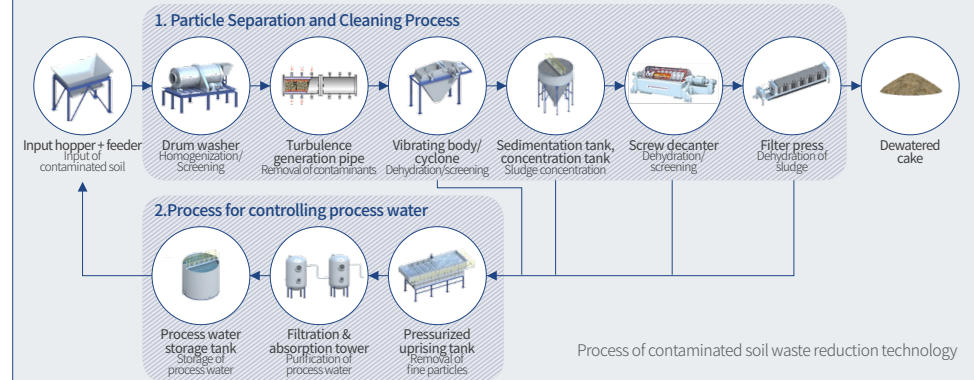
Eco-friendly technology

Waste | Turning organic waste bio gas into energy
Soil contamination | Purifying soil contaminated by oil, dioxins
Water treatment | RO desalination, next-generation MBR waste and sewage treatment

Energy transition

Nuclear | SMRs, purification of nuclear decommissioning sites
Hydrogen | Hydrogen production (2.5 MW commercial hydrogen production base)
Renewable energy | Offshore wind farms, solar power

Hyundai E&C, Leading the Innovation of Green Technology with Contaminated Soil Purification Technology



Hyundai E&C intends to lead carbon neutrality by utilizing eco-friendly purification technology for contaminated soil. This technology is an eco-friendly method that screens soil particles by size, minimizes the amount of contaminated soil subject to purification and reuses waste generated from the purification process, thereby significantly reducing the generation of secondary waste. Recently, our technology to minimize the amount of contaminated soil subject to purification by removing radioactive cesium through a washing process obtained Green Technology Certification from the Ministry of Environment.

Advancing CCUS Technology

Hyundai E&C is striving to secure global technological competitiveness by developing CCUS (Carbon Capture, Utilization and Storage) technology. We are focusing our efforts on developing carbon storage technologies as part of a national task under the Ministry of Trade, Industry and Energy to secure safety throughout the lifecycle of marine CO₂ transportation and injection facilities, and are taking part in international joint research to advance CCUS commercial technologies and secure overseas storage. We are expanding our CCUS technology network by participating in the development of technology to turn old gas production facilities into CCS facilities in a depleted gas reservoir as part of international joint research in the Netherlands. Moreover we are making an all-out effort to secure competitiveness throughout the whole CCUS value chain by developing a demonstration process for highly efficient CO₂ capture technology and applying the process to blue hydrogen production sites.

Leading Clean Technology

Hyundai E&C is also taking the lead in developing clean technology for a sustainable future. As part of the government's Renewable Energy 3020 Plan, we have strengthened our renewable energy technology capabilities by promoting the EPC site for turbines and basic structures in the Southwest Sea Offshore Wind Power Demonstration Complex with a scale of 2.5 GW. In addition, in 2022, in cooperation with Holtec International of the United States, we directly participated in the detailed design of a small module nuclear power plant (SMR) for the first time in Korea. This was just part of our efforts to realize a stable supply of carbon-free energy. In particular, among our 44 research tasks for 2022, eco-friendly topics such as offshore wind power, hydrogen, solar power, biogas, and complex contaminated soil purification technologies have been expanded to 22, compared to the previous five, to further advance clean technology.

Leading Hydrogen Technology

Hydrogen is emerging as a major energy source in the carbon-neutral era, and the cumulative global market for water electrolysis hydrogen production plants is expected to reach 1,800 trillion by 2030. Hyundai E&C is concentrating its efforts on technology development throughout the entire life cycle of the hydrogen field in order to preoccupy the rapidly growing market. We completed a process simulation-based conceptual design reflecting the data of a high-temperature water electrolysis stack company, and successfully demonstrated the construction of a 1 ton/day (2.5 MW) hydrogen production base based on water electrolysis, thereby securing competitiveness in the hydrogen production stage. In addition, we are strengthening our technological capabilities in the hydrogen storage and transportation stages by building simulation models for the hydrogen liquefaction process and cold heat utilization.

#3. Changing the Construction Paradigm

Hyundai E&C is leading smart safety technology by expanding the functions of the HIoS (Hyundai IoT Safety System), the first IoT safety management system in Korea, to 12 types in 2022 and developing a UWB-based equipment narrowness prevention system and an automatic earth retaining system. In addition, we are strengthening our digital business management capabilities by establishing a remote site management system prototype. We are taking the lead in construction automation by implementing a web-based robot control system on-site and developing concrete 3D printing equipment linked to articulated robots and 3D printing output technology using waste plastic. In 2023, we plan to advance existing technologies to expand field applications, and to strengthen the development of new technologies such as curtain wall construction robot prototypes and mobile 3D printing output systems.

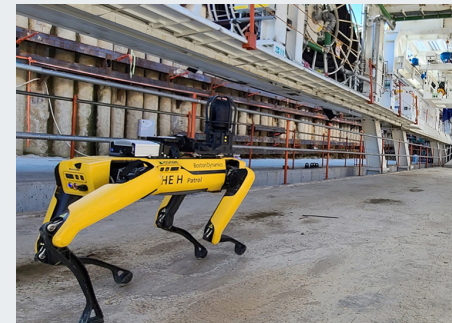
Smart Construction

Construction automation | Construction robotics/3D printing
Big data | Safety/quality/process AI prediction
ICT convergence | IoT safety management system
Automated construction management platform | Digitization of the whole construction process

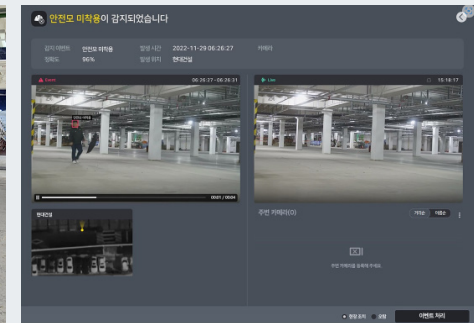
Smart City

Air mobility | UAM infrastructure
Underground mobility | Hyperloop
Smart cities | Identifying smart service

Hyundai E&C, Leading the Unmanned Approach to Quality and Safety at Construction Sites



'Spot' Unmanned Safety Service Robot



On-site CCTV Video Analysis System

Hyundai E&C is leading innovation in the way construction sites are operated by utilizing 'Spot,' an artificial intelligence-based unmanned safety service robot, at various construction sites. We have strengthened smart construction management by developing and registering a patent for an 'On-site CCTV Video Analysis System,' a construction site video analysis technology using artificial intelligence.

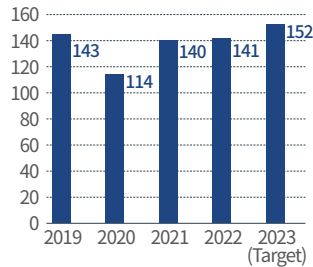
Expanding Investment in Technology

Hyundai E&C is concentrating its efforts on R&D to secure the highest level of technological competitiveness. In 2022, we successfully executed 44 research projects, including 8 national projects, and registered 38 patents. With a research and development budget, including personnel expenses, totaling KRW 22 billion, we operated the Fundamental Technology Research Group, Advanced Business Research Group, and Smart Construction Research Group under the Technology Research Center, deploying a total of 141 R&D personnel. For 2023, our goal is to undertake 68 research projects, including 11 national projects, and expand the research and development budget to invest KRW 26.4 billion. Furthermore, we plan to increase the R&D workforce to 152 personnel, striving for technological innovation.

R&D Personnel and R&D Projects

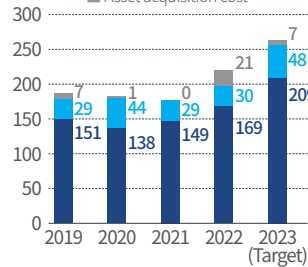
No. of R&D personnel

(Unit: No. of people)
■ No. of R&D personnel



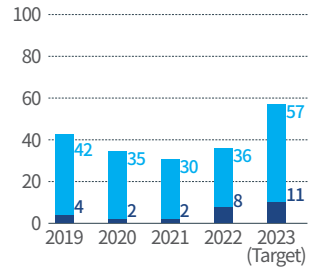
R&D investment

(Unit: KRW 100 million)
■ Manpower operation cost
■ Technology development cost
■ Asset acquisition cost



No. of R&D projects

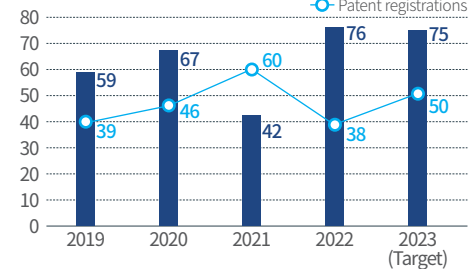
(Unit: No. of projects)
■ National projects
■ In-house projects



Patents and Technologies Possessed

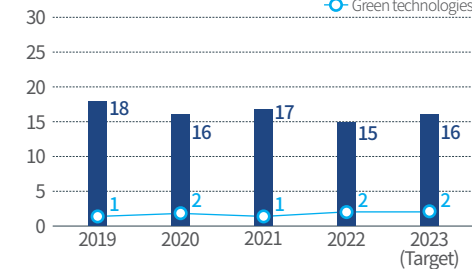
Patents

(Unit: No. of cases)
■ Patent applications
○ Patent registrations



New technologies and green technologies

(Unit: No. of cases)
■ New technologies
○ Green technologies



* New technologies and green technologies: Effective cases

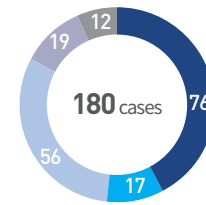
Support for Technological Innovation

Hyundai E&C is striving to achieve growth in the overall construction industry, where it is a global leader, and to realize win-win cooperation through technological innovation.

In order to realize our core value of putting the customer first by strengthening the quality of our construction products, we are strengthening collaboration between the Technology Research Center, business headquarters, and sites through technical support. When a technology-related difficulty arises at the business headquarters or a site, we request technical support from the Technology Research Center, present a solution, and prepare a results report, which is automatically linked to the Hyundai E&C site management system and systematically managed. In 2022, Hyundai E&C provided a total of 226 technical supports, including 180 on-site requested technical supports and 46 proactive technical supports.

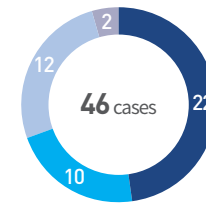
Technical support requested by the site

(Unit: No. of cases)
■ Infrastructure
■ Building
■ Housing
■ Plant
■ Others



Preemptive technical support

(Unit: No. of cases)
■ Infrastructure
■ Building
■ Housing
■ Plant



Technology Contest

Hyundai E&C has been holding an annual technology contest for 15 years since 2008 to discover companies, universities, and other organizations with excellent technologies and pursue win-win cooperation. SMEs selected for the technology contest can receive development cost support of up to KRW 100 million and are provided with an opportunity to verify their technology. Through this event, small and medium-sized enterprises (SMEs) are provided with an opportunity to grow together in a situation where it is difficult to invest in new technologies due to the lack of technology development funding, and can achieve results and opportunities to apply their technologies in the field.

2022 Hyundai E&C Technology Contest

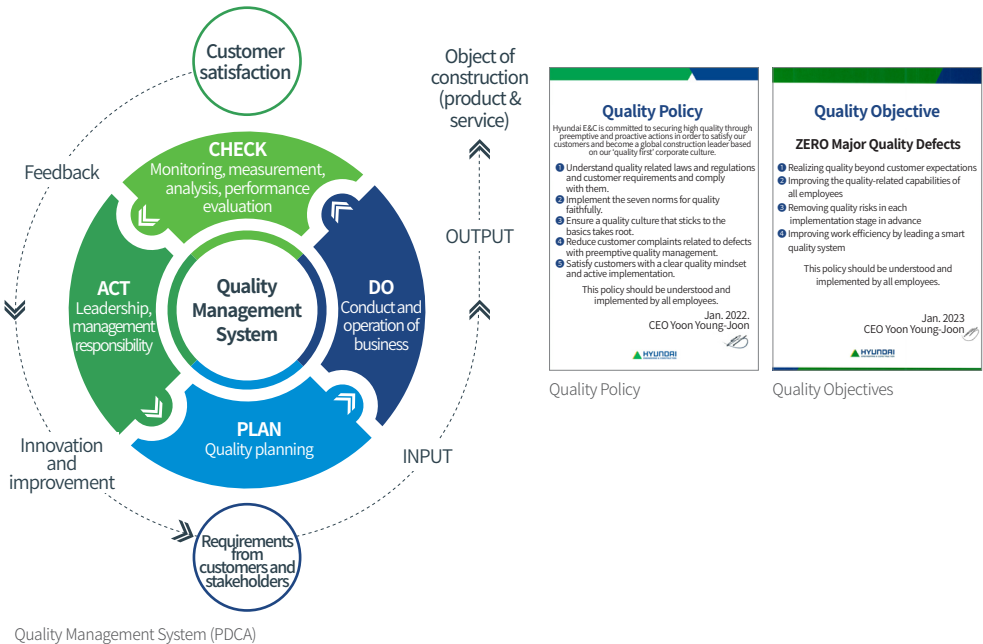
Classification	No. of applications	Selected					
			Infrastructure	Building and housing	Plant	Eco-friendliness	Smart construction
No. of cases	142	16	4	4	2	2	4

Customer Value Innovation

Strengthening Product and Service Quality

Quality Management System and Policy

Hyundai E&C is striving to become a global construction leader leading the future. Hyundai E&C provides preemptive on-site quality support through Q-Support (on-site quality support) and Q-Pocket (integrated on-site quality management platform) in all stages of construction to improve on-site work efficiency and quality. We want to realize a quality culture where quality control work is simplified and operational efficiency is enhanced through real-time quality management. In addition, we are minimizing quality risks through proactive quality management in response to the spread of quality-emphasizing policy stances and the increase in apartment defects and civil complaints. In addition, we provide optimal solutions based on compliance management and technology safety to secure construction reliability and create a trusted quality culture. In 2023, by setting 'ZERO Major Quality Defects' as a core goal, we aim to take the lead in customer value innovation based on diversified goals such as improving quality levels, strengthening quality capabilities, and managing risks.



Quality Management Organization

Hyundai E&C reorganized the Quality Management Group in the Purchasing Division into the Quality Strategy Group in the Strategy Business Planning Division, and assigned the H-Service Center in charge of H-Service to systematize the organizational structure to improve the satisfaction of external customers and internal employees and strengthen quality capabilities. A company-wide consultative body is operated to share the direction and performance of quality tasks, and the Quality Strategy Team, Q-ENG Team, and Quality Audit Team have been formed as working-level organizations under the Quality Strategy Group to conduct systematic quality management. The Quality Strategy Team oversees quality planning, quality education, and the operation of on-site quality management systems such as Q-Pocket and Q-Support. The Q-ENG Team manages ISO certification, bid support, and technical assistance. The Quality Audit Team conducts comprehensive quality inspections and evaluations.



Quality Risk Management

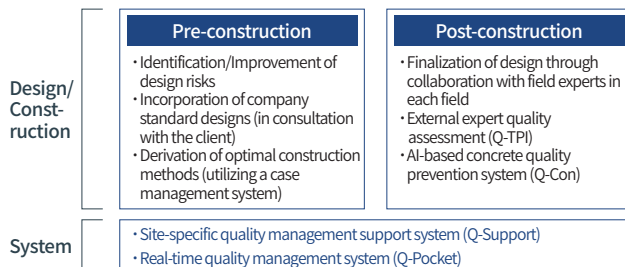
Hyundai E&C is building a quality management system and organization that reflects the demands of customers and stakeholders. We conduct quality evaluations during project execution to inspect, analyze, and monitor the quality of their products, effectively managing quality risks. We enhance their response capabilities at both the headquarters and construction sites based on regulations, guidelines, and integrated systems related to company-wide external audits. We operate IT-based on-site quality management systems, namely Q-Pocket and QMC, and monitor quality indicators from a customer perspective. We proactively assess risks through step-by-step verification of structural design documents from the bidding stage to completion by structural experts. Additionally, we conduct evaluations at the headquarters (frequency of non-compliance, participation in quality activities, post-completion defect management) and on-site (on-site voice of the customer, Punch based on Q-Pocket) to manage subcontractors. We implement tailored management measures, including sanctions, for subcontractors with lower quality evaluation scores. In this way, Hyundai E&C responds promptly to quality issues, prevents defects, and minimizes risks.

Quality Management Certification System

In 1993, Hyundai E&C became the first domestic construction company to obtain ISO 9001 (quality management system) certification, an international quality system standard, and has maintained it since. In particular, in order to actively advance into the large-scale petrochemical and gas plant markets by gaining an early advantage in quality competitiveness compared to our peers in the global plant market, we also acquired ISO 29001:2020 (oil, chemical, and gas quality management system) certification, the first general construction company in Korea to do so. Through this, Hyundai E&C has established and is operating an effective quality system in all areas of business, including design, purchase, construction, and commissioning, and has established the basics of a company-wide quality management system. In the future, we plan to conduct ISO renewal audits to continue certification-based systematic quality management.



Integrated Quality Management System

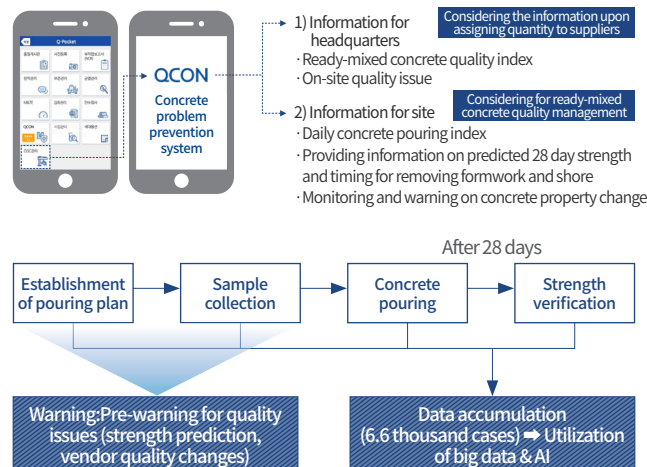


Quality Management Activities

Introduction of Smart Quality Management (Q-Pocket and Q-Con)

Smart quality control is a system that maximizes the efficiency of on-site quality control work by using artificial intelligence, big data, and the Internet of things. Hyundai E&C has developed Q-Pocket, a mobile integrated quality management system that can digitize simple repetitive paperwork, and is using it to efficiently perform on-site quality work. We are contributing to the improvement of actual site quality by improving management efficiency through the on-site monitoring of construction objects, identification of quality problems, and actions. In June 2023, we completed the registration of Q-Pocket technology in the 'Smart Construction Technology Field' under the Ministry of Land, Infrastructure and Transport to secure external public confidence. In December 2022, we completed the development of Q-Con, an artificial intelligence system for preventing quality problems in concrete. It is now being used at all domestic sites, and we have completed the application for patent filing in February 2023. Through Q-Con, the quality level of each ready-mixed concrete supplier is indexed, and a warning function has been introduced to identify various quality problems in advance, such as insufficient strength, increasing defect rates, and deviations in X-R management.

Q-Con Concrete Problem Prevention System



Quality Management for New Business

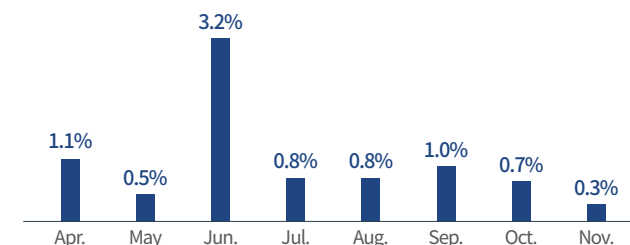
Hyundai E&C systematically manages the quality of new businesses according to its portfolio diversification. Based on the KEPIC power technology standards and ASME nuclear power quality assurance certification, we are strengthening the internal and external competitiveness of our nuclear power plant business quality. As for OSC (Off-Site Construction), we are preemptively responding to OSC market expansion and factory manufacturing quality risks through quality control led by the headquarters. In addition, we are striving to manage the quality of ready-mixed concrete through intensive management of low-quality ready-mixed concrete producers and a real-time monitoring system for ready-mixed concrete shipment information. In the plant sector, integrated support for the quality management of equipment and materials is carried out at all stages, and quality risks are minimized through close communication with related departments.



KEPIC Certificates

2022 Monthly Trend of Defect Rates for OSC

*Annual target: Defect rate of 3.5% or lower



QMC (Quality Management Check-up)

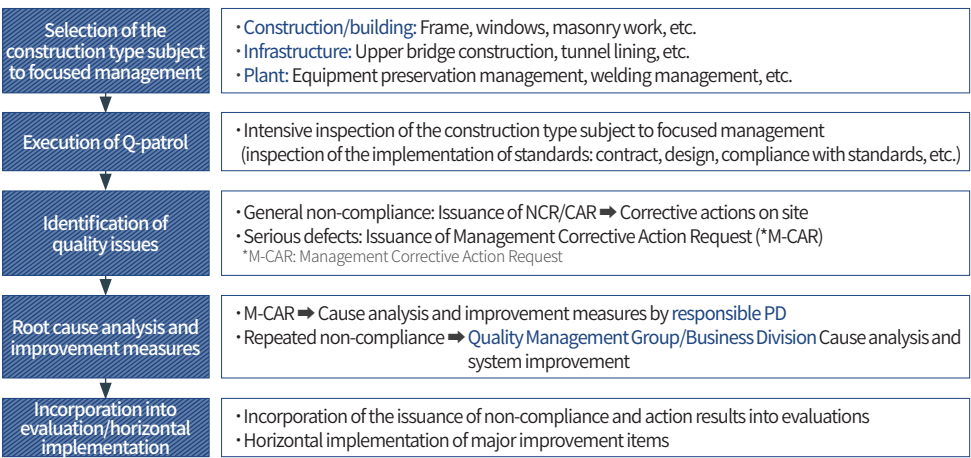
Hyundai E&C preemptively responds to quality risks at each stage of business execution through various on-site quality inspection activities in order to actively realize its goal of zero major quality defects.

We have established a data-based evaluation system to measure the level of on-site quality assurance and conduct QMC (Quality Management Check-up) to manage the entire quality work area based on the H-PMS (Hyundai-Project Management System). Through the implementation of these basic quality activities on site, we can respond to external inspections and carry out essential preventive activities on site. Furthermore, we plan to maximize work efficiency through the simplification of on-site quality work and expand quality management diagnosis by applying a checklist tailored to overseas sites through overseas due diligence, going beyond the method of using formulas based on the existing domestic Construction Technology Promotion Act.

On-site Inspection and Improvement (Q-Patrol)

In 2020-2021, Hyundai E&C made efforts to manage quality risks and improve quality levels through on-site quality evaluations. After obtaining an overall score of 88.1 in the 2020 evaluation, it improved by 1.8 points to 89.9 points in 2021 through improvements such as supplementation of target standards and grade subdivision. In 2022, we strengthened quality risk management by introducing the Q-Patrol system, which has upgraded key process selection and inspection processes. In addition, Q-Patrol was performed through the process of improving the root cause of repetitive nonconformities through intensive inspection after selecting the type of work for priority management. Based on this, a total of 60 sites were inspected and 20 sites were improved, and a total of 224 sites were improved after issuing reports on nonconformities.

Focused Management Intensive Inspection on Construction Type



Quality Audit upon the Completion of Apartments (Q-Audit)

Hyundai E&C operates Q-Audit, a program for evaluating the quality of completed apartments. We are making an effort to realize quality that goes beyond customer satisfaction by reducing defects in apartments. To objectively measure the quality level of apartments, we have implemented the Q-Audit system, tailored to meet the expectations of our customers. We conduct final quality inspections through a third-party company, which selects random units and is independent of the construction entity. The evaluation results are utilized for internal and external quality analysis, as well as customer satisfaction impact analysis, to establish response strategies based on different quality levels. Hyundai E&C has completed the Q-Audit for 544 households at a total of eight sites.

Q-TPI (Third-Party Inspection)

Hyundai E&C diagnoses the exact quality level of sites and subcontractors throughout all stages of construction, without compromise, and has been conducting construction quality evaluations using quality diagnosis companies, called Q-TPI (Third Party Inspection), since May 2023 to focus on improving poor quality items for each site. From the start of construction to the pre-inspection prior to completion, a comprehensive evaluation of the types of work in progress is performed with the goal of improving the quality level of subcontractors by type of work, reducing the number of occurrences/receipts of defects, and realizing high quality and customer satisfaction. For domestic building/housing sites, we plan to conduct step-by-step construction quality diagnostics starting from the groundbreaking stage through initial, intermediate, and final evaluations based on a checklist of major evaluation items for unit households, public areas, basement floors, rooftop floors, and outdoor facilities.

Utilization in evaluations	Expected benefits
<ul style="list-style-type: none">• Improving quality weak points by site: Correcting non-compliance on site• Reviewing/improving design and construction standards: Analyzing of evaluation results/improvements and feedback• Managing quantitative indicators: Managing the quality level by implementation stage	<ul style="list-style-type: none">• Improving the quality level of suppliers by construction type• Reducing defects incidence/reporting• Improving the quality management capabilities of employees• Realizing high quality and customer satisfaction

Inspections to Prevent Penalties

Hyundai E&C has established rules for preventing external penalty points by reflecting the Enforcement Decree of the Construction Technology Promotion Act and the 'Penalty Point Management Criteria for Construction Works, etc.,' in order to reduce quality management risks due to non-compliance with quality-related laws and quality standards. A checklist for 19 items was prepared and 124 domestic sites will be inspected based on the checklist. We try to prevent penalties by reporting inspection results and conducting monitoring. We are strengthening company-wide on-site quality management by establishing an inspection system to respond to legal regulations.

Quality Training

Hyundai E&C is actively fostering excellent future construction engineers by operating company-wide quality training programs. Company-wide quality training is provided in both offline and online forms, and by producing and distributing manuals for improving quality and process performance, we are contributing to improving productivity and enhancing technical capabilities in the field. The 'Q-Pocket Manual Training Program,' specifically designed for construction site quality managers, provides education on operational processes related to quality management systems, including factory inspections, material inspections, construction measurements, and preservation management. Through this training, we have achieved approximately 41% reduction in the time required for quality management tasks and made substantial contributions to the actual improvement of on-site quality.

2022 Quality Education Results

Title	Trainees	Training hours	No. of trainees
Q-Pocket manual	All employees	6 hours	1,081
Practical quality work on site	All employees	3.5 hours	369
Defect cases of the H-Service Center	All employees	2 hours	388
Q-Shorts	All employees	1 hour	3,647
Q-Academy for new quality managers	Department of Quality, Technical Education Institute	64 hours	9
Q-Academy for new quality managers	New quality managers with experience	21 hours	20

Support for On-site Quality Systems

Hyundai E&C has introduced Q-Support to support quality work at all sites in order to respond to the increasing need for on-site quality control work support. Q-Support is designed to preemptively respond to quality-related risks through the establishment of an initial on-site quality system, support for Q-Pocket and H-PMS utilization, prior support before inspections by external institutions, and training on the operation of the CAS (case utilization system). In 2022, more than 100 construction sites were supported through Q-Support.

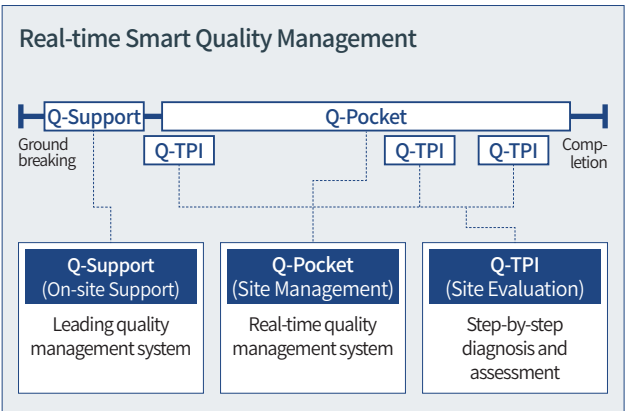
Supplier Quality Management

Consulting to Support Quality for Suppliers

In order to maximize customer satisfaction, Hyundai E&C is diagnosing the quality level of suppliers and providing customized support through Q-Consulting, a supplier quality support consulting program, to prevent defects and achieve excellent quality in construction objects. Q-Consulting conducts supplier quality evaluations every half year to select suppliers in need of quality improvement and provides more effective improvement plans by dividing them into suppliers with insufficient quality evaluations, suppliers with significant defects, and suppliers' own requests.

Supplier Quality Evaluation

Hyundai E&C conducts biannual quality evaluations targeting subcontractors. In 2022, we conducted quality evaluations for 385 domestic subcontractors and 222 international subcontractors. The evaluations consider factors such as participation in quality activities, post-completion defect management, on-site voice of the customer (VOC), and proactiveness in addressing quality issues. We take into account significant defects, quality evaluation results, and updated quality scores to comprehensively assess subcontractors and reflect the results in their final evaluations. For insufficient subcontractors, we issue warning letters and conduct Q-Consulting sessions. If they fail to meet the standards, we implement measures such as a minimum 6-month bidding restriction, aiming to establish an effective subcontractor management system.



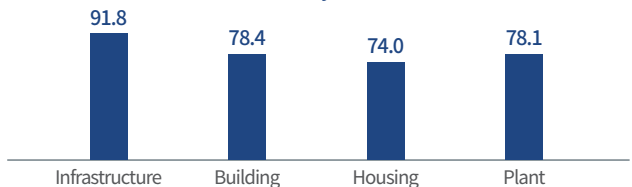
Enhancement of Customer Value

Survey on Customer Satisfaction

Hyundai E&C conducts customer satisfaction surveys for domestic and foreign customers such as owners, supervisory groups, and design companies to identify customer expectations and requirements, and is striving to improve its quality system. In 2022, continuous efforts to improve the quality of products and services bore fruit, with the company winning a total of nine internal and external awards, including the Minister of Environment Award, the Minister of Land, Infrastructure and Transport, and the President of the Korea Construction Management Association. Hyundai E&C plans to recruit on-site quality managers who are dedicated to enhancing customer satisfaction, and strengthen the capabilities of its employees by opening a new Q-Academy curriculum. In addition, to promote internal and external communication, we will publish quality publications such as the Q-Guide quality management guide and establish a Q-Café community to share quality control problems in the field.

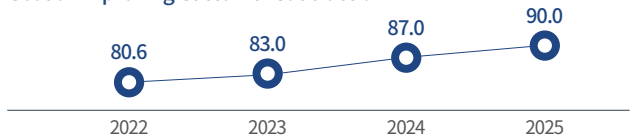
2022 Customer Satisfaction Survey Results

(Unit: %)



Goal of Improving Customer Satisfaction

(Mean, unit: %)



VOC Management

Hyundai E&C receives customer inquiries and complaints regarding sales, move-in, and A/S through H-Dudrim. In 2022, a total of 10,627 cases were received, including 6,456 inquiries about sales and occupancy, 1,851 about A/S, and 2,320 others. The received feedback was forwarded to the relevant departments, and feedback and improvement measures were provided within an average of 1.7 days. We will continue to maintain 100% prompt handling of complaints received to protect consumer rights and interests.

HDEC PLANET

Sustainable Habitat Led by Hyundai E&C

STRATEGY 3. Response to Climate Change (TCFD Report)

Climate Change Governance	35
Climate Change Risk Management	36
Climate Change Strategy	37
Climate Change Metrics and Reduction Targets	45

STRATEGY 4. Eco-friendly Management

Eco-friendly Management System	47
Minimization of Environmental Impact	50



THE H'Xi Gaepo

STRATEGY 3.

Response to Climate Change (TCFD Report)

As climate change intensifies, establishing a preemptive strategy to respond to climate change has become a key factor in ensuring a company's long-term competitiveness. Hyundai E&C has established an enterprise-wide climate change response system in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). We disclose both the material and potential financial impacts of climate change. Our company has developed strategies to maximize business opportunities arising from climate change. We measure our environmental performance according to the EU Taxonomy and the K-Taxonomy, a standard for clarifying green economic activities. We are committed to achieving Net-Zero by 2045 and strengthening our green management practices.

2022 Achievements

Revenue from sustainable products

KRW **6,240.3** billion
(EU Taxonomy-based, separated)

The first listed domestic construction company

Establishment of a 2045 Net-Zero roadmap based on the SBTi

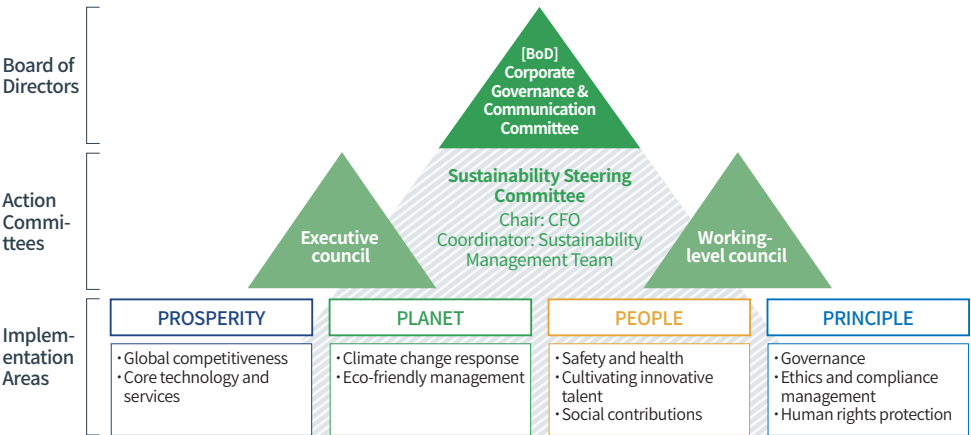
Reduction of GHG emissions

12,687tCO₂e

Climate Change Governance

Supervision by the Board of Directors

The board of directors of Hyundai E&C, as the company's highest decision-making body, deliberates on and determines important issues related to the company's business operations, including climate change issues, and supervises the execution of duties by the management. The Corporate Governance & Communication Committee independently and objectively assesses significant issues related to climate change and considers climate change issues that can have a major impact on corporate strategies. It reviews key climate change response policies and strategies, including greenhouse gas reduction targets and implementation strategies. The Board of Directors reviewed and approved the Coal Phase-out Policy (2021) and the 2045 Net-Zero Roadmap (2022), strengthening our company's response to climate change. In order to implement this policy, we have established greenhouse gas reduction targets based on the SBTi (Science Based Targets initiative) and are reorganizing our renewable energy sector and driving business transformation for low-carbon and eco-friendly expansion. The Board of Directors regularly receives reports on climate change issues from the Sustainability Steering Committee and monitors the progress of climate change response efforts.



Role of the Management

Hyundai E&C is responding to the issue of climate change at the company-wide level through the Sustainability Steering Committee. Each department affiliated with the council establishes ESG improvement tasks, including climate change responses, as department KPIs, and reports the improvement performance to the council every quarter. Issues related to climate change are reported to the Sustainability Steering Committee by department executives and division heads. Material issues are further reported to the CEO and are taken into consideration for various business decisions, including the formulation of new business strategies and management plans. Finally, the company's major management policies are disclosed to stakeholders through deliberation and resolution by the Corporate Governance & Communication Committee within the board of directors, the company's highest decision-making body.

Climate-related Management Incentives

The CEO of Hyundai E&C holds the responsibility for the company's climate change response. We maintain active management of our response status by establishing KPIs that are relevant to our climate change response strategy and goals. Climate change risks, such as greenhouse gas reduction targets, greenhouse gas regulations, are integrated into KPIs. These KPIs account for 10% of the total performance indicators, and are related to the CEO's incentives and financial compensation, such as annual salary.

2021-2022 Board's Decisions on Sustainability Management Issues

Corporate Governance & Communication Committee	<ul style="list-style-type: none">· 2045 Net-Zero roadmap· Sustainable management(ESG) implementation plan· Reporting of sustainable management achievements and future implementation plans· Expansion of eco-friendly businesses	<ul style="list-style-type: none">· Deliberation/adoption of Coal Phase-out Policy· Development of key ESG policies (environmental, biodiversity)
Sustainability Steering Committee	<ul style="list-style-type: none">· Development of Net-Zero implementation strategy/roadmap· Development of mid- to long-term strategy/roadmap for renewable/eco-friendly business· Development of mid- to long-term roadmap for eco-friendly R&D· Improvement of environmental assessment and management system for partner companies· Environmental data management system enhancement· 2030 Future Strategy action plan implementation review (offshore wind power, hydrogen, etc.)· Mid- to long-term strategy/roadmap development for sustainable products· Feasibility assessment of introducing renewable energy in construction sites	<ul style="list-style-type: none">· Risk assessment of new market clients· ESG initiative membership promotion (UNGC, SBTi, TCFD)

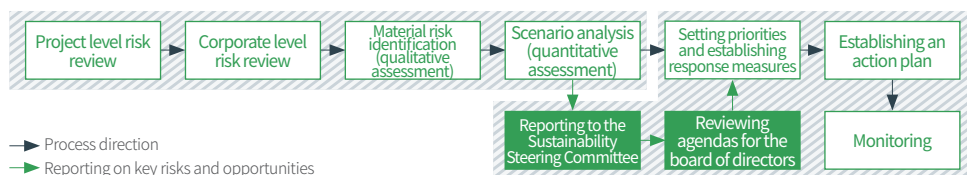
Climate Change Risk Management

Climate change risk management is the process of reviewing climate change risk and opportunity factors in advance and properly integrating their potential impacts into the business decision-making system. Hyundai E&C defines climate change risks and opportunities based on the risk classification system of the TCFD framework recommendations, and carefully evaluates and manages the financial/non-financial impact of each risk and opportunity on the business. Climate change risks are integrated into the company-wide risk management system and reported to the management through the Sustainability Steering Committee every year. The risk management process is carried out at the business level and project level in consideration of the characteristics of the construction industry, and the impacts of climate change are managed according to the risk identification – assessment – response procedure.

Risk Identification and Assessment Process

Hyundai E&C lists climate change risk and opportunity factors based on information accumulated through TCFD recommendations, reports from research institutes, previous project experience, and responses to stakeholders including clients, financial institutions, and NGOs. Key risk and opportunity factors are identified through a materiality assessment conducted by the Sustainability Management Team in which relevant departments and external climate change experts participate. This materiality assessment qualitatively determines the materiality of the entire business value chain (own operations, upstream and downstream activities) in the short/mid/long term by considering the likelihood of occurrence and the magnitude of the impact of each risk and opportunity. Key risk and opportunity factors that are deemed material are assessed quantitatively for their potential impact on business through scenario analysis. For other issues, we considered the strategic impact to be equivalent to the quantitative analysis. The results of the quantitative analysis of key risks and opportunities are reported to the management through the Sustainability Steering Committee every year so that we can be reflected in establishing company-wide management strategies.

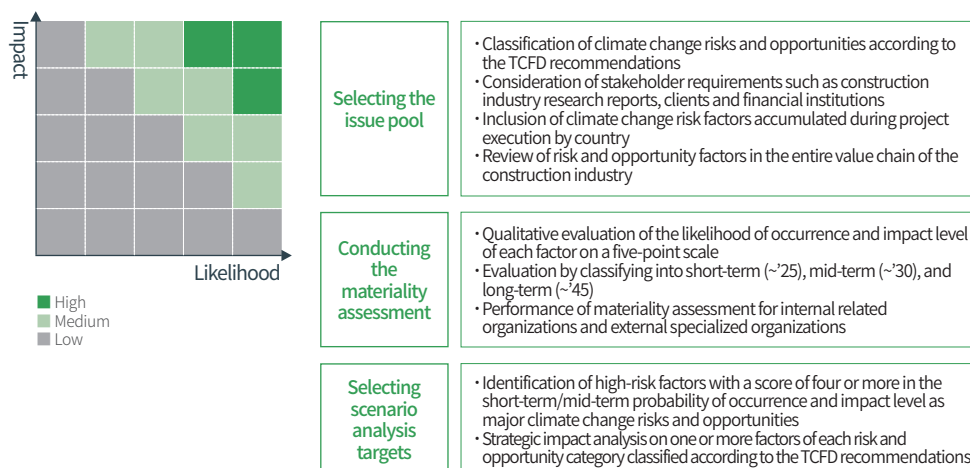
Identification and assessment process



At the project level, direct and indirect risks that may occur due to climate change, such as schedule delays due to the region, season, or climate of each project, are assessed along with potential financial losses by the Pre-contract Review Committee (PRC), which is convened by the Risk Management Team prior to the project order. After winning a project order, the Environmental Management Team identifies risks that may occur during task execution and reviews greenhouse gas reduction performance through the integrated risk management system. Climate change risk factors reviewed at the project level are integrated and managed as part of company-wide risk and opportunity management through the Sustainability Steering Committee.

Critical Risk and Opportunity Identification Criteria

The likelihood and impact level of climate change risks and opportunities are qualitatively evaluated, and if the evaluation results of each item are all four points or higher, it is identified as a key factor.



Risk Response Process

The risk response process is the stage in which response priorities are determined and response strategies are established based on the assessments derived from previous processes. Response priorities are determined by comprehensively considering the relevance to the company's mid- to long-term strategy, internal response conditions, and key requirements of external stakeholders, based on a financial evaluation of risks and opportunities. In order to systematically manage risks, we set key management indicators for each factor and mid- to long-term goals in consideration of the current response status. Strategic response directions for improving indicators are determined through consultation with relevant departments, and each department sets short-term improvement tasks for improving indicators as department KPIs every year. The implementation of individual improvement tasks is monitored through reports to the Sustainability Steering Committee.

Strategies for Climate Change

Major Climate Change Risk and Opportunities Analysis

Climate change risks and opportunities change over time with different impacts on each industry and region. Hyundai E&C selected 30 risks and opportunities related to climate change according to its risk management process. The impact of each risk and opportunity factor on the business was analyzed qualitatively in the short-term (by 2025), mid-term (by 2030), and long-term (by 2045) to identify material risks and opportunities. In the short-term, the impact of risks and opportunities related to climate change is relatively small, but the analysis showed that the impact of factors, such as an increase in raw material prices and an expansion of the eco-friendly market, would increase with strengthened regulations on greenhouse gases in the mid-to-long-term. Accordingly, we conducted a quantitative assessment of factors whose impact on our company is likely to be material while other issues were analyzed at the level equivalent to quantitative analysis.

Category		Impact on the Company	Materiality		
			Short-term	Mid-term	Long-term
Transition Risk	Regulation	1 Increase in the cost of responding to regulations due to entry into the emissions trading system	L	M	H
		2 Increase in the cost of responding to strengthened climate change disclosure standards	L	M	H
	Law	3 Increase in lawsuit risk due to delay in response to climate change targets	VL	L	M
		4 Increase in lawsuit risk due to an extension of construction period caused by aggravated physical risks	L	L	M
	Technology	5 Decrease in customer preference due to the product's low greenhouse gas emissions performance	VL	M	H
		6 Increase in costs due to the introduction of low-carbon construction technologies and equipment	L	M	H
		7 Increase in R&D costs for technologies raising efficiency, such as OSC and robots	L	M	H
	Market	8 Increase in costs according to customer demand for the use of low-carbon construction materials and renewable energy	L	M	H
		9 Increase in uncertainty in market demand for low-carbon products	L	L	M
		10 Increase in commodity prices due to strengthened regulations on greenhouse gas emissions	M	H	VH
Physical Risk	Reputation	11 Decrease in the reputation of stakeholders due to thermal power generation	L	M	H
		12 Increase in awareness that the construction industry emits a lot of greenhouse gases	VL	L	L
		13 Decrease in financing capabilities due to insufficient response to climate change	L	M	H
	Acute	14 Increase in asset losses and operating costs due to climate disaster	VL	M	H
		15 Extension of construction period due to structural damage caused by climate disasters	L	M	H
	Chronic	16 Decrease in the amount of renewable power generation due to changes in wind/rainfall patterns	VL	L	M
		17 Decrease in productivity due to average temperature increase	VL	L	M

Category		Impact on the Company	Materiality		
			Short-term	Mid-term	Long-term
Opportunity	Resource Efficiency	18 Decrease in operating costs by using low-carbon/high-efficiency equipment	VL	L	H
		19 Decrease in operating costs due to the optimization of construction processes through smart construction technologies, such as BIM	L	M	H
		20 Cost reduction through recycling water/waste	L	L	M
	Energy Source	21 Decrease in operating costs by using high-efficiency buildings	L	M	H
		22 Increase in energy supply stability through self-generation and PPA projects	L	M	H
		23 Increase in financing capabilities by utilizing renewable energy incentives	L	M	H
	Product/Service	24 Securing of KOCs (Korean Offset Credits) through low-carbon technologies, such as CCUS	L	M	H
		25 Increase in sales due to a growing market demand for renewable energies and SMRs ¹⁾	L	H	VH
		26 Early market entry by developing low-carbon technologies, such as CCUS and OSC methods	L	H	VH
		27 Increase in sales with a growing demand for zero energy buildings	L	H	H
Resilience	Market	28 Business diversification from EPC to platform business and developer	M	H	VH
		29 Provision of solutions to ease power cost volatility through renewable energy PPA projects (including the company)	L	M	H
		30 Development of low-carbon materials through technological cooperation with the supply chain	L	M	H

■ Material risks and opportunities ■ VL: Very Low ■ L: Low ■ M: Medium ■ H: High ■ VH: Very High

* The probability and impact of risks is evaluated on a scale of 0 to 5

* Conducted an assessment of the importance among internal stakeholders and external climate change experts

1) SMR (Small Modular Reactor): 300 Mwe-class small modular reactor

Climate Change Risk and Opportunity Scenario Analysis

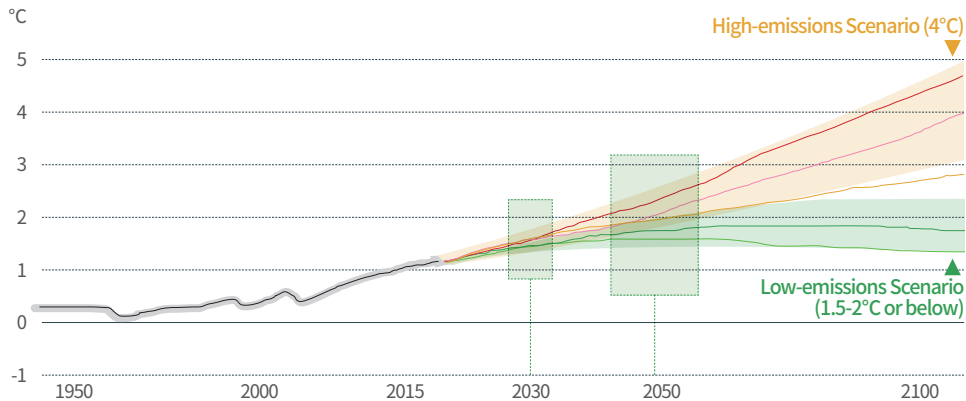
Hyundai E&C analyzed the impact of material risks and opportunities on our business based on various scenarios. We establish a plan to minimize the impact of each risk and incorporate it into our business strategy.

Scenario Analysis Conditions

• Scenario Application Standards

- Period: Short-term (by 2025), mid-term (by 2030), and long-term (by 2045)
- Scope: The whole value chain of the business covering Hyundai E&C, both upstream and downstream
- Method: Comparative analysis of high-emissions/low-emissions climate change scenarios

• Application of the Climate Change Scenario Model



Low-emissions Scenario (1.5-2°C or below)

- Assuming the achievement of net zero by 2050 due to active climate change policies
- The average temperature increases by 1.5 to 2°C compared to the pre-industrial level
- The earth can recover from the impact of human activities

High-emissions Scenario (4°C)

- Assuming the current level of greenhouse gas emissions
- The average temperature increases by 4°C compared to the pre-industrial level
- Irrecoverable changes caused by climate change

Classification	Low-emissions Scenario	High-emissions Scenario
Transition Risk	· IEA NZE 2050 · NGFS NZE 2050	· IEA STEPS · NDC · NGFS CPS
Physical Risk	· RCP 2.6	· RCP 8.5

- 1) IEA (International Energy Agency) NZE 2050: 2050 carbon neutrality scenario presented by the IEA
- 2) IEA STEPS (Stated Policies Scenario): Scenario considering current greenhouse gas emissions regulations and policies by IEA
- 3) NGFS (Network for Greening the Financial System) NZE 2050: 2050 carbon neutrality scenario presented by the NGFS
- 4) NGFS CPS (Current Policies Scenario): Scenario considering current greenhouse gas emissions policies by NGFS
- 5) NDC (Nationally Determined Contribution): National greenhouse gas emissions reduction targets
- 6) RCP (Representative Concentration Pathways) 2.6: Scenario with greenhouse gas emissions at the level that the earth can recover on its own
- 7) RCP 8.5: Scenario with greenhouse gas emissions at the current trend

Utilization of Internal Carbon Pricing Mechanism

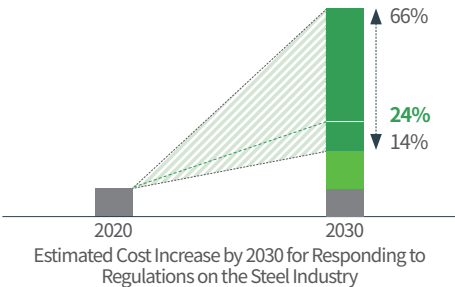
Hyundai E&C conducts comprehensive analysis and response to greenhouse gas regulations, as well as analysis of energy operation efficiency improvement measures and facility investments for greenhouse gas reduction. In addition, they utilize an internal carbon pricing mechanism to promote new environmentally friendly projects. The internal carbon price is set at 20,000 KRW, taking into account the domestic greenhouse gas emission permit unit price. The company applies scenarios of increasing internal carbon prices, considering the strengthening of greenhouse gas regulations, and reviews the appropriateness of the internal carbon price by monitoring the trends in the domestic carbon credits market. The Sustainability Management Team calculates the greenhouse gas reduction effects resulting from carbon reduction project investments and business operations, in order to consider these benefits in the economic analysis of investment feasibility.

Financial Impacts of Material Risks and Opportunities

Market Increase in commodity prices due to strengthened regulations on greenhouse gas emissions

Business Impact

Korea operates an ETS (Emissions Trading Scheme) where an emissions cap is set for each company, and each company should purchase credits for emissions exceeding the cap in the market to comply with its obligations. The steel industry is most severely affected by the ETS and will be subject to the CBAM (Carbon Border Adjustment Mechanism) of EU from 2026. Unit prices of products are expected to rise with increased costs to respond to regulations on the steel industry, and we conducted a scenario analysis regarding a change in the cost of responding to regulations based on the current manufacturing process. In 2030, the manufacturing cost in the steel industry will increase by about 24% from the current level due to regulations on GHG emissions (minimum: 14%, maximum: 66%), and this is likely to have significant impact on our commodity costs. Assuming that a significant portion of subcontractors' regulatory compliance costs are reflected in raw material prices, it is predicted that Hyundai E&C will experience an estimated cost increase of approximately KRW 160 billion by 2030, based on the company's steel product purchasing costs in 2022. Hyundai E&C analyzes domestic and international raw material market conditions and forecasts on a monthly basis, incorporating them into procurement and construction estimates. While there is a risk of increased project costs, the company mitigates the impact by adjusting contract amounts.



Reference: Scenario analysis of iron and steel production process for carbon neutrality, Korea Energy Economics Institute, 2022

※ Detailed Condition Application Standard for Scenario Analysis

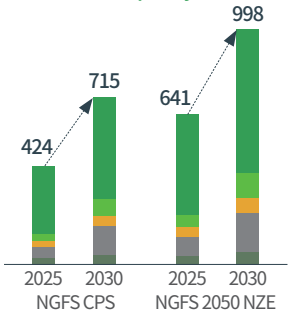
Classification	Details	Applicable
Common	Price of emissions rights	IEA STEP / NZE
Domestic	Correction factor	National Basic Plan (11.4%▽ for the industrial sector)
Overseas	Share of export to EU	Statistics of the Korea Iron & Steel Association (2021)

Product/Service Increase in sales thanks to a growing market demand for renewable energies and SMRs

Business Impact

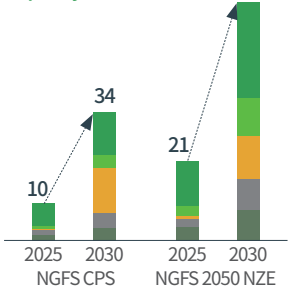
The expansion of clean energy has become a global business trend, and the government of each country has announced policies to expand the generation capacity of clean energy. We analyzed the level of eco-friendly business opportunities by estimating the power generation capacity and development project scale of solar energy, offshore wind power, and SMRs based on scenarios. According to the NGFS scenario and domestic energy policies, the solar power generation capacity will be expanded to about 715-998 GW, and the offshore wind power generation capacity will be expanded to about 34-63 GW in 2030. Hyundai E&C plans to develop and invest in solar power generation business based on its EPC performance. We are expanding our business by linking solar power generation business with power brokerage transactions. The generation capacity of domestic offshore wind farms is expected to increase to 12 GW by 2030, and we aim to carry out construction worth KRW 11.8 trillion in total, which accounts for about 30% of the domestic market. Offshore wind generation is heavily dependent on technologies and equipment. Therefore, we plan to build dedicated installation vessels to solidify our position as a key player in the offshore wind power market. According to the projections from the UK National Nuclear Laboratory, the global capacity of small modular reactors (SMRs) is expected to grow from 65 GW to 85 GW by 2035. Hyundai E&C is developing a 160 MW-class SMR through collaboration with Holtec International, and plans to expand its business primarily in global markets such as North America and Eastern Europe (including the Ukraine Energy Infrastructure Reconstruction Cooperation Project).

Estimated Solar Power Generation Capacity (Unit: GW)



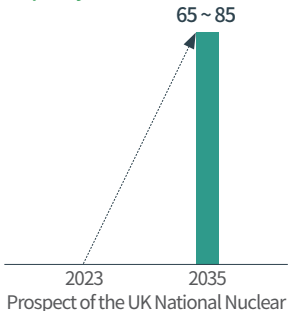
■ Australia ■ Middle East ■ Korea ■ South Asia ■ US

Estimated Offshore Wind Power Generation Capacity (Unit: GW)



■ Australia ■ Middle East ■ Korea ■ South Asia ■ US

SMR Power Generation Capacity (Unit: GW)



■ Global

Product/Service Early market entry by developing low-carbon technologies, such as CCUS and OSC methods

Business Impact

Eco-friendly markets for CCUS (Carbon Capture, Utilization, and Storage) and OSC (Off Site Construction) methods are growing as regulations on GHG emissions have strengthened. CCUS is a technology that captures, utilizes, and stores CO₂, which is essential to achieve carbon neutrality. The Korean government established a plan to reduce 11.2 million tons of CO₂ by 2030 through CCUS technology, and a survey by an external organization shows that the value of the CCUS market will be USD 3.3 billion globally in 2025. Hyundai E&C considers CCUS technology as a key future technology and has developed source technologies for the whole process, from CO₂ capture to transportation and storage. We are upgrading our technology by conducting various demonstration projects.

OSC (Off Site Construction) is an eco-friendly method that emits a smaller amount of greenhouse gases by producing buildings in modular form at a factory, and then transporting and installing them. The domestic OSC market is expected to increase to KRW 1.1 trillion to KRW 4.4 trillion by 2030, and then expand rapidly after 2030. Hyundai E&C is preparing for the growth of the OSC market by acquiring patents for various construction types, such as architecture and civil engineering, and accumulating experience.

Goals and Strategies of CCUS Technology Development

Classification	Details	Goals	Strategies
Capture	Wet	• Securing basic/FEED ¹⁾ design capabilities for a wet process	• Participating in a CO ₂ capture demonstration project for technology to be applied to hydrogen production facilities
		• Getting the wet process EPC references	• Promoting EPC for CO ₂ capture to be applied to incineration facilities
	Next-generation	• Developing source technologies for energy-saving, high-temperature absorption processes	• Promoting cooperation and joint R&D with external research institutes
		• Securing a DAC technology considering space applicability and O&M	• Developing a DAC process and demonstrating it on large buildings/houses
Utilization	CSCR ²⁾	• Securing a CSCR integrated system process	• Promoting commercialization through demonstrations on large project sites

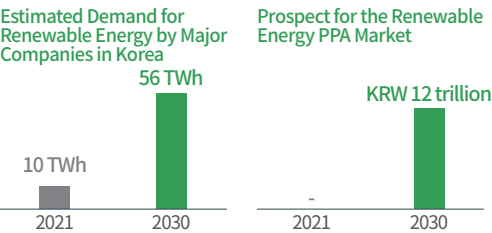
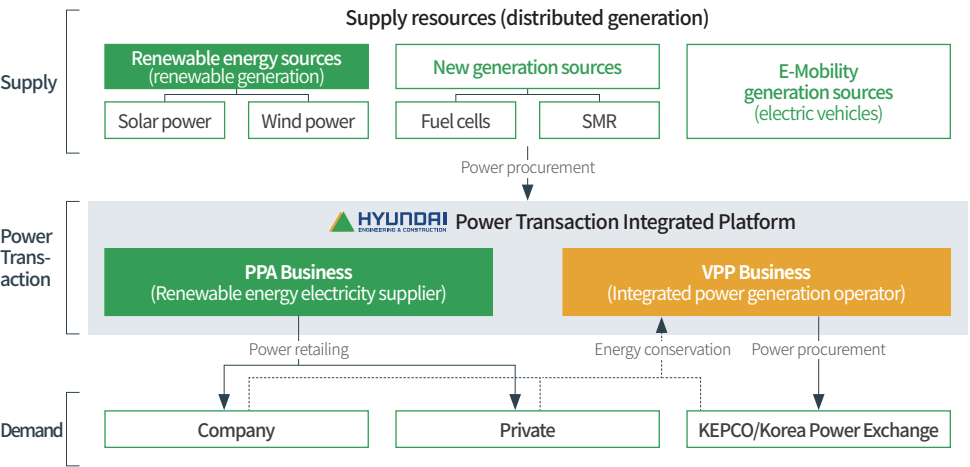
1) FEED (Front End Engineering Design): Basic design to determine the function of the target object, design criteria and composition, etc., completed before EPC

2) CSCR (Combined Steam and CO₂ Reforming): Technology to produce hydrogen based on a reaction between methane, CO₂ and steam

Market Business diversification from EPC to platform business and developer

Business Impact

A demand for stable procurement of renewable energy is growing with the growing number of RE100 and carbon neutrality declarations. Hyundai E&C has diversified its business structure by entering into the renewable energy PPA (Power Purchase Agreement) business based on its capabilities and performance record in EPC throughout the whole value chain of the power business. A demand for renewable energy from major domestic companies which declared RE100 is expected to be 56 TWh in 2030, and the renewable energy power transaction market is expected to grow to about KRW 12 trillion. Based on this analysis, we have conducted renewable energy projects and developed a VPP (Virtual Power Plant) system performing integrated management of such projects.



Source: PwC Analysis, Korea Energy Economics Institute (Analysis of Mid-term and Long-term REC Price), Korea Power Statistics (2021), Guidehouse Mixed Asset Market Report 2020, BNEF (1H 2020 LCOE Data Review)



Hyundai E&C - KIA Sign Agreement for Carbon Neutrality and RE100 Implementation

Strategic Impact Analysis of Other Risks and Opportunities

Policy Increase in the cost of responding to regulations due to entry into the emissions trading system

Business Impact

Hyundai E&C is subject to the target management system, which is an eased regulation and will be included in the Fourth Emissions Trading Scheme. Accordingly, we analyzed the cost of responding to a strengthened regulation. If no actions are taken, costs of about KRW 11 to 38 billion, which is relatively small compared to other industries, will be required to respond to the regulation. Based on the analysis, we have established a 2045 net zero roadmap and taken various measures to reduce GHG emissions on site, such as self power generation, the procurement of renewable energy, and the improvement of energy efficiency.

※ Application Standards for Detailed Scenario Analysis conditions

GHG Emissions Pathway	Prospect of Emissions Trading Scheme		Price of Emissions Rights	Cost of Responding to Regulation ('26-'30 cumulative)
	Ratio of Auctioning	Correction Factor		
BAU	Consider 10 to 25% (in 2030)	Basic Plan on Carbon Neutrality (industrial sector pathway)	IEA STEPS IEA NZE2050	About KRW 11 to 38 billion

Law Increase in lawsuit risk due to delay in response to climate change targets

Business Impact

Climate lawsuits are lawsuits against countries or companies to prevent the impact of climate change or to hold the countries or companies accountable for already caused situations. The number of climate lawsuits for corporate activities is increasing, such as a lawsuit regarding the cancellation of approval for the Samcheok Coal-fired Power Plant in Korea and an application for an injunction against a gas field project conducted by Barossa, an overseas company. For the construction industry, business activities related to coal-fired power generation are likely to be a target of climate lawsuits. Accordingly, Hyundai E&C banned winning new contracts for coal-fired power plants through the 2021 declaration of coal phase-out and has expanded various eco-friendly businesses.

Technology Increase in costs due to the introduction of low-carbon construction technologies and equipment

Business Impact

A significant amount of GHG emissions is from fuels used for the operation of construction equipment. Replacing excavators, dump trucks, and diesel generators with electrified equipment or ESSs is a key solution to reduce GHGs on site. We have run a pilot program that applies electrified equipment, such as ESSs, to the field and reviewed the cost-effectiveness of equipment replacement. We have established a mid- to long-term replacement plan based on the timeline for the commercialization of equipment and continuously monitored trends in the eco-friendly equipment market.

Reputation Decrease in financing capabilities due to insufficient response to climate change

Business Impact

Hyundai E&C thinks that insufficient climate change response could lead to ESG risks and affect the company's credit rating and ability to win projects directly and indirectly. Currently, domestic and overseas credit rating agencies incorporate ESG elements in corporate credit ratings indirectly, and project sponsors start by evaluating bidders' ability to respond to climate change. It is expected that the relationship between ESG assessment and the credit rating and ability to win projects will become stronger, so we have continuously monitored the impact of climate change factors. In addition, Hyundai E&C is taking the lead in expanding EU green products and carbon neutrality roadmaps to enhance its competitiveness in raising capital compared to its competitors.

Acute Extension of construction period due to structural damage caused by climate disasters

Business Impact

Natural disasters like typhoons cause direct damage such as suspension of work on construction sites and damage to structures. According to the RCP 2.6 and 8.5 scenarios, annual damage by typhoons is expected to increase 4-5.3% in 2030, 6.2-10.1% in 2040, and 6.2-13.8% in 2050, and the damage will be more severe over time. Hyundai E&C has established a site emergency response plan to minimize damage from natural disasters. We minimize damage caused by natural disasters such as typhoons by strengthening site management and taking comprehensive measures to prevent wind and water damage, such as reflecting the climate forecast of the local community in the construction period and actively reflecting the air extension with the client.

Chronic Decrease in productivity due to average temperature increase

Business Impact

The construction industry, which involves extensive outdoor on-site work, is significantly affected by external environmental conditions. According to RCP scenarios, it is projected that by 2030, the average temperature will increase by approximately 0.3-0.4°C compared to the present, leading to a predicted reduction in labor productivity of about 0.4-0.6% due to heat stress. Hyundai E&C reviews the climatic characteristics of construction sites using a meteorological program called Meteo-norm during project bidding. We plan construction schedules considering extreme climate conditions such as temperature, precipitation, and wind speed to minimize risks. We are also enhancing regulations to prevent safety and health accidents for on-site workers caused by climate change. To prevent safety and health accidents for site workers due to climate change, we are complementing regulations by providing convenient rest facilities and observing rest periods, while focusing on the development of construction robotics to secure safety and improve productivity at construction sites.

Classification	Present	RCP 2.6(2030)	RCP 8.5(2030)
Temperature increase	1.1°C	1.4°C	1.5°C
Productivity decrease	-0.9%	-1.3%	-1.5%

Market Increase in sales with a growing demand for zero energy buildings

Business Impact

According to the 2050 Carbon Neutral Roadmap for national land and transportation, zero energy buildings (ZEBs) will be mandatory, and the ZEB market is expected to gradually expand accordingly. ZEBs require additional facility investment compared to existing buildings, and according to research, it is predicted that the cost will increase by about 4.2% to 16.2% depending on the ZEB grade. Considering the trend of mandatory ZEBs, it is expected that apartment houses and large buildings, which are the main types of work in our housing/building sector, will be replaced with zero-energy buildings. The domestic zero-energy building market is expected to grow to about KRW 184 trillion by 2030 based on the amount of construction orders received. Our company is constructing the first high-rise zero-energy residential complex in the country and securing independent technological patents, thereby ensuring our competitiveness in the ZEB market based on these projections.

Classification	2020	2023	2024	2025	2030	2050
Public	1,000㎡ or wider [Class 5]	500㎡ or wider [Class 5] Apartment building with more than 30 households [Class 5]	-	500㎡ or wider [Class 4]	500㎡ or wider [Class 3]	All buildings [Class 1]
Private	-	-	Apartment building with more than 30 households [Class 5]	1,000㎡ or wider [Class 5]	500㎡ or wider [Class 5]	

Plan to Adapt to Physical Risk

Hyundai E&C is implementing various adaptation measures to mitigate the physical risks identified through climate change scenario analysis. These include physical facility improvements for the head office building and construction sites, as well as rules of conduct for extreme situations.

RCP 8.5 Level of Physical Risk Based on Scenario*

VL: Very Low L: Low M: Medium H: High VH: Very High

Target	2020	2030	2040	2050	2060	2070	2080	2090	2100
Stream flooding	L	L	L	H	H	H	VH	VH	VH
Typhoon	VL	L	M	M	M	M	M	M	M
Wild fire	VL	VL	VL	VL	VL	VL	VL	VL	VL
Sea level increase	VL	VL	VL	VL	VL	VL	VL	M	M

*Refer to p.51 for risk analysis of water shortages.
Source: Climate impact explorer, Sea Level Projection Tool

Plan to Adapt to Physical Risk (within 5 years)

Classification	Headquarters building/Construction site
Common process	• Reviewing physical risk and establishing countermeasures upon reviewing project orders
Heat wave/Temperature increase	• Establishing manuals and providing training on how to respond to heat waves
Water shortage	• Establishing facilities for water and rainwater recycling
Typhoon	• Establishing comprehensive measures to prevent storms and floods
Flooding	• Implementing measures to respond to floods (maintenance of pipe facilities, etc.) • Establishing green infrastructure near business sites • Developing an IoT-based flooding incident risk response system (HloS)

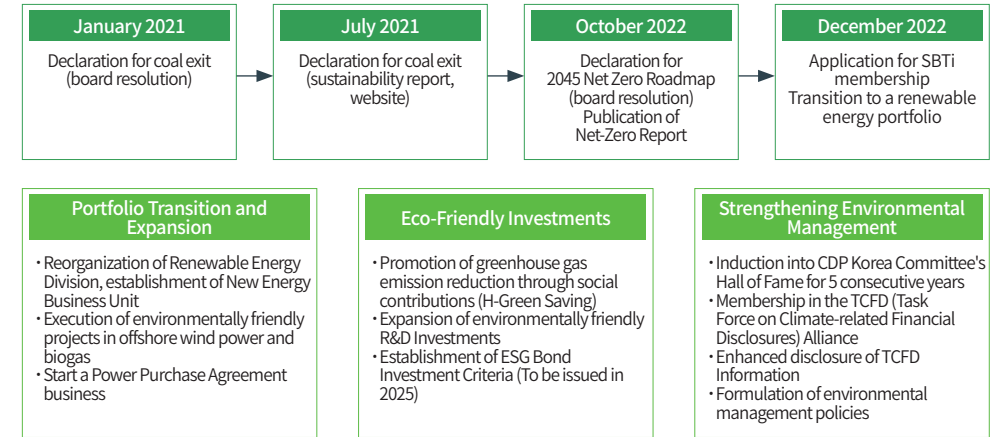
Climate Change Response Strategy and its Integration into Management

Hyundai E&C determines the strategic response direction for each risk and opportunity based on the assessment results. The Sustainability Management Team identifies the current response to key risks, derives the direction and response priorities, and improves them through consultation with relevant departments. The direction of risk response improvement is reflected in the organization's operating rules/policies, and the flexibility of response strategies is secured by establishing short-term, feasible implementation goals. The organizations performing improvements establish detailed goals as KPIs and report performance achievement to the Sustainability Steering Committee once a year. This strategic response direction is applied to the Net-Zero roadmap so that it can be reflected in the management strategy.

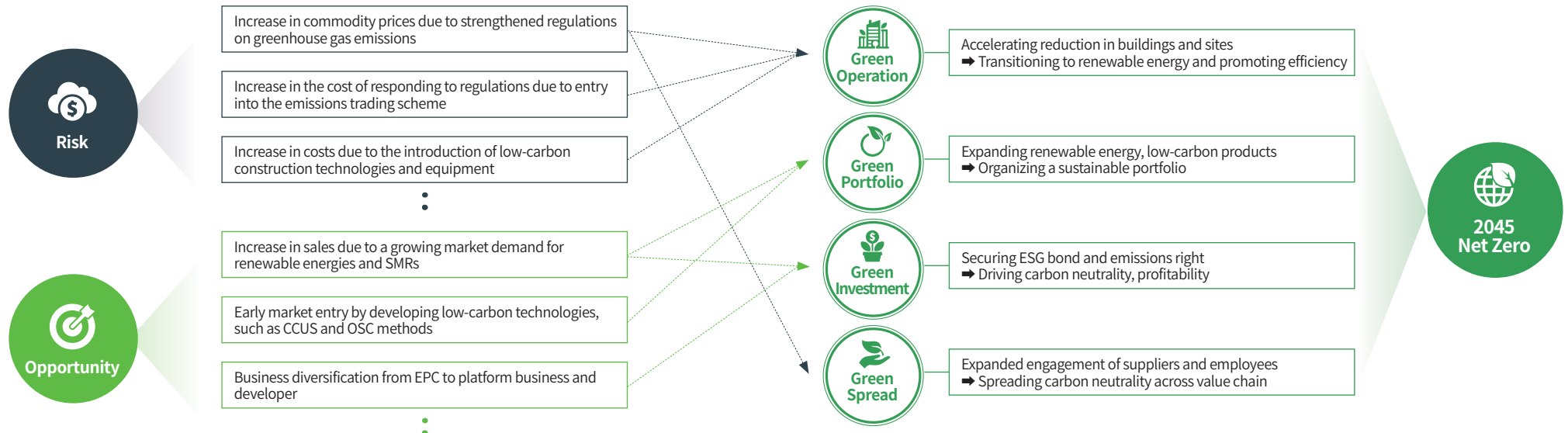
Climate Change Scenario-Resilient Organizational Strategy

Hyundai E&C is considering the resilience of its strategy through analyses of various climate change scenarios. We have established a target and roadmap to realize net zero by 2045 in accordance with the SBTi, and are making preemptive R&D investments for eco-friendly products/solutions. In addition, we are strengthening site management by analyzing the impact on property loss and construction sites due to physical risks and establishing a site emergency response plan. In terms of opportunities, we are promoting various eco-friendly businesses such as new and renewable energy, ZEBs, and CCUS, and plan to disclose the sales of the business after determining whether it meets international eco-friendly business standards (EU Taxonomy, K-Taxonomy).

After 2021 Coal Phase-out Declaration: Implementing Climate Change Response Measures



Risk and Opportunity



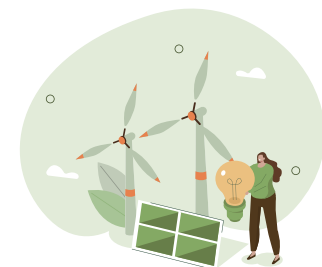
Hyundai E&C's Strategy for Implementing Net Zero 2045

Green Operation



Hyundai E&C is minimizing greenhouse gas emissions at construction sites by establishing a low-carbon operating system. We have developed a roadmap to procure renewable energy for the power consumed at construction sites. In 2023, we are operating a pilot program for on-site solar panel and Energy Storage System (ESS) installations. Based on the results, we aim to expand these programs at construction sites. Additionally, we utilize Building Information Modeling (BIM) technology, which constructs buildings in a 3D format, to minimize design errors and reduce rework, optimizing the entire process from design to completion and minimizing direct and indirect greenhouse gas emissions at each construction stage. We are also expanding the application of smart construction technologies such as the Internet of Things (IoT) and robotics to build efficient and safe construction sites. We continuously enhance our low-carbon construction capabilities, including the implementation of OSC methodology, to minimize greenhouse gas emissions. We are upgrading our greenhouse gas management system to automate emission calculations and manage on-site data in detailed modules.

Green Portfolio



Hyundai E&C is expanding its eco-friendly portfolio in various areas based on its accumulated EPC competitiveness, thereby contributing to reducing greenhouse gas emissions for customers and local communities. Every year, we receive a number of eco-friendly building certifications, and we have upgraded our ZEB (Zero Energy Building) technology with the construction of Hillstate Songdo 1st, the first high-rise zero-energy apartment building in Korea. We are securing technological capabilities for CCUS (Carbon Capture, Utilization, and Storage) plants while conducting a national research project titled 'Demonstration of CO₂ Capture and Liquefaction Process for Blue Hydrogen Production.' Additionally, we are participating in the 'Buan Seawater Electrolysis-based Hydrogen Production Base Construction Project' to estab-

lish hydrogen production, storage, and transportation infrastructure. By winning the 'Boryeong Clean Hydrogen Project,' we have been recognized for our hydrogen plant FEED design capabilities, and we are strengthening our capabilities throughout the entire hydrogen business process. We have established a foundation for providing a total solution for renewable energy by conducting business development, EPC and O&M for 'Seosan Solar Power Plant,' and based on this, we are promoting a renewable energy power trading business and are conducting a platform business. Through the 'Southwest Sea 60 MW Offshore Wind Power Demonstration Project,' we have secured offshore wind power subcontracting technology, and as the EPC general manager and developer of the 'Jeju Hallim 100 MW Offshore Wind Power Project,' the largest such project in Korea, we are expanding our role as a developer by simultaneously making equity investments.

Green Investment



Hyundai E&C continuously invests in the development of eco-friendly technology and the expansion of external projects, and has derived a list of sustainable products according to the green classification system (EU Taxonomy and K-Taxonomy), which is an approved standard for classifying green businesses. We aim to increase the share of sustainable products in sales to 60% by 2030. We will contribute to the reduction of external greenhouse gas emissions through the expansion of eco-friendly external projects, and reinvest the proceeds from sales of carbon credits generated through external projects into another external projects to contribute to global carbon reduction.

Green Spread



Hyundai E&C aims to lead the low-carbon construction market by strengthening value chain collaboration. Due to the significant greenhouse gas emissions during the construction material production stage, we not only practice eco-friendly procurement through our green purchasing policy but also take the lead in the development and application of low-carbon construction materials through collaboration with material manufacturers. We have developed 'H-ment,' a low-carbon cement that utilizes steel slag, a byproduct of steel production, as a substitute material for cement. In addition to reducing carbon emissions, H-ment overcomes the drawbacks of conventional slag cement and ensures consistent quality. Our 'Ultra-High Strength Green PHC' pile has achieved higher strength while reducing carbon dioxide emissions by 16%, earning recognition as a green

technology from the Ministry of Land, Infrastructure and Transport. Furthermore, through collaboration with Hyundai Motor Company, we have developed asphalt medium-temperature production and construction methods by utilizing automotive waste parts as construction materials. We have also signed a MOU for joint development and technological cooperation of low-carbon construction materials with Holcim, a global leader in environmentally friendly construction materials. Our focus is on developing construction materials that not only deliver high performance and quality but also meet low-carbon and eco-friendly standards. In addition to the development of low-carbon materials, we are working towards achieving carbon neutrality in the value chain. We have developed sustainability evaluation indicators for partner companies to assess environmental, social, and economic risks. By considering the environmental management systems and greenhouse gas emission characteristics of our partners, we plan to enhance energy efficiency and management in order to achieve carbon neutrality.

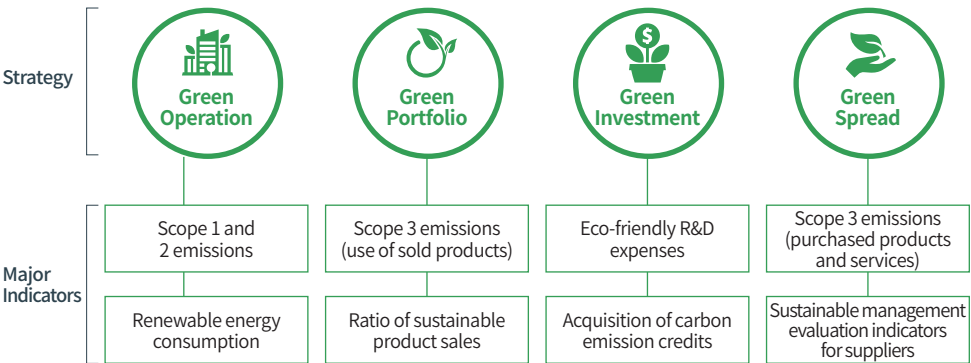
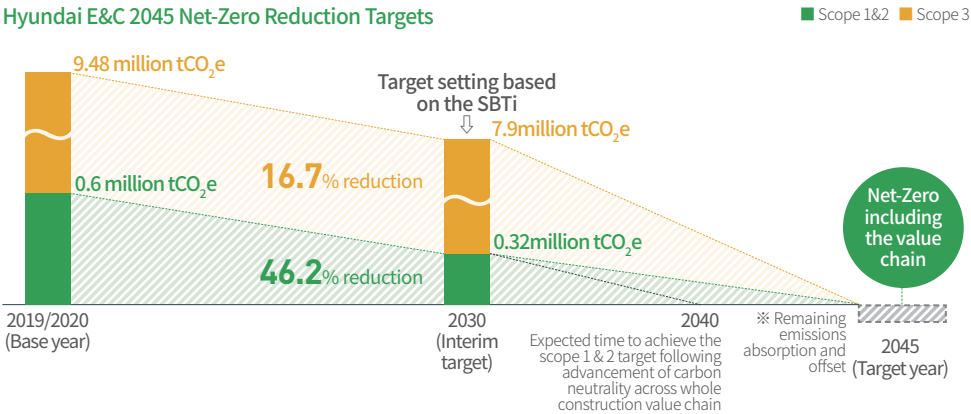
Climate Change Metrics and Reduction Targets

GHG Emissions Reduction Targets and Results

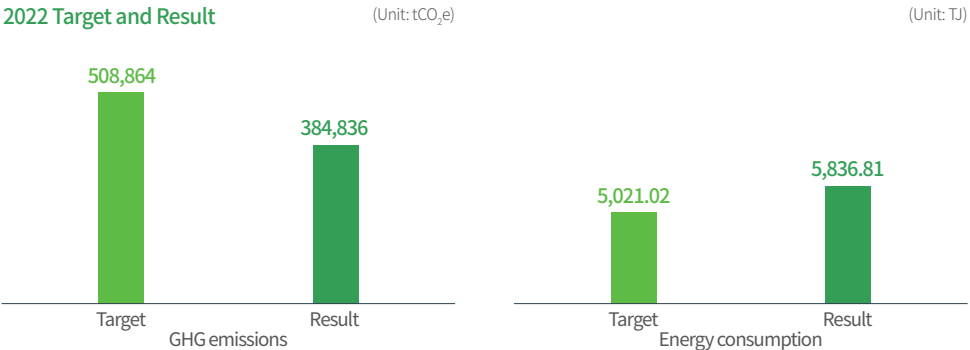
Hyundai E&C has set a GHG reduction target of 46.2% by 2030 for scope 1 and 2 emissions compared to the base year, and 16.7%* by 2030 for scope 3, in accordance with the standards presented by the SBTi. We aim to achieve carbon neutrality, including for scope 3 emissions, by 2045 in order to preemptively respond to climate change. We have established Key Performance Indicators (KPIs) to monitor and manage the implementation of the G-O.P.I.S strategy in order to facilitate its progress. These indicators will be used to assess the effectiveness of each strategy in addressing climate change by evaluating the outcomes achieved

*Based on a scope 3 coverage of 67%, our target is to achieve a 25% reduction in greenhouse gas emissions

Hyundai E&C 2045 Net-Zero Reduction Targets



2022 Target and Result



*Based on scope 1 and 2

Activities to Reduce GHG Emissions and Energy Consumption

Hyundai E&C has developed and is operating the H-PMS (Hyundai-Project Management System), an IT-based environmental performance management system, and based on this, it efficiently manages environmental performance such as energy consumption and greenhouse gas emissions at all business sites. We are operating a solar panel and ESS installation pilot program at construction sites, and are establishing and implementing plans for eco-friendly vehicle conversion by joining the K-EV100. We are improving lighting and heating and cooling energy efficiency by replacing high-efficiency materials. We are also developing an IoT-based process that optimizes the operation of construction equipment. We are continuously discovering greenhouse gas reduction items at sites and the head office and applying various and creative measures. Through these multifaceted GHG reduction efforts, we achieved 49.4% more than the 2022 GHG reduction target.

Hyundai E&C, Realizing Sustainable Company Buildings

Hyundai E&C is striving to realize eco-friendly office buildings to lead a sustainable future. In particular, we are doing our best to improve energy efficiency by improving the company's internal facilities. In 2022, 1,985 fluorescent lights in the head office were replaced with LED lights, reducing power consumption by 40%. In addition, it is possible to lower the indoor temperature by two degrees through insulated blinds, and a demonstration study is currently underway. We are also striving to improve energy efficiency by installing health stairs to save elevator operating power and replacing windows to save air conditioning and heating.

STRATEGY 3. Response to Climate Change (TCFD Report)

STRATEGY 4. Eco-friendly Management

GHG Reductions

(Unit: tCO₂e)

Classifications	2019	2020	2021	2022
Total GHG reductions	65,182	24,130	10,899	12,687
Reductions through energy efficiency	64,477	22,951	10,716	12,510
Reductions through energy equipment replacement	559	1,169	151	164
Reductions through operation of eco-friendly vehicles	146	10	32	12

GHG Emissions

(Unit: tCO₂e)

Classifications		2019	2020	2021	2022
Direct emissions (Scope 1)	Domestic	15,536	10,986	13,102	22,411
	Overseas	402,368	156,085	161,125	287,351
	Subtotal	417,904	167,071	174,227	309,762
Indirect emissions (Scope 2)	Domestic	58,090	64,663	65,075	57,556
	Overseas	120,146	76,006	57,539	17,518
	Subtotal	178,236	140,669	122,614	75,074

2022 Scope 3 Emissions by Category

(Unit: tCO₂e)

Category	Emissions
Other indirect GHG emissions (Scope 3)	6,658,746
Upstream	4,156,255
Purchased goods and services purchased	2,736,622
Capital goods	1,164
Fuel and energy-related activities (not included in scopes 1 or 2)	13,110
Upstream transportation and distribution	1,338,148
Waste generated in operation processes	20,088
Business travel	2,353
Commuting of employees	44,770
Downstream	2,502,491
Use of sold products	2,153,219
Disposal of sold products	288,569
Investments	60,703

*Some data may be subject to change depending on the verification process by CDP and SBTi

Sustainable Product Sales Performance Measured with Green Taxonomy

Under the slogan ‘GLOBAL GREEN ONE PIONEER’ Hyundai E&C actively participates in global efforts to address the climate crisis and expands its eco-friendly business activities to facilitate the transition to a sustainable society. We have compiled a list of sustainable products based on the eligibility criteria of the EU Taxonomy and the Green Economic Activity List of the K-Taxonomy. We evaluate our environmental performance by calculating the sales revenue of sustainable products according to each classification system. The assessment results show an increasing proportion of sustainable product sales over the past 3 years, with a 6% increase in the share of sustainable product sales in 2022 compared to the previous year.

Sales of Sustainable Products Based on EU Taxonomy: 52% of total

(Based on 2022)

Area		Representative economic activities	Revenue (KRW million)
Green	GHG reductions	Power generation/Energy · Producing renewable energy · Manufacturing hydrogen	99,712
		City/buildings · Developing specialized zero-energy cities · Constructing zero-energy buildings or green buildings	5,206,309
	Transportation	· Establishing pollution-free transportation infrastructure	623,795
	Sustainable preservation of water	· Managing wastewater and sewage · Supplying and reusing water	143,352
	Circular economy	· Capturing and handling methane gas and utilizing anaerobic digestion	15,897
Transition	Power generation/Energy	· Producing energy with nuclear power	151,220
Total			6,240,283

*Starting from 2022, we have recalculated the sales of sustainable products based on the criteria of EU Taxonomy and the K-Taxonomy, transitioning from our previous internal standards

STRATEGY 4. Eco-friendly Management

The construction industry can cause various environmental problems, such as the generation of large amounts of waste, air and soil pollution, and noise during the construction process. To mitigate those problems, it is necessary to discover and respond to environmental risks that may occur throughout the entire business process in advance. Hyundai E&C aims to become a global eco-friendly company in order to fulfill its responsibilities as a global construction leader. Accordingly, we are devoting ourselves to leading the eco-friendly management of the construction industry by establishing an eco-friendly construction process that minimizes environmental pollution throughout the entire value chain and by operating a systematic eco-friendly management system based on domestic and international laws and regulations.

2022 Achievements

On-site environmental training

342 times

Waste recycling rate

99.7%

Environmental investment
and expenditure

KRW 44.8 billion
(R&D and management expenses
combined)

Eco-friendly Management System

Environmental Management Strategy and Policy

HDEC Environmental Management Policy [↗](#)

Hyundai E&C has established the eco-friendly management vision of 'GLOBAL GREEN ONE PIONEER' to respond to global eco-friendly trends and regulations, and is growing into a global eco-friendly company. To this end, we have established a systematic eco-friendly management strategy consisting of four stages by 2050, and are strengthening eco-friendly management activities while complying with relevant laws and regulations. We have never been fined more than \$10,000 for environmental violations in the past 4 years. And we distribute the Environmental Work Guide Map company-wide in March 2023 to prevent environmental risks such as fugitive dust and waste that are expected at the stage of the pre-construction, early construction, during construction. This guide map aims to reflect the latest revisions in environmental regulations. In addition, we have established environmental management policies throughout our business, including in distribution/logistics, due diligence, M&As, and for key business partners, and are continuously improving them.

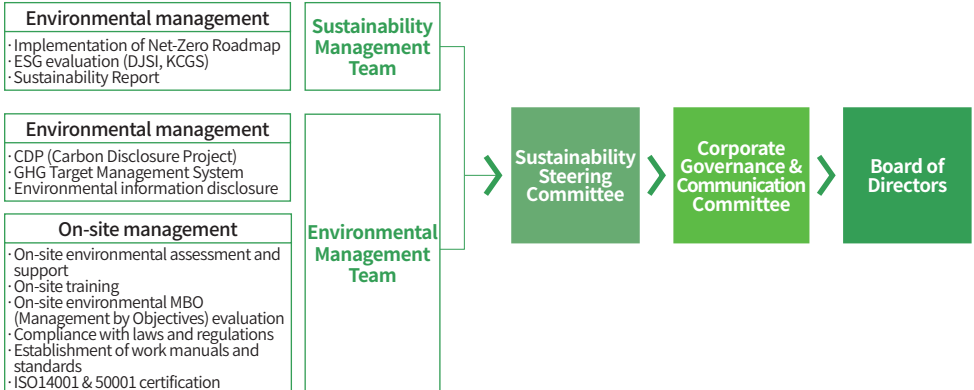
VISION : GLOBAL GREEN ONE PIONEER

Environmental Management Strategy



Environmental Management Organization

Hyundai E&C has established a separate Environmental Management Team, consisting of professionals in on-site environmental management, to promote systematic environmental management. The Sustainability Management Team and the Environmental Management Team work together to drive efficient environmental management. Evaluating the environmental performance and supporting the environmental issues are handled by the on-site environmental management, and strengthen the on-site environmental management capabilities of related personnel through training. In addition, the environmental management issues related to ESG, such as ESG evaluations and the establishment of a Net-Zero roadmap, are reported to the Board of Directors through the Sustainability Steering Committee and the Corporate Governance & Communication Committee, leading to systematic responses. Incentives and penalties for site managers are determined by reflecting the performance of the environmental management sector as 5% of the KPI, and separate incentives are paid for a site evaluation of excellent construction completion. This evaluation includes climate change-related indicators (greenhouse gas/energy reduction targets achieved, green environment system operation, etc.) generated at the site from the start of construction to completion, and based on the degree of achievement of the target, up to 50% of the average basic salary (differential payment by position) is paid as a performance bonus.

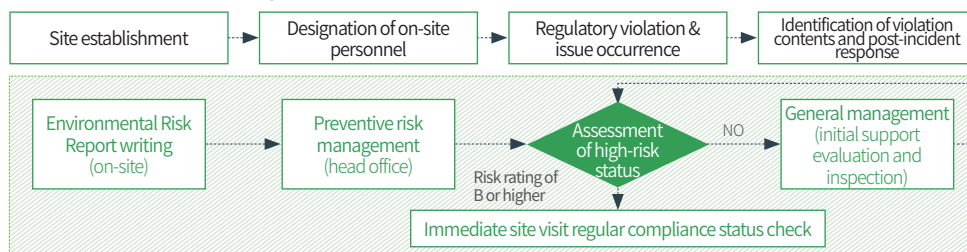


Environmental Risk Management for Sites

Establishment of a Site-focused Management System

Hyundai E&C conducts environmental risk and opportunity evaluations by site more than once a year in accordance with its environmental risk management system, and prepares an environment and energy checklist more than once a week, which is applied to most corporate activities. We are thoroughly responding to compliance with environmental laws and regulations, such as the Wastes Control Act, Clean Air Conservation Act and Noise and Vibration Control Act. Environmental risks of each construction site are integrated and managed as company-wide environmental risks. At the head office level, we have established a proactive risk management system and are managing environmental risks at all sites. Under this system, all sites on the start stage are required to prepare an environmental risk report, and if the environmental risk grade is B or higher, we are classified as high-risk sites and site visits are conducted immediately or prioritized initial support is provided. In 2023, we will strengthen environmental risk management by conducting a 100% risk assessment for all sites on the start stage

Pre-Construction Site Management System



Proactive Environmental Risk Management

Environmental Risk Management	Strategy
<p>Chemical Substances Control Act</p> <ul style="list-style-type: none"> The Material Safety Data Sheets management ledger and chemical handling status management ledger are classified and managed by work type and job category through the H-PMS, a chemical management system The use, transportation, and storage management of chemicals are regularly checked, and chemical safety accidents are prevented in advance through the on-site provision of Material Safety Data Sheets and training 	
<p>Framework Act on Low Carbon, Green Growth</p> <ul style="list-style-type: none"> Construction industry: included in the targets of the greenhouse gas and energy target management system Efforts are being made to reduce greenhouse gas emissions by voluntarily calculating not only scope 1 and 2 emissions, which are subject to mandatory reduction, but also overseas and scope 3 emissions (reduction of 12,687 tCO₂e compared to 2021) Establishment of a 2045 Net-Zero roadmap based on the SBTi 	
<p>Environmental laws and regulation applicable to the site (noise/vibration, atmosphere, water quality, etc.)</p> <ul style="list-style-type: none"> Operation of a 24/7 management IoT system for on-site noise and fine dust Production of detailed guidelines for each process generating fugitive dust and distribution of a company-wide guidelines for responding to emergency fine dust reduction measures based on relevant laws and regulations Biodiversity risk assessment focusing on areas near business sites and protected areas 	
<p>Occupational Safety and Health Act and Asbestos Safety Management Act</p> <ul style="list-style-type: none"> Establishment and operation of a waste management system linked with the H-PMS (Hyundai-Project Management System) Preemptive prevention of violations of environmental laws and regulations, real-time management of the total amount of waste and cost aggregation Protection of workers from direct exposure by investigating the presence of harmful substances such as asbestos before demolition Consignment of operation to a specialized company when exceeding the standards provided by the law 	

Environmental Management System

Improvement of the H-PMS (Hyundai-Project Management System)

Hyundai E&C has developed and is using the H-PMS (Hyundai-Project Management System), an IT-based integrated environmental performance management system, to maximize the efficiency of environmental performance management at all business sites. We are trying to minimize the impact to the around of construction site by managing the environmental factors with detailed level, which is air, water quality, soil(waste), and noise and vibration through the H-PMS. By aligning with the ISO14001/50001 management system and the H-PMS system, environmental management performances, such as environmental management plans and implementation, inspections and the operation of all business sites, are managed in an integrated manner. In addition, by upgrading the existing system through the development of the mobile H-PMS in 2022, on-site Environmental non-conformity reports and environmental energy inspections can be registered and managed immediately via mobile, improving work convenience and substantially improving the document management method.

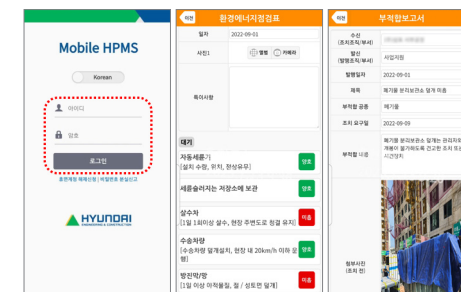


ISO14001

ISO50001

H-PMS

- Greenhouse gas management
- Waste management
- ISO14001 operation
- ISO50001 operation
- Environmental licensing management
- Environmental measurement and results analysis
- Protected plant species management



Mobile H-PMS

Enhanced Environmental Evaluations and Inspections

Hyundai E&C is conducting on-site environmental inspections and evaluations to preemptively respond to environmental risks. In 2022, we expanded environmental assessment inspections and support compared to the previous year by conducting site evaluations for a total of 101 sites, supporting initial start stage for 42 sites, and providing occasional site support for 23 sites.

Site Assessment Environmental Criteria	Number
Air quality	14
Waste	15
Water quality	10
Noise	4
Management system	19
Others	5
Total	67

Emergency Training to Respond to Environmental Accidents by each Site

Hyundai E&C conducts emergency training to respond to environmental accidents by each site once every half year to strengthen the ability of employees to respond to environmental accidents. As a rule, the results of emergency training are registered in the H-PMS, and the compliance and initiative of emergency training are verified through on-site environmental assessments to maximize the effectiveness of training. In 2022, a total of 172 emergency environmental accident training were conducted at 168 sites, with a total participation of 5,509 individuals. Through site-specific environmental accident emergency training, we are striving to help field workers internalize action plans for various environmental accidents that may occur on site, such as landslides, fires, heat stroke, earthquakes, wind and flood damage, and explosions.



On-site Environmental Education



Environmental Awareness Improvement

Conduct of Environmental Education and the CSR Mileage System

Hyundai E&C conducts environmental training more than once a quarter according to company-wide standards for each site to raise environmental awareness among employees and partner companies. The results of each environmental education are registered and managed by the H-PMS. In 2022, 342 on-site environmental training sessions were conducted for 168 sites, and in order to encourage employee participation, we are operating a CSR mileage system(Social Contribution Mileage & Green Mileage) that integrates the existing social contribution mileage system to include the environment sector.

2022 On-site Environmental Education

Trainer	Training Title	Training Content	Trainee	Training Period
Head Office Environmental Manager	On-site Environmental Management Training	· Air, waste, noise, water quality, and soil management standards · Examples of excellent environmental facilities and cases of regulatory violations	Employee, contractor representative	Assessment, inspection, support
	Environmental Management Awareness Training	Dissemination of air, waste, noise, water quality, and soil management standards	Employees, contractors	
	New Employee Environmental Training	The 8 major environmental norms that must be adhered to	New employees, New contractors	
	Training on Emergency Measures and Response for Fine Dust Reduction	High-concentration fine dust emergency reduction measures criteria/response	Employees, contractors	At least once every half year per site
On-site Environmental Manager	Waste Management Training	Waste separation and storage instructional training	Employees, contractors	
	Noise and Vibration Management Training	Noise/vibration management standards guidance training	Employees, contractors	
	Environmental Issues Awareness Training	Dissemination of key issues such as waste covering and regulatory revisions	Employees	
	Key Process Environmental Training	Material organization/cleanup and site management	Contractors	Throughout the year, continuously
	Other Environmental Training	Citizen complaint management, household waste management	Employees, contractors	

Strengthening On-site Environmental Management Awareness and Increasing Investment

To strengthen employees' awareness of site environmental protection, Hyundai E&C regularly distributes notifications on site environmental management regulations and issues. In 2022, a total of seven 'Environmental Issue Communications' and two 'Environmental Regulation Violation Cases' were disseminated to all workplaces. Additionally, in order to elevate the level of environmental management on-site, the company has established standardized operating systems for environmental facilities through the dissemination of installation criteria and exemplary practices. In 2023, Hyundai E&C aims to promote site environmental management that surpasses legal management standards by advancing the enhancement of the environmental management budget system.

Climate-related Incentives for Employees

Hyundai E&C provides rewards to executives and employees who have made excellent achievements related to climate change such as developing eco-friendly technologies, reducing carbon emissions, or evaluating energy saving performance. Selected best practices are shared with all employees of Hyundai E&C to raise awareness of climate change among all employees. In addition, we have been providing financial support for acquiring LEED certification to our employees, through the 'LEED-AP Qualification Acquisition Support Program,' since 2010, along with various rewards.

Environmental Impact Minimization

Minimization of Water Pollution at Site

Hyundai E&C is making efforts to minimize water pollution on site. We have established standards for water quality environment management and prepare action standards to reduce on-site water pollution that may occur at construction sites, such as wastewater treatment facilities, sewage treatment facilities, groundwater, and non-point pollution sources. In addition, in 2020, standards for management of washing water used for the concrete pump car were established and distributed throughout the company. Furthermore, by separately standardizing the cost for the purpose of water pollution analysis to meet the water quality discharge standard, we have prepared detailed standards for measuring the quality of discharged water generated in the field, such as measuring the quality of effluent water from personal sewage treatment facilities more than once a year or semi-annually and cleaning the inside of septic tanks more than once a year. We are working to manage on-site water pollution systematically.

Management of Hazardous Chemicals

Hyundai E&C classifies and systematically manages the Material Safety Data Sheets management ledger and chemical handling status management ledger by work type and job category through the H-PMS, a chemical management system. In order to prevent damage from harmful or hazardous chemicals, the use, transportation, and storage management of chemicals are regularly checked, and information on all chemicals handled is created and managed in a database. Furthermore, Hyundai E&C thoroughly complies with all legal obligations for the management of hazardous chemicals. Chemical safety accidents are prevented through on-site provision of Material Safety Data Sheets and education, and serious accidents and occupational diseases are prevented in advance through the establishment of company-wide heat source usage standards for rapid heat curing during the winter season. We are building a response system while complying with regulations such as the Occupational Safety and Health Act and the Serious Accidents Punishment Act.

Hyundai E&C, Achieving a Circular Economy through the Recycling of Waste Resources

Hyundai E&C has entered into a business agreement with Amorepacific for the development of construction materials by recycling of cosmetic containers. Approximately 280,000 cosmetic containers have been recycled and utilized to make landscape facilities in projects such as 'Hillstate Suji District Office Station Tea House,' 'Hillstate Purgeo Suwon,' and 'Hillstate Pohang.' And also, we have plans to expand the application of recycling of cosmetic containers to the place of recycling bins within the housing complex and the other areas for future use. Furthermore, in collaboration with Hyundai Motor Company, Hyundai E&C has recycled collected plastic waste and utilized 3D printing technology to create seating wall sculptures for 'Illumi State' and 'Seoul Forest.' The seating walls of Illumi State utilized around 200kg of recycled plastic, while approximately 600kg of recycled plastic was used for the 3D non-uniform benches in Seoul Forest. Hyundai E&C strives to recycle waste resources into artistic sculptures, contributing to the expansion of a circular economy.

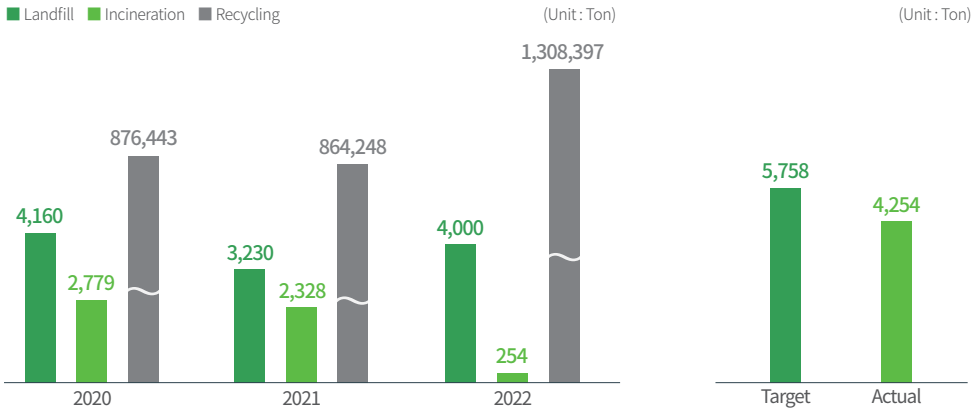


'H Wave Wall' for Landscape Retaining Wall

Management of Waste and Eco-friendly Demolition

Hyundai E&C focused more on its capability to the waste management methodology and separate storage by waste type among its eco-friendly management activities. Accordingly, waste separation storage areas and the waste separation storage signs are standardized in order to strengthen the separate storage of general waste and designated waste, and the existing six types of required permitted waste were expanded to eight types to include waste wood and waste board and ensure legal separation of waste. In the case of waste wood, companies which are handling the waste wood are selected by assigning sequential numbers to designated companies by region, and for waste boards, companies which are handling the waste boards were selected by including to the bidding for the existing six types of waste handling companies. In addition, we are striving to actively practice proper waste treatment by strengthening waste treatment standards and providing on-site information on waste treatment.

2022 Net Waste Generation

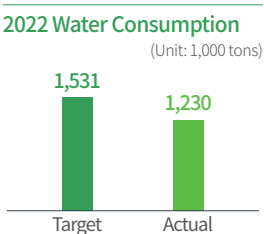


Classification	Unit	2020	2021	2022
Total waste generation	Ton	883,383	869,806	1,312,651*
Landfill	Ton	4,160	3,230	4,000
Incineration	Ton	2,779	2,328	254
Recycling	Ton	876,443	864,248	1,308,397
Recycling rate	%	99.2	99.4	99.7

*Increased waste generation due to remodeling projects, building demolition, maintenance projects, and disposal services in 2022

Management of Water and Water Resource Sensitive Areas

Hyundai E&C is making various efforts to reduce the amount of water used in various processes, such as cleaning fugitive dust during construction and pouring concrete. For activities to reduce fugitive dust, high-efficiency watering equipment such as sprinklers and temporary fence sprayers are used instead of water cannons, which consume a lot of water, and leaked construction groundwater is recycled for watering or washing temporary toilets after being reported for recycling. In addition, we operate purification treatment facilities on-site where wastewater is generated and continuously conduct water quality inspections in order to thoroughly manage effluent water quality standards.



Water Stress Sensitivity Analysis

Hyundai E&C conducted sensitivity analysis by selecting construction sites in 12 domestic and international countries, including Vietnam, Saudi Arabia, Qatar, and Algeria, based on Aqueduct 3.0 Country Rankings from the World Resources Institute (WRI) for the year 2022. The analysis excluded sites during the completion, defect rectification period, and initial design process. Water stress refers to a situation where water demand in a specific area exceeds its water supply capacity. When water stress increases, business scale and production expansion, as well as water waste reduction through increased water usage, are pursued, resulting in increased costs for water usage. Although Algeria's Biskra currently falls under the Low-Medium (2) level in terms of water stress index, it is projected to increase to Medium-High (2.8) by 2030 and High (3.92) by 2040, according to forecasts. Regression analysis revealed that when the water stress index reaches High (3.92) in 2040, the predicted water usage would increase by 80,844 tons compared to the Medium-High (2.8) water stress index in 2030, indicating an estimated cost risk of approximately KRW 32.6 billion in business opportunities. Based on these analysis results, we intend to plan ahead and take necessary measures such as facility and process improvements, expansion of water recycling, and development of water supply prediction models considering water efficiency, to ensure efficient water usage.

2022 Scenario Analysis based on the WRI Water Stress and Status of water consumed per Country

Classification	Water Stress			Ratio of Revenue	Ratio of Water Consumption
	Baseline	2030	2040		
Republic of Korea	High(3)	High(3)	High(3)	66.0%	1.04%
Myanmar	Low(1)	Low(1)	Low-Medium(1.4)	0.2%	0.00%
Vietnam	Low(1)	Low(1)	Low(1)	2.2%	0.15%
Saudi Arabia	High(3)	High(3)	High(3)	11.0%	91.10%
Singapore	Low(1)	Low-Medium(1.4)	Low-Medium(1.96)	3.6%	0.01%
Algeria	Low-Medium(2)	Medium-High(2.8)	High(3.92)	1.1%	0.00%
Iraq	Medium-High(2)	High(4)	Extremely-High(11.2)	4.0%	1.16%
Indonesia	Low(1)	Low(1)	Low(1)	0.3%	0.84%
Qatar	Extremely-High(4)	Extremely-High(5.6)	Extremely-High(7.8)	6.0%	2.11%
Philippines	Low-Medium(2)	High(4)	Extremely-High(11.2)	0.6%	0.05%
Panama	Low(1)	Low(1)	Low(1)	3.6%	0.46%
Peru	Low(1)	Low(1)	Low(1)	0.5%	3.10%

Atmospheric Environment Management

Hyundai E&C continuously operates an IoT system for more systematic and accurate site noise and fine dust management. A vibration sensor, noise sensor, and fine dust sensor are installed at the construction site to measure the levels of noise and fine dust. If the measured value is exceeded over the prescribed value, a warning message is automatically sent to the person in charge, who is designated in advance, allowing real-time monitoring using a smartphone. In addition, we are managing noise and fine dust more systematically by analyzing data through artificial intelligence deep learning.

Monitoring and notification of emergency measures for fine dust reduction

Hyundai E&C has created detailed guidelines for each process that generates fugitive dust, such as licensing, storage, transfer, mining/collecting, transportation, outdoor cutting, loading and unloading, and outdoor polishing, and regulates relevant laws and regulations in order to minimize fugitive dust into the air during construction at construction sites. We are distributing a company-wide response guide for fine dust emergency reduction measures based on related regulations. This guide includes the standards and response plans for each type of emergency reduction measure, including level 1, 'interest,' and levels 2 and 3, 'caution-warning-severe,' as well as information related to the reporting system. When fine dust reduction measures are issued, target areas and management methods are announced on the company website, and special inspections of fugitive dust are conducted by site. In 2022, Hyundai E&C is fully committed to proactive environmental management including conducting on-site assessments and providing support for initial development sites based on administrative measures related to particulate matter or fugitive dust. Additionally, education on issue-specific cases has been implemented to address environmental challenges preemptively.

Hyundai E&C, Actively Engaged in Voluntary Agreements on the Reduction of Environmental Impact

Hyundai E&C actively participates in voluntary agreements operated by the Ministry of Environment, local governments, and other institutions. In 2022, Hyundai E&C signed voluntary agreements with the Ministry of Environment, including the 'Voluntary Agreement for High-Concentration Seasonal Fine Dust Reduction in the Construction Industry' and the 'Voluntary Agreement for Environmentally Friendly Treatment and Recycling Expansion of Construction Waste' Additionally, Hyundai E&C has also signed the 'Voluntary Agreement for Environmentally Friendly Construction Site Operations to Reduce Fine Dust Emissions' led by the Seoul Metropolitan Government. Hyundai E&C is fully committed to implementing the terms of these agreements.

Biodiversity Conservation and No Deforestation

Risk Management for Natural Capital

Hyundai E&C manages various risks related to natural capital from 2 perspectives: dependence (the extent to which our value chain depends on natural capital) and impact (the impact of our value chain on natural capital) to minimize negative environmental impacts. The natural capital risks to which Hyundai E&C is exposed are largely divided into physical risks and transition risks, and the short-term and mid- to long-term effects of each risk were evaluated by integrating them with the company-wide risk management process. As a result of the evaluation, 'lack of natural capital supply' and 'change in material cost' were evaluated as risks with relatively high short-term effects(~2025) and to mitigate the actual impact levels, we are strengthening our raw material management monitoring system and expanding our channels for sourcing materials. In addition, we will establish a process to identify natural capital risk throughout the whole business process and strengthen in-depth mitigation activities such as the establishment of measures to preserve protected species , avoidance, minimization, restoration, and offset in order to respond to physical natural capital risks with high mid- to long-term impacts.

■ L: Low ■ M: Medium ■ H: High

Risk type		Risk level							
		Dependency	Short-term (~2025)	Mid-term (~2030)	Long-term (~2050)	Impact	Short-term (~2025)	Mid-term (~2030)	Long-term (~2050)
Physical risk	Natural disasters (Floods, landslides, droughts, etc.)	<ul style="list-style-type: none">• Increase in the cost of restoring natural capital• Increase in the cost of infrastructure repair	L	M	H	<ul style="list-style-type: none">• Increase in natural disasters	L	L	L
	Lack of natural capital supply (Lack of land, water, timber supplies)	<ul style="list-style-type: none">• Increase in natural capital insurance costs• Decrease in productivity and decrease in costs due to disruptions in business operations and the supply chain	M	M	H	<ul style="list-style-type: none">• Exacerbating the lack of natural capital supply	L	L	M
	Measures to protect ecosystems (Noise pollution, waste treatment, etc.)	<ul style="list-style-type: none">• Increase in capital expenditure on natural capital (installation of flood prevention facilities, etc.)	L	M	H	<ul style="list-style-type: none">• Increasing need for ecosystem protection measures	L	M	M
	Changes in ecosystems and biodiversity, including the inflow of foreign species	<ul style="list-style-type: none">• Decrease in business operation efficiency due to climate abnormalities and natural disasters	L	L	M	<ul style="list-style-type: none">• Aggravated inflow of foreign species and changes in ecosystems/biodiversity	L	L	L
Transition risk	Changes in laws and regulations related to natural capital protection (Trade restrictions, taxes, permissions, allocation, protected areas/OECM)	<ul style="list-style-type: none">• Increase in administrative actions such as penalties and fines• Increase in compliance costs	L	M	H	<ul style="list-style-type: none">• Application of stricter laws and regulations on natural capital protection	L	M	M
	Mandatory reporting on natural capital	<ul style="list-style-type: none">• Increase in operational costs to achieve nature-related objectives	L	M	H	<ul style="list-style-type: none">• Expansion of the scope of mandatory reporting on natural capital	L	M	M
	Transition to eco-friendly products and services in response to demand from customers and investors	<ul style="list-style-type: none">• Cost of replacing processes related to existing products and services• Increase in R&D expenditure on new and alternative technologies	L	M	H	<ul style="list-style-type: none">• Increased demand for transition to eco-friendly products and services by customers and investors	L	M	M
	Changes in material costs	<ul style="list-style-type: none">• Increase in the cost of production and raw materials	M	M	H	<ul style="list-style-type: none">• Increasing material costs	L	M	M

Biodiversity Risk Assessment Results

[HDEC Biodiversity Protection Policy](#)

Hyundai E&C conducts biodiversity risk assessments for its business sites (own operations, upstream, downstream) and adjacent areas based on a natural capital risk management system. Among the areas in the scope of the project, areas that require risk assessments to protect biodiversity are classified as areas to be considered first, and risk assessments are conducted by considering the area's dependence on biodiversity by region. Based on the evaluation results, we carry out biodiversity management measures by region and site, such as habitat protection, establishment of migration measures, and maintenance of the food chain. In 2022, protection measures were completed for a total of 35 species.

Hyundai E&C has developed a system called the H-PMS to register detailed information about plant species and monitor plant species protection at the corporate level. We have established and carry out a procedure for evaluating biodiversity risks, focusing on areas near our business sites and protected areas, in order to achieve the goals of our biodiversity protection policy. In addition, when a biodiversity protection policy or deforestation prevention policy is enacted/revised, it is presented as an agenda item to be reported to the Corporate Governance & Communication Committee, and we focus our capabilities at the corporate level.

(As of 2022)

Areas to be considered first	No. of protected species	Major management (protection) plan					Details
		Habitat protection	Migration measures	Maintaining the food chain	Method reduction	Improving the construction environment	
Innovative Nuclear Research Complex Construction	2		●				Installation of artificial cages
Bomuncheon-gun District Urban Development Project	2			●	●	●	
Gimpo-Paju Highway Construction Section 2	19		●	●	●		Installation of alternative habitats, installation of ecological corridors, induction fences, waterway escape facilities
Incheon Urban Railway Line 1 Geomdan Extension Line Construction Section 1	5				●	●	
Incheon New Port 1-2 Container Pier Lower Part Construction	4	●					Contamination prevention nets, oil pollution contamination measures
Geomdan-Gyeongmyeong-ro Road Construction	2	●			●		Grit chambers, contamination prevention nets
Wolgot-Pangyo Double Track Train Construction Section 6	21	●	●		●		Grit chambers, contamination prevention nets, measures to reduce sediment runoff, relocation of trees, releasing animals to alternative habitats
Busan Jinhae Free Economic Zone Waseong District Development Project	1	●	●				Measures to reduce suspended sediment, measures to reduce sediment runoff
Busan Eco-Delta City Phase 2 Construction Section 3	7	●			●	●	Measures to reduce sediment runoff, drainage ditches, grit chambers, contamination prevention nets

No Deforestation

[HDEC Deforestation Prevention Policy](#)

Hyundai E&C is making efforts to minimize deforestation and is focusing on afforestation and protection with the goal of achieving net zero deforestation by 2050. All of our domestic and overseas business sites actively carry out afforestation and reforestation and, if necessary, conduct professional forest protection activities through collaboration with stakeholders. In addition we are actively engaged in forest carbon offset activities through the utilization of forest biomass for bioenergy. We strive to completely eliminate greenhouse gas emissions by these proactive forest carbon offset initiatives. We also aim to minimize the negative environmental impacts throughout the entire project cycle by expanding forest conservation in the supply chain and conducting continuous monitoring such as environmental impact assessments. Furthermore, when purchasing finished wooden products, such as wood finishing materials, we receive delivery from suppliers that have obtained FSC (Forest Stewardship Council) and HB (Healthy Building Material) certifications, and when purchasing paper, we purchase 100% FSC-certified paper.

HDEC PEOPLE

Sustainable Growth
Accompanied
by Hyundai E&C

STRATEGY 5. Talent and Safety
Management

Human Rights Management	55
Cultivating of Innovative Talent	56
Fostering a Healthy Organizational Culture	59
Spread of a Health and Safety Culture	62

STRATEGY 6. Enhancing Value Chain
Capability and Creating
Values for Local
Communities

Sustainable Supply Chain Management	67
Win-win Cooperation and Shared Growth	70
Creation of Value for Local Communities	72



Dubai Ferris Wheel

STRATEGY 5. Talent and Safety Management

Hyundai E&C considers ‘people’ as its top priority and aims to be a company that nurtures innovative talents who create new value and a better future by creating a safe workplace with like-minded employees. To this end, we are creating a healthy organizational culture based on the values of fairness and respect and aiming to become a safety management leader in the construction industry by solidifying the safety value chain that links workers, suppliers, customers, and Hyundai E&C.

2022 Achievements

Training achievements

Total training hours **146,659**
Total number of employees trained **4,390**

Investment in safety and health

KRW **165.8** billion
(23% increase from the previous year)

Safety inspections

4,735 times
(84% increase from the previous year)

Human Rights Management

Human Rights Charter

[HDEC Human Rights Charter](#)

Hyundai E&C fully amended the Hyundai E&C Human Rights Charter, which contains the basic rights of stakeholders and the value of respect for human rights, in July 2020, and has made an effort to respect human rights across the company by supporting the prohibition of discrimination, prohibition of harassment, guarantee of labor rights, prohibition of forced labor and child labor and compliance with living wages. This charter applies to all employees of Hyundai E&C and employees of domestic and overseas corporations and branches, subsidiaries, and granddaughter companies, and compliance with the Human Rights Charter is recommended to all stakeholders in transactional relationships. The intention of the Hyundai E&C Human Rights Charter is incorporated into the Supplier Code of Conduct of Hyundai E&C as a way of expressing our willingness to implement human rights management throughout the whole value chain.

Human Rights Management Organization

Hyundai E&C promotes human rights management through committees participated in by the highest decision maker or the decision maker of the major department, or through corporate business meetings and working-level meetings chaired by the decision maker of the Human Resources Management Group, which is in charge of implementing human rights management. The organization dedicated to human rights management is in charge of the establishment and revision of the Human Rights Charter, the establishment of human rights management implementation plans, the assessment of human rights risk, the operation of the grievances handling channel, internal training, reporting, and communications with external parties.

Anti-discrimination and Diversity

[HDEC D&I \(Diversity & Inclusion\) Policy](#)

D&I (Diversity and Inclusion) Policy

Hyundai E&C has created an organizational culture where talents from diverse backgrounds can provide creative and challenging ideas. We established a D&I (Diversity and Inclusion) policy in August 2022 to contribute to the transition to an inclusive society. This policy applies to all employees, including employees of Hyundai E&C and its subsidiaries, granddaughter companies, and partner companies. To implement the policy more actively, we have established an internal system, conducted regular monitoring of the current state of diversity and inclusion and disclosed the results of monitoring to stakeholders to make sure that the values of diversity and inclusion are fully incorporated across our business. Hyundai E&C is striving to be a company that respects diversity in gender, race, ethnicity, nationality, cultural background, disability, age, sexual orientation, and political and religious belief among our customers, suppliers, local communities, and various stakeholders.

Securing the Diversity of Employees

Hyundai E&C is improving its future competitiveness by securing diversity in recruitment. We have made efforts to ensure diversity in terms of gender, nationality, and age by appointing female executives since 2021 and appointing 2 female executives in 2022, as well as recruiting foreign employees. In addition, we are supporting fieldwork with our ‘Hire One Person with Disabilities per Site’ campaign to create social value by expanding the employment of persons with disabilities.

Basic Principles of the Human Rights Charter

Article 1	Prohibition of Discrimination	Article 6	Prohibition of Human Trafficking and Exploitation
Article 2	Working Condition Compliance and Equal Remuneration	Article 7	Compliance with Living Wages
Article 3	Humane Treatment and Prohibition of Harassment	Article 8	Guarantee of Industrial Safety
Article 4	Guarantee of the Freedom of Association and Collective Bargaining	Article 9	Protection of the Human Rights of Local Residents
Article 5	Prohibition of Forced Labor and Child Labor	Article 10	Protection of the Human Rights of Customers

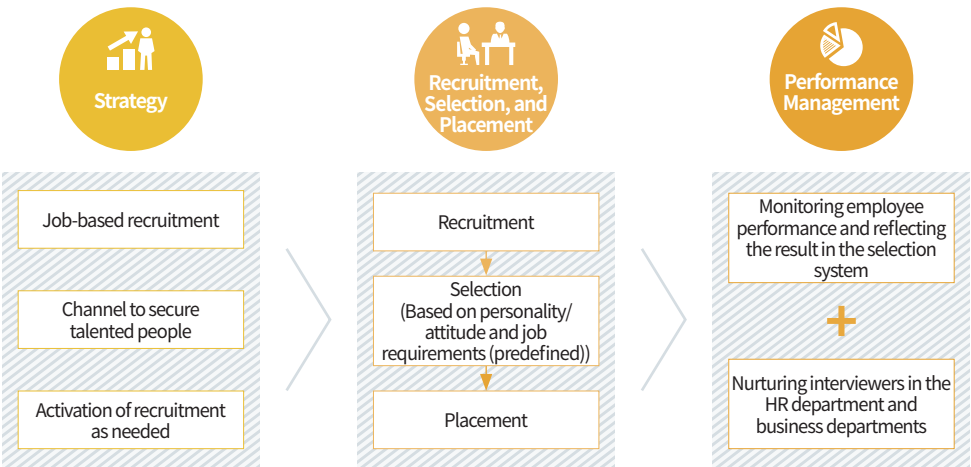
Cultivation Innovative Talent

Recruitment of Talent

Recruiting the Right People

Given the characteristics of the construction industry, which relies heavily on human resources, it is very important to foster excellent human resources and strengthen the capabilities of Hyundai E&C's human capital. Hyundai E&C aims to recruit the right people who have both job suitability and a willingness to contribute to the organization. To this end, we have established clear standards for job competency, secured various recruitment channels, established strategies to recruit new employees as needed, and created a virtuous cycle of human resources management that is composed of job-specific recruitment, screening, assignment, and performance management. In addition, we are improving our recruitment strategies continuously and helping employees adapt themselves to the organization early based on continuous monitoring.

Talent Recruitment Process



Cultivating Talent

Cultivating Innovative Challengers

Hyundai E&C is striving to foster 'Innovative Challengers' who challenge themselves to be the best by overcoming difficulties and embodying the 'Hyundai Spirit,' which means not being afraid of change. We nurture global experts by operating a global manpower training and rotational work policy and developing various educational courses such as customized job training and second foreign language courses. In addition, we support employees to continuously strengthen their capabilities by identifying their performance and needs for improvement, and provide opportunities for early promotion to high performers by selecting candidates for promotion based on performance and competency, without considering seniority. We provide the highest level of compensation befitting a global advanced company.

Providing Job Experience

Hyundai E&C provides various job experience opportunities to discover talented persons with high job suitability. Job experience opportunities are available through internship programs and internships for prospective university graduates, and those with excellent results are hired as project contract workers or new employees. In addition, through the summer/winter field practice program for intern students majoring in architecture-related disciplines at universities. All trainees were granted an exemption from document screening during the recruitment of college graduates. In 2022, we conducted a corporate job practice program through industrial-academic cooperation with Hansung University and IPP.

Operating the Technical Education Institute

Hyundai E&C operates the Technical Education Institute to train field-customized employees in line with the rapidly changing global construction environment. We operate vocational competency development training courses with support from the Ministry of Employment and Labor and Ministry of Land, Infrastructure and Transport and in 2022, a total of 13 courses were conducted, including overseas construction plant training courses and BIM construction management courses. In 2022, out of 423 graduates of Technical Education Institute at home and abroad, those with excellent practice assessments were recruited as domestic and overseas field PJTs. In this way, Hyundai E&C is providing not only opportunities for practical experience but also employment opportunities.

(Unit: person)

Classification	2019	2020	2021	2022	Total
Graduates of the Technical Education Institute	419	512	417	423	1,972

Diversifying Employee Training

Hyundai E&C has established a leadership pipeline to nurture the world’s top innovative talent and fosters core talent through leadership, experience, and competency training according to the characteristics of each stage. We have supported the development of customized job competencies by introducing essential job training programs for each position and job group and entered into a cooperation agreement and consignment contract with the Institute of Construction Technology Education, a dedicated educational institution, for the design construction and quality control training that is mandatory for construction engineers. We are also strengthening on-the-job training. In 2022, Hyundai Motor Group conducted company-wide employee ESG mindset training for 5,708 employees to raise ESG awareness among executives and employees, and this was managed in conjunction with KPIs for ESG management improvement tasks. Hyundai E&C operated a total of 3,542 training sessions in 2022 to focus its efforts on strengthening employee training.

2022 Training Courses

Classification	Curriculum (case)	Education category	Curriculum (case)
Common core values	1,324	General culture	1,134
		Legal requirements	68
		New growth/fourth industry	47
		Corporate culture	26
		New employee training	49
Leadership	54	Executive leadership	4
		Leadership by hierarchy	37
		Executive program	13
Job	1,904	Basic job qualifications	358
		Job training	1,037
		Type of work/Technical education	473
		Construction qualifications	35
		Experienced employee training	1
Global	260	Global business	126
		English	99
		Second foreign language	7
		Telephone/Video foreign language	28
Total			3,542

2022 Training for Full-time Employees

Classification	Performance	Classification	Performance
Total training hours	146,659 hours	Average training hours per trainee	33.4 hours
Total number of trainees	4,390 people	Average training costs per trainee	KRW 391,116

On-site R&D Job Training Program

To secure competitiveness in future core technologies, R&D is a critical element. Hyundai E&C is actively pursuing international joint research with global advanced institutions and clients to enhance our R&D capabilities and secure business competitiveness. We are also dispatching personnel to overseas advanced companies with core technologies to strengthen our employees’ R&D expertise. In particular, through a partnership with Holtec International, our affiliate company specializing in small modular reactors (SMR) and nuclear decommissioning, we have dispatched personnel to SMR and nuclear decommissioning sites. Hyundai E&C employees are involved in the entire process of nuclear decommissioning, including reactor cutting, spent fuel handling, and dismantling process management, expanding comprehensive cooperation in the field of the entire nuclear power lifecycle. Hyundai E&C provides our R&D personnel with the latest trends in construction technology and various job development opportunities, while applying new technologies and construction methods to the field to improve quality, reduce costs, and shorten construction periods through on-site technical consulting. Additionally, our participation in the development of technologies such as standardized design for offshore wind power, mechanized tunneling using Tunnel Boring Machines (TBMs), and HVAC systems has resulted in providing a total of 226 instances of technical support to domestic and international sites in 2022, as well as supporting 52 instances during the bidding stage, thus enhancing our competitive edge in securing projects based on our technical expertise. These efforts have also led to patent registrations for innovations such as tunnel dew prevention and ventilation fans. The number of patent applications increased by 81% in 2022 compared to the previous year, and Hyundai E&C achieved 15 new technology breakthroughs exclusive to the company in 2022.

Advancing the Smart-learning System

Hyundai E&C recommends customized educational content by job/position through our smart learning system, Growing Together, which executives and employees around the world can easily access anytime, anywhere, regardless of the working environment, and learners can select the educational content they want to learn at all times. We support a self-directed learning environment where learners can choose their desired educational content and engage in continuous learning. After the completion of the training, we evaluate the level of satisfaction with the training program according to the ratings and reviews provided by the trainees, and based on the results, the effectiveness of the training program is measured. In addition, various competency-enhancing activities such as educational videos within the smart learning system, in-house/external training, obtaining licenses, and improving language scores are quantified and measured as growth points, and up to 3,000 points per year are reflected in the personnel assessments of leaders. Organizational leaders are taking an interest in employee growth coaching and actively encouraging nurturing activities.

Fair Performance Appraisal and Compensation

Performance-Based Compensation System

Hyundai E&C provides compensation (performance pay) based on performance assessments. We are continuously improving our compensation system so that variable wages can be set fairly according to individual work performance, and by expanding this system to all employees, we can offer differentiated compensation for high performers while encouraging employees to work harder. From 2022, we have improved the job satisfaction of outstanding employees by improving their treatment through open recruitment of full-time employees and the job group conversion system. In relation to performance, other than financial assessment factors, such as orders and sales, KPIs for each division are set and reflected, which include ESG assessment items such as the environment, safety, quality, CSR, and information protection. Furthermore, in order to stabilize the livelihood of employees, basic wages are paid in consideration of living wages according to our Fair-compensation Policy. We aim to improve labor productivity by guaranteeing the wages of workers to ensure their livelihood stability and to improve the quality of the labor force.

Enhancing the Fairness of Performance Appraisal and Promotion

Hyundai E&C conducts a more accurate appraisal and provides fair compensation by subdividing the performance management system into goal setting, interim checks, assessment/grade determination, and calibration sessions based on performance achievement levels, strengths, and improvements through the MBO (Management by Objective)-based personnel system. For fair assessments, we provide performance management training to key managers and conduct individual/team-based performance management ongoing appraisals. During the appraisal process, interviews and coaching are encouraged to strengthen the feedback function, and employee acceptance and understanding are improved by providing information on appraisal results reviews and the promotion screening process to executives and employees. In addition, in response to the demand for multi-faceted assessments, leadership diagnosis, and peer reviews are conducted to reflect the results of 360-degree feedback. A total of 6,071 employees were subject to performance appraisals in 2022, excluding those who had worked for less than 6 months and new hires within the year.

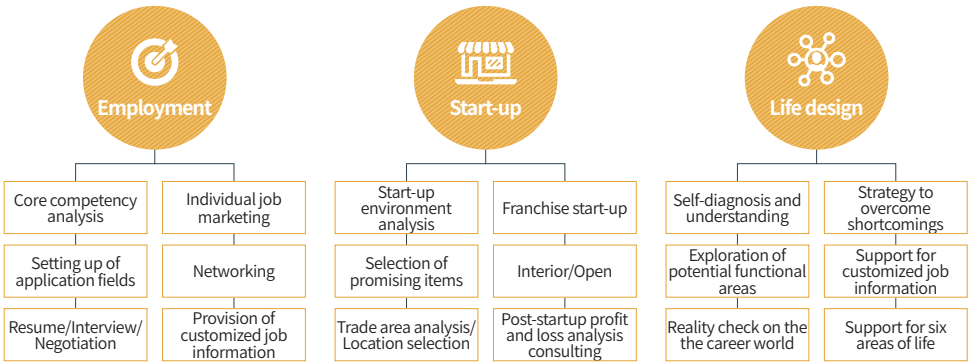
In the case of the promotion system, all personnel except those in their first year in a position are subject to promotion deliberation when the conditions for promotion are met, and promotions are based entirely on performance, not seniority. In 2022, to strengthen promotion by selection and discover excellent talent early, we implemented a peer recommendation system in addition to the individual recommendation of the selection and promotion system, and the promotion of the top 10% of personnel subject to selection and promotion was pre-determined.

Support for the Retirees

Support for Designing Second Life

Hyundai E&C operates a program to support second-life design for retirees aged 50 or older who wish to consult on changing jobs, excluding those who have worked for less than one year. We provide personalized consulting services such as self-diagnosis, career goal setting, job offer information, and start-up support for employment, entrepreneurship, and life planning. In particular, we operate a separate job change support center that provides offices, computer labs, and counseling rooms where you can prepare for employment or a start-up, ensuring more convenient participation. In 2022, systematic and comprehensive training and consulting programs were provided to a total of 24 people, including 22 people in the employment sector, one person in the start-up sector, and one person in the life design sector.

Second Life Design Support Program



Retirement Pension Plans

Hyundai E&C operates retirement pension plans for all employees to support those who have reached retirement age in preparing for their old age. In addition, product education is provided to subscribers to help them establish a stable foundation after retirement.

Retirement Pension Amount under Management

(Separate basis, unit: KRW million)

Classification	2021	2022
Long-term and short-term financial products	75,702	162,081
Insurance products	393,235	328,097
Others	1,182	1,084
Total	470,119	491,262

Fostering a Healthy Organizational Culture

Work Life Balance

Smart Work System

Hyundai E&C operates various smart work systems to create an efficient work environment. We offer flexible working hours, part-time work, and staggered hours, and remote work is also available for applicants with permission. In addition, by operating the PC-Off system, if employees do not separately apply for overtime when working 8 hours a day, the PC is automatically turned off to comply with the 52-hour work week. Furthermore, Hyundai E&C operates three base offices in the metropolitan area (Technical Education Institute (Daerim), Fast Five (Yeoksam), and Technology Research Center (Mabuk)) to create a hybrid working environment.



Technology Research Center (Mabuk)



Fast Five (Yeoksam)

Childcare Support System

Hyundai E&C operates an active childcare support system for each part of the life cycle so that employees can maintain a balance between work and child-rearing. We will prepare a parking area and parking fee support system for pregnant women in 2023. We have a lactation room in the medical room and support employees with children by running ‘Hyundai Dasom Nursery’ professionally managed by the Hansol Children’s Foundation. We also support congratulatory money for childbirth, Children’s Day, and school entrance and school expenses.

Health Support System

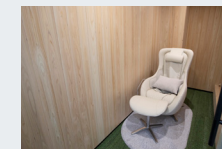
Hyundai E&C supports annual health checkups for employees and their spouses. To provide a wider range of benefits, starting in 2022, the opportunity for health checkups for spouses could be transferred to other family members, and a total of 7,053 people in 2022 were provided with health checkups worth KRW 2.3 billion. In addition, by improving the group accident insurance system which is in operation for employees, their spouses, and their children, we expanded the amount of support and allowed individuals to select insurance products. We provided the benefit to a total of 14,220 people. Furthermore, we have minimized safety and health problems for our employees by supporting comprehensive overseas safety management services for overseas business trips and employees, including our own as well as those of our partner companies.

Operation of Psychological Counseling Centers for Employees

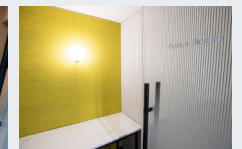
Since 2015, Hyundai E&C has operated online and offline employee psychological counseling centers to resolve employees’ grievances and strengthen their emotional capabilities. During the COVID-19 pandemic in 2022, untact psychological counseling was expanded, and a total of 402 consultations were held that year. We have a flexible operating system with a plan to expand face-to-face counseling in 2023 when the COVID-19 situation has improved. In addition, one-on-one interviews with a professional counseling agency are conducted for those who apply.

Hyundai E&C, Creating a People-centered Space through a Smart Office

Hyundai E&C strives to build a creative and horizontal organizational environment by operating a smart office. In particular, by opening the ‘Dudrim Zone,’ a rest area, and the ‘Focus Zone,’ we are innovating the workspace for better efficiency by providing places where employees can relieve stress and concentrate on their work.



Dudrim Zone



Focus Zone

Support for Leisure Activities and Resorts for Employees

Hyundai E&C operates various benefit systems so that employees can have time to recharge. In addition to recreational facilities provided for employees, we have newly established a support system for camping car use. Recreational centers are available to all employees for three nights and 4 days each year with the use of welfare points, and 19 centers are in operation nationwide. For employees with less than three years of service who do not receive welfare point benefits, two nights and three days are provided free of charge every year. In addition, we operate a sports center in the company building and provide sportswear and discounts. We installed health stairs to help employees manage their health through exercise at work. Hyundai E&C provides differentiated subsidies for vehicle purchases to full-time and contract workers according to their position and length of service.

Improving Communication between Labor and Management

Operating a Labor-Management Council Channel

Hyundai E&C guarantees the freedom of workers to join and withdraw from the labor union in accordance with Articles 3 and 5 of the Collective Agreement Labor Union Act and has established rules prohibiting the company from hindering the joining of the union and forcing employees to withdraw from the union to build trust and harmony between labor and management. As of December 2022, 100% of total 6,799 employees are protected by the collective bargaining agreement and 927 employees are registered to the labor union. In addition, it is a principle of the company to promptly notify the labor union in advance in the case of important business changes such as evaluation process, safety-health system improvement. Hyundai E&C convenes the Working Environment Improvement Committee every quarter, and through meetings of the committee in 2022, we promoted raising the standard amount for assessment-based increase by position, raising the basic wage for employees under the wage peak system, and expanding vehicle purchase subsidies for project contract workers.

Strengthening On-site Communication

Hyundai E&C have made efforts to ensure smooth communication between on-site employees and between the head office and sites. In 2022, we operated the beverage and snack delivery programs ‘Visiting Coffee Truck,’ ‘Cheer Up Fishcake Truck,’ and ‘Happy Lunch’ for all employees. In addition, we have diversified our communication channels by opening various YouTube channels. In 2023, we plan to continue our efforts to strengthen communication within sites with the ‘Yummy Snack Truck,’ a snack delivery program, and are planning domestic site participation programs to expand communication between the head office and sites.

Employee Support Programs

Classification		Details
Smart work system	Flexible working hours system	Headquarters, branches/subsidiaries, and domestic sites operated on a 2 week basis, and overseas sites on a 3 month basis
	Staggered hours system	3 rush hours operated at the head office (7:00, 8:00, and 10:00), and suitable shift teams operated for each site
	Part-time work system	Various work systems operated, such as 4 hour and 5 hour systems
	Remote work system	Remote work possible for those who apply
	PC-off system	PC-off after working 8 hours every day; prior application required for overtime
	Base office operation	Hybrid working environment created through the operation of a base office in the metropolitan area
	Shortened working hours for Family Day	Every second Friday designated as ‘Family Day,’ and employees can leave work 30 minutes early
Childcare support system	Operation of a workplace nursery center	Quality childcare provided through the operation of a workplace nursery center
	Congratulatory money support	Congratulatory money provided for children of employees, such as birth congratulations, admission congratulations, Children’s Day, etc.
	Student loan support	School expenses supported for children of employees up to high school/college level
	Reduced working hours during pregnancy	Working hours reduced up to 2 hours within the first 12 weeks of pregnancy and after 36 weeks
	Reduced working hours during the early childhood period	Minimum of 15 and up to 35 hours per week for 1 year
Vacation/leave of absence system	Parking support for pregnant women (planned)	Parking area for pregnant women and parking fee support
	Maternity leave	60 days of paid maternity leave for female workers (legal standard: 90 days) 10 days of paid work leave for male workers (legal standard: 10 days)
	Parental leave	12 months of paid parental leave for female workers (legal standard: 52 weeks) 12 months of paid parental leave for male workers (legal standard: 52 weeks)
	Infertility treatment leave	Up to 3 days of leave per year and paid vacation for the first day
	Family care vacation	Up to 10 days of unpaid leave per year
	Family care leave	Unpaid leave of up to 90 days per year
	REFRESH vacation	Paid leave of up to 3 months provided for self-development or recharging
	Onboarding support leave	Paid vacation provided once in the first half of the year and once in the second half of the year until the second year of employment
	Support for the use of resorts and camping cars	Support the use of employee recreation centers and camping cars
	Health screenings	Regular health checkups conducted for employees and their spouses
Health support system	Group accident insurance	Group accident insurance expanded for employees, their spouses and their children
	Employee Healing Program	Professional psychological counseling and coaching service provided for the mental health of employees up to 6 times a year
	Operation of an in-house medical office and nursing room	In-house medical room operated with professional nurses, and nursing room provided within the infirmary
	Overseas comprehensive safety management service	Safety management support for healthcare, security, psychological counseling, etc., provided for overseas business travelers/employees (including business partners)

Improvement and Diagnosis of Organizational Culture

Corporate Culture Slogan to Encourage Innovation

Challenge of HDEC

Based on the result of the 2021 organizational culture diagnosis, Hyundai E&C adopted ‘Have you tried it?’ as the corporate culture slogan in 2022 to internalize the value of innovation. In addition, we strive to inspire a willingness to take on challenges by creating customized slogans for each organization and displaying them on posters/screen savers. Hyundai E&C selected ‘Shall we?’ as the corporate culture slogan for 2023 to continuously encourage challenges and seeks to create a performance based on organizational capability through participatory programs, such as ‘Shall we meet?: Write our own team profile.’



Slogan ‘Have you tried it?’

Technique of HDEC

To emphasize innovation in the technical field once more, Hyundai E&C selected the slogan ‘Drawing Korea’ in 2022 and implemented the ‘Technology Hyundai Program.’ Through this, we produced and posted posters and screen savers showing our core technology and announced our achievements in technical innovation in the form of a picture diary. In this way, we have motivated all executives and employees to have pride in our technological capabilities and feel the importance of individual self-development for our development.



Technology Hyundai Program

Activities to Improve Corporate Culture

Hyundai E&C strives to maximize job engagement. Ideas for practical work improvement have been collected and reflected through employee comments, and in 2023, we plan to operate a ‘Prism’ bulletin board for more systematic management. In addition, through the excellent employee reward system, a total of 54 awards were awarded in 2022 to employees who were exemplary in terms of cost improvement, technological innovation, and corporate culture. We plan to expand the scope of awards by establishing a merit award section and increasing the frequency of the corporate culture section to bimonthly. Furthermore, employee awareness of the organizational culture was enhanced through the 2022 reporting culture improvement campaign and organizational culture improvement cut-toon.

Survey on Employee Engagement

Since 2017, Hyundai E&C has conducted an organizational culture diagnosis survey targeting all employees. The main survey items are job satisfaction, company recommendations, and desire to continue working. Through these items, we look at necessary elements to work smoothly together, such as job experience, internal motivation, empathy for organizational direction and goals, happiness, and stress management. Based on the survey results, sub-organizations conduct in-depth diagnosis through on-site verification and in-depth 1:1 interviews. The survey was conducted on 3,113 people in 2022, and the average positive response rate was 67.7%. The positive response rate in the survey has been continuously increasing for most items, including the question related to the desire to continue working, for which the improvement was 16.4% compared to the previous year.

2022 Employee Engagement Survey Results

(Unit: %)

Classification		2020	2021	2022
Average score		65.1	63.3	67.7
Position	Senior manager	74.3	71.8	74.0
	Junior manager	57.9	54.0	59.7
	Non-manager	52.5	54.5	61.6
Gender	Male	67.0	64.7	70.6
	Female	55.9	56.7	56.5
Age	Over 55	81.9	75.5	82.2
	45-54	72.7	71.6	78.3
	35-44	56.9	56.3	61.8
	Under 34	47.9	56.7	61.6

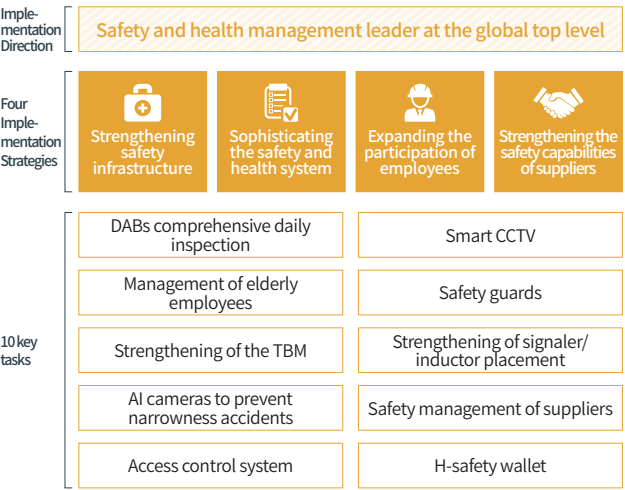
Spread of a Health and Safety Culture

Strengthening the Safety Management System

Strategies and Policies of Safety Management

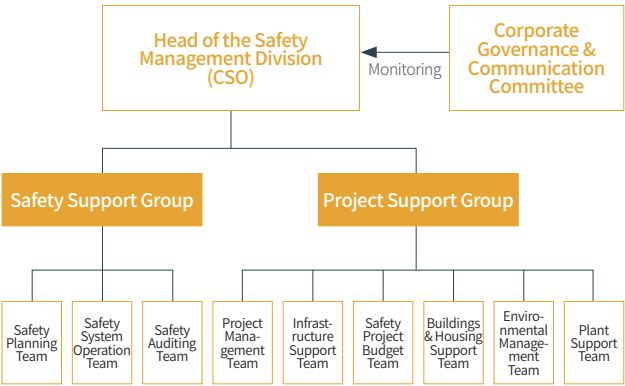
Safety management is considered an important issue due to policy changes, such as the recent enforcement of the Severe Accident Punishment Act, the announcement of the Severe Accident Reduction Roadmap, and an overall rise in the level of safety management in the construction industry. Hyundai E&C has established 12 safety standards, four strategies, and 10 core tasks with safety as its top priority and set the goal of reducing the accident rate by 5% while realizing zero severe accidents in the company and its partners. Accordingly, we plan to select 10 core implementation systems, carry out a complete renewal of the internal standards, and strengthen the precise diagnosis of implementation status and equipment management. In particular, in terms of the safety of our partners, we apply the same policies as for our own employees. As a result, Hyundai E&C is leading the construction industry by maintaining a lower-than-average accident fatality rate and intends to construct a solid safety value chain that connects site workers, suppliers, and the company.

Safety Management Implementation Strategies and Key Tasks



Strengthening the Safety Management Organization

Hyundai E&C operates the Safety Support Group and Project Support Group under the CSO (Chief Safety Officer). The company-wide safety and health system and policy are discussed and adjusted through the safety and health consultative body in charge of company-wide safety and health, and the current status and plan for operating the safety and health management system are presented and discussed as major agenda items of the Corporate Governance & Communication Committee within the board of directors at least twice a year. In addition, we are promoting safety manpower reinforcement by increasing the number of safety and health managers, granting safety certification requirements when appointing domestic personnel, and promoting active safety improvement activities for all executives and staff through the establishment of safety and health KPIs linked to compensation. In addition, in collaboration with the Industrial Safety Mutual Growth Foundation, a non-profit foundation launched in 2022, we have supported domestic SMEs to strengthen their safety management capabilities. Furthermore, Hyundai E&C has built an advanced safety and health management system based on international standards by acquiring ISO45001 and KOSHA MS certifications, and as of 2022, 100% of workplaces had been certified.

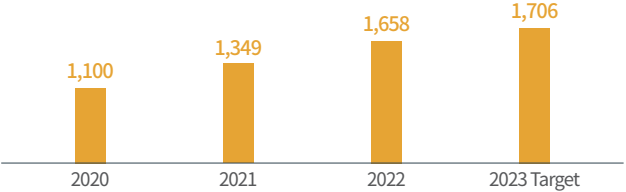


Expanding Investments in Safety Management

Hyundai E&C steadily expanded investments in safety and health from 2018 to 2022 to strengthen its safety management system and spent KRW 165.8 billion, or 107% of the planned budget for 2022, on CCTV, smart technology, safety equipment, protective equipment, training, etc. In addition, to strengthen safety management capabilities and support recruitment, when a partner company hires a safety manager for a construction project where there is no legal obligation to appoint a safety manager (construction projects worth less than KRW 10 billion), the wages of the person in charge are subsidized. We provided KRW 1.76 billion to 124 employees in 2022. In 2023, we plan to invest KRW 170.6 billion, a 3% increase from the previous year, in safety rewards, smart safety, and safety guide*, and we also plan to increase the budget for on-site safety management by additionally providing an average of KRW 100 million per site.

* A system that supports a employee's wage when a partner hires a safety staff for a construction project where there is no legal obligation to appoint a safety manager (construction projects worth less than KRW 10 billion) to strengthen safety management capabilities and support recruitment

OHS investment performance and plans



Classification	(Unit: KRW 100 million)	
	Investments made in 2022	Investments planned in 2023
Safety equipment (CCTV, smart technology)	56	57
Other investments (rewards, research expenses, etc.)	143	160
Safety equipment costs	500	503
Safety gear	245	254
Others, including training expenses (safety training, examinations, consulting)	714	732
Total	1,658	1,706

Safety and Health Risk Assessment

Hyundai E&C operates a regular risk assessment system to identify harmful and risk factors on site and minimize risks. First of all, when a site is opened, an initial risk assessment is conducted for all processes, then enactment/revision measures are implemented for non-conforming cases. Afterward, the initial risk assessment is supplemented through regular risk assessments. In addition, risk assessments and improvement measures are implemented at least three times in the event of a safety accident or when taking action on non-conforming cases. Based on the IT system, we have established a system whereby managers and workers can participate in risk assessments regardless of the time and place, and risk factors identified through risk assessments are continuously identified and inspected. In addition, risk factors and countermeasures derived from risk assessments are shared with workers through the TBM (Tool Box Meeting). In this way, we are making it possible for assessments to be internalized.

2022 Risk Assessment Results

Classification		Adequate	Non-conformance	Action Rate
Risk assessment of all processes	Enactment/revision and review/approval	180cases	72cases	100%
	Whether the contents of the risk assessment are appropriate	123cases	129cases	100%
	Risk reassessment after an accident	209cases	43cases	100%
Risk assessment of suppliers	Submission of monthly risk assessment	140cases	112cases	100%
	Participation of safety officials and workers	139cases	113cases	100%
	Linkage with the construction safety and health management plan	222cases	27cases	100%
	Missing process	151cases	101cases	100%
	Whether the contents of the risk assessment are appropriate	138cases	114cases	100%
	Risk reassessment after an accident	207cases	45cases	100%

Follow-up Actions after Risk Assessments

Hyundai E&C has established and managed risk reduction measures based on the risk size and number of affected workers for risk factors identified through risk assessments. Risk tasks and factors are prioritized according to the assessment results, risky, and measures for risk factors subject to intensive management are registered and then tracked and managed from various angles. In addition, by analyzing data related to safety accidents and implementing a system for risk assessment-based recurrence prevention measures rather than follow-up measures, we have established a system for directly checking risk factors common to the company on-site.

Causes of Major Accident Types and Measures to Prevent Recurrence

In the event of an accident, Hyundai E&C classifies it by the type of construction and accident, analyzes various potential causes of the accident at the technical, institutional, and managerial levels, and establishes measures to prevent recurrence in order to manage risks. The details are systematically managed through the internal IT system, and the causes of accidents, analysis results, and preventive measures are shared company-wide as 'disaster cases' to raise awareness of safety among employees.

Classification	Major Disaster Factors	Measures to Prevent Recurrence
Caught in between	· Narrowness caused by construction equipment (e.g., aerial work platforms)	· Strengthen company-wide guidance officer/signaler placement management · Install anti-narrowness rods and double reinforcement of horizontal bars on all scissor lifts in all sites · Inform/Educate workers after identifying work procedures and risk factors in advance
Falling object	· Materials falling due to poor working methods (line hanging, simultaneous work above and below, etc.)	· Strengthen control of dangerous areas (introduce a smart system, etc.) · Establish work plans thoroughly · Comply with safety rules for hanging ropes (color coding, etc.)
Collision	· Collision with construction equipment/lifting objects · Collision with structures/materials, etc.	· Comprehensively implement core equipment systems (smart safety devices, such as AI cameras)
Fall from height	· Insufficient installation/management of safety equipment and facilities equivalent to temporary buildings	· Comply with temporary facility installation regulations · Re-establish and distribute standardization regulations
Common		Diagnosis of 100% implementation of core systems and equipment management · Set up 10 key health and safety systems and strengthen monitoring · Perform preemptive precision diagnosis and strengthen the safety management of construction equipment
		Advancement of the risk assessment system and IT system-based safety management · Systematize the H-PMS in the process of horizontal deployment and on-site application of major recurrence prevention measures · Develop a system that reflects risk assessments in real-time for safety activities and simplify the mobile TBM menu use process · Improve the disaster prediction system and expand the application of smart safety technology across the company
		Establishment of a safety and health leadership program · Develop safety and health education programs for all employees by life cycle · Expand the safety culture experience hall and improve the education system by upgrading the curriculum, etc.

*Manage same-factor recurrence prevention after analyzing recurrence factors

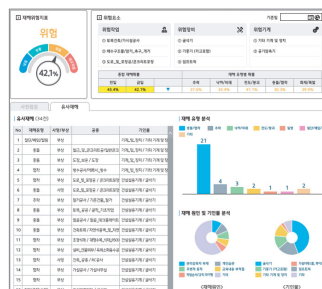
Smart Safety System

Disaster Prediction AI

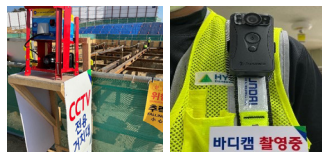
Hyundai E&C manages site safety through a disaster prediction AI(Artificial Intelligence) developed in-house that uses more than 39 million big data points collected from various projects carried out over the past 10 years. This disaster prediction AI system provides disaster risk information on domestic projects of Hyundai E&C that are currently underway at each site every day. Through this, the site manager and person in charge can receive disaster prediction information via e-mail and text message on the day of work and conduct preemptive safety management.

We are utilizing cutting-edge technologies such as, IoT (Internet of Things), robotics, CCTV, black boxes, and body cams to enhance safety monitoring, eliminate blind spots, and strengthen proactive disaster prevention and on-site safety management. By leveraging various smart safety technologies, we aim to improve overall safety measures and ensure a safer working environment.

Hyundai E&C plans to continuously digitize safety-related information collected from each site to advance the performance of its disaster prediction AI and expand its application to various fields.



Screen of the AI Disaster Prediction System



Continuous CCTV Recording

Automatic Clamshell Hazard Detection System

Hyundai E&C has introduced an automatic clamshell hazard detection system to prepare for safety accidents that may occur during underground construction. Due to the nature of underground construction, it is difficult to effectively warn workers of danger by relying only on signalmen due to site noise and the wide distribution of workers. But the system work automatically through sensors underground and above ground that detect movements. The sensors accurately check the movement of clamshells, and while movement is detected, they inform workers of danger through sirens, warning lights, and danger warning messages to prepare for safety accidents in advance.

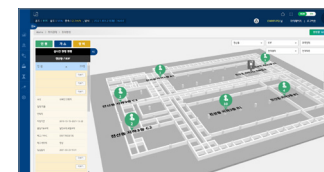


Clamshell Automatic Hazard Detection System

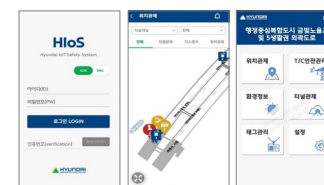
Application of the HloS

Hyundai E&C has established its safety management system through the HloS (Hyundai IoT Safety System), the first such system developed in the construction industry in 2019.

HloS is a cloud-based smart integrated automatic instrumentation monitoring system that can comprehensively manage the condition of on-site temporary structures and the ground in real-time. It is designed to prevent collapse accidents that can occur during construction. By integrating with the system, site data is analyzed in real-time to assess the stability of the site. This technology helps to detect issues in advance, take necessary measures, and improve on-site safety. Seven technologies, including worker location information, tower crane collision prevention, and fire detection, were developed to upgrade the system to version 2.0, and abnormal signs related to worker's health and the site can be detected in advance to prevent safety accidents and continuously improve work productivity. Now, HloS is applied to the Gimpo-Paju Road No.400 Construction Section 2 and the remodeling of the KT Gwanghwamun West Building and will be applied to other sites in the future.



HloS PC Web Screen



HloS Mobile App Screen

Preventing Crush Accidents with AI Image Recognition System

Hyundai E&C has introduced a narrowness accident prevention system based on AI image recognition to substantially improve the shortcomings of the existing ultrasound method. The existing ultrasound-based narrowness accident prevention system could not distinguish between people and objects, so there was a problem of constantly generating unnecessary alarms. The AI image recognition system, however, distinguishes between objects and people using AI and detects whether a person has approached heavy equipment. The safety of workers can be secured efficiently by sounding an alarm. In addition, to eliminate the blind spots of cameras, we plan to continuously improve by collaborating with technology holders to enable omnidirectional image recognition.



AI Equipment Collision Prevention System



AI Collision Prevention LCD/LED Lights Up and Warning Sound Occurs

Sophistication of Safety Inspections

Hyundai E&C has strengthened its safety and health performance through an annual internal safety and health diagnosis. In 2022, we formed three or four groups to diagnose 172 sites in the first half and 166 sites in the second half for planning, site safety management, and implementation status. By integrating the diagnosis results, we identify the major strengths and weaknesses of the company's safety and health management, establish a data-based system, and use it as a monitoring system. Furthermore, we are raising the level of regular safety management at construction sites by newly operating the 365 Safety Patrol, a non-annual safety inspection system for sites across the country. All 151 sites in Korea are inspected for unsafe behaviors and conditions as well as other safety violations. A total of 528 inspections have been carried out, and we plan to strengthen the inspection level by recruiting inspection experts in the future. In addition, as part of our active efforts to eradicate serious accidents, a total of 4,735 safety inspections were conducted in 2022, including CEO/CSO safety inspections, safety and health diagnoses, and initial on-site support inspections.

Operation of Safety Inspection Systems

(Unit: Case)

Classification	2020	2021	2022
Safety inspection by the CEO and CSO	13 (CEO)	41 (CEO)	64 (CSO)
Safety and health examination (including initial on-site support inspection)	- (COVID-19)	408	338
365 Safety Patrol	- (New in 2021)	364	528
Inspection of construction machines/equipment	110	888	2,428
Special inspection of Headquarter (HQ) employees	1,565	875	1,377
Total	1,688	2,576	4,735

Strengthening of Capabilities to Respond to Emergency Situations

Hyundai E&C is continuously strengthening its emergency response system to promptly respond to emergencies and minimize human and material damage. To this end, comprehensive emergency drills are conducted four times a year at each business site based on various scenarios for fire, counter-terrorism, and hazardous chemical transport accidents. After training, we identify and improve problems through assessment and analysis.

Spread of Safety Awareness among Employees

Internalization of Safety and Health Training

Hyundai E&C conducts safety and health training at the head office at least once a quarter for executives, team leaders, and site managers and plans to institutionalize its safety and health leadership program. In addition, we reopened the safety culture experience hall, which encompasses smart safety facilities such as AR/VR, and plan to actively provide safety and health guidance for workers so that they can develop horizontally by further expanding experiential training for partners. Hyundai E&C has expanded its safety education content by producing and distributing safety inspection training videos for construction equipment, which is a major accident vector in the construction industry and a vulnerability for field workers. We have made efforts to produce much effective content by preparing and distributing accident cases.

2022 Safety and Health Training Program

Training name	Training content	Trainees
Management Safety Leadership Training	Regular safety leadership training once a quarter	Head office executives, field managers and overseas managers
Regular Training for Head Office Employees	More than 6 hours of regular safety and health training per quarter	All employees
Steppingstone Training for New Safety/Health Managers	Job competency reinforcement training	New on-site safety/health managers
Legal Safety Job Training	Legal job training (organization of customized training subjects)	Site managers, safety managers, management supervisors
Safety Training for Foreign Workers (China, Vietnam, Myanmar)	Mother tongue safety education in three languages: Chinese, Vietnamese, and Myanmar	Foreign workers
Company-wide Safety Training (Safety training for new employees, Training for Suppliers with Insufficient SH Ratings, Training for Persons in Charge of Field Equipment, Training for Those Who Violate Safety Rules, etc.)	Safety competency reinforcement training, job training	New employees, suppliers with insufficient SH assessments, persons in charge of on-site equipment, violators of safety rules, etc.

Safety Management Mileage System

Hyundai E&C operates a safety management mileage system to strengthen industrial accident prevention activities through the participation of on-site employees in safety activities. This system presents quantitative goals and measures for safety activities and measures performance. In addition, in to establish a culture of participation in safety activities, individuals and safety activity sites are rewarded, and the safety management capabilities of employees are quantitatively managed by incorporating the new system into mileage items. In 2023, we plan to reflect safety mileage activities in risk assessments and reinforce the safety management system in connection with risk assessments.

Strengthening of the Safety and Health Management of Suppliers

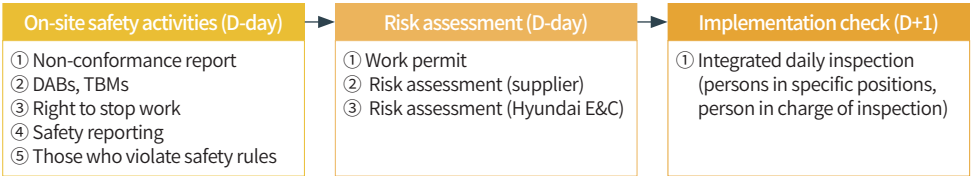
Supplier Risk Assessment Registration and Approval System Establishment

The importance of risk assessment is being emphasized with the recent revision of relevant laws and regulations following the roadmap for reducing serious accidents. Accordingly, Hyundai E&C has established and operated a risk database through an IT system dedicated to safety and health management and has introduced industrial safety and health standards to procurement and contract requirements. To ensure effective risk assessment in key assessment areas such as the participation of safety personnel, integration with construction safety and health management plans, and identification of omitted processes, we have established a system that allows for regular registration and approval by supporting a database linked with our on-site management system (H-PMS) and reflecting the safety activities performed by supervisors and workers in real time through risk assessments. We strive to reduce risk factors and prevent accidents by guaranteeing the participation of workers from partner companies in all stages of preparation, discovery of hazardous risk factors, risk determination, and inspection of implementation.

Risk Assessment Registration and Approval System



Incorporation of Safety Activities in the Risk Assessment System in Real-Time



Safety and Health Assessment and Training Consulting for Suppliers

Hyundai E&C supports safety and health education and consulting for its partners to realize win-win cooperation and shared growth with partners in safety and health. In 2022, we conducted an SH (Safety & Health) assessment on partners through an independent third-party organization and provided safety and health training to a total of 117 partners who were evaluated as 'insufficient.' We also provided 58 of them with safety and health consulting expenses totaling KRW 201,000,000. In 2023, we plan to expand our support for the assessment of the safety and health management systems of suppliers.

Safety and Health Training for Insufficient Suppliers

(As of 2022)

Classification	Target	Participating Suppliers
High-risk construction	43 companies	41 companies
General construction	208 companies	76 companies
Total	251 companies	117 companies

Safety and Health Consulting for Insufficient Suppliers

(As of 2022)

Classification	Target	Participating Suppliers
High-risk construction	43 companies	34 companies
General construction	208 companies	24 companies
Total	251 companies	58 companies

Incentive System for Suppliers

Hyundai E&C has introduced an incentive system and expanded communication channels to raise safety awareness among the workers of partner companies and encourage active safety behavior. We have developed and are operating the H-Safety Wallet, the industry's first accident-free incentive platform for workers, to practice safety management with the participation of workers. The H-Safety Wallet is a system that provides incentives in the form of cash points to workers who actively participate in safety management, such as accident-free certification, safety training completion, TBM attendance, and safety reporting activities. As of March 23, 2023, 19,000 people were enrolled, and the cumulative points were 197,000,000.

Hyundai E&C has operated a 50% advance payment system for safety management expenses to support early site preparation among suppliers. This system pays in advance 50% of safety management costs stated in the subcontracts to suppliers in the early stage of construction so that they can meticulously manage safety from the initial stage without any burden. Importantly, we do not request a return guarantee for the safety management fee paid in advance to prevent suppliers from giving up the pre-payment due to the burden of fund execution.

STRATEGY 6.

Enhancing Value Chain Capability and Creating Values for Local Communities

Hyundai E&C has made efforts to establish a sustainable value chain through communication and cooperation with the goal of ‘mutual growth through mutually beneficial cooperation.’ Through annual supply chain ESG assessments, we have established an advanced supply chain management process by diagnosing the ESG status of our suppliers and providing feedback. In addition, Hyundai E&C puts the highest value on ‘humans’ and seeks to realize love for humanity by creating a better living environment. We have performed various activities to fulfill our social responsibilities with a focus on three key areas: a safe environment for future generations to live in, talent development for future generations, and sustainable local communities.

2022 Achievements

ESG assessment of suppliers

On-desk assessment **458** companies
On-site due diligence **44** companies

Creation of a shared growth fund

KRW **160** billion

CSR activities

12,231 hours
(Participation of 3,456 employees)

Sustainable Supply Chain Management

Supply Chain Management Policies and Strategies

Compliance with the Supplier Code of Conduct

[HDEC Supplier Code of Conduct](#)

Hyundai E&C has built a sustainable supply chain with the enactment of the ‘Hyundai E&C Supplier Code of Conduct,’ which is based on authoritative codes of conduct such as the UN Global Compact 10 Principles and the Building Responsibly Initiative. The code applies to all partners of Hyundai E&C and requires them to follow the best operating practices and to comply with laws and regulations in the fields of ethics, the environment, labor/human rights, safety/health, and management systems. In 2023, we aim to achieve a 100% signature rate for the code of conduct when signing contracts with suppliers. In 2022, to create a transparent and fair-trade culture by emphasizing the importance of corporate ethics management and social responsibility for suppliers, we offered transparent ethics training to a total of 832 companies and received a ‘code of ethics for suppliers’ pledge after training.

Supplier Management System

Major agendas related to the ESG of partner companies and the supply chain at the company level are reported to the Corporate Governance & Communication Committee under the board of directors. Through the Sustainability Steering Committee under the Corporate Governance & Communication Committee, employees in charge of supply chain ESG management within the in-house procurement department receive quarterly training and assign improvement tasks. In 2022, we assigned improvement tasks such as establishing and improving the ESG promotion policies of suppliers and checking whether suppliers’ wages correspond to the living wage of the country concerned. Through this, we are strengthening our expertise in partner management and actively participating in and promoting improvement tasks.

ESG Assessment of the Supply Chain

Supply Chain ESG Assessment Process

Hyundai E&C has been operating its own supply chain ESG assessment process since 2020 to respond preemptively to risks inherent in the supply chain. The assessment consists of four stages, and our purchasing practices towards suppliers are continuously reviewed to ensure alignment with Supplier Code of Conduct.



Status of Suppliers

(As of 2022)

Classification	Number of suppliers (Number of companies)	Rate of suppliers	Purchase rate
Tier 1 Suppliers			
Total suppliers	3,931*	100%	100.0%
- Material delivery suppliers	2,201	55%	40.0%
- Construction suppliers	1,779	45%	60.0%
- Significant suppliers	211	5.4%	32.9%
Non-significant suppliers	0	0.0%	0.0%

* Excluded 49 procured/outourced duplicates

Supplier Screening

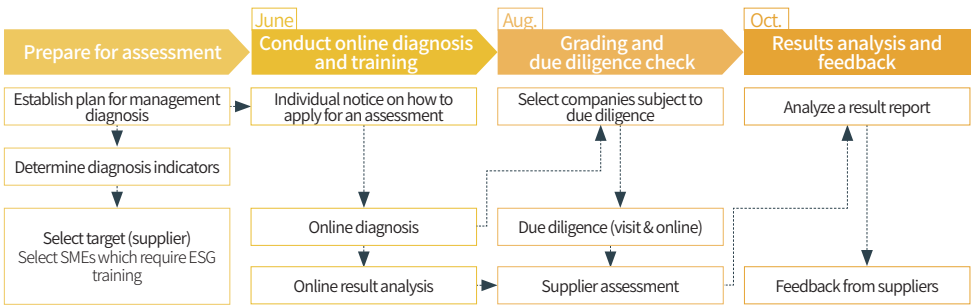
Hyundai E&C conducts supplier screening to identify suppliers requiring major management before on-desk assessment and on-site due diligence. If a supplier does not meet the minimum ESG requirements at the screening stage, we exclude it during the contract signing stage and give priority to a supplier with a better ESG level. During screening, Hyundai E&C considers various aspects, such as the environmental, social, governance, and business relevance of all partners, and understand thoroughly external risk factors, such as risks by industry, risks by product or service provided by partners, and risks by country of business. In 2022, we selected a total of 211 suppliers requiring major management through partner screening.



Supplier On-desk Assessment and On-site Due Diligence

Through the supply chain ESG assessment, we classify suppliers into seven grades after evaluating the four areas of ethics, the environmental, labor/human rights, and safety/health. In particular, as the average scores of suppliers who have consistently conducted supply chain ESG assessments are higher than the scores of suppliers conducting the assessment for the first time, it was judged that the assessment was an effective way to reduce the risks of suppliers, and thus supply chain ESG assessments have been further expanded and there are plans to upgrade them.

On-desk assessment and On-site Due Diligence Process



Composition of Assessment Indicators

To identify latent risks or those that may occur in the scope and subject of the assessment of supply chain ESG, Hyundai E&C referred to the ESG best practices of the Korea ESG Standards Institute, domestic laws and institutional norms, and examples of advanced companies in the same field to conduct a total of 70 questions. These constitute ESG diagnosis and due diligence indicators. In addition, we are continuously making improvements based on the types of grievances received and handled by past partners, listening to the opinions of executives and employees, and reviews by third-party professional organizations.

Ethics	Environmental	Labor/Human rights	Safety/Health
<ul style="list-style-type: none">· Transparent management/anti-corruption, prevention of conflicts of interest· Prevention of unfair trade· Prevention of counterfeit parts· Compliance with export restrictions· Information protection· Responsible purchase of materials	<ul style="list-style-type: none">· Establishment of an environmental management system· Energy use and greenhouse gas emissions· Water resource management· Management of air pollutants· Waste management· Chemical substance management	<ul style="list-style-type: none">· No discrimination· Provision of wages and benefits· Management of working hours· Humanitarian treatment· Freedom of association· Prohibition of child/forced labor	<ul style="list-style-type: none">· Establishment of a safety and health management system· Safety management of machinery/tools/facilities· Responses to emergency situations· Accident management· Safety diagnosis

On-desk Assessment

Hyundai E&C has conducted ESG management diagnoses for suppliers through online surveys. Potential ESG risks in the supply chain identified through a on-desk assessment are additionally confirmed and verified through an on-site due diligence process, and a total of 458 companies completed the 2022 on-desk assessment.

On-site Due Diligence

To secure the reliability of on-desk assessment results, Hyundai E&C selects business sites to be subject to on-site due diligence by considering characteristics, such as location, transaction type, transaction size, and management standards. In particular, as a result of the on-desk assessment, the ESG risks of potential suppliers are confirmed, and business sites where negative impacts are expected are given priority when selecting targets for on-site due diligence. On-site due diligence is conducted jointly by Hyundai E&C and an independent third-party assessment agency through on-site visits. In 2022, on-site due diligence was conducted for a total of 44 companies. According to the results of the due diligence, improvements were required in the environmental (greenhouse gas emissions and establishment of reduction targets, environmental management system supplementation) and governance areas (strengthening of ESG management and information disclosure, expansion of ethics and compliance management promotion), but not so much in the social sector. After the due diligence, consulting services are provided, including individual supplier diagnosis reports, to suggest improvement directions appropriate to the supplier's situation.

2022 On-site Due Diligence Results

* Target: 44 companies



* Average weight by sector: Environmental (30%) / Social (40%) / Governance (30%)

Corrective Actions for ESG Risks

Hyundai E&C derives improvement tasks through on-desk assessments and on-site due diligence, and each business site establishes an implementation plan for each improvement task and takes relevant measures. For the risks identified during the on-site due diligence process, improvement tasks are established by consulting with the person in charge of the business site on the timing, implementation method, and expected problems. Each business site checks the current implementation according to the plan established for each improvement task and also whether the improvement task has been completed. Furthermore, we encourage each supplier to carry out ESG improvement activities independently by sharing best practices with other suppliers. In 2022, a total of 354 suppliers were assessed for negative impacts, and contracts with 71 suppliers were terminated.

Goals and KPIs of Supplier ESG Management

Hyundai E&C plans to strengthen the selection criteria for H-Leaders (H-Prime Leaders and H-Leaders), which refer to excellent suppliers and achieve sustainable supply chain management with the goal of enhancing purchasing competitiveness. We will provide KRW 1 trillion in strategic purchase incentives to strengthen the competitiveness of H-Prime Leaders, the most elite suppliers, who are selected for their excellent capabilities in the safety/quality/process sectors. In addition, to ensure transparent and practical assessments, we are focusing on supply chain risk management by increasing the safety/quality assessment ratio to 50% and adjusting the registration group if the standard is not met. We analyze the ESG status of our suppliers and provide feedback through annual supply chain ESG diagnosis assessments targeting major suppliers and SMEs (Small and Medium-sized Enterprises) with insufficient ESG levels. Furthermore, we are promoting the establishment of separate communication channels to improve communication with our suppliers, and we are continuously improving our policies to promote ESG among our suppliers, such as having them sign mandatory participation agreements for ESG. In 2023, we plan to expand the scope of the supply chain sustainability management assessment and introduce a supplier incentive system based on the sustainability management assessment results.

Eco-friendly Procurement through a Green Purchase Policy

Hyundai E&C has established the HEGS (Hyundai Environmental Goods Standard), six eco-friendly purchase standards, by preparing green purchase guidelines to minimize environmental impacts that may occur at construction and managed green purchase performance based on the standards. In 2022, eco-friendly green purchases amounted to KRW 129.4 billion, accounting for 2.77% of total purchases. In addition, when evaluating suppliers in the supply chain, we strive to internalize green purchasing policies within the supply chain, including eco-friendly certification of products and services along with an the eco-friendly management system.

To respond to the growing interest in the environment, Hyundai E&C plans to advance its eco-friendly purchase management system in 2023 to strengthen green purchase certification management.

1	Eco-friendly building materials (HB certification)	4	Energy saving certification
2	Environmental label certification	5	High efficiency certification
3	Environmental product declaration	6	Others (foreign environmental mark, etc.)

Win-win Cooperation and Shared Growth

Shared Growth Strategy

Hyundai E&C has strengthened its value chain through communication and cooperation to boost the competitiveness of its suppliers with the goal of ‘mutual growth through win-win cooperation’. Through regular meetings, we directly listen to the voices of our partners and promote win-win growth with them through shared growth programs. Under the H-Together declaration, Hyundai E&C is carrying out a wide range of partner support activities, including finance, education, recruitment, and welfare activities, in the five sectors of safety, quality, transparency, win-win growth, and new technology. Furthermore, through activities such as the H-Leaders (H-Prime Leaders and H-Leaders) system and rewards for excellent suppliers, we have motivated our suppliers and emphasized the importance of win-win cooperation. Hyundai E&C plans to enhance the procurement competitiveness of its suppliers by expanding strategic purchases and strengthening and improving the criteria for selecting excellent suppliers.

Shared Growth Implementation Strategy

Hyundai E&C has operated an optimal collaboration system by forming a three-dimensional response organization, going beyond the operation of a dedicated organization for each field, in order to effectively spread fair trade and win-win cooperation.

Compliance Council	• Responsible for the company-wide dissemination of ethics and compliance, and implementation inspections
Policy Support Team 1	• Policy response and fair trade oversight department
Global Cooperation Team	• Dedicated department for applying fair trade and win-win cooperation to actual subcontracting
Win-Win Management Committee	• Fair trade and mutual cooperation deliberation and decision-making body
Shared Growth Council	• Decision-making and the establishment of individual subcontracting dispute response strategies • Operation of the win-win growth program

Better Communication with Suppliers

H-Prime Leaders & H-Leaders

Hyundai E&C held two meetings with partners in the first half and second half of 2022, and had opportunities to meet and communicate with its best partners, H-Leaders (H-Prime Leaders and H-Leaders), and excellent partners, H-Members. In March 2022, the regular general meeting of H-Leaders and a management seminar were held to reward excellent suppliers for their hard work, and there was a briefing session on purchasing policies to deliver information that suppliers truly needed. Hyundai E&C considers the value of communication to be important, and will continue to communicate with its partners in the future.

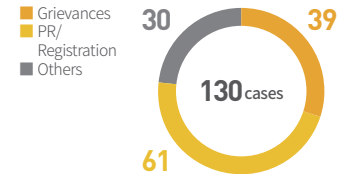


2022 H-Leaders Regular General Meeting and Executive Seminar

Operation of Communication Channels

Hyundai E&C has resolved the grievances of its partners regularly through H-Dudrim, an integrated internal and external civil complaint solution channel. In 2022, we resolved all 130 grievances received through H-Dudrim within 1.7 days on average. We are also operating a safety reporting center where suppliers can report work suspensions and make safety and health suggestions and received a total of 1,905 cases and settled all of them in 2022. In this way, we have conducted activities for worker safety through various channels.






2022 Status of Inquires Received in H-Dudrim (Suppliers)



2023 H-Prime Leaders Forum

Sustainable Shared Growth Policy for Suppliers

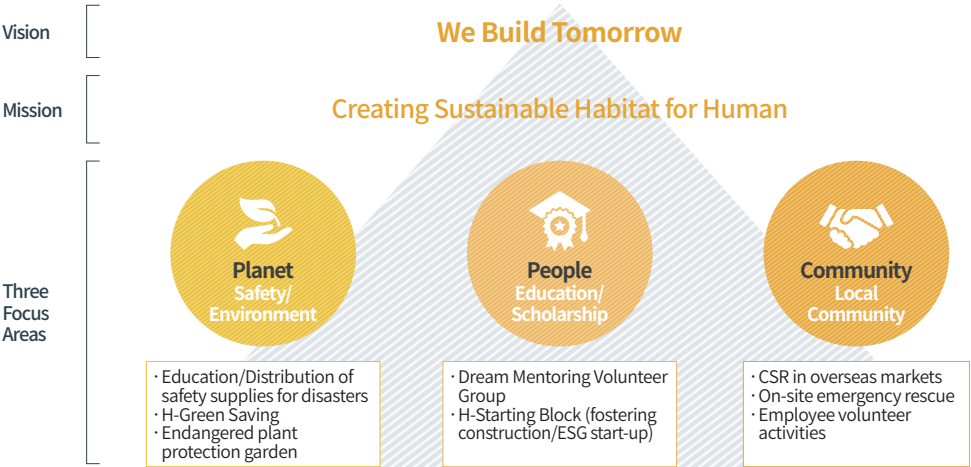
For sustainable supply chain management, Hyundai E&C has implemented a diversified supplier management policy in five areas: win-win growth, safety, quality, transparency, and new technology. It includes practical support measures, such as the operation of a KRW 160 billion mutual growth fund, KRW 1 trillion for strategic purchase, safety consulting to enhance the safety management capabilities of suppliers, and a safety wallet. As a result of operating the most effective win-win growth program, Hyundai E&C obtained the highest grade for 4 consecutive years in the win-win growth index assessment in September 2022 and was selected as the 'Best Honorary Company,' an award given to the best company for 3 consecutive years.

H-Together	Program	Overview and Outcome
 Share Together	<ul style="list-style-type: none"> Shared growth fund support 50% exemption in performance bonds Job training for employees Management course for construction shared growth at the Chung-Ang University 	<ul style="list-style-type: none"> By operating a win-win growth fund worth KRW 160 billion in 2022, we supported loan interest so that suppliers could receive loans at a lower interest rate than the standard rate from financial institutions For excellent partners, 50% of the performance bonds is reduced to relieve their financial burden Providing various practical training programs, such as management, safety, quality, and ethics training, for employees of partners Operating the 'Construction Shared Growth Management course' in connection with the Chung-Ang University Graduate School of Construction to provide educational opportunities to top management and create a venue for exchanges
 Safe Together	<ul style="list-style-type: none"> Strategic purchase from suppliers at the excellent safety level (negotiated contract) Wage support for safety guides H-safety wallet Safety consulting support Increase in safety assessment weighting 	<ul style="list-style-type: none"> Providing support for suppliers with excellent safety, quality, and performance to secure stable supplies through strategic purchases worth KRW 1 trillion annually, as of 2022 For construction projects with a contract amount of less than KRW 10 billion, where there is no legal obligation to appoint a safety staff, the worker's wages are supported if a supplier hires a safety manager Encouraging autonomous safety management by providing points proportional to the number of accident-free working days to workers who comply with safety rules Supporting the establishment of a safety and health management system and reinforcing safety management capabilities through diagnosis and consulting by professional organizations for sub-companies undergoing safety assessments Securing a safe working environment by increasing the weight of safety assessment when evaluating suppliers
 Quality Together	<ul style="list-style-type: none"> Q-Pocket Q-Consulting 	<ul style="list-style-type: none"> From 2021, real-time on-site inspections through the mobile-based smart integrated inspection system Q-Pocket and utilization of functions such as automatic notification of scheduled tasks by cycle Continuously improving quality support through Q-Consulting while improving quality competitiveness by continuously providing quality improvement training materials
 Clean Together	<ul style="list-style-type: none"> Support for supply chain ESG assessment and training H-Dudrim 	<ul style="list-style-type: none"> Implementing ESG education and diagnosis/consulting related to environmental management, social responsibilities, and governance through a third-party professional organization to promote the sustainable management of suppliers Operating the H-Dudrim bulletin board, an integrated civil complaint window, to provide a regular communication channel for partners to collect complaints and suggestions
 Smarter Together	<ul style="list-style-type: none"> Technology contest 	<ul style="list-style-type: none"> For small and medium-sized enterprises with excellent technologies, providing all R&D expenses and a construction site required to verify technology and offering opportunities for commercialization for technologies that have passed effectiveness verification

Creation of Value for Local Communities

CSR Implementation System

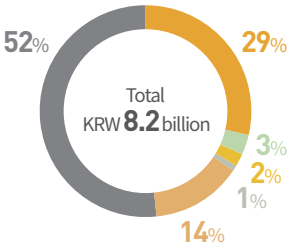
Based on Hyundai Motor Group's social responsibility message of 'The Right Move for the Right Future,' Hyundai E&C has presented a social responsibility vision called 'We Build Tomorrow,' which contains its own vision and philosophy. We have conducted strategic social contribution activities based on the characteristics of the industry, with a focus on the three areas of Planet, People, and Community. Along with social contribution programs for environmental protection, disaster safety, fostering future generations, and coexistence with local communities, all employees actively participate in solving social problems by participating in the Love Sharing Fund. In 2023, we plan to establish a standard system by establishing detailed standards that take into account reliability and transparency in social contribution donations and partner selection.



2022 Donations

- Social welfare
- Education and academic research
- International aid and exchanges
- Culture and art
- Environment and disaster relief
- Others (Shared growth fund/rural and fishing villages fund)

* As of 2022, there were no direct or indirect political contributions of any kind.



CSR Performance Management System

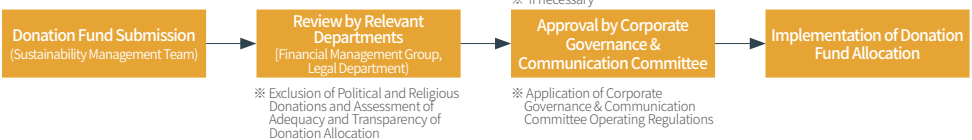
Hyundai E&C has operated a social contribution mileage system since 2010 and reflected the performance of activities in the KPI for each division. In addition, we encourage the participation of executives and employees by awarding rewards and certificates to those who excel in social contribution activities every year. In 2022, 3,456 employees participated, adding a total of 12,231 hours and earning a company-wide average of 3.4 miles. From 2023, the mileage system will be expanded to a reward system for each department. In addition to the existing social contribution mileage system, we will introduce an integrated CSR mileage system that integrates 'Green Mileage' activities, such as flogging and tree planting campaigns, to encourage employees to practice carbon reduction in their daily lives. We plan to achieve five miles per person per year by 2025 by changing the performance management system so that employees can voluntarily practice social contribution activities in their daily lives.

CSR Implementation Governance

Hyundai E&C has operated a social contribution consultative body, an executive-employee consultative body, and an external social contribution advisory committee to collect opinions from internal and external stakeholders. The Corporate Governance & Communication Committee under the Board of Directors considers possible risks in the community in advance in accordance with Clause 3, Article 3 of the Committee's Operational Regulations, the Ethics Charter, and the Code of Practice before executing donations according to related social contribution task standards. We plan to establish a system to evaluate the direction of annual social contributions, the budget review, and donation adequacy to increase transparency in donation operation and conduct company-wide social contribution activities throughout the year.



Donation Fund Management Process

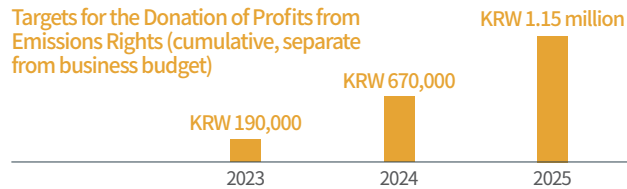


Story of Social Contribution



H-Green Saving to Improve the Energy Efficiency of Vulnerable Groups

H-Green Savings is a project that supports energy-vulnerable classes and social welfare facilities by installing solar panels and replacing existing lights with high-efficiency LEDs so that they can reduce GHG emissions and electric charges. Starting from the first H-Green Saving in 2021, we installed LED lightings and solar panels in social welfare facilities in 2022. The greenhouse gas reductions obtained through the assessment of greenhouse gas reductions by the Korea Energy Agency are recognized as carbon credits, and the revenues secured thereby are re-donated to the Seoul Energy Welfare Citizens Fund. The annual reductions were about 19tCO₂e for the 1st project and 28tCO₂e for the 2nd project, and the revenues will be used for energy education projects for youth in the field of the environment.



H-Green Saving Donation Delivery Ceremony

Distribution of Safety Suppliers for Disaster and Training

In order to solve social problems related to natural disasters and other disasters based on its construction industry capabilities, Hyundai E&C has been carrying out a social contribution project since 2019 where it provides disaster safety accident prevention education and disaster safety products to children, the first such project in Korea. In 2022, 3,798 disaster helmets were distributed to eight elementary schools in the Pohang area, and evacuation drills were conducted to prevent secondary accidents in the event of a disaster. Considering earthquake-damaged areas, we plan to continue to support disaster safety accident prevention for children in 2023 as well.



Disaster Safety Accident Prevention Education

Campaign to Grow Companion Trees

In October 2022, Hyundai E&C conducted company-wide environmental volunteer activities in line with the first carbon-neutral declaration in the construction industry. As part of a campaign to spread awareness of carbon neutrality among employees and create forests, 641 employees participated in the campaign and donate potted plants effective at purifying indoor air to welfare facilities and children's centers. In 2023, trees proportional to the number donated will be planted in forest fire-stricken areas to contribute to natural recovery and forest creation. Furthermore, as an external campaign, we carried out the 'Green Campaign with 45 Trees for 20 Days' to commemorate the 2045 Carbon Neutral Declaration. Hyundai E&C plans to carry out various environmental protection campaigns to internalize eco-friendly awareness.



Companion Tree Raising Service and Forest Creation Campaign

#. PEOPLE

Hillstate Dream Building Mentoring Volunteer Group

Hyundai E&C's Hillstate Dream Building Mentoring Volunteer Group is a social contribution organization that works with Hyundai E&C and the social welfare corporation Children and Future Foundation to strengthen the self-reliance capacity of youths. Academic guidance and career counseling are provided to youth mentees from low-income families, and social experience, know-how and employment counseling are provided to college student mentors. In 2022, a total of 57 people made practical changes by building friendships as well as achieving academic success through about 10 months of activities. The social value of the 2022 8th Dream Mentoring Volunteer Group is about KRW 141 million in terms of monetary value created. We greatly contributed to reduce youth private education costs and help the career exploration of college students through 1,440 hours of learning mentoring (cumulative 11,280 hours) and 360 hours of career mentoring (cumulative 4,130 hours).

2022 Social Value Created by the Dream Mentoring Volunteer Group

Input	Result
Project sponsorship: KRW 95 million	Monetary value creation: KRW 141 million (SROI 148.3%)
Employee talent donation: 1,440 hours	Provision of career exploration opportunities
University student study guidance: 360 hours	Adolescent performance improvement/career setting support

Smart City Creativity Education

Starting in 2022, Hyundai E&C has conducted smart city creative education for middle school students (2 schools, 72 students) in Jongno-gu, reflecting the characteristics of the construction industry. Through theoretical education on the construction industry, smart city, and smart technology and simulated production of future cities, we have greatly contributed to enhancing the image of the construction industry and interest in smart cities.



Smart City Creative Education Site

#. COMMUNITY

Expanding Global CSR Activities

Reflecting the nature of the construction industry, which has many overseas projects, Hyundai E&C has made it mandatory to promote overseas CSR activities when entering business sites in developing countries. From 2011 to the present, we have carried out 52 projects in 22 countries (Indonesia, Vietnam, Philippines, Bangladesh, etc.) in various fields such as health and sanitation support, self-sufficiency support for the vulnerable, education, livelihood, and the renovation of public facilities. In 2022, we provided hygiene kits (disinfection items) and foodstuffs to 7,728 vulnerable households in Calumpit and Apalit in the Philippines and offered 90 PCs to government agencies, including 37 public high schools. In addition, we supported IT classrooms and library remodeling in schools in Zugdidi, Georgia, to create an environment in which quality education can be provided. In February 2023, 140 employees participated and donated 1,506 items to support the earthquake disaster in Turkiye.

CSR Activities with the Participation of Employees

Hyundai E&C continues to operate participatory social contribution activities for executives and employees to develop and build trust in areas near domestic vulnerable groups and overseas construction sites. In 2022, 429 executives and employees participated in a voluntary quarterly blood donation and other donation campaign, and about 2,343 items were donated to Beautiful Stores and resold. In addition, 1,615 executives and employees voluntarily raised donations of about KRW 240 million in love-sharing funds to support the underprivileged near business sites at home and abroad. Furthermore, through the Jongno Social Welfare Center and Gahoe-dong One Company, One dong Connection Project, we produce and donate quarantine items using DIY kits to vulnerable groups in Jongno and regularly provide food products.



Opening Ceremony of a Remodeled School in Zugdidi, Georgia



Support of Supplies for the Earthquake Disaster in Turkiye



Food Support for the Underprivileged in Jongno



The 9th Dream Building Mentoring Program Inauguration Ceremony for 2023 (with the participation of outside director Cho Hye-kyung)

HDEC PRINCIPLE

Fair Value Implemented
by Hyundai E&C

STRATEGY 7. Sound Governance and
Ethics & Compliance
Management

Governance	76
Ethics & Compliance Management	83

STRATEGY 8. Integrated Risk
Management and
Protecting Human Rights
in the Value Chain

Integrated Risk Management	86
Protecting Human Rights in the Value Chain	90



UAE Nuclear Power Plant Units 1 to 4

STRATEGY 7.

Sound Governance and Ethics & Compliance Management

A transparent corporate culture and compliance management are key elements of sustainable management. Hyundai E&C operates its board of directors under the principle of responsible management based on checks and balances. To establish sound governance, we strive to build trusting relationships with stakeholders through ethics management activities as a responsible corporate citizen by strengthening the independence, expertise, and diversity of the Board of Directors. To this end, we take a leading role in promoting a corporate culture rooted in ethics by reinforcing compliance and ethics management practices across all levels, including Hyundai E&C employees, affiliates, suppliers, and business partners.

2022 Achievements

Board meetings held

11 times
Attendance rate
Inside directors: 100%
Outside directors: 95.5%
Average: 97.4%

Evaluation of board efficiency

4.81 /5 points

Cyber Audit Group

151 cases registered and settled

Governance

Governance Principles

Hyundai E&C has established a transparent corporate governance system that prioritizes an independent board of directors and a professional management structure, following the recommendations of the Corporate Governance Code of Best Practices in line with international standards. Through this system, we strive for value-driven management, global future management, and sustainable practices, aiming to achieve a well-rounded corporate governance framework that considers both shareholder value creation and the interests of internal and external stakeholders. Furthermore, we have implemented a Corporate Governance Charter that defines the independence of our Board of Directors and outlines the conditions for ensuring independence. Additionally, we publish an annual Corporate Governance Report to enhance transparency in governance and safeguard the rights of our shareholders.

Definition and Principles of Board Independence

Definition of Board Independence	"Corporate Governance of Hyundai E&C aims to set a sound Governance Structure that creates shareholder's value and appreciates interest of internal and external customers through professional management under the supervision of independent Board of Directors" - Preface of Hyundai E&C's Corporate Governance Charter -		
Governance Philosophy	Independence of the board	Management expertise	Enhancement of shareholder value
Governance Features	Organization of the BoD centered around outside directors	Operation of committees within the BoD	Strengthening of the expertise of committees within the BoD
Principles of Board Independence	1. Guarantee of board independence by an independent lead director	2. Appointment of an independent lead director	3. Establishment of the target share of outside directors
		4. Transparency in the process of appointing outside directors	5. Composition of committees mainly with outside directors

Appointment of Directors

All directors of Hyundai E&C are appointed through a resolution at the general shareholders' meeting, and outside directors are appointed from candidates recommended by the Nominating Committee for Outside Directors. Candidates recommended by the Nominating Committee for Outside Directors are selected as final candidates after deliberation by the board of directors and the selection of the candidate is presented as an individual agenda at the general shareholders' meeting. Inside directors can hold up to four positions concurrently for the faithful implementation of the job, and outside directors cannot hold more than two positions such as director, executive director, or auditor of the other company. In the candidate recommendation and appointment process, expertise in the areas of finance, accounting, law, construction, engineering, and safety management are considered as well as diversity in areas such as gender. In particular, we consider interest conflicts and independence-related disadvantages for outside director candidates.

Composition of the Board of Directors

Hyundai E&C's board of directors has a total of seven members with three inside directors and four outside directors to guarantee management transparency and check on the board effectively. We satisfy the requirement of Article 542(8)1 of the Commercial Act regarding the share of outside directors, as outside directors make up 57.14% of the board of directors of Hyundai E&C. We also have one independent lead director. Due to the fast-paced nature of the construction industry, which requires prompt decision-making both domestically and internationally, the CEO serves as the chairman of the Board of Directors to promote efficient decision-making and enhance corporate competitiveness. Furthermore, the chairman of each committee are all outside directors to ensure the independence of the Board of Directors.

Status of the Board of Directors

(As of April 2023)

Position	Name	Gender	Date of Appointment	Career Experience	GICS Classification	Relevance to Job or Industry	Board Skills Matrix								
							Economics/ Management	Finance/ Accounting	Audit	Law	Risk Management	Construction Technology	Sustainability	Independence	Global
CEO (Chairman)	Yoon Young-Joon	Male	Mar. 25, 2021	(Current) President of Hyundai E&C, CEO (Former) Executive Vice President of Hyundai E&C (Housing Works Division) (Former) M.A. in Environment, Graduate School of Yonsei University	Construction & Engineering	· Theoretical capabilities to promote sustainable construction · Experience in housing works and civil engineering site manager at Hyundai E&C	●				●	●	●		●
Inside Director	Kim Kwang-Pyung	Male	Mar. 25, 2021	(Current) CFO of Hyundai E&C (Former) Vice President of Hyundai E&C (Finance & Accounting Division) (Former) B.A. in Economics, Korea University	Finance & Accounting	· Expertise in funds and finance · Executive in charge of finance at Hyundai E&C	●	●			●	●	●		●
Inside Director	Hwang Joon-Ha	Male	Mar. 24, 2022	(Current) CSO of Hyundai E&C (Former) Vice President of Hyundai E&C (Procurement Division) (Former) B.A. in Trade, Hankuk University of Foreign Studies	Safety management	· Capabilities in establishing strategies to respond to safety and health risks · Head of the Safety Management Division of Hyundai E&C	●				●	●	●		●
Outside Director (Lead Independent Director)	Kim Jae-Jun	Male	Mar. 23, 2023 (Reappointed)	(Current) Professor of Architectural Engineering at Hanyang University (Former) President of the Korean Institute of BIM (Former) Ph.D. in Construction Management, Graduate School, University of Illinois at Urbana-Champaign, U.S.A.	Construction & Engineering	· Advanced expertise in the construction industry · President of the Korean Institute of BIM* in 2015 (* Building Information Modeling)			●		●	●	●	●	●
Outside Director	Hong Dae-Sik	Male	Mar. 23, 2023 (Reappointed)	(Current) Professor, Law School of Sogang University (Former) Lawyer at Yulchon L.L.C (Former) Ph.D. in Law, Graduate School of Seoul National University	Law	· Non-standing member of the Personal Information Protection Committee · Member of the Competition Policy Advisory Group of the Fair Trade Commission · Chairman of the Korea Competition Law Association	●		●	●	●		●	●	●
Outside Director	Cho Hye-Kyung	Female	Mar. 25, 2021	(Current) Professor of IT Convergence, Engineering School of Hansung University (Former) Director of the Korea Institute for Robot Industry Advancement (Former) Ph.D. in Advanced Control and Instrumentation, Graduate School of Seoul National University	Construction & Engineering (Construction robots)	· Academic activities* and research experience in smart construction (*"A Study on the Adjustment of Level of Autonomy to Improve the Work Performance of Collaborative Robots (2006)"	●		●		●	●	●	●	●
Outside Director	Chung Moon-Ki	Male	Mar. 24, 2022	(Current) Professor in the Department of Business Administration, Sungkyunkwan University (Former) Outside director of POSCO (Former) Ph.D. in Business Administration, Sungkyunkwan University	Finance & Accounting	· Expertise in accounting/finance and audits · Experience as a PWC auditor, New Jersey, US	●	●	●		●		●	●	●

* As of April 2023, the average tenure of board members is 2 years

Independence, Expertise and Diversity of the Board

Independence of the Board

Hyundai E&C has strict standards for the independence of outside directors that meet the legal standards under the Commercial Act of the Republic of Korea. Under the act, outside directors cannot serve as directors, executive directors, or auditors at two or more companies concurrently. We also secure the independence of its board of directors by appointing independent lead director. Independent lead director performs roles such as monitoring the CEO's management activities, mediating between internal and external directors, and collecting opinions from outside directors. We have established guidelines for the operations of the Nominating Committee for Outside Directors, and as per these guidelines, we ensure that all outside directors comply with the independence standards outlined in the Corporate Governance Charter. Furthermore, we form committees led by outside directors and have strengthened the function of the Audit Committee as part of our effort to establish transparent and fair governance.

Independence Standards for Outside Directors

“Outside directors shall have knowledge and experiences in the industrial, financial, academic, legal, accounting, and public sector, and must have no interests with company in the last five (5) years.”

- 1 Records of being employed in the Company or its affiliates for the past 5 years
- 2 Records of director's family member(s) being employed by the Company or its affiliates for the past 3 years
- 3 Records of receiving non-wage compensation in excess of USD 60,000 yearly, except for those circumstances allowed by 「SEC Rule 4200 Definitions」
- 4 Currently not employed by the Company's external auditor
- 5 The Director is not an executive or employee of a corporation that i) provides the advisory services to the Company ii) has signed the technical partnership with the Company
- 6 Records of director being hired by the Company or the representative of the Company for Advisory / consulting
- 7 Records of director being employed by a corporation that has ongoing business with the Company the amount exceeding the Company's total assets or the 10% of the Company's operating Profit for the past 3 years
- 8 Records of Director's employed organization(s) signing the contract with the Company exceeding the 10% of the Company's total revenue
- 9 Records of the director being irrelevant to those matters dealt in the Committees

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

Diversity of the Board

[HDEC Corporate Governance Charter](#)

Hyundai E&C is ensuring diversity in the composition of the board of directors to analyze the company's important decisions from a complex perspective. We strive to identify opportunities and risk factors related to business and respond to such risks in advance based on diversity, thereby improving our corporate competitiveness. There are no restrictions on the composition of the board of directors in terms of gender, nationality, or age, and this no-restriction rule is specified in the Corporate Governance Charter. In 2021, Hyundai E&C enhanced the diversity of its board of directors by appointing Cho Hye-Kyung, an accomplished independent director with expertise in construction and engineering.

Expertise of the Board

The expertise of individual directors is the basis for coming up with various measures to deal with issues that may arise while conducting business. The board of directors of Hyundai E&C includes experts in legal matters related to major business, finance and accounting, construction and engineering, and safety management and they perform decision-making and management supervision functions to enhance corporate competitiveness. As of March 2023, the board of directors was composed of seven directors, including an outside director with safety management experience in the overall construction industry and an outside director with expertise in production and quality based on his job experience in major construction and engineering projects in Korea. In particular, chairman Yoon Young-Joon, outside director Hwang Jun-Ha, outside director Kim Jae-Jun, and outside director Cho Hye-Kyung have abundant experience in the same industry based on GICS classification and a high level of understanding of smart construction, which is a new growth engine of Hyundai E&C.



Kim Jae-Jun, an outside director, awarded the Presidential Commendation for Technological Innovation in the Smart Architecture field

Training for the Board of Directors

Hyundai E&C conducts training in various fields based on its annual training plan to strengthen the expertise and risk-related knowledge of its outside directors. In 2022, we provided training to improve understanding of business and sites, training on the internal accounting management system, and training to strengthen the responsibilities of outside directors across the company. In particular, outside directors were allowed to visit overseas sites to learn about potential risks that could occur on-site. In addition, we arranged visits to business sites and research centers and held a seminar for newly appointed outside directors to improve the understanding of board members by sharing detailed information on the state of the company.

2022 Outside Directors Training Activities

Date	Training Provider	Training Content
Jan, 7	Hyundai E&C's Board of Directors	Outside directors' visit to overseas sites to improve understanding of business
Oct, 26	KPMG	Consolidated internal accounting management system
Dec, 1	Samil PwC	Strengthening the liability of outside directors



Outside Directors Visited Overseas Sites

Operation, Evaluation and Compensation of the Board

Operation of the Board

In principle, regular board meetings should be held four times a year in accordance with Article 6 of the Board of Directors Regulation. If there is an agenda to be addressed urgently, a board meeting can be held as necessary. Board meetings are convened by the chairman and a director of the board may ask the chairman to convene a board meeting. In 2022, a total of 11 board meetings were held and notice on the convening of a board meeting is provided at least seven days before the meeting in accordance with the articles of incorporation. Decisions are made with a vote in favor of the agenda by a majority of attendees and the decision on the agenda, attendees, opinions in favor of or against the agenda, and those who presented the opinions are disclosed transparently through the meeting minutes.

2022 Status of ESG Agenda Deliberation by the Board

Date	Details
	Approval of the operation and plan of the safety and health management system
Jan. 26, 2022	Appointment of Compliance Officer
	Report on acquisition of ISO37001 certification
Jan. 27, 2022	Confirmation of appointment of CSO
Feb. 22, 2022	Report on the operation and plan of CP
Mar. 16, 2022	Revision of regulations of Corporate Governance & Communication Committee
	Approval of roadmap for Net-Zero by 2045
Oct. 26, 2022	Report on the operation and plan of CP

Committees under the Board of Directors

Hyundai E&C has the Audit Committee, Nominating Committee for Outside Directors, Corporate Governance & Communication Committee, and Compensation Committee under its board of directors. Each committee maintains its independence by meeting the proportion of outside directors according to the Commercial Act and the regulations of the Board of Directors and includes experts in each specific area. The attendance rate of each committee member and the approval for agendas are disclosed in business reports.

2022 Average Attendance Rate of Board Members

Average 97.4%

Attendance rate of inside directors 100%

Attendance rate of outside directors 95.5%



Sustainability Steering Committee ESG Improvement Excellence Department Award Ceremony (With the participation of Outside Director Hong Dae-sik as the Chairman of the Corporate Governance & Communication Committee)

Status of the Board of Directors

Classification	Audit Committee	Nominating Committee for Outside Directors	Corporate Governance & Communication Committee	Compensation Committee
Yoon Young-Joon, Inside Director	-	Member	-	-
Hwang Joon-Ha, Inside Director	-	-	-	-
Kim Kwang-Pyung, Inside Director	-	-	-	Member
Kim Jae-Jun, Outside Director	Member	-	Member	Chairman
Hong Dae-Sik, Outside Director	Member	-	Chairman	Member
Cho Hye-Kyung, Outside Director	Member	Chairman	Member	-
Chung Moon-Ki, Outside Director	Chairman	Member	Member	-

Audit Committee

The Audit Committee was established for the purpose of securing independence in the audit process. Four members, including the chairman of the Audit Committee, are outside directors, and one of the members is an expert in accounting or finance. In 2022, the Audit Committee meeting was held 6 times in total, covering topics such as the appointment of the chairman of the Audit Committee, the establishment of operation regulations, the 2022 plan to operate the internal accounting management system, reporting on internal audit results, and planning and reporting on the settlement of accounts.

2022 Operation of the Audit Committee

Date	Detail	Approval status	Attendance rate	Approval rate
	Approval of the 72nd financial statement	Approved	75%	100%
	Approval of the 72nd business report	Approved	75%	100%
Jan. 26, 2022	Report on external consulting result of safety and health plans Report on for internal control over financial reporting for 2021 Report on settlement of accounts for 2021 Reporting of internal audit results and plans	Reported	75%	-
Feb. 22, 2022	Report on audit fulfillment for the 72nd financial statement and communication	Reported	75%	-
Mar. 24, 2022	Appointment of chair of Audit Committee	Approved	100%	100%
Apr. 22, 2022	Report on compliance of external auditor for 2021 Report on settlement of accounts for 1Q 2022 Audit Committee communication for 1Q 2022	Reported	100%	-
Jul. 22, 2022	Report on settlement of accounts for 2Q 2022 Audit Committee communication for 2Q 2022	Reported	100%	-
Oct. 26, 2022	Report on settlement of accounts for 3Q 2022 Audit Committee communication for 3Q 2022	Reported	100%	-

Nominating Committee for Outside Directors

Hyundai E&C has established and operated the Nominating Committee for Outside Directors to ensure fairness and transparency in the process of recommending outside director candidates. Two of the three members are outside directors. The recommendation of candidates and review of qualifications are conducted strictly according to the standards for operating the Nominating Committee for Outside Directors.

2022 Operation of the Nominating Committee for Outside Directors

Date	Details	Approval Status	Attendance Rate	Approval Rate
Feb. 22, 2022	Recommendation of outside director candidates	Approved	80%	100%

* Number of members as of 2022: A total of 5 members (1 inside director, 4 outside directors)

Compensation Committee

For the independent and responsible operation of the board of directors, Hyundai E&C has established and operated the Compensation Committee to design a transparent and reasonable compensation policy and improve shareholder value. It deliberates and decides on the remuneration limit for registered directors and the remuneration system for inside directors. It consists of one inside director and two outside directors.

2022 Operation of the Compensation Committee

Date	Details	Approval Status	Attendance Rate	Approval Rate
Feb. 22, 2022	Approval of the 73rd remuneration limit for directors	Approved	100%	100%

Corporate Governance & Communication Committee

Hyundai E&C has established and operated the Corporate Governance & Communication Committee to ensure transparency in company transactions, promote ethics management, and protect shareholder rights and interests. The committee ① reviews major management matters, the transparency of internal transactions, and ethics management, ② checks the implementation of the fair trade compliance program, ③ prepares policies related to ethics management and social contribution, ④ establishes, revises, and evaluates the Code of Ethics, ⑤ selects sustainable vision and strategic tasks, ⑥ protects shareholder rights and interests, ⑦ reviews and approves ESG issues (consumer rights and interests, safety and health, climate change, human rights, supply chain, local community, etc.) and other major non-financial management issues, ⑧ deliberates and decides on issues, such as performance evaluation of the general safety and health manager. In particular, the committee checks company-wide ESG promotion issues, such as supply chain ESG diagnosis, due diligence management supervision, meeting agenda reporting for biodiversity policy and deforestation policy approval, the appointment of the risk management manager and information protection manager, and the review of key issues related to climate change and the establishment of a response system. To enhance independence and transparency, it consists of only four outside directors and one of the members was appointed as the member in charge of protecting shareholder rights and interests.

2022 Operation of the Corporate Governance & Communication Committee

Date	Details	Approval Status	Attendance Rate	Approval Rate
February. 22, 2022	Approval of financial transaction with financial affiliates by contract	Approved	75%	100%
	Approval of self-dealing by directors	Approved	75%	100%
	Establishment of transaction limit with affiliates	Approved	75%	100%
	Report on the operation and plan of CP	Reported	75%	-
March. 16, 2022	Approval of donations for forest fire damage	Approved	100%	100%
April. 22, 2022	Approval of financial transaction with financial affiliates by contract	Approved	100%	100%
May. 20, 2022	Approval of ESG advance plan (materiality assessment review)	Approved	100%	100%
July. 22, 2022	Approval of financial transaction with financial affiliates by contract	Approved	100%	100%
	Report on health and safety performance in the first half of 2022	Reported	100%	-
	Report on major ESG policy	Reported	100%	-
September. 29, 2022	Approval of donations for heavy rain damage	Approved	100%	100%
	Approval of roadmap for Net-Zero by 2045	Approved	100%	100%
	Publishing sustainability report in 2022 and reporting major contents	Reported	100%	-
October. 06, 2022	Approval of establishment and donation for foundation for industrial safety partnerships	Approved	100%	100%
October. 26, 2022	Approval of financial transaction with financial affiliates by contract	Approved	100%	100%
	Establishment of transaction limit with affiliates	Approved	100%	100%
	Approval of funds transaction with affiliates	Approved	100%	100%
	Report on the operation and plan of CP	Reported	100%	-
December. 16, 2022	Approval of transaction with affiliates	Approved	100%	100%
	Approval of transaction with affiliates	Approved	100%	100%
	Approval of donation for Annual Campaign	Approved	100%	100%
	Approval of donations for KOFA	Approved	100%	100%
	Report on the performance of sustainability management in 2022	Reported	100%	-

Board Performance Assessment and Compensation

Hyundai E&C evaluates the activities of the board every year, the results of the evaluation are reflected in the improvement of board operations for the following year. The evaluation of board activities consists of board roles and responsibilities, board efficiency, evaluations of the activities of the four committees, and self-evaluation by director, and each director rates evaluation items on a five-point scale. In 2022, the BOD performance assessment score was counted as 4.81 points out of the full score of 5 points. Each year, the results of the assessment are used as a basis for reappointing directors.

2022 Board Activities Evaluations

(Unit: on a 5-point grade)

Detail	Score	Detail	Score		
Board roles and responsibilities	Long-term vision and strategy	4.71	Evaluation of the activities of the Compensation Committee	Appropriateness of committee composition	5
	Securing independence	4.86		Committee independence	4.67
	Financial performance review	5		Advancement of committee operation	4.33
	Pursuing the overall interests of shareholders	5		Strengthening the role of the committee	4.33
	Pursuing long-term profits for shareholders	4.86		Evaluation of the activities of the Nominating Committee for Outside Directors	Appropriateness of committee composition
Board efficiency	Appropriateness of board composition	5	Activity of the committee		4.5
	Number of board meetings and suggested items	4.86	Direction of the committee role		4.25
	Material and material review	5	Communication with shareholders		4.5
	Appropriateness of the discussion method	4.86	Self-evaluation by director		Board and committee attendance
	Adequacy of follow-up actions	4.71		Preparation of the board	5
Evaluation of the activities of the Corporate Governance & Communication Committee	Scope of committee activities	5		Board expertise and communication	4.71
	Strengthening committee expertise	4.75		Protection of shareholder rights	5
	Authority to operate the committee	5		Supervision of management activities and follow-up management	4.57
	Strengthening the ESG function	5			
	Evaluation of the activities of the Audit Committee	Independence of committee activities	5		
Support for committee activities		4.75			
Securing committee independence		5			
Committee expertise		4.75			

Payment of Remuneration

Hyundai E&C pays fair wages to inside and outside directors by comprehensively reflecting their duties, positions, length of service, expertise, and contributions to the company based on internal standards, such as executive salary setting standards, and performance-based incentives for executives. When calculating the CEO's variable compensation, Hyundai E&C considers financial returns (sales related to financial indicators such as ROE, ROI, and ROA) and relative financial metrics (stock price fluctuation rate compared to peers, share of overseas orders, etc.). Furthermore, we consider the achievement of ESG KPIs such as environment, health and safety, and fair trade practices. Remuneration for inside and outside directors is set within a limit in consideration of other companies that are similar in terms of work and size and social perceptions, and the details of remuneration are transparently disclosed through business reports. The total compensation limit approved through the compensation committee in 2022 was KRW 5 billion.

Payment of Remuneration

(As of 2022, Unit: KRW million)

Classification		Total amount of remuneration	Average amount of remuneration per person	Number of people
Top management	Inside director	2,974	991	3
Employees and outside directors	Outside director	317	79	4
	Employee	674,992	101	6,902*
Ratio of top management salaries to average total employee salaries (multiplier): 9.8				

* Based on the business report

Standards and Details of Remuneration for Directors (Registered director with remuneration amount over KRW 500 million)

(As of 2022, Unit: KRW million)

Position	Name	Sortation	Total Amount	Calculation criteria and method
CEO	Yoon Young-Joon	Salary	1,791	1. Basic salary - KRW 1,012 million paid in 12-month installments in accordance with the Management Personnel and Treatment Regulations 2. Performance-based bonus, etc. - KRW 759 million in bonuses - KRW 20 million for other (welfare-related, etc.)
		Bonus	-	
		Other earned income	-	
Inside director	Kim Kwang-Pyung	Salary	595	1. Basic salary - KRW 470 million paid in 12-month installments in accordance with the Management Personnel and Treatment Regulations 2. Performance-based bonus, etc. - KRW 118 million in bonuses - KRW 7 million for other (related to welfare, etc.)
		Bonus	-	
		Other earned income	-	
Inside director	Hwang Joon-Ha	Salary	594	1. Basic salary - KRW 470 million paid in 12-month installments in accordance with the Management Personnel and Treatment Regulations 2. Performance-based bonus, etc. - 118 million in bonuses - KRW 6 million for other (related to welfare, etc.)
		Bonus	-	
		Other earned income	-	

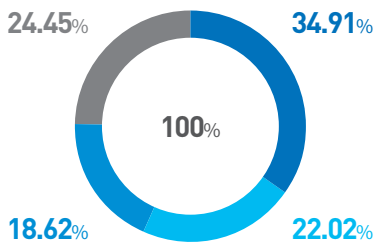
Shareholders

Protection of the Rights of Shareholders

Hyundai E&C stipulates the duty to protect the rights and interests of shareholders through the Corporate Governance Charter. We spare no support for shareholders to exercise their rights actively by keeping the minimum notice period and concentration days for general meeting announcements to ensure the voting right of shareholders, recommending electronic voting and exercising voting rights by proxy, and making public announcements in English for foreign shareholders.

Status of Shareholders

- The largest shareholder and affiliated parties
- Foreigners
- Domestic Institutions
- Individuals and others



* As of Dec 31, 2022 (Unit: Share)

Division	Shareholder name	Number of shares	Shareholding Ratio
The largest shareholder and affiliated parties	Hyundai Motor Company	23,327,400	20.95%
	Hyundai Mobis	9,719,750	8.73%
	Kia Motors	5,831,850	5.24%
Domestic institutions	National Pension Service	9,414,645	8.45%
	Asset management companies, etc.	7,193,713	6.46%
Foreigners		27,430,768	24.63%
Individuals and others		28,437,639	25.54%
Total		111,355,765	100.00%

* There are no golden shares for governmental institutions

2022 Shareholding by Top Management

Classification	Number of shares	Value of shares (KRW)*	Fixed annual salary contrast ratio (%)
Yoon Young-Joon, CEO	4,339 (Common Stock: 4,300; Preferred Stock: 39)	152,215,000	8.5
Hong Dae-Sik, Outside director	100	3,490,000	4.4

* Based on the closing price of December 29, 2022 (ordinary stock: KRW 34,900, preferred stock: KRW 55,000)

Shareholder Return Policy

Hyundai E&C has consistently paid regular dividends to enhance shareholder value and set the size of the dividend at an appropriate level considering both the company's growth and shareholder return. The current consolidated dividend payout ratio is around 15%, which is in line with the construction industry average, and dividends are paid out based on a policy of maintaining a stable cash dividend level over the long term. In 2023, we are striving to improve the rights of shareholders by amending the articles of incorporation about dividends. Dividend-related matters are shared with shareholders through the electronic disclosure system and our website.

Notice of General Meeting of Shareholders

Hyundai E&C provides sufficient information necessary for exercising rights to shareholders on time four weeks before the general meeting of shareholders, which is two weeks earlier than the minimum standard under Commercial Act. We also plan to continuously review measures to publicize information through disclosure channels such as our website so that shareholders can exercise their voting rights after reviewing the agenda sufficiently.

Classification	The 70th General Meeting of Shareholders	The 71st General Meeting of Shareholders	The 72nd General Meeting of Shareholders
Date of the convocation announcement	February 19, 2020	February 24, 2021	Feb 22, 2022
Date of the general meeting	March 19, 2020	March 25, 2021	March 24, 2022
Period between the announcement date and holding date	29 days before the shareholder meeting	30 days before the shareholder meeting	31 days before the shareholder meeting
Notification method	Convocation notice, Electronic disclosure system, etc.	Convocation notice, electronic disclosure system, etc.	Convocation notice, electronic disclosure system, etc.

Compliance with Key Indicators of the Korea Exchange

Hyundai E&C is committed to build a sound governance structure that complies with the core indicators of the Korea Exchange. We have complied with 12 of the 15 core indicators as of March 2023. We will make a continuous improvement to establish a transparent and fair governance structure.

Ethics & Compliance Management

Implementation of Ethics & Compliance Management System

[HDEC Ethics Charter and Code of Conduct](#)

System to Implement Ethics & Compliance Management

Hyundai E&C has tried to build trust with its stakeholders through compliance and ethics management. We have established detailed compliance regulations for each of the five principles based on the top-level norms of the 'Ethics Charter and Code of Practice,' which was revised in 2020. In 2021, as part of strengthening the compliance system, we amended the Anti-corruption Act Compliance Regulations and Counterparty Compliance Due Diligence Regulations and established new internal regulations in five areas: whistleblower protection, competition law policies, anti-money laundering and terrorist financing, anti-slavery/human trafficking (human rights), and sanctions compliance. We improved our work process to comply with the revised regulations in 2022.

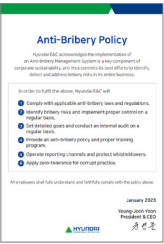
HDEC Ethics Charter & Code of Conduct

CONCEPT	Moral Pride in HDEC				
	Hyundai E&C in Which All of Customers, Employees, and Suppliers Take Pride				
Ethics Charter	Ethics for Executives and Employees	Fair Competition and Trade	Realization of Customer Value	Respect for Executives and Employees	Commitment to Sustainability
	We shall perform our duties based on clear and transparent standards, and do our utmost to fulfill our responsibilities with integrity.	We shall compete fairly in the market and conduct business ethically with parties that engage in contractual relationships with us.	We shall provide safe products, exceptional services and accurate information, and we rigorously protect personal information to increase customer value.	We shall respect our members as independent individuals, and to this end, we provide fair working conditions and safe working environments.	We shall contribute to sustainable development by fulfilling our social & environmental responsibilities as a member of society so that diverse stakeholders can prosper together in harmony.
Code of Conduct	8 issues	7 issues	7 issues	7 issues	8 issues

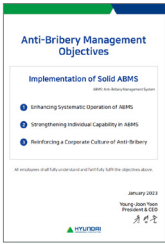
[HDEC Anti-corruption Policy](#)

Strengthening the Ethics & Compliance Management Policy and System

Hyundai E&C has operated an anti-corruption management system based on the ISO 37001 certification. In 2022, various efforts were made at the company-wide level to internalize the anti-corruption management system, such as reporting the ISO37001 manual and management review report to the board of directors, establishing anti-corruption goals for each business unit and team/department, and requesting a memorandum of integrity for the site managers of partner companies. Furthermore, based on the anti-corruption management policy, we strictly prohibit direct or indirect political donations in any form and operate an internal Compliance Council for company-wide implementation and monitoring of ethics and compliance management, a two-track response system by the Compliance Team and the Auditing Group, compliance counseling process, and whistleblowing process. In the case of a violation of the Ethics Charter, Code of Conduct, or Anti-corruption Act Compliance Regulations, immediate action is taken based on the zero-tolerance principle and company regulations, and it is managed in connection with the disciplinary and compensation system. In 2023, as in 2022, we established an anti-corruption management policy based on the zero-tolerance principle and declared the zero-tolerance principle for the CEO, and we will continue to make efforts to prevent corruption throughout the company.



Anti-corruption Management Policy



Anti-corruption Management Goal

Compliance Organization

Hyundai E&C has formed and operated a company-wide compliance organization to strengthen ethics management. Through the Corporate Governance & Communication Committee, the board of directors deliberates and decides on ethics and compliance-related policies and agendas and implements integrated risk management by monitoring fair trade improvements. To reinforce the compliance system, it appoints a compliance officer who oversees related tasks, and the Compliance Team assists the compliance officer to raise employee awareness of compliance. We assign compliance staffs to the operation headquarters and compliance practice leaders to each team (in the headquarters), site, and branch office to deliver laws and policies related to ethics and compliance and implement and train internal compliance policies and requirements.

In 2023, we plan to increase the number of compliance staffs from 25 to 26 and the number of compliance leaders from 384 to 400.



Strengthening Ethics & Compliance Activities

Counterparty Compliance

[HDEC Anti-corruption Policy](#)

Hyundai E&C revised the Due Diligence Regulations (Guidelines) for the Counterparty Compliance Act in 2021 to identify and manage potential legal risk factors inherent in domestic and foreign counterparties and has introduced and implemented a due diligence system based on the revised regulations since January 2021. Each contracting officer can assess the potential legal risks of the counterparty before entering into a contract following the guidelines. As the first step in the compliance due diligence process, we send a due diligence questionnaire to the counterparty and then determine whether the counterparty is legally at risk based on the counterparty's answers and evidence. If the legal risk of the counterparty to the transaction is evaluated as low, the contract can be concluded, and when the contract is concluded, standard compliance clauses must be included in the contract. The maintenance and preservation of due diligence records and due diligence monitoring are carried out through the Hyundai E&C Compliance Organization. In 2022, we conducted compliance due diligence on approximately 1,600 companies and implemented a policy to prohibit entering into contracts with counterparties where risks have been identified. Furthermore, our compliance team is currently conducting additional due diligence on high-risk counterparties and exploring potential risk mitigation measures.

Strengthening of Anti-corruption Capabilities

Hyundai E&C is operating various systems and training programs to strengthen the anti-corruption capabilities of its executives and employees. Every year, all executives and employees take the 'Pledge to Practice Ethics Management,' and in 2022, 6,017 employees signed the pledge. In addition, when evaluating employee performance, the details emphasized in the company's ethics charter and code of conduct are integrated to evaluate whether major ethical violations such as bribery, corruption, or insider trading have occurred. We link the evaluation results to the employee remuneration system and take measures, such as wage reductions, for executives and employees who commit serious ethical violations. To spread an anti-corruption culture, we conduct common training for company-wide employees every year on domestic and overseas anti-corruption laws and anti-corruption management systems and policies. In 2022, a total of 6,468 people completed the course, including

foreign staff. Furthermore, Hyundai E&C also provides customized training that reflects the field of work and the position of executives and employees. In 2022, to strengthen awareness of local anti-corruption laws and corruption risks in overseas countries where major business sites are located, we newly established 'Anti-corruption Training for Major Overseas Countries' for executives and employees at the head office, branch offices, and field sites. Beginning with anti-corruption training in Saudi Arabia in 2022, we plan to expand target countries in 2023.

2022 Compliance Training

Name	Trainees	Performance
Common education		
Company-wide Ethics and Compliance Training	Company-wide employees	6,468 people completed
Sustainability Management (ESG) Education	Company-wide employees	5,700 people completed
Specialized education		
Counterparty Compliance Due Diligence Training	Department in charge of related tasks such as order receipt and sales	Training materials are distributed to entire employee
Internal Auditor Training	Compliance staff for each business unit	17 people completed
Ethics & Compliance Introductory Training	New employees	Implementation completed
Compliance Training for Construction-Related Laws	Receiving orders, publicity, outsourcing, etc. Department in charge of related affairs	3,383 people completed
Anti-money Laundering Training	Department of International Finance	12 people completed
Transparent Ethics Education	Cooperative firms	785 companies completed
Anti-corruption Training for Major Overseas Countries	Tasks related to the target country Employees in charge (Headquarters, branch offices, sites)	Saudi Arabia

Conducting Compliance Training for Supplier

Hyundai E&C conducts the 'Hyundai E&C Compliance Training,' a compliance management training program for suppliers, twice a year under the supervision of the procurement division to internalize the compliance management awareness of not only employees but also suppliers. The training content includes recently revised laws and government directions, examples of violations of ethics/transparency, and group-company common ESG training. In addition, Hyundai E&C has tried to strengthen a transparent and fair trade culture by requesting a written pledge to comply with the Code of Ethics from suppliers at the same time as training. In 2022, we conducted transparent ethics training for a total of 785 companies, and we plan to actively work to spread awareness of compliance management among our suppliers.

Operation of a Cyber Audit Group

Hyundai E&C has operated a cyber audit group to evaluate the effectiveness of our whistleblower protection regulations and conducted online training on the cyber audit group operating policy and regulations related to whistleblower protection to vitalize the reporting channel. We receive real-time reports on the receipt of money and entertainment, violations of regulations, unfair trade practices, and requests for institutional improvement, and we handle them transparently. We encourage anonymous reporting and treat all reports confidentially. A total of 151 reports were received in 2022, and as a result of checking the facts in the Auditing Group, 64 of these turned out to be true, and 87 were found to be untrue.

Reports to Cyber Audit Group

(Unit: Case)

Classification	2020	2021	2022*
Number of reports	52	87	151
Number of cases proven to be true	40	58	64
Number of cases proven innocent	12	29	87

*Significant increase in the number of reports of innocent grievances confirmed.

Compliance with Fair Trade

Fair Trade Compliance Program

Hyundai E&C has operated the Fair Trade CP (Compliance Program) since 2011 to establish a trade order based on transparency and fairness and used it as an internal control standard. In addition, we hold an in-company compliance council every month to share internal and external fair trade issues and policies. Hyundai E&C regularly reports the operation performance and plans of the Fair Trade Compliance Program to the board of directors and conducted the report once each in the first and second half of 2022. In particular, by conducting occasional self-compliance inspections on fair trade, we carry out integrated risk management covering the pre-review of risks in new internal transactions, display of new sales sites, pre-inspection for violations of the Advertising Act, and operation of subcontract dispute mediation councils. In 2023, we will continue our efforts to internalize fair trade self-compliance to achieve zero violations of fair trade laws and a 100% fair trade training completion rate.

Eight Key Elements of the Compliance Program

01	Establishment and implementation of CP standards and procedures	05	Compliance program training for employees (for more than two hours half-yearly)
02	Willingness and support of CEO for the compliance program	06	Establishment of an internal monitoring system including monitoring and audits on compliance
03	Appointment of a compliance manager	07	Sanctions on employees who violate the Fair Trade Act
04	Preparation and utilization of a compliance guide book	08	Effectiveness evaluation and corrective actions

Unfair Transaction Risk Management System

The Corporate Governance & Communication Committee regularly reviews the operation status and plans of the Fair Trade CP (Compliance Program). In addition, to prevent risks, such as unreasonable support under the Fair Trade Act, at the company level, we operate an internal control system to review the justification of transactions when signing private contracts with major affiliates and conduct reviews before signing contracts. We are continuously improving our risk management system by re-evaluating the possibility of each risk after implementing mitigation measures.

KPIs on Fair Trade

Hyundai E&C conducts annual fair trade KPI evaluations. Major evaluation items include the CEO's declaration of willingness to comply with laws, the collection of voluntary compliance pledge, voluntary compliance training and prior review of private contracts for insider trading, inspection of omissions, self-compliance activity plans, and performance reports to the board of directors, fair trade commission disclosure inspections, and management to strengthen the company-wide compliance management system. Furthermore, we do our best to mitigate fair trade risks by implementing sanctions and measures to prevent recurrence when illegal acts are discovered, and by conducting effectiveness evaluations after operating the internal control system.

Compliance with the Fair Trade Act

Hyundai E&C obtains a pledge of fair trade practice for all executives and employees and strictly complies with all laws related to fair trade. Accordingly, Hyundai E&C achieved zero antitrust fines in 2022 and aims to lead the establishment of a fair competitive order in the market based on laws and regulations with the aim of zero cases of omission of internal transaction private contracts, zero cases of acquittal/warning/correction orders, zero fines, and zero disclosure violations.

Payment of Anti-Monopoly Penalties

Classification	2019	2020	2021	2022
Total amount of fines (KRW million)	0	0	0	0
Ratio of fines to sales (%)	0	0	0	0

Expansion of Training on Fair Trade

Hyundai E&C selects departments subject to training in each major area related to fair trade and conducts customized fair trade self-compliance training for each department. We also published internal transaction guidelines and anti-fixing guidelines and provided fire trade training to a total of 3,383 employees, including 2,633 related departments and field staff and 750 new and experienced employees in 2022. With the implementation of the full revision of the Fair Trade Act, we are improving education plans for major revisions, such as the addition of collusion types of competition-limited information exchange activities.

2022 Fair Trade Training

Title	Content	Trainees	Training Hours	No. of Trainees
Training on Collusion 1	The concept of collusion and the act of exchanging information and considerations in practice, etc.	Sales department	1.5 hours	134
Training on Collusion 2	The concept of unfair collusion and matters to note in practice, etc.	Sales department	1 hour	157
Training on Internal Transactions	The concept of unfair collusion and matters to note in practice, etc.	Intercompany transactions department	1 hour	73
Training on Labeling and Advertisements	Requirements for violations of the Labeling and Advertising Act and matters to note in practice, etc.	Housing promotion department	0.5 hour	41
Training on Subcontracting and Technology Misappropriation	Subcontracting Act, prohibition of unfair special contracts, prevention of technology theft and misappropriation	Outsourcing department	2 hours	2,228
Training for New Employees and Employees with Experience	Subcontracting Act, prohibition of unfair special contracts, prevention of technology theft and misappropriation	New employees and experienced hiring employees	2 hours	750
Total				3,383

STRATEGY 8.

Integrated Risk Management and Protecting Human Rights in the Value Chain

Hyundai E&C has tried to secure business stability by responding to potential risk factors preemptively through integrated management of financial and non-financial risks. The board of directors directly supervises major issues related to company operations by managing financial and non-financial risks and analyzes risks from diverse perspectives based on a precise system, IT technology, and experience. In addition, we are making efforts to minimize negative impacts by preemptively analyzing potential risks throughout the value chains, such as cyber security threats to customers and human rights issues related to our employees.

2022 Achievements

Supply Chain Human Rights Assessment

354 companies
(Action rate: 100%)

Personal information leakage

0 case

On-Site Human Rights Risk Compliance Rate

99.7%
(36 sites in 13 countries)

Integrated Risk Management

Risk Management Strategy

Hyundai E&C has operated a company-wide integrated risk management system with the expansion of the risk management scope from financial areas to non-financial areas to prevent risk factors that threaten sustainable management in non-financial areas. Risk management is largely divided into business, finance, safety and health, environment, supply chain, human rights, ethics and compliance management, information security, and quality. The level of risk exposure is inspected regularly more than two times a year. We operate and apply a sophisticated process to respond to risks with impact above a certain level. In particular, we are responding to safety and environmental risk based on a company-wide HSE (Health, Safety & Environment) system. We have a quality management system to manage quality risk and a separate response system to handle country-specific risks. We perform sensitive tests and stress analyses to analyze various risk types other than market and price risks.

Risk Classification System

Hyundai E&C has established and implemented a comprehensive enterprise risk management system called the Risk Classification System (RBS). This system assesses risks that can impact corporate management goals and strategic directions. The RBS consists of four levels: Level 1 (6 sectors), Level 2 (23 sectors), Level 3 (82 sectors), and Level 4 (144 sectors). It allows for a quantitative evaluation of enterprise-wide risks by analyzing the likelihood of occurrence, degree of impact, and frequency of each risk to determine the final risk rating. To enhance the efficiency of our risk management process, we utilize H-PRMS (Hyundai-Project Risk Management), an IT-based risk management system that is integrated into our business operations. Additionally, we categorize major core risks into financial risks, project risks, and emerging risks, enabling a systematic and step-by-step approach to risk management.

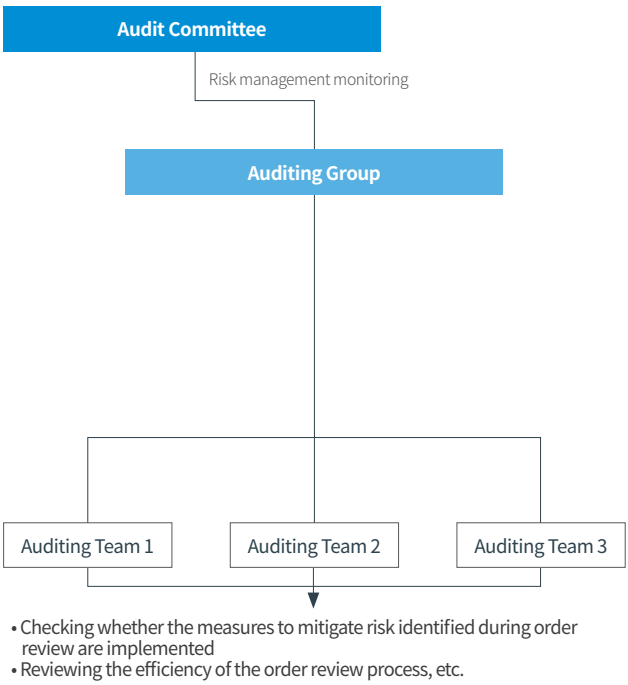
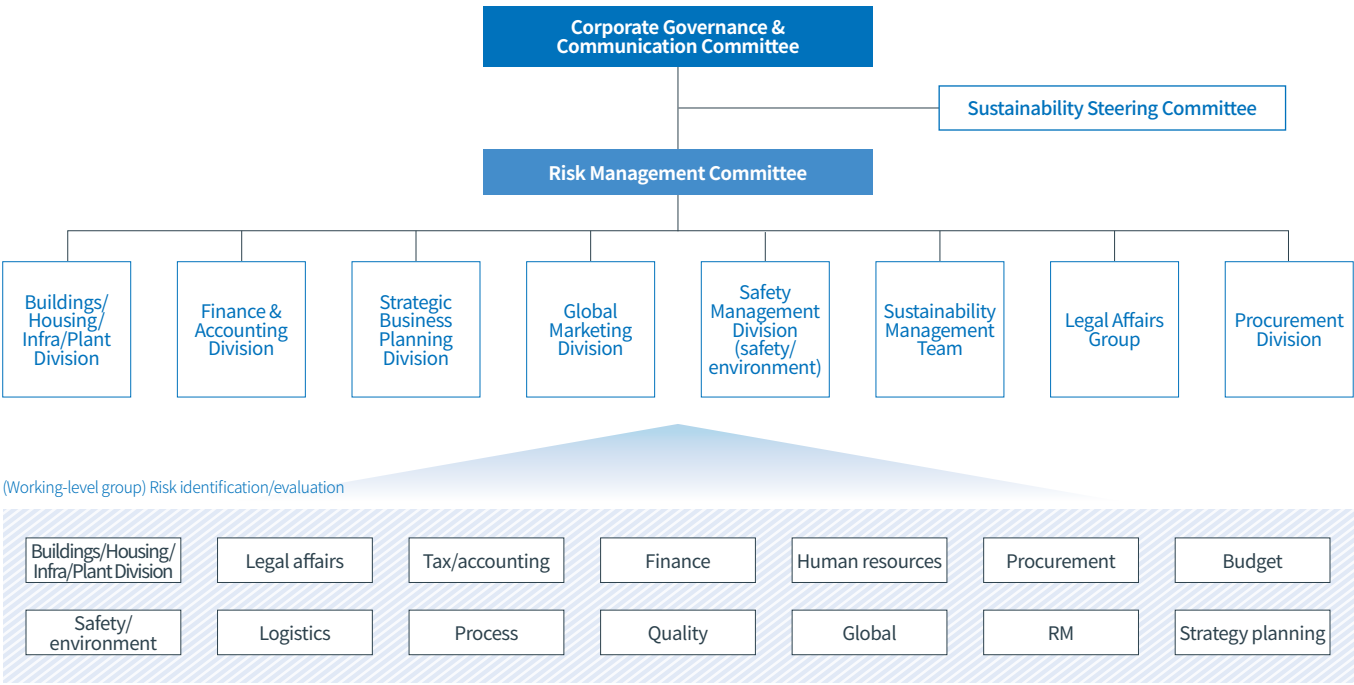
Risk Management System

L: Low ML: Medium Low M: Medium MH: Medium High H: High

Classification	Risk Type	Probability	Impact	Organization in Charge	Mitigating Actions
Finance/ Operation	Financial Risk	L	M	Financial Management Group, IR Group, Finance & Accounting Planning Team	Financial risk assessment, internal accounting management
	Business Risk	M	M	Budget Management Group, Global Marketing Supporting Group	Review of orders, key business risk monitoring, establishment of guidelines on bidding for overseas projects, review of country-specific risks
Environmental	Environmental Risk	M	M	Environmental Management Team, Sustainability Management Team	Compliance with environmental regulations, on-site environmental evaluation and inspection, climate change risk analysis, waste management, water stress analysis, biodiversity assessment
Social	Safety and Health Risk	M	H	Safety Management Division	Safety and health risk assessment, safety inspection by top management (CEO/CSO), supplier safety management
	Supply Chain Risk	M	MH	Procurement Support Group	Compliance with the Supplier Code of Conduct, evaluation of supply chain sustainability management, due diligence on transaction counterparties, ESG training and consulting for suppliers
	Human Rights Risk	M	MH	Human Resources Operation Team	Compliance with the Human Rights Charter, human rights impact assessment, on-site human rights due diligence, operation of a grievance handling system
Governance	Ethical and Compliance Risk	M	M	Legal Affairs Group	Compliance with the Ethics Charter and Code of Conduct, operation of the Compliance Council, operation of Compliance Program (CP) designed to comply with the Monopoly Regulation and Fair Trade Act ISO37001
		ML	ML	Auditing Group	Internal audit, compliance with whistleblower protection regulations, operation of a cyber audit group, deliberation by the Ethics Committee
	Information Security Risk	M	M	Security Management Center	Establishment of the information protection management system, information asset protection and leakage prevention activities and inspection of information protection vulnerabilities
Quality	Quality Risk	M	H	Quality Strategy Group	Establishment of a quality management system, prevention of quality defects

Risk Management Organization

Hyundai E&C has established a company-wide support system to identify and manage various risks. We operate an effective internal control policy by making the board of directors conduct pre-reviews and decide on matters important to corporate management under Article 11 of the Board of Directors Regulations and financial matters, such as borrowing, guarantees, and the acquisition and disposal of major assets beyond the scope of usual commercial transactions. Risks at all sites are managed by dividing them into the pre-participation stage and project implementation stage and on-site risk management tasks were integrated into the work of the Budget Management Group in December 2021 to make sure that processes and budgets are managed in an integrated manner. Hyundai E&C appointed the chairman of the Risk Management Committee as the Chief Risk Officer and the Risk Management Committee responds to risk promptly by reviewing risk issues and establishing measures such as risk mitigation, periodic monitoring, and emergency responses. We have formed the Sustainability Steering Committee under the Corporate Governance & Communication Committee, one of the committees under the board of directors, and managed non-financial risks like ESG risks by reporting the progress and plan regularly. Chairman Hong Dae-Sik of the Corporate Governance & Communication Committee is an expert on the Fair Trade Act and is playing an active role in managing company-wide risks, including ethics and compliance risks. Hyundai E&C has established a line of risk reporting from each working-level organization to the CEO and the board of directors and an independent Audit Committee monitors the implementation of risk management measures in real time.



Risk Management by Risk Type

Financial Risk

Exchange Risk

Hyundai E&C, which conducts global sales activities, is mainly exposed to USD (US dollar), KWD (Kuwaiti dinar), AED (UAE dirham), QAR (Qatari riyal), and SGD (Singapore dollar). The table below shows the sensitivity (impact on net assets) of a change in the exchange rate of the won against each foreign currency by 10%. The change rate of 10% is the sensitivity ratio mainly used for reporting exchange risk internally to the management and shows an evaluation of the reasonable risk of exchange rate change by the management.

(Based on the business report, unit: KRW million)

Classification	Upon a 10% increase	Upon a 10% decrease
USD	166,133	-166,133
KWD	228	-228
AED	83	-83
QAR	24	-24
SGD	-4,249	4,249

Interest Rate Risk

Hyundai E&C is exposed to interest rate risk due to rate changes for financial products under variable interest conditions. In principle, we borrow money at a fixed rate in order to avoid the risk of future cash flow fluctuations. However, we borrow money at variable interest rates in some cases. As of late 2022, the impact of a 1% change in interest for borrowings with variable interest rates on earnings before income taxes is KRW 378 million.

(Based on the business report, unit: KRW million)

Classification	Upon a 1% increase	Upon a 1% decrease
Short-term borrowings	-378	378

Price Risk

Hyundai E&C is exposed to price risk due to market price fluctuations of marketable equity securities among financial assets at fair value. When the market price of marketable equity securities changed by 1% in 2022, there was no impact on profit or loss, but as of the end of 2022, the total impact on capital was KRW 31 million (after deducting corporate tax effect).

(Based on the business report, unit: KRW million)

Classification	End of 2022	End of 2021
Fair Value Through Profit or Loss	4,190	6,273

Project Risk

Hyundai E&C proactively identifies and analyzes significant risks that have the potential to impact the successful execution of projects and the attainment of goals. To ensure comprehensive and efficient risk management, we have implemented a project risk management system that spans the entire project lifecycle. In the stage before participating in the project, we identify risk factors that could occur during construction preemptively through order review and review measures to respond to the risk factors together with relevant departments to support stable participation in bidding. Specifically, we have established the 'Overseas Business Bidding Guidelines' that analyzes political, social, cultural, environmental, and corruption risks by country to conduct bids based on the country risk review process. To identify corporate and market risks, we control potential risks by checking the media reputation of business partners and screening PEPs (political key persons). In 2023, we adopted a preliminary civil complaints assessment process in all stages of decision-making for project participation to respond to increasing stakeholder issues in the construction industry and minimize the risk of giving up on participation in a project. We also review participation in bidding with consideration for ESG issues, regulations and policies, and sustainable sales. All projects where Hyundai E&C participates as project lead are subject to evaluation and we also check potential civil complaints and collective behavior. In the project implementation stage, we apply a management system focusing on key milestones by project type for risk identification and effective response while operating a system that enables timely responses to risk by sharing risk analysis results and cooperating organically with each business division.

Emerging Risk

Risk	Category	Description	Impact	Mitigation
Business system freezing due to the expansion of smart construction	Technological	<ul style="list-style-type: none">Hyundai E&C established a 2030 future strategy implementation system in line with the trend of global digital transformation and prepared detailed strategic tasks, such as expanding digital technology automation and establishing of an unmanned construction platform.If construction technology automation infrastructure is established in 2030, a construction automation system that can process a large amount of data at once will be needed. This will soon lead to an increase in system dependence, and system freezing is expected to emerge as a key risk factor for Hyundai E&C.	<ul style="list-style-type: none">If construction automation systems freeze due to external factors like natural disasters or hacking attacks, significant risks are expected, such as construction suspension and imbalance in the procurement of building materials due to problems with data processing.With the expansion of smart construction technologies, business system freeze is a significant risk factor with a significant impact on winning projects and business outcomes in all business divisions of Hyundai E&C. Business system freeze disrupts the implementation of projects, which can harm the company's financial situation and also cause safety accidents of workers.	<p>Sophistication of the digital business management system</p> <ul style="list-style-type: none">Hyundai E&C has established a technology innovation strategy to enhance the stability of the company-wide construction automation technology and digital project management system. We aim to develop and upgrade a stable construction automation system through a 'construction paradigm shift,' which is one of our detailed strategies. <p>Expansion of R&D scale</p> <ul style="list-style-type: none">Hyundai E&C has established and is operating an R&D organization under the Technology Research Center to build a more stable construction automation platform. The Digital Innovation Research Team under the Smart Construction Research Group conducts research and development related to the stabilization of smart construction business systems such as big data/AI and ICT/BIM. R&D investments in 2022 totaled KRW 22 billion, an increase of KRW 4.2 billion from the previous year.
Supply chain disruptions due to the outbreak of war	Social	<ul style="list-style-type: none">Supply chain disruption risk is one of the emerging risks defined in the Global Risk Report of the WEF (World Economic Forum). The stability of the global supply chain has declined significantly due to the recent Russia-Ukraine war, and it becomes more important for global companies that are implementing many overseas projects to establish strategies to respond to supply chain risk.Currently, Korea is a state of armistice, and most of the suppliers of Hyundai E&C have business sites in Korea. It means that if a war breaks out, it will lead to supply chain disruptions. This is a significant long-term strategic risk that should be managed by Hyundai E&C.	<ul style="list-style-type: none">76% of Hyundai E&C suppliers are located in Korea. If the supply chain system collapses, there will be significant risks, such as delays in the delivery of construction projects, construction material price surges, and decreases in procurement stability.The collapse of the supply chain due to the outbreak of war is a key risk with a significant impact on winning projects and business outcomes in all business divisions of Hyundai E&C. In the case of war, there will be negative impacts on the delivery of construction materials, such as paralysis of the logistics system and production disruptions. It is expected that most domestic suppliers will be out of the supply chain and that a significant amount of time will be required for recovery given the fact that a large number of suppliers are located in Korea. This risk may harm the overall financial condition and business outcomes of Hyundai E&C.	<p>Enhanced supply chain stability</p> <ul style="list-style-type: none">Hyundai E&C has established a systematic supply chain management system to respond to supply chain disruption risks. We select key management partners by examining the ESG factors of partners and evaluating various risks to which they are exposed. In addition, through on-desk assessment of the supply chain and on-site due diligence, we identify insufficiencies and implement appropriate improvement measures. We also plan to enhance supply chain stability by identifying new global suppliers. <p>Thorough response to company-wide risk in advance</p> <ul style="list-style-type: none">Hyundai E&C integrates supply chain risk into the company-wide risk management system to measure the probability and impact of risk and manage each risk separately. We check exposure to risk regularly and respond to potential risks preemptively.

Due Diligence on Human Rights Risks

In 2022, Hyundai E&C conducted human rights monitoring at 36 sites in 13 countries through on-site due diligence with a human rights checklist. The inspection items consisted of 41 questions in the areas of respect for basic human rights, protection of labor human rights, guarantee of workplace safety, and welfare benefits. The inspection results showed that the implementation rate of the human rights checklist was 99.7%. In 2021, eight risks were identified in the on-site human rights risk assessment but the number of risks decreased by 63% with the identification of only three risks in 2022. Among the risk types, no new risks related to welfare and benefits and the guarantee of workplace safety were identified in 2022. Hyundai E&C took follow-up actions at three sites where human rights risks were identified and plans to strengthen human rights risk identification and improvement activities at domestic and overseas sites by conducting human rights risk assessments both for domestic and overseas sites.

2022 Human Rights Risk Assessment

Classification	No. of Sites	Ratio
Risk Assessment	36	100%
Risk Identification	3	8.3%
Remediation Actions	3	100%

Remediation Actions after 2022 Human Rights Risk Assessment

Classification	Identified Risk	Remedy	Mitigation Measure	Expected Effect
Punggol Sports Center Construction Site, Singapore	No operation of a workers' council	Establishment of a communication channel	Discussion on improving working conditions and welfare	Improvement of the working environment and grievances handling
SNF Construction Site, Qatar				
Marjan Gas Plant Package #12 Site, Saudi Arabia	Counterfeit IDs of supplier employees	Actions to make employees resign	Strengthening of internal security processes such as the introduction of multi-factor authentication	Securing of on-site safety

2022 On-site Human Rights Risk Assessment Implementation Status

Classification	Inspection Method	Implementation Rate
Respect for Basic Human Rights (10 indicators)	No discrimination or harassment	100%
	Political and religious freedom	Collecting issues at all times through the counseling center and suggestion box 100%
	Grievance handling	97%
Guarantee of Workplace Safety (7 indicators)	Compliance with safety	Checking whether safety training is completed upon access to sites 100%
	Promotion of health	Checking the renewal of medical/workers compensation insurance as necessary 100%
	Prohibition of forced/child labor	Checking IDs upon hiring, conducting unplanned on-site due diligence 99%
Protection of Labor Rights (12 indicators)	Payment of salary	Issuing pay slips after getting signatures from employees 100%
	Working hours	Checking time sheets and conducting on-site patrols 100%
	Freedom of association/collective bargaining	Collecting violation cases at all times through a suggestion box for employees 100%
Welfare (12 indicators)	Dormitory	· Undergoing inspections by Korean managers and the local Ministry of Health office 100%
	Cafeteria	· Collecting feedback all the time through workers' meetings and evaluation sheets 100%
	Convenient facilities	100%

Assessment of Human Rights Risk in the Supply Chain

Hyundai E&C evaluates the level of negative economic, environmental, and social risks that may occur in the supply chain and incorporates them into its business operation. This diagnosis includes evaluation indicators directly related to human rights risks in the supply chain, labor, and safety. Based on the results of the supply chain risk assessment, corrective action plans are established for suppliers in need of improvement and the suppliers are requested to make improvements in sustainability management outcomes.

2022 Human Rights Risk in the Supply Chain Assessment

Classification	No. of Suppliers	Ratio	Details
Risk Assessment	3,931	100%	100% of Tier 1 suppliers
Risk Identification	354	9%	Suppliers under management
Remediation Actions	354	100%	Inducing the implementation of corrective measures and improvements. If no improvements are made, cancellation of registration

Business Risk Assessment

Potential human rights issues may occur due to complex factors such as differences in the economic, social, and culture upon entry into new markets through investments in joint venture companies or the implementation of long-term construction projects, and such risk could have negative impacts on the company's business such as the delay or cancellation of a project, civil complaints from the community, the cancellation of business rights or difficulties in obtaining business rights. Hyundai E&C has conducted key risk monitoring for the successful implementation of projects and established and operated a process of reviewing project feasibility in the beginning, identifying key risks in the order review stage, and identifying countermeasures.

2022 Business Risk Assessment Results

Classification	No. of Businesses	Ratio	Details
Risk Assessment	63	100%	100% of projects being promoted
Risk Identification	4	6.3%	Projects promoted in countries with high human rights risks
Remediation Actions	4	100%	Coming up with risk mitigation or avoidance measures

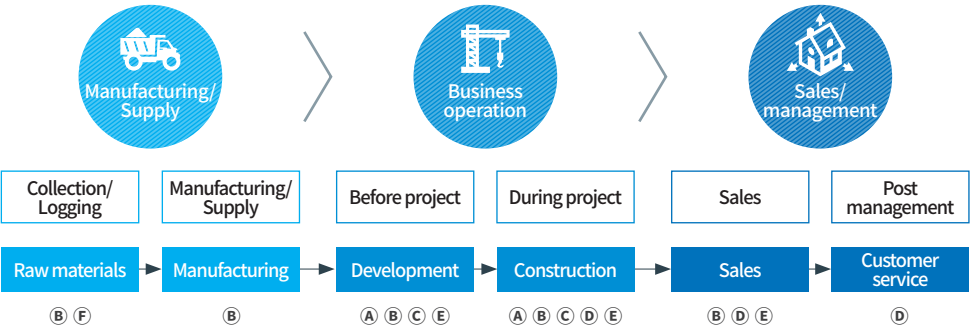
Information Protection Vulnerabilities Inspection

If personal information that a company collects, handles, and stores during the business process is leaked, it can directly lead to violations of the human rights of stakeholders such as customers, executives, and employees. Hyundai E&C regularly runs mock system hacking on the business system and inspects the infrastructure system through Hyundai AutoEver, a third-party IT system company based on the group's security guide, and comes up with countermeasures for vulnerabilities identified through simulation analysis, thereby improving the safety of the business system with preventive measures.

2022 Inspection on Information Protection Vulnerabilities Results

Classification	No. of Vulnerabilities	Ratio	Details
Risk Assessment	1,015	100%	Mock hacking inspection items based on the group security guide
Risk Identification	52	5.1%	Vulnerabilities including encryption algorithm vulnerability
Remediation Actions	52	100%	Application of enhanced encryption algorithms, etc.

Human Rights Risk Map and Analysis of Major Human Rights Issues

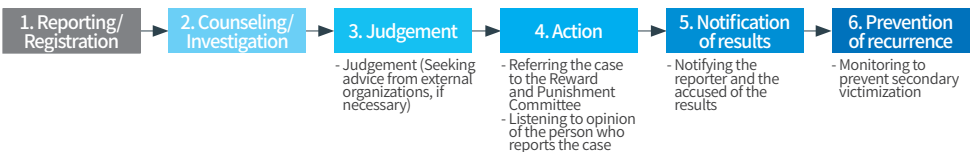


Major Human Rights Issues	Vulnerable Group	Issue Definition	Risk Level	Evaluation System	Scope	Identification	Action	Reference Page
Ⓐ Business Operation	Employees, local communities	Potential human rights violations that may be caused by goods/services	Subject to due diligence	Human rights assessment	100%	8.3%	100%	91
Ⓑ Human Rights in the Supply Chain	Employees of suppliers, migrant/contract workers	Issues of infringement of basic human rights (non-discrimination, etc.), labor rights and the right to safety of employees of suppliers or companies with a new transaction relationship	Subject to due diligence	Human rights assessment for supply chain	100%	9.0%	100%	67-69
Ⓒ Indigenous People's Rights	Indigenous people, local communities	Direct infringement of indigenous rights regarding land, property, and other assets due to the pursuit of construction activities within the scope of the construction contract	Subject to due diligence	Business risk assessment	100%	6.3%	100%	92
Ⓓ Information Protection	Employees, customers	Protection of company, employee and customer information	Subject to due diligence	Inspection of information protection vulnerabilities (mock hacking)	100%	5.1%	100%	95
Ⓔ Human Rights of Employees	Employees, women	Basic human rights issues (equal compensation, freedom of association, right to collective bargaining, safety and health, discrimination and harassment) in the working environment for employees	Preliminary caution	-	-	-	-	-
Ⓕ Illegal Logging	Indigenous people, children	Issues of child labor, forced labor, and human trafficking in the process of illegal logging	Preliminary caution	-	-	-	-	-

Human Rights Respect Culture

Human Rights Grievances Process

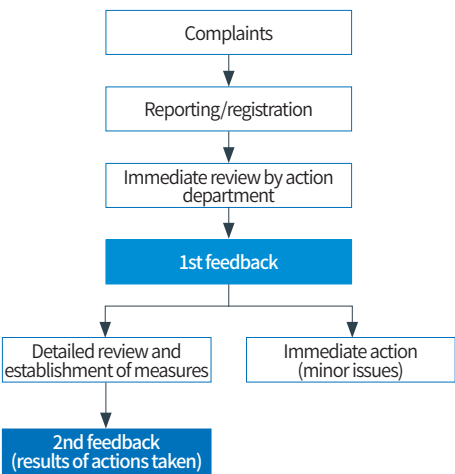
Hyundai E&C addresses the human rights grievances of its employees according to the grievance handling procedure specified in the Human Rights Charter. We conduct professional and precise investigations on reported cases based on court precedents, company and industry practices, and the regulations of competent authorities and guarantee the anonymity of reporters.



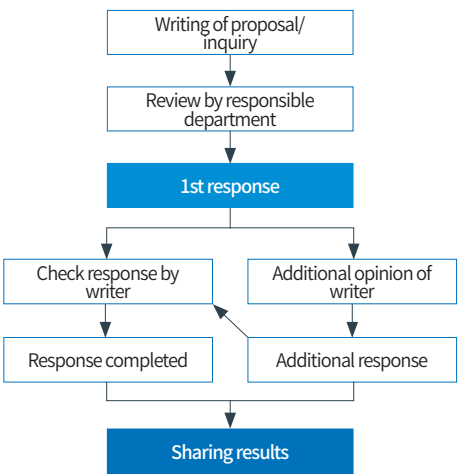
Human Rights Grievance Reporting Channel

Hyundai E&C strives to address grievances related to human rights by receiving reports from employees, customers, and suppliers about human rights infringement and risks of human rights infringement through H-Dudrim, an integrated grievance handling channel. In 2022, we received 295 complaints related to the HR system (evaluation system, flexible working system, etc.), office environment (company building environment, IT system improvement, etc.), and on-site system (accommodation, etc.). For the complaints we received, 111 were closed and 184 are in the process of being resolved.

H-Dudrim Operation Process (External)



H-Dudrim Operation Process (Internal)



Workplace Sexual Harassment Hotline and Grievance Handling Committee

Hyundai E&C operates a separate hotline and the Grievance Handling Committee to deal with workplace sexual harassment, a sensitive issue. We strive to ensure the convenience of reporting by allowing victims to report their grievances anonymously over the phone and select the gender of consultants.

Measures to Mitigate Discrimination and Harrassment

Hyundai E&C investigates incidents related to discrimination and harassment received through H-Dudrim and manages risks through the management process. We conduct inspections and perform management regularly to ensure equal treatment of all employees without discrimination. In 2022, we received a total of five cases concerning discrimination and harassment. We promptly and impartially conducted investigations into each case, ensuring a fair process. As a result, appropriate actions were taken, including reprimands, pay reductions, and suspensions.

Training on Human Rights Management

Hyundai E&C conducts training on human rights for all members to spread a culture of respect for human rights and prevent human rights risks in advance. We provide legally required training, such as annual training on the prevention of workplace harassment, sexual harassment training, and training to improve awareness of people with disabilities as well as a training program on human rights and diversity, through which we aim to respect the human rights of employees and improve awareness of human rights infringement cases.

2022 Human Rights Training Program

Classification	Description	Trainees
Legally required training	Prevention of workplace harassment	Processes such as post measures in the case of incidents related to mutual respect
	Prevention of workplace sexual harassment	Sexual equality, respect, the prevention of sexual harassment and responses
	Improved awareness of people with disabilities	Clearing up misunderstandings and prejudices regarding people with disabilities and how to interact with them

Strengthening Information Protection

Information Protection Management System

Hyundai E&C strictly complies with all applicable laws and regulations at home and abroad and manages its information protection systems and processes more stably by constantly monitoring and updating internal information protection regulations and policies according to changes in the internal and external environment. In addition, we acquired ISO 27001, a global certification in the information protection field, to establish an excellent and reliable information security management system. By doing so, we are demonstrating the excellence of our internal information protection system to major stakeholders, including our customers.



ISO27001

Information Protection Management Policy and Objectives

Hyundai E&C is strengthening its foundation for sustainable growth by establishing a sound security culture through voluntary security compliance and responding to security incidents preemptively. We have achieved zero personal information leakage incidents through efforts such as training for personal information handlers, inspections on the state of uniquely identifiable information, and inspections on the implementation of an internal control plan for personal information. Hyundai E&C will continue its efforts to maintain the excellent performance of zero cases of information leakage or infringement and provide a security environment that can respond quickly to changes in the way of doing work.

Information Protection Policy

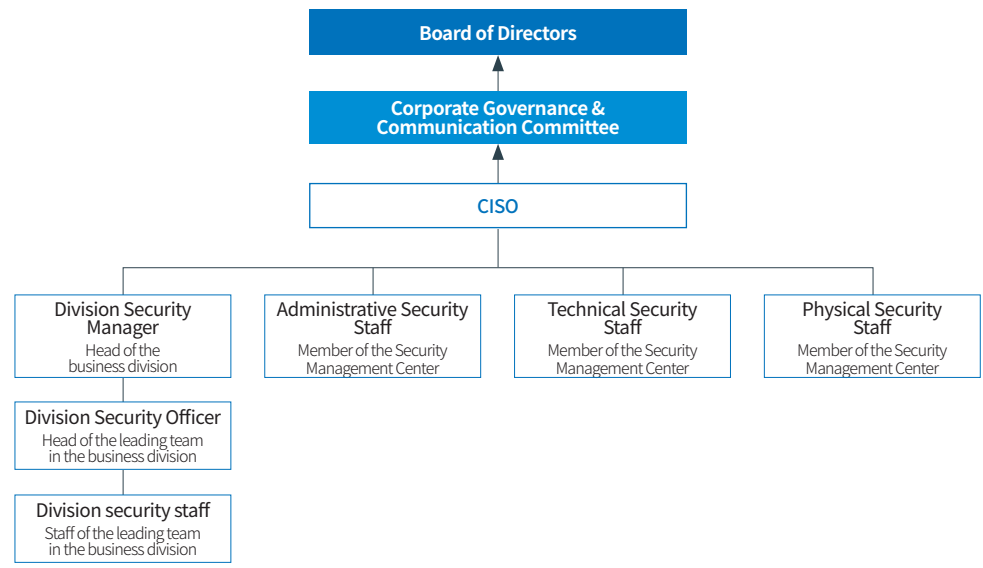
[HDEC Personal Data Processing Policy Legal Disclaimer](#)

Hyundai E&C has established and operated an internal information protection policy and management system following various domestic and overseas security laws and regulations, such as laws related to trade secret protection, industrial secret protection, and personal information protection. In addition, we revise relevant internal policies by monitoring the latest information protection trends continuously and share the revised policies with all employees to make sure that they practice the revised security policy. This policy applies to all tangible and intangible assets owned or held by the company or generated by the company and is also applicable to employees, partners under contracts, and visitors to the company. Furthermore, we have established a personal information processing policy to protect the personal information of executives and staff and stakeholders and deal with related grievances promptly and accurately.

Information Protection Management Organization

Hyundai E&C appointed the head of the Security Management Center as the CISO (Chief Information Security Officer) to manage overall information protection matters. Under the CISO are the division security manager, administrative security staff, technical security staff, and physical security staff, and under the division security staff are the division security officer and division security staff. In this way, we can respond to information protection issues systematically. In the case of information protection incidents, we have secured a systematic response system of incident reporting (recognition)-recovery from infringement, thereby solidifying our foundation for sustainable management activities. Major information protection agendas are reported to the Corporate Governance & Communication Committee under the board of directors, and we operate a company-wide response system from the working-level group to the board of directors.

Information Protection Management Organization









Strengthening Security Inspections

Strengthening Information Security Inspections

Hyundai E&C conducts various security inspections to eliminate internal and external risks and vulnerabilities. We take various measures, such as inspecting security source codes, developing and operating a security system, systematizing the incident response process, and establishing and revising the information protection policy. These activities play an important role in protecting the organization from security threats, protecting critical information assets such as confidentiality, integrity, and availability, and improving the overall security level.

Information Security Inspection

Type						
	Internal security inspection	Mock hacking infrastructure inspection	Clean desk inspection	Information leakage monitoring	Inspection of the personal information internal control plan	Inspection of the state of unique identifiable information management
Target	HQ/site	Employees	Employees	Personal information system/management system	Unique identifiable information system/management system	
Cycle	Quarterly	Quarterly	As needed	Annually	Biannually	

Security Control Center

Hyundai E&C has carried out various security enhancement activities to actively respond to cyber security threats, which are becoming more intelligent and sophisticated. We have operated the Security Control Center to conduct mock penetration tests and diagnose vulnerabilities in the infrastructure every year, through which we try to respond to infringement incidents and prevent the spread of such incidents by detecting the inflow of malicious code.

Security Vulnerabilities Inspection

Hyundai E&C conducts mock hacking and infrastructure inspections on all systems regularly or when a system is newly established. In 2022, we conducted a regular vulnerability inspection through mock hacking for 1,015 items on 29 systems and identified 52 vulnerabilities, 5.1% of the total inspected items. We also check our business continuity plans for cyber attacks and incident response processes regularly.

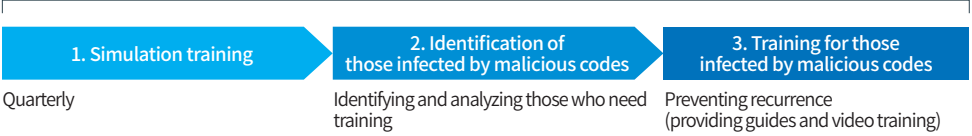
Malicious Mail and Security System Setup

Hyundai E&C conducts simulation training on malicious mail every quarter to prevent penetration and infection by malicious code, and we have established an extensive security system, which covers blocking harmful websites and spam, network access control, document security protocols, and media control mechanisms to strengthen endpoint security. We also check source code to secure a safe environment from the development stage. In this way, Hyundai E&C protects the company's confidentiality, integrity, and availability from security threats and maintains stable operations.

Overview of Simulation Training for Malicious Mail



Operation and management procedure (based on those infected with malicious code)



Security Awareness Enhancement among Employees

Information Security Pledge and Security Day

Hyundai E&C requires all employees to sign the information security pledge every year in order to encourage them to recognize and fulfill their responsibilities for information security. The pledge is collected from employees of Hyundai E&C and vendors participating in projects (including contractors) and intended to protect information assets and prevent information security incidents. In addition, we designate a ‘Day of Security’ every month to conduct security inspections and training across the entire company.

Security Training and Security Guides

Hyundai E&C conducts security training for newly hired employees, promoted employees, and security managers and shares security guides. In particular, we provide training for the security and personal information handlers of residential vendors. In addition, we ensure the internalization of compliance with security in daily business by delivering messages related to security, such as ‘Clean Desk,’ and security rules every day through internal broadcasting. In addition, we are improving the security awareness of our employees in various ways, such as by sharing the latest security threat information and conducting a participatory security campaign.

2022 Security Training Program

Classification	Training Content	Trainees	Number of Participants (persons)
Security Training for Newly Hired Employees	Security regulations of the company, information security training	Interns, new employees	1,079
Personal Information Protection Training	Legally required training on the Personal Information Protection Act	Personal information handlers	3,893
Training for Security Managers and Employees	Role of the security manager, security infringement cases, cautions regarding SNS activities to respond to malicious code, security rules for work from home, Personal Information Protection Act	Security managers and employees at HQ/site	6,799
Security Training for Promoted Employees	Security awareness required for middle managers, security policy	Promoted employees	76
Security Training for Residential Vendors	Guide to our security regulations/cases of security breaches by employees of residential vendors	Employees of residential vendors	78
Internal Security Training on the Day of Security	Improvement in the security awareness of employees and prevention of company information leakage	Employees	6,799

2022 Position-Specific Guides

Item	Training Content	Trainees	Number of participants (persons)
Employees who are appointed as site manager	Role of the security manager, security policy, checklist, cases of best/insufficient practice	Site managers (security managers)	89
Security staff (Newly appointed security managers)	Roles of security staff, activities for the Day of Security, document management, inspection method	Security staff	459
New employees	Importance of security, PC security, security rules, personal information protection, etc.	New employees	618

APPENDIX

ESG DATA	98
GRI Standards Index	110
ISSB Index	115
SASB Index	116
TCFD Index	117
WEF Stakeholder Capitalism Metrics	118
UNGC	122
Major Awards & Memberships	123
Greenhouse Gas Verification Statement	124
SBTi Approval Certificate	126
Independent Assurance Statement	127
Preparation of the Report	128
ESG Policies and Norms	129



Singapore Port Tuas Finger 3 Reclamation

ESG DATA

Economic

Financial Statement (Consolidated)	Unit	2021	2022
Business Performance			
Sales	KRW million	18,065,534	21,239,082
Cost of sales	KRW million	16,268,298	19,726,334
Gross profit	KRW million	1,797,236	1,512,748
Selling and administrative expenses	KRW million	1,043,732	937,846
Operating income	KRW million	753,504	574,902
Financial income	KRW million	98,948	224,652
Other non-operating income(Loss)	KRW million	12,207	(33,066)
Income before income tax expense	KRW million	854,101	753,815
Income tax expenses	KRW million	299,724	282,939
Net income	KRW million	554,377	470,876
Financial position			
Current assets	KRW million	14,526,404	15,516,744
Non-current assets	KRW million	5,110,860	5,394,964
Total assets	KRW million	19,637,264	20,911,708
Current liabilities	KRW million	7,613,217	8,757,397
Non-current liabilities	KRW million	2,594,756	2,230,034
Total liabilities	KRW million	10,207,973	10,987,431
Total shareholders' equity	KRW million	9,429,291	9,924,277
Cash flows			
Cash flows from operating activities	KRW million	1,009,401	(143,474)
Cash flows from investing activities	KRW million	(798,316)	1,853,258
Cash flows from financing activities	KRW million	(492,604)	(658,184)
Cash and cash equivalents at beginning of year	KRW million	3,186,842	2,926,856
Cash and cash equivalents at end of year	KRW million	2,926,856	3,973,897

Financial Statement (Separated)	Unit	2021	2022
Business Performance			
Sales	KRW million	10,246,315	11,978,479
Cost of sales	KRW million	9,318,606	11,086,837
Gross profit	KRW million	927,709	891,642
Selling and administrative expenses	KRW million	622,590	545,300
Operating income	KRW million	305,119	346,342
Financial income	KRW million	111,544	188,882
Other non-operating income(Loss)	KRW million	(622)	(31,530)
Income before income tax expense	KRW million	416,041	503,694
Income tax expenses	KRW million	130,551	157,122
Net income	KRW million	285,490	346,572
Financial position			
Current assets	KRW million	9,024,143	9,483,112
Non-current assets	KRW million	4,267,328	4,255,304
Total assets	KRW million	13,291,471	13,738,416
Current liabilities	KRW million	5,118,936	5,568,627
Non-current liabilities	KRW million	2,166,698	1,775,552
Total liabilities	KRW million	7,285,634	7,344,179
Total shareholders' equity	KRW million	6,005,837	6,394,237
Cash flows			
Cash flows from operating activities	KRW million	1,120,177	(325,273)
Cash flows from investing activities	KRW million	(959,911)	1,311,509
Cash flows from financing activities	KRW million	(312,869)	(372,692)
Cash and cash equivalents at beginning of year	KRW million	2,106,505	1,954,292
Cash and cash equivalents at end of year	KRW million	1,954,292	2,565,512

ESG DATA

Environmental

GHG Emissions

Category	Unit	2019	2020	2021	2022
Direct/Indirect GHG Emissions (Scope 1&2)	tCO ₂ e	596,140	307,740	296,841	384,836
Direct GHG Emissions (Scope 1)	tCO ₂ e	417,904	167,071	174,227	309,762 ²⁾
Indirect GHG Emissions (Scope 2)	tCO ₂ e	178,236	140,669	122,614	75,074
GHG Emission intensity (Scope 1 & 2) ¹⁾	tCO ₂ e/100M KRW	5.95	3.30	2.90	3.21 ⁴⁾
Other Indirect GHG Emissions (Scope 3)	tCO ₂ e	3,737,879 ³⁾	9,484,466 ³⁾	9,281,746	6,658,746

1) Scope 1 & 2 Emission/Separated Sales

2) Increase in direct emissions due to overseas site expansion

3) Emission difference due to calculation method revision (applying CDP criteria)

4) Individual domestic and overseas emission intensity decreased year-on-year, but overall emission intensity increased due to higher proportion of overseas sales

2022 Scope 3 Emissions

Category	Unit	Emissions
Other Indirect GHG Emissions (Scope 3)	tCO ₂ e	6,658,746
Upstream	tCO ₂ e	4,156,255
Purchased goods and services purchased	tCO ₂ e	2,736,622
Capital goods	tCO ₂ e	1,164
Fuel and energy-related activities (not included in scopes 1 or 2)	tCO ₂ e	13,110
Upstream transportation and distribution	tCO ₂ e	1,338,148
Waste generated in operation processes	tCO ₂ e	20,088
Business travel	tCO ₂ e	2,353
Commuting of employees	tCO ₂ e	44,770
Downstream	tCO ₂ e	2,502,491
Use of sold products	tCO ₂ e	2,153,219
Disposal of sold products	tCO ₂ e	288,569
Investments	tCO ₂ e	60,703

*There are no undisclosed categories in Hyundai E&C's Scope 3 emissions. (Category 8: Upstream Leased Assets, Category 9: Downstream Transportation & Logistics, Category 10: Processed Products Sold, Category 13: Downstream Leased Assets, Category 14: Franchises)

*Some data may be subject to change depending on the verification process by CDP and SBTi

Energy

Category	Unit	2019	2020	2021	2022
Total energy consumption (A+B)	TJ	7,785.79	4,067.59	4,846.90	5,837.41
Total consumption of non-renewable energy (A)	TJ	7,776.54 ¹⁾	4,066.07 ¹⁾	4,838.95	5,836.48
Total consumption of renewable energy (B)	TJ	9.25	1.53 ¹⁾	7.95	0.93 ³⁾
Total energy cost	KRW million	205,297	119,108	116,189	186,304
Energy intensity ²⁾	TJ/100M KRW	0.08	0.04	0.05	0.05

1) Through an enhanced calculation method, certain changes have been made to historical data from previous years

2) Total energy consumption/ separate sales revenue

3) Reduced total renewable energy use as on-site biomass use decreases for safety reasons

Water

Category	Unit	2019	2020	2021	2022
Total Fresh Water Consumption	1,000 ton	802.04	1,277.80	1,478.01	1,229.82
Municipal water supplies	1,000 ton	403.82	472.06	400.58	669.70
Fresh surface water	1,000 ton	292.02	505.34	809.96	363.82
Fresh groundwater	1,000 ton	65.09	196.31	93.61	116.22
Others	1,000 ton	41.11	104.29	173.86	80.08
Water reuse	1,000 ton	-	-	-	-
Ratio of water reuse	%	0	0	0	0
Waste water discharge ¹⁾	1,000 ton	5,333.86	8,311.23	4,234.53	3,371.50

1) Including the treatment capacity of natural groundwater generated during underground excavations and tunnelling

Discharge of Wastewater

Category	Unit	2019	2020	2021	2022
COD	Ton	24.93	40.21	32.44	8.74
BOD	Ton	12.51	22.44	24.38	37.81
SS	Ton	53.38	75.96	36.75	32.65

ESG DATA

Environmental

Building Materials

Category	Unit	2019	2020	2021	2022
Wood	m ³	48,404	23,871	27,890	25,491
Steel (Iron)	Ton	543,000	432,000	501,000	559,096
Concrete (Remicon)	m ³	3,394,416	3,652,120	3,871,549	5,137,646 ¹⁾
Cement	Ton	300,105	194,685	225,830	182,268
Sand	m ³	764,391	37,810	34,386	34,849
Aggregate	m ³	1,383,392	604,496	644,346	794,705
Asphalt concrete	Ton	152,252	224,768	344,410	53,632
Middle- sized lump coal	kg	381,280	267,880	126,540	56,450
Recycled aggregate	m ³	-	22,237	9,072	35,060 ²⁾

1) Increased in concrete due to expansion of housing projects

2) Recycling rate of construction aggregates in 2022: 4.23%

Building Energy/GHG Intensity

Category		Unit	2019	2020	2021	2022
Building Energy Intensity	Seoul Headquar-ters	kWh/m ³	121.65	116.86	125.04	99.98
	Yeongnam Branch	kWh/m ³	80.71	82.17	78.57	85.45
	Central Region Branch	kWh/m ³	77.66	77.34	77.04	74.97
Building GHG Intensity	Seoul Headquar-ters	tCO ₂ e/m ³	0.08	0.07	0.08	0.06
	Yeongnam Branch	tCO ₂ e/m ³	0.05	0.06	0.05	0.05
	Central Region Branch	tCO ₂ e/m ³	0.07	0.05	0.05	0.04

Waste

Category	Unit	2019	2020	2021	2022
Total Waste Generated	Ton	764,565	883,383	869,806	1,312,651 ¹⁾
Landfilled	Ton	9,290	4,160	3,230	4,000
Incinerated (without energy recovery)	Ton	1,756	2,779	2,328	254
Reused	Ton	753,518	876,443	864,248	1,308,397
Recycling rate	%	98.6	99.2	99.4	99.7
Construction waste	Ton	754,872	856,470	762,594	1,184,155
Landfilled	Ton	9,280	4,158	3,191	155
Incinerated (without energy recovery)	Ton	1,611	2,595	2,124	147
Reused	Ton	743,981	849,717	757,279	1,183,853
Industrial waste	Ton	9,676	26,910	107,193	128,476
Landfilled	Ton	0	0	39	3,845
Incinerated (without energy recovery)	Ton	142	183	189	104
Reused	Ton	9,533	26,726	106,965	124,527
Hazardous waste	Ton	17.0	3.0	19.0	20.1
Landfilled	Ton	10.0	2.0	0.0	0.0
Incinerated (without energy recovery)	Ton	3.0	1.0	15.0	3.9
Reused	Ton	4.0	0.0	4.0	16.2

1) In 2022, waste disposal experienced a temporary increase due to various activities such as remodeling projects, building demolitions, maintenance projects, and disposal services.

Environmental System

Category		Unit	2019	2020	2021	2022
Environmental Management System Certification	Number of businesses with EMS (Environmental Management System) certification	Sites	140	173	217	193
	Number of business establishments implementing EMS (Environmental Management System) certification	Sites	140	173	217	193
	Percentage of business establishments with EMS (Environmental Management System) certification	%	100	100	100	100

ESG DATA

Environmental

Environmental Law

Category		Unit	2019	2020	2021	2022
Number of environmental law violations	Number of penalties over USD 10,000	Case	0	0	0	0
Monetary value of penalties for environmental violations	Number of penalties over USD 10,000	KRW	0	0	0	0
Number of non-monetary sanctions imposed for environmental violations		Case	0	0	0	0

2022 Environmental Investments and Expenses

Category	Unit	2022
Environment R&D expense	KRW million	4,400
Environmental management expenses	KRW million	40,391
Atmosphere	KRW million	8,240
Water	KRW million	3,181
Noise and vibration / Others	KRW million	8,318
Waste / Soil	KRW million	20,652

Sustainable Product Sales

Category			Unit	2020			2021			2022			
				Internal standards ¹⁾	K-Taxonomy ²⁾	EU ³⁾	Internal standards ¹⁾	K-Taxonomy ²⁾	EU ³⁾	Internal standards ¹⁾	K-Taxonomy ²⁾	EU ³⁾	
Green	GHG reduction	Power/energy	Renewable energy production	KRW million	108,800	104,989	106,255	36,718	36,717	36,717	92,712	99,712	99,712
			Hydrogen manufacturing										
		Urban/building	Zero-energy specialized city development	KRW million	4,583,086	3,738,769	3,725,977	3,574,319	4,228,756	4,215,251	6,285,123	5,220,508	5,206,309
			Zero-energy buildings or green buildings new construction										
	Transportation	Pollution-free transportation infrastructure development	KRW million	-	271,409	271,409	-	274,114	274,114	-	623,795	623,795	
	Climate change adaptation	Disaster prevention facility construction	KRW million	-	-	-	-	7,128	-	-	15,774	-	
	Sustainable water conservation	Wastewater management	KRW million	15,700	13,971	13,971	58,211	66,472	66,472	141,587	143,352	143,352	
		Water supply and water reuse	KRW million										
	Circular economy	Anaerobic digestion methane gas capture and utilization	KRW million	-	-	-	-	8,740	8,740	-	15,897	15,897	
		Waste management	KRW million	1,100	-	-	1,833	-	-	538	-	-	
Pollution prevention and treatment	Soil remediation of contaminated land	KRW million	10,500	-	-	7,581	-	-	8,302	-	-		
Transition	Power/energy	Nuclear-based energy production	KRW million	189,100	189,100	189,100	143,065	139,905	139,905	178,587	151,220	151,220	
		Energy-related plants	KRW million	100	-	-	2,419	-	-	138,554	-	-	
Total			KRW million	4,908,386	4,318,238	4,306,712 ⁴⁾	3,824,146	4,761,833	4,741,199 ⁴⁾	6,845,403	6,270,257	6,240,283	
Proportion of sustainable product sales			%	52.66	46.33	46.21 ⁴⁾	37.41	46.47	46.27 ⁴⁾	57.15	52.35	52.10	

* The sustainable product sales were previously calculated based on our internal standards, but starting from 2022, they are reevaluated using the EU Taxonomy and the Korean Green Classification System.

1) Internal standards

2) Applying the K-Taxonomy System Activity Criteria

3) Applying the EU Taxonomy Economic Activity List Criteria (Eligible)

4) Recalculation based on changes in eligibility criteria for sustainable products (based on EU Taxonomy)

ESG DATA

Social

2022 Status of Employees

Category		Unit	Total	Male	Female	Female Ratio	2030 Target	
Total employees (including contract workers)		Person	6,799 ¹⁾	5,998	801	11.78%	14.18%	
Condition	Regular	Person	4,237	4,003	234	5.52%	-	
	Contract	Person	2,478	1,913	565	22.80%	-	
	Executive	Person	84	82	2	2.38%		
Level ²⁾	Management ³⁾	Senior	Person	2,137	2,078	59	2.76%	3.68%
		Junior	Person	1,282	1,198	84	6.55%	8.75%
		Sub-total	Person	3,419	3,276	143	4.18%	5.59%
	Non-management	Person	818	727	91	11.12%	16.46%	
Type	Sales & marketing division		Person	4,291	3,924	367	8.55%	13.55%
	Non-sales & marketing division	General	Person	893	686	207	23.18%	20.46%
		STEM-related	Person	1,615	1,388	227	14.06%	12.73%
Category		Unit	Total	Male	Female	Female Ratio	Ratio to total employees	
Minority	Handicapped	Person	194	149	45	23.20%	2.85%	
	National merit	Person	74	69	5	6.76%	1.09%	
	Foreign employees	Person	17	14	3	17.65%	0.25%	
Age Group	Under 30	Person	859	630	229	26.66%	12.63%	
	30-50	Person	4,732	4,191	541	11.43%	69.60%	
	Over 50	Person	1,208	1,177	31	2.57%	17.77%	
Nationality	Asia	Person	6,776	5,981	795	11.73%	99.66%	
	Europe/CIS	Person	10	7	3	30.00%	0.15%	
	America/Pacific	Person	11	9	2	18.18%	0.16%	
	Africa	Person	2	1	1	50.00%	0.03%	

1) Excluded overseas site technicians

2) Based on permanent employees

3) All management positions (including junior and senior management) are Asian

Recruitment

Category			Unit	2019	2020	2021	2022
Total recruitments			Person	1,067	1,153	1,217	2,122
Gender	Male	Number	Person	857	938	970	1,701
		Ratio	%	80.32	81.35	79.70	80.16
	Female	Number	Person	210	215	247	421
		Ratio	%	19.68	18.65	20.30	19.84
Age Group	Under 30	Number	Person	205	298	377	715
		Ratio	%	19.21	25.85	30.98	33.69
	31-50	Number	Person	724	722	681	1,220
		Ratio	%	67.85	62.62	55.96	57.49
	Over 51	Number	Person	138	133	159	187
		Ratio	%	12.93	11.54	13.06	8.81
	Experience	New hires	Person	18	10	48	184
		Experienced hires	Person	1,049	1,143	1,169	1,938
Level ¹⁾	Management	Senior	Person	48	31	44	78
		Junior	Person	63	37	30	86
	Non-management		Person	32	28	81	270
	Nationality	Asia		Person	1,063	1,152	1,213
Europe/CIS		Person	1	1	0	1	
America/Pacific		Person	3	0	4	2	
Africa		Person	0	0	0	0	
Other Indicators	Percentage filled with existing employees		%	83.20	81.50	80.80	80.82
	Average service duration of employees		Year	13.3	13.5	13.6	13.4
	Average cost of employment		KRW	426,890	137,834	186,364	138,715

1) Based on permanent employees

ESG DATA

Social

Turnover

Category			Unit	2019	2020	2021	2022
Type	Total employee turnover rate		%	3.78	5.85	4.33	5.24
	Voluntary employee turnover rate		%	1.49	1.19	1.77	4.06
Gender	Male		%	3.71	5.60	4.38	5.10
	Female		%	4.98	9.96	3.45	7.69
Age Group	Under 30		%	2.16	1.89	5.15	2.44
	31-50		%	2.72	3.19	3.52	3.28
	Over 51		%	11.05	21.67	8.04	3.81
Nationality	Asia		%	3.75	5.85	4.33	3.25
	Europe/CIS		%	-	-	-	10.00
	America/Pacific		%	0.02	0.00	0.00	9.09
	Africa		%	-	-	-	0.00
Level	Management	Senior	%	3.90	8.52	4.47	3.28
		Junior	%	2.96	2.66	3.54	6.71
	Non-management		%	3.78	5.85	5.25	8.07

*Proportion of employees by type

Status of Parental Leave Use

Category		Unit	2019	2020	2021	2022
Number of employees who took parental leave	Total	Person	34	21	34	30
	Male	Person	14	9	17	19
	Female	Person	20	12	17	11
Number of employees who returned after parental leave	Total	Person	32	17	30	27
	Male	Person	13	7	15	18
	Female	Person	19	10	15	9
Return rate after parental leave	Total	%	94.1	81.0	88.2	90.0
	Male	%	92.9	77.8	88.2	94.7
	Female	%	95.0	83.3	88.2	81.8
Number of employees who worked for over 12 months after returning	Total	Person	26	10	15	27
	Male	Person	13	3	5	18
	Female	Person	13	7	10	9

ESG DATA

Social

Training

Category		Unit	2021	2022	2023 (Target)
Total trainee ¹⁾		Person	4,219	4,390	4,829
Gender	Male	Person	3,986	4,155	4,571
	Female	Person	233	235	259
Level	Management	Senior	2,135	2,385	2,623
		Junior	1,290	1,238	1,362
	Non-management		712	767	844
Age Group	Under 30		238	320	352
	31-50		3,191	3,119	3,431
	Over 51		790	951	1,046
Nationality	Asia		3,525	3,701	4,071
	Middle East		574	570	627
	Europe/CIS		3	0	-
	America/Pacific		76	90	99
	Africa		41	29	32
Total training hours		Hour	186,793	146,659	161,325
Gender	Male		176,477	140,080	154,088
	Female		10,316	6,579	7,237
Level	Management	Senior	94,525	69,926	76,919
		Junior	57,114	38,256	42,082
	Non-management		31,523	38,477	42,324

1) Based on permanent employees

Category			Unit	2021	2022	2023 (Target)
Age Group	Under 30		Hour	10,537	21,598	23,758
	31-50		Hour	141,279	98,600	108,461
	Over 51		Hour	34,977	26,461	29,107
Nationality	Asia		Hour	156,067	136,438	150,082
	Middle East		Hour	25,413	8,049	8,854
	Europe/CIS		Hour	133	0	-
	America/Pacific		Hour	3,365	1,794	1,973
	Africa		Hour	1,815	378	415
Total training investment			KRW million	1,688	1,717	1,889
Gender	Male		KRW million	1,595	1,625	1,788
	Female		KRW million	93	92	101
Level	Management	Senior	KRW million	854	933	1,026
		Junior	KRW million	516	484	532
	Non-management		KRW million	285	300	330
Age Group	Under 30		KRW million	95	125	138
	31-50		KRW million	1,277	1,220	1,342
	Over 51		KRW million	316	372	409
Nationality	Asia		KRW million	1,411	1,448	1,593
	Middle East		KRW million	230	223	245
	Europe/CIS		KRW million	1	0	-
	America/Pacific		KRW million	30	35	39
	Africa		KRW million	16	11	12

OVERVIEW		PROSPERITY			PLANET		PEOPLE		PRINCIPLE		APPENDIX	
ESG DATA	GRI Standards Index	ISSB Index	SASB Index	TCFD Index	WEF Stakeholder Capitalism Metrics	UNGC	Major Awards & Memberships	Greenhouse Gas Verification Statement	SBTi Approval Certificate	Independent Assurance Statement	Preparation of the Report	ESG Policies and Norms

ESG DATA

Social

Employee Compensation

Category		Unit	2019	2020	2021	2022	
Salary of employees (annual average)	Male	KRW	87,099,895	89,588,267	101,206,180	102,710,211	
	Female	KRW	44,651,420	47,693,525	57,506,494	65,699,728	
Ratio of female salary to male salary ¹⁾		%	51.26	53.24	56.82	63.97	
Executive level ⁴⁾ (monthly average)	Base salary	Male	KRW	21,108,377	21,108,377	20,202,490	21,114,837
		Female ²⁾	KRW	-	-	15,000,000	16,666,667
		Ratio of female salary to male salary ³⁾	%	-	-	74.24	79.00
	Base salary + other compensation (overtime allowance)	Male	KRW	21,108,377	21,108,377	20,202,490	21,114,837
		Female ²⁾	KRW	-	-	15,000,000	16,666,667
		Ratio of female salary to male salary ³⁾	%	-	-	74.24	79.00
Management level (monthly average)	Base salary	Male	KRW	4,894,167	4,739,337	4,917,269	5,234,091
		Female	KRW	4,851,712	4,535,686	4,820,069	4,811,970
		Ratio of female salary to male salary	%	99.13	95.70	98.02	91.94
	Base salary + other compensation (overtime allowance)	Male	KRW	6,721,465	6,484,678	6,751,868	7,181,970
		Female	KRW	6,663,133	6,212,935	6,618,562	6,608,512
		Ratio of female salary to male salary	%	99.13	95.81	98.03	92.02
Non-management level (monthly average)	Base salary	Male	KRW	3,161,113	3,373,882	3,645,172	3,473,257 ⁵⁾
		Female	KRW	3,024,238	3,082,127	3,467,831	3,218,434 ⁵⁾
		Ratio of female salary to male salary	%	95.67	91.35	95.14	92.66

1) Differences due to the proportion of women in non-managerial positions among all employees
2) Female executives appointed since 2021
3) Salary disparity due to length of service resulting from the appointment of new female executives in 2021
4) Exclusion of executive compensation for outside directors
5) Decrease in average compensation for non-management positions due to increased new hires in 2022

Safety

Category		Unit	2019	2020	2021	2022
Number of accidents		Case	151	163	286	344 ⁵⁾
Total	Domestic	Case	142	159	275	332
	Overseas	Case	9	4	11	12
Employees ¹⁾	Domestic	Case	12	6	12	29
	Overseas	Case	5	3	2	5
Contractors	Domestic	Case	130	153	263	303
	Overseas	Case	4	1	9	7
LTIFR (lost time injury frequency rate) ²⁾	Employees	n/million hours worked	0.192	0.105	0.140	0.317
	Contractors	n/million hours worked	0.917	1.024	1.644	1.988
OIFR (Occupational Illness Frequency Rate) ³⁾		n/million hours worked	0.172	0.265	0.571	0.651
Number of fatalities	Employees	Person	2	0	0	0
	Contractors	Person	4	4	5	3
Number of injuries	Employees	Person	15	9	14	34
	Contractors	Person	130	150	267 ⁴⁾	307

* Reflects the Ministry of Employment and Labor's industrial accident calculation results at the end of June 2023
1) Include direct employees
2) LTIFR (Lost Time Injury Frequency Rate): (Number of lost time injuries x 1,000,000 (hours)) / Total annual hours worked
3) OIFR (Occupational Illness Frequency Rate): (Number of occupational illnesses x 1,000,000 (hours)) / Total annual hours worked
4) Due to data aggregation error, the number of injuries for contractors in 2021 has been corrected
5) Number of disasters in 2022
- Increase in domestic housing sites in 2022 compared to 2021 (32.8% increase in sales in the housing sector on a separate basis)
- The proportion of non-accidental incidents (work-related diseases such as musculoskeletal disorders, minor injuries due to simple negligence by workers, etc.) has increased compared to the decrease in major disasters
- Year-on-year increase in the number of recognized accidents due to the trend of expanding the scope of industrial accidents under the Occupational Safety and Health Act and Industrial Accident Compensation Insurance Act

ESG DATA

Social

Social Contributions

Category		Unit	2019	2020	2021	2022	2023 (Target)
Participants		Person	3,617	3,014	4,410	3,456	4,000
Participation hours		Hour	18,437	5,656	12,117	12,231	14,000
In-kind donations		KRW	1,484,002,046	349,165,730	660,877,257	657,403,788	659,140,522
Cash donations		KRW	16,116,572,980	6,372,839,990	13,786,655,467	8,446,417,111	11,116,536,289
Indirect expenses		KRW	5,012,117,339	4,724,989,427	5,595,664,320	5,832,570,509	5,922,397,760
Local community investments	Expense	KRW	11,687,517,626	2,834,870,447	10,478,361,724	4,961,579,788	7,719,970,756
	Ratio	%	52	25	52	33	44
Charitable donations	Expense	KRW	5,623,057,400	3,925,849,000	3,758,171,000	3,899,241,111	3,828,706,056
	Ratio	%	25	34	19	26	22
Commercial initiatives	Expense	KRW	5,302,117,339	4,686,275,700	5,806,664,320	6,075,570,509	6,149,397,760
	Ratio	%	23	41	29	41	35

Policy Support Funding

Category		Unit	2019	2020	2021	2022	2023 (Target)
Contributions and other spending	Lobbying, interest representation or similar	KRW million	0	0	0	0	0
	Local, regional or national political campaigns/organizations/candidates	KRW million	0	0	0	0	0
	Trade associations or tax-exempt groups (e.g., think tanks)	KRW million	1,844	1,636	1,746	2,551	2,242
	Other (e.g. spending related to ballot measures, referendums)	KRW million	0	0	0	0	0

* As of 2022, there were no direct or indirect political contributions of any kind.

2022 Top 5 Largest Contributions and Expenditures

1. Foundation for Industrial Safety Partnerships (KRW 836.0 million, 15.68%): Public institutions aiming to strengthen the safety of domestic industrial sites through support for the safety management capabilities of SMEs and win-win cooperation
2. Construction Association of Korea (KRW 628.5 million, 11.79%): The representative construction association in Korea that conducts research on laws, systems, and policies related to the construction industry, statistical surveys, and management analysis
3. Hope Bridge Korea Disaster Relief Association (KRW 603.5 million, 11.32%): A legal corporate body established for the collection and management of funds and items for victims and relief activities
4. Korea Housing Association (KRW 549.5 million, 10.31%): An incorporated corporation established to promote the stable development of the housing market and the housing stability of the people
5. Construction Industry Foundation for Social Responsibility (KRW 460.0 million, 8.63%): A foundation established to fulfill the sustainable development and social responsibility of the construction industry

ESG DATA

Social

Status of Suppliers

Category		Unit	2019	2020	2021	2022
Number of suppliers	Number of Tier 1 Suppliers	Company	3,767	3,828	3,855	3,931 ¹⁾
	Procured	Company	2,112	2,052	2,249	2,201
	Outsourced	Company	1,655	1,776	1,606	1,779
	Number of significant tier 1 supplier	Company	112	173	167	211
	Ratio of significant tier 1 supplier	%	3.0	4.5	4.3	5.3
Financial support for suppliers	Win-Win Cooperation Fund	KRW Billion	80	110	160	160
Skill support for suppliers	Skill support	KRW Billion	0.8	0.9	1.1	0.9
	Direct support	KRW Billion	-	-	2.7	2.6

1) Excluded 49 procured/outsourced duplicates

Customer Satisfaction

Category	Unit	2019	2020	2021	2022
Customer satisfaction survey	Point	85.8	85.7	84.4	80.6

* Customers including domestic and international clients, auditors, and architects

2022 Supply Chain Risk Assessment

Category	Unit	2022	2022 Target
Total number of suppliers assessed via on-desk assessments/on-site due diligence	Company	458	-
% of significant suppliers assessed	%	100	100
Number of suppliers assessed with actual or potential negative impacts	Company	354	-
% of suppliers with actual or potential negative impacts with agreed corrective action plan	%	100	-
Number of suppliers with actual or potential negative impacts that were terminated	Company	71	-
Number of suppliers supported in corrective action plan implementation	Company	458	458
% of suppliers assessed with actual or potential negative impacts supported in corrective action plan implementation	%	100	100
Number of suppliers in capacity building programs	Company	458	458
% of significant suppliers in capacity building programs	%	100	100

Information Security

Category		Unit	2019	2020	2021	2022	
Number of personal data leakage and infringement incidents		Case	0	0	0	0	
Leakage of personal identifiable information (PII*)		Case	0	0	0	0	
Number of users whose personal information was compromised due to data leakage		Customer	0	0	0	0	
Financial losses due to privacy-related lawsuits related to user privacy during the reporting period		KRW 1,000	0	0	0	0	
Information security breaches		Case	0	0	0	0	
Information security training	Hours	Regular	Hour	29,057	28,735	28,714	30,247
		Contract	Hour	14,028	14,903	14,973	17,346
	Number of employees who completed the training	Regular	Person	4,151	4,105	4,102	4,321
		Contract	Person	2,004	2,129	2,139	2,478
	Ratio of training completion	Regular	%	100	100	100	100
		Contract	%	100	100	100	100

*PII: All data that could potentially identify or trace a specific individual

ESG DATA

Governance

Economic Contributions

(Based on consolidated)

Category	Unit	2020	2021	2022
Total dividends (Shareholders and investors)	KRW million	66,878	67,499	67,499
Interest expense (Shareholders and investors)	KRW million	78,126	58,036	43,727
Salary expense (employees)	KRW million	1,502,935	1,645,990	1,979,028
Raw material cost (suppliers)	KRW million	5,212,981	5,224,128	7,092,907
Corporate tax (government)	KRW million	167,877	299,724	282,939
Donations (community)	KRW million	8,643	16,243	16,912
Total	KRW million	7,037,440	7,311,620	9,483,012

Board of Directors

Category	Unit	2019	2020	2021	2022
Number of board members	Member	7	6	7	7
Independent Directors (Outside directors)	Number	4	4	4	4
	Percentage	%	57.1	66.7	57.1
Number of independent outside directors or auditors recommended through shareholder proposals	Member	0	0	0	0
Outside directors who have conflicts of interest	Number	0	0	0	0
	Percentage	%	0	0	0
Percentage of female directors	%	-	-	14.3	14.3
Number of concurrent positions of outside directors	Times	2	2	2	2
Number of outside directors with 4 or less other mandates	Member	4	4	4	4
Average attendance at board meetings	%	98.7	96.8	91.8	97.4
Number of cases of outside directors expressing objections or amendments	Case	0	0	0	0
Number of board meetings	Time	11	9	13	11
CEO remuneration (Base salary + variable salary)	KRW million	1,038	557	1,080	1,791
Average tenure of a board	Year	3	3	3	3
Total share of inside directors (Excluding the largest shareholders and affiliated persons)	%	0	0	0	0

ESG DATA

Governance

Committees under the BoD

Category		Unit	2019	2020	2021	2022
Corporate Governance & Communication Committee	Percentage of outside directors participating	%	96.9	100	100	94.4
	Number of meetings	Time	8	10	9	9
Nominating Committee for Outside Directors	Percentage of outside directors participating	%	100	100	100	75
	Number of meetings	Time	2	1	1	1
Audit Committee	Percentage of members meeting financial professional requirements	%	25	25	25	25
	Percentage of outside directors participating	%	100	100	100	95.8
	Number of meetings	Time	6	6	7	6
	Ratio of non-audit service remuneration to audit service remuneration paid to external auditors	%	14.6	0	55.9	0
Compensation Committee	Percentage of outside directors participating	%	-	100	100	100
	Number of meetings	Time	-	1	1	1

Stock Holdings

Category	Unit	2019	2020	2021	2022
CEO	Shares	-	2,000	3,300	4,300
Top management (except the CEO)	Shares	1,250	6,200	340	100
Total ratio of registered directors	%	0.007	0.007	0.006	0.004
Ratio of voting rights of government organizations	%	13.2	12.7	11.5	9.3
Date of pre-notification of the venue, agenda, etc., for the general meeting of shareholders	Date	23	28	29	30

* Year-end stock ownership

Compliance

Category		Unit	2019	2020	2021	2022
Actions on Reported Cases through the Cyber Audit Group	Number of reported cases	Case	49	52	87	151 ¹⁾
	Number of cases found to be true	Case	33	40	58	64
	Number of cases found to be untrue	Case	16	12	29	87
Occurrence of Ethics Violation Cases	Acceptance of hospitality/entertainment	Case	0	2	4	4
	Abuse of work position	Case	1	2	4	1
	Price fixing	Case	0	0	0	0
	Legal violation	Case	1	0	0	2
	Sexual harassment/discrimination	Case	4	5	2	5
	Customer privacy data leakage	Case	0	0	0	0
	Total	Case	6	9	10	12
Measurement of Ethics Violation Cases	Disciplinary dismissal	Case	1	5	14	4
	Recommended resignation	Case	0	2	1	0
	Suspension	Case	0	1	2	2
	Pay cut	Case	4	0	3	5
	Reprimand	Case	0	1	4	5
	Total	Case	5	9	24	16

1) Increase in the number of complaints that were cleared

GRI STANDARDS INDEX

Universal Standards

General Disclosures (GRI 2)

Category	Index	Contents	Page	Note
Organization and Reporting Practices	2-1	Organizational details	6	
	2-2	Entities in the sustainability report	2	
	2-3	Reporting period, frequency and contact point	2	
	2-4	Restatements of information	99-109	
	2-5	External assurance	123-125	
Activities and Workers	2-6	Activities, value chain and other business relationships	8	
	2-7	Employees	102	
	2-8	Workers who are not employees	102	
Governance	2-9	Governance structure and composition	76-81	
	2-10	Nomination and selection of the highest governance body	76	
	2-11	Chair of the highest governance body	77	
	2-12	Role of the highest governance body in overseeing the management of impacts	79	
	2-13	Delegation of responsibility for managing impacts	79-80	
	2-14	Role of the highest governance body in sustainability reporting	78-79	
	2-15	Conflicts of interest	78	
	2-16	Communication of critical concerns	79	
	2-17	Collective knowledge of the highest governance body	78	
	2-18	Evaluation of the performance of the highest governance body	81	
	2-19	Remuneration policies	81	
	2-20	Process to determine remuneration	81	
	2-21	Annual total compensation ratio	81	

Category	Index	Contents	Page	Note
Strategy, Policies and Practices	2-22	Statement on sustainable development strategy	14-15	
	2-23	Policy commitments	121	
	2-24	Embedding policy commitments	14-15	
	2-25	Processes to remediate negative impacts	86-89	
	2-26	Mechanisms for seeking advice and raising concerns	84, 93	
	2-27	Compliance with laws and regulations	85, 101	
	2-28	Membership associations	122	
Stakeholder Engagement	2-29	Approach to stakeholder engagement	18	
	2-30	Collective bargaining agreements	60	

Material Topics (GRI 3)

Category	Index	Contents	Page	Note
Disclosures on Material Topics	3-1	Process to determine material topics	19	
	3-2	List of material topics	20	
	3-3	Management of material topics	21-22	

GRI STANDARDS INDEX

Topic Specific Standards

Material Topics (GRI 200-400)

1. Safety first management and achievement of zero accidents

Category	Index	Contents	Page	Note
Disclosures on Material Topics	3-3	Management of material topics	21	
Occupational Health and Safety	403-1	Occupational health and safety management system	62	
	403-2	Hazard identification, risk assessment, and incident investigation	63	
	403-3	Occupational health and safety services	64	
	403-4	Worker participation, consultation, and communication on occupational health and safety	65	
	403-5	Worker training on occupational health and safety	65	
	403-6	Promotion of worker health	62-66	
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	62-66	
	403-8	Workers covered by an occupational health and safety management system	62	
	403-9	Work-related injuries	105	
	403-10	Work-related ill health	105	

2. Implementation of carbon neutrality strategy and reduction management of greenhouse gas emissions

Category	Index	Contents	Page	Note
Disclosures on Material Topics	3-3	Management of material topics	21	
Economic Performance	201-2	Financial implications and other risks and opportunities due to climate change	39-40	
Energy	302-1	Energy consumption within the organization	99	
	302-2	Energy consumption outside of the organization	99	
	302-3	Energy intensity	99	
	302-4	Reduction of energy consumption	44-46	
	302-5	Reductions in energy requirements of products and services	44-46	
Emissions	305-1	Direct (Scope 1) GHG emissions	46	
	305-2	Indirect (Scope 2) GHG emissions	46	
	305-3	Other indirect (Scope 3) GHG emissions	46	
	305-4	GHG emissions intensity	99	
	305-5	Reduction of GHG emissions	46	

3. Cultivating talent and developing capacities

Category	Index	Contents	Page	Note
Disclosures on Material Topics	3-3	Management of material topics	21	
Training and Education	404-1	Average hours of training per year per employee	57	
	404-2	Programs for upgrading employee skills and transition assistance programs	56-57	
	404-3	Percentage of employees receiving regular performance and career development reviews	58	

4. Strategic response to climate change risk

Category	Index	Contents	Page	Note
Disclosures on Material Topics	3-3	Management of material topics	21	
Economic Performance	201-2	Financial implications and other risks and opportunities due to climate change	39-40	
Energy	302-1	Energy consumption within the organization	99	
	302-2	Energy consumption outside of the organization	99	
	302-3	Energy intensity	99	
	302-4	Reduction of energy consumption	44-46	
	302-5	Reductions in energy requirements of products and services	44-46	
Emissions	305-1	Direct (Scope 1) GHG emissions	46	
	305-2	Indirect (Scope 2) GHG emissions	46	
	305-3	Other indirect (Scope 3) GHG emissions	46	
	305-4	GHG emissions intensity	99	
	305-5	Reduction of GHG emissions	46	

5. Economic profit generation and continuous growth

Category	Index	Contents	Page	Note
Disclosures on Material Topics	3-3	Management of material topics	21	
Economic Performance	201-1	Direct economic value generated and distributed	108	
Energy	201-3	Defined benefit plan obligations and other retirement plans	58	
	201-4	Financial assistance received from government	120	

GRI STANDARDS INDEX

Topic Specific Standards

Material Topics (GRI 200-400)

6. Strengthening win-win growth and joint cooperation with suppliers

Category	Index	Contents	Page	Note
Disclosures on Material Topics	3-3	Management of material topics	21	Non GRI

7. Sustainable supply chain management and strengthening the value chain

Category	Index	Contents	Page	Note
Disclosures on Material Topics	3-3	Management of material topics	22	
Supplier Environmental Assessment	308-1	New suppliers that were screened using environmental criteria	68	
	308-2	Negative environmental impacts in the supply chain and actions taken	68-69	
Supplier Social Assessment	414-1	New suppliers that were screened using social criteria	68-69	
	414-2	Negative social impacts in the supply chain and actions taken	68-69	

8. Satisfying customers through quality and safety control

Category	Index	Contents	Page	Note
Disclosures on Material Topics	3-3	Management of material topics	22	Non GRI

9. Leading smart construction technology through technological innovation

Category	Index	Contents	Page	Note
Disclosures on Material Topics	3-3	Management of material topics	22	Non GRI

10. Improving organizational culture and innovation

Category	Index	Contents	Page	Note
Disclosures on Material Topics	3-3	Management of material topics	22	
Employment	401-1	New employee hires and employee turnover	102-103	
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	60	
	401-3	Parental leave	103	

11. Reducing energy consumption and leading the transition to eco-friendly/renewable energy

Category	Index	Contents	Page	Note
Disclosures on Material Topics	3-3	Management of material topics	22	
Energy	302-1	Energy consumption within the organization	99	
	302-2	Energy consumption outside of the organization	99	
	302-3	Energy intensity	99	
	302-4	Reduction of energy consumption	44-46	
	302-5	Reductions in energy requirements of products and services	44-46	

12. Integrated risk management

Category	Index	Contents	Page	Note
Disclosures on Material Topics	3-3	Management of material topics	22	Non GRI

GRI STANDARDS INDEX

Topic Specific Standards

Non Material Topics (GRI 200-400)

Category	Index	Contents	Page	Note
Market Presence	202-1	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	-	Information unavailable / Incomplete
	202-2	Proportion of senior management hired from the local community at significant locations of operation	102	
Indirect Economic Impacts	203-1	Infrastructure investments and services supported	72-74	
	203-2	Significant indirect economic impacts	72-74	
Procurement Practices	204-1	Proportion of spending on local suppliers	67	
Anti-corruption	205-1	Operations assessed for risks related to corruption	85	
	205-2	Communication and training on anti-corruption policies and procedures	84-85	
	205-3	Confirmed incidents of corruption and actions taken	84	
Anti-competitive Behavior	206-1	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	93	
Tax	207-1	Approach to tax	-	Information unavailable / Incomplete
	207-2	Tax governance, control, and risk management	-	Information unavailable / Incomplete
	207-3	Stakeholder engagement and management of concerns related to tax	19	
	207-4	Country-by-country reporting	-	Business report

Category	Index	Contents	Page	Note
Materials	301-1	Materials used by weight or volume	100	
	301-2	Recycled input materials used	100	
	301-3	Reclaimed products and their packaging materials	100	
Water and Effluents	303-1	Interactions with water as a shared resource	99	
	303-2	Management of water discharge-related impacts	99	
	303-4	Water discharge	99	
	303-5	Water consumption	99	
Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	53	
	304-2	Significant impacts of activities, products and services on biodiversity	52-53	
	304-3	Habitats protected or restored	53	
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	53	
Emissions	305-6	Emissions of ozone-depleting substances (ODS)	-	Information unavailable / Incomplete
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	-	Information unavailable / Incomplete
Waste	306-1	Waste generation and significant waste-related impacts	50	
	306-2	Management of significant waste-related impacts	50	
	306-3	Waste generated	50	
	306-4	Waste diverted from disposal	50	
	306-5	Waste directed to disposal	50	

GRI STANDARDS INDEX

Topic Specific Standards

Non Material Topics (GRI 200-400)

Category	Index	Contents	Page	Note
Labor/Management Relations	402-1	Minimum notice periods regarding operational changes	60	
Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	102	
	405-2	Ratio of basic salary and remuneration of women to men	105	
Non-discrimination	406-1	Incidents of discrimination and corrective actions taken	93	
Freedom of Association and Collective Bargaining	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	-	Not Applicable
Child Labor	408-1	Operations and suppliers at significant risk for incidents of child labor	-	Not Applicable
Forced or Compulsory Labor	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	-	Not Applicable
Security Practices	410-1	Security personnel trained in human rights policies or procedures	93	
Rights of Indigenous Peoples	411-1	Incidents of violations involving rights of indigenous peoples	92	
Local Communities	413-1	Operations with local community engagement, impact assessments, and development programs	72-74	
	413-2	Operations with significant actual and potential negative impacts on local communities	72-74	

Category	Index	Contents	Page	Note
Public Policy	415-1	Political contributions	106	
Customer Health and Safety	416-1	Assessment of the health and safety impacts of product and service categories	-	Not Applicable
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and service	-	Not Applicable
Marketing and Labeling	417-1	Requirements for product and service information and labeling	-	Not Applicable
	417-2	Incidents of non-compliance concerning product and service information and labeling	-	Not Applicable
	417-3	Incidents of non-compliance concerning marketing communications	-	Not Applicable
Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	107	

ISSB INDEX

IFRS S1

Category	Page
Conceptual Foundations	
Fair presentation	127
Materiality	19-22
Reporting entity	2
Connected information	98
Core content	
Governance	15, 76-81
Strategy	9, 14
Risk management	86-92
Metrics and targets	21-22
General requirements	
Sources of guidance	116
Location of disclosures	2
Timing of reporting	2
Comparative information	98-109
Statement of compliance	2
Judgements, uncertainties and errors	
Judgements	2
Measurement uncertainty	51-53
Errors	99-109

IFRS S2

Category	Page
Core content	
Governance	35
Strategy	37-44
Risk management	36
Metrics and targets	45-46

SASB INDEX

SASB (Sustainability Accounting Standards Board) indicators

Topic	Code	Metric	Category	Disclosure location and description
Environmental Impacts of Project Development	IF-EN-160a.1	Number of incidents of non-compliance with environmental permits, standards, and regulations	Quantitative	As of 2022, there were no violations of environmental laws or regulations with a confirmed penalty imposed on the company.
	IF-EN-160a.2	Discussion of processes to assess and manage environmental risks associated with project design, siting, and construction	Qualitative	In order to identify the impact on the surrounding environment before starting a project, we conduct continuous monitoring such as environmental impact assessments to minimize the negative impact of the entire project on the environment. In addition, we conduct environmental management education and emergency training for thorough on-site environmental management, and performed on-site assessments for 101 overseas and domestic sites, on-site support for 42 sites initially opened, and frequent on-site support for 23 sites.
Structural Integrity & Safety	IF-EN-250a.1	Amount of defect- and safety-related rework costs	Quantitative	The total defect rework cost for 2022 was KRW 86.94 billion (based on consolidated), and this was transparently disclosed through the 73 rd Hyundai E&C Business Report.
	IF-EN-250a.2	Total amount of monetary losses as a result of legal proceedings associated with defect- and safety-related incidents	Quantitative	Six lawsuits (KRW 25.97 billion) were ongoing in 2022, and six lawsuits (KRW 18 billion) were newly filed in 2022.
Workforce Health & Safety	IF-EN-320a.1	(1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	Quantitative	The safety management indicators are disclosed in detail under the safety management indicators (p.105) and Sustainability Targets & KPIs (p.17) of this report.
Lifecycle Impacts of Buildings & Infrastructure	IF-EN-410a.1	Number of (1) commissioned projects certified to a third-party multi-attribute sustainability standard and (2) active projects seeking such certification	Quantitative	(1) As of 2022, there were eight completed projects certified for sustainability standards (six Green Building Certifications and two LEED certifications). (2) As of 2022, there were 106 projects in progress undergoing certification for sustainability standards (all 106 are Green Building Certifications, with one LEED certification).
	IF-EN-410a.2	Discussion of process to incorporate operational-phase energy and water efficiency considerations into project planning and design	Qualitative	In order to increase energy efficiency, high-performance insulation, high-efficiency lighting (LED), and solar renewable energy production facilities are installed and operated. In addition, we are trying to reduce water use by using high-efficiency spray equipment and performing in-house diagnosis and analysis of the proportion of sales and water use by countries under water stress.
Climate Impacts of Business Mix	IF-EN-410b.1	Amount of backlog for (1) hydrocarbon related projects and (2) renewable energy projects	Quantitative	(1) As of 2022, 17 hydrocarbon-related projects (one domestic project, 16 overseas), order backlog: KRW 4.2278 trillion (2) As of 2022, three renewable energy-related projects (one domestic and two overseas), backlog of orders: KRW 250.8 billion
	IF-EN-410b.2	Amount of backlog cancellations associated with hydrocarbon-related projects	Quantitative	As of 2022, no associated projects were cancelled.
	IF-EN-410b.3	Amount of backlog for non-energy projects associated with climate change mitigation	Quantitative	As of 2022, the order backlog for non-energy projects related to climate change mitigation was KRW 21.7 trillion.
Business Ethics	IF-EN-510a.1	(1) Number of active projects and (2) backlog in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	Quantitative	As of 2022, there were a total of three projects in the 20 lowest ranking countries in the Corruption Perception Index (three projects in Libya, backlog: KRW 962.5 billion).
	IF-EN-510a.2	Total amount of monetary losses as a result of legal proceedings associated with charges of (1) bribery or corruption and (2) anti-competitive practices	Quantitative	During 2022, no fines, penalty or settlements occurred due to bribery and corruption, anti-competitive acts.
	IF-EN-510a.3	Description of policies and practices for prevention of (1) bribery and corruption, and (2) anti-competitive behavior in the project bidding processes	Qualitative	Detailed compliance regulations for the five principles have been established for the effective operation of the ethics and compliance management system, giving top priority to the "Ethics Charter and Code of Practice," which was revised in 2020. As part of the compliance system, we revised anti-corruption legal compliance and counterparty compliance regulations and introduced five internal regulations for whistleblower protection, competition law policy, anti-money laundering and terrorism, anti-slavery/human trafficking (human rights), and international sanctions compliance in 2021. Moreover, we are leading the anti-corruption management culture by operating an anti-corruption management system based on ISO37001 certification.
Activity Metrics	IF-EN-000.A	Number of active projects	Quantitative	As of 2022, there were 192 domestic sites and 63 international sites in progress.
	IF-EN-000.B	Number of commissioned projects	Quantitative	As of 2022, 45 domestic and eight overseas projects had been completed (based on the issuance of completion statements and taking-over certificates).
	IF-EN-000.C	Total backlog	Quantitative	As of 2022, the total backlog was KRW 88.3671 trillion (based on consolidated), KRW 65.4156 trillion in Korea and KRW 22.9515 trillion overseas.

TCFD INDEX

Category	TCFD Disclosure	CDP	Location of Disclosure
Governance	a. Describe the board's oversight of climate-related risks and opportunities	C1.1 b	35
	b. Describe management's role in assessing and managing climate-related risks and opportunities	C1.2, C1.2a	35
Strategy	a. Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	C2.1a, C2.2a, C2.3, C2.3a, C2.4, C2.4a	37
	b. Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	C2.3a, C2.4a, C3.1, C3.3, C3.4, C3.5, C3.5a	39-42
	c. Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	C3.2, C3.2a, C3.2b	43
Risk management	a. Describe the organization's processes for identifying and assessing climate-related risks	C2.1, C2.1a, C2.1b, C2.2, C2.2a	36
	b. Describe the organization's processes for managing climate-related risks	C2.1, C2.1a, C2.1b, C2.2	36
	c. Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management	C2.1, C2.2, C3.3, C3.4	36
Metrics and targets	a. Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	C8.2, C8.2a, C8.2b, C8.2c, C8.2d, C11.3a	45
	b. Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas(GHG) emissions and the related risks	C6.1, C6.2, C6.3, C6.5, C7.1a, C7.2, C7.3b, C7.5, C7.6b	46
	c. Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	C4.1, C4.1a, C4.2, C4.2a, C4.2c	46

WEF STAKEHOLDER CAPITALISM METRICS

1. Principles of Governance

Theme	Metrics	Disclosures	Page
Governing purpose	Setting purpose	As a Total Solution Creator that provides integrated services encompassing all areas of the value chain of the construction industry, we aim to shape a sustainable future for the industry by continuously innovating and taking on new challenges.	7
Quality of governing body	Governance body composition	In order to ensure transparency of management and efficient supervision of the board of directors, the board of Hyundai E&C consists of seven members in total with three inside directors and four outside directors. In particular, in order to maintain the independence of the board of directors, 57.14% of the total number of directors, exceeding the 50% requirement under Article 542-8 Paragraph 1 of the Commercial Act, are outside directors and an independent lead director is also appointed. Since swift decision-making at domestic and international construction sites is essential in the construction industry, the CEO also serves as the chairman of the board of directors to prevent delays in decision-making and improve efficient decision-making and corporate competitiveness; but the chairman of each committee is an outside director to ensure the independence of the board of directors.	76-77
Stakeholder engagement	Material issues impacting stakeholders	The key stakeholders were classified into seven groups: executives and employees, partners, customers, communities, government/associations, shareholders and investors, and ESG professionals/academia, and a double materiality assessment was conducted to identify sustainable management issues that affect each group.	19-20
Ethical behaviour	Anti-corruption	As a global construction leader, Hyundai E&C is leading the anti-corruption management culture by operating an anti-corruption management system based on ISO 37001 certification. In 2022, we made various efforts across the company to internalize the anti-corruption management system, including reporting the ISO 37001 manual and management review to the board, training internal auditors and performing an internal audit, requesting a memorandum of integrity from the field managers of partner companies and introducing standard compliance provisions in standard contracts for cooperation/subcontracts. Moreover, we operate various systems and educational programs to strengthen the anti-corruption capabilities of executives and employees and raise ethical and compliance awareness. Every year, ethics and compliance training is conducted by department, business unit, and position for domestic and overseas anti-corruption laws, our anti-corruption management systems, policies, etc.	83-84
	Protected ethics advice and reporting mechanisms	We have appointed a compliance officer to prevent the risk of violating various laws and regulations related to the business and to prevent various violations of executives and employees based on the Commercial Act. The compliance officer regularly checks compliance with control standards, reports to the board of directors, and provides regular legal advice. We appointed a compliance staff for the in-house business headquarters and compliance leaders for each team and on-site branch to quickly spread compliance policies across the company. In 2022, we expanded the number of compliance leaders from 361 to 384.	83

WEF STAKEHOLDER CAPITALISM METRICS

2. Planet

Theme	Metrics	Disclosures	Page
Risk and opportunity oversight	Integrating risk and opportunity into business process	We identify climate-related risks and opportunities over the short, medium, and long term and their impact on sales, strategy, and financial plans. Based on the results, we aim to establish step-by-step GHG reduction targets and a mid to long term emissions reduction system; and set and implement a reduction plan based on various scenario analyses considering internal and external risks.	36-43
Climate change	Greenhouse gas(GHG) emissions	<ul style="list-style-type: none">• Direct GHG (Scope 1) Emissions: 309,762tCO₂e• Indirect GHG (Scope 2) Emissions: 75,074tCO₂e• Other Indirect GHG (Scope 3) Emissions: 6,658,746tCO₂e	46
	TCFD implementation	We have established and are operating a governance system for the systematic management of climate change risks and the climate change risk management process. We have established climate change strategies and a 2045 carbon-neutral target and implemented greenhouse gas reductions in accordance with the recommendations of the TCFD (Task Force on Climate-related Financial Disclosures).	35-46
Nature loss	Land use and ecological sensitivity	Hyundai E&C strives to minimize negative impacts on the environment by managing various risks related to natural capital from two perspectives: dependence (the degree to which our value chain relies on natural capital) and impact (the effect of our value chain on natural capital). In particular, we have developed and are operating H-PMS (Hyundai-Project Management System), a registration system for protected species, and actively monitor and protect the species.	52-53
Freshwater availability	Water consumption and withdrawal in water-stressed areas	Hyundai E&C conducted a sensitivity analysis based on the Aqueduct 3.0 Country Rankings of the WRI (World Resources Institute) for a total of 12 construction sites in domestic and overseas that generated revenue in 2022 (excluding sites during the completion, defect rectification period, and initial design process). Among these sites, Vietnam, Saudi Arabia, Qatar, and Algeria were selected for the analysis. Water stress refers to a situation in which the water demand in a specific region exceeds its water supply capacity. As water stress increases, it is expected that the water usage will need to be continuously expanded to maintain business operations, leading to an increase in water usage costs. The analysis revealed that water usage increases as water stress rises, resulting in cost-related risks for business opportunities. Based on these analysis results, proactive planning of necessary measures such as facility and process improvements, the expansion of water recycling, and the development of water supply prediction models considering water efficiency and supply volume is intended to be carried out in advance.	51

WEF STAKEHOLDER CAPITALISM METRICS

3. People

Theme	Metrics	Disclosures	Page																												
Dignity and equality	Diversity and Inclusion	Hyundai E&C established its D&I (Diversity & Inclusion) Policy in August 2022 to create an organizational culture where diverse workers can combine creative and challenging thinking and contribute to the transition to an inclusive society. In addition, in the provision of promotion, compensation, and educational opportunities, we provide equal opportunities without discrimination for reasons other than individual competence and objective performance, and we have established and implemented a preemptive system for work-family compatibility, which includes maternity protection.	55-56																												
	Pay equality	<div><div>• Average salary of male employees: KRW 103 million</div><div>• Average salary of female employees: KRW 66 million</div><div>• Ratio of average salary of female employees to male: 63.97%</div></div> <div>Payment of Remuneration (Unit: KRW million, persons)</div>	105																												
	Wage level	<table><tr><th colspan="2">Category</th><th>Total Remuneration</th><th>Average Remuneration per employee</th><th>Employee</th></tr><tr><td>Top Executives</td><td>Inside directors</td><td>2,974</td><td>991</td><td>3</td></tr><tr><td rowspan="2">Employees and outside directors</td><td>Outside directors</td><td>317</td><td>79</td><td>4</td></tr><tr><td>Employees</td><td>674,992</td><td>101</td><td>6,902*</td></tr></table>	Category		Total Remuneration	Average Remuneration per employee	Employee	Top Executives	Inside directors	2,974	991	3	Employees and outside directors	Outside directors	317	79	4	Employees	674,992	101	6,902*	81									
		Category		Total Remuneration	Average Remuneration per employee	Employee																									
		Top Executives	Inside directors	2,974	991	3																									
		Employees and outside directors	Outside directors	317	79	4																									
Employees	674,992		101	6,902*																											
Ratio of the salary of the top executives to the average salary of all employees (times): 9.8																															
* Based on the business report * As of the end of 2022																															
	Risk for incidents of child, forced or compulsory labour	No workplaces or suppliers are at high risk of child or forced labor.	N/A																												
Health and well-being	Health and safety	<div>Every year, we strengthen our ability to implement the safety and health management system and improve our capability to manage on-site safety through our in-house safety and health diagnosis. We also operate a risk assessment system consisting of initial, regular, and occasional assessments. We perform the initial risk assessment when a site is opened, and review the adequacy of the initial assessment through regular risk assessments every year. In addition, monthly, weekly, and daily unit risk assessments are conducted frequently, and risk factors and countermeasures derived from the risk assessments are shared with workers through the TBM (Tool Box Meeting).</div> <div><div><div>LTIFR (Lost Time Injury Frequency Rate)</div><div>(unit: n/million hours worked)</div><table><tr><th>Category</th><th>2020</th><th>2021</th><th>2022</th></tr><tr><td>Executives and employees</td><td>0.105</td><td>0.140</td><td>0.317</td></tr><tr><td>Suppliers</td><td>1.024</td><td>1.644</td><td>1.988</td></tr></table></div><div><div>Converted accident ratio (Domestic)</div><div>(unit: n/million hours worked)</div><table><tr><th>Category</th><th>2020</th><th>2021</th><th>2022</th></tr><tr><td>Executives and employees</td><td>0.445</td><td>0.616</td><td>0.822</td></tr></table></div><div><div>OIFR (Occupational Illness Frequency Rate)</div><div>(unit: n/million hours worked)</div><table><tr><th>Category</th><th>2020</th><th>2021</th><th>2022</th></tr><tr><td>Executives and employees</td><td>0.265</td><td>0.571</td><td>0.651</td></tr></table></div></div>	Category	2020	2021	2022	Executives and employees	0.105	0.140	0.317	Suppliers	1.024	1.644	1.988	Category	2020	2021	2022	Executives and employees	0.445	0.616	0.822	Category	2020	2021	2022	Executives and employees	0.265	0.571	0.651	62-66
Category	2020	2021	2022																												
Executives and employees	0.105	0.140	0.317																												
Suppliers	1.024	1.644	1.988																												
Category	2020	2021	2022																												
Executives and employees	0.445	0.616	0.822																												
Category	2020	2021	2022																												
Executives and employees	0.265	0.571	0.651																												
Skills for the future	Training Provided	<div>Hyundai E&C has established a leadership pipeline to foster the world's top innovative talent and nurtures key talent through leadership, experience, and competency training by stage.</div> <div><table><tr><th>Category</th><th>Achievement</th><th>Category</th><th>Achievement</th><th>Category</th><th>Achievement</th><th>Category</th><th>Achievement</th></tr><tr><td>Total training hours</td><td>146,659 hours</td><td>Total number of trainees</td><td>4,390</td><td>Average training hours per trainee</td><td>33.4 hours</td><td>Average training costs per trainee</td><td>KRW 391,116</td></tr></table></div>	Category	Achievement	Category	Achievement	Category	Achievement	Category	Achievement	Total training hours	146,659 hours	Total number of trainees	4,390	Average training hours per trainee	33.4 hours	Average training costs per trainee	KRW 391,116	56-57												
Category	Achievement	Category	Achievement	Category	Achievement	Category	Achievement																								
Total training hours	146,659 hours	Total number of trainees	4,390	Average training hours per trainee	33.4 hours	Average training costs per trainee	KRW 391,116																								

WEF STAKEHOLDER CAPITALISM METRICS





4. Prosperity

Theme	Metrics	Disclosures	Page	
Employment and wealth generation	Absolute number and rate of employment	The Sustainability Report discloses the number of new employees, turnover, and other diversity indicators.	102-103	
	Economic contribution	(Based on consolidated)		108
		Category	Amount	
		Total dividend (shareholders and investors)	KRW 67,499 million	
		Interest expense (shareholders and investors)	KRW 43,727 million	
		Salary expense (employee)	KRW 1,979,028 million	
		Raw material cost (suppliers)	KRW 7,092,907 million	
		Corporate tax (government)	KRW 282,939 million	
		Donation (community)	KRW 16,912 million	
Financial investment contribution	The business report discloses the CAPEX (total capital expenditure) and depreciation that can support our investment strategy, and the amount of treasury stocks and dividends that support our strategy for return on invested capital.	N/A		
Innovation of better products and services	Total R&D expenses(\$)	<ul style="list-style-type: none">• In-house R&D expenses in 2022: KRW 136,842 million• Government subsidies in 2022: KRW 3,326 million	29	
Community and social vitality	Total tax paid	The total corporate tax details are disclosed through Sustainability Reports and business reports.	108	

UNGC

10 Principles of the United Nations Global Compact

Hyundai E&C actively supports the ideology of the UNGC and participates in its activities. Furthermore, we faithfully adhere to each of the ten principles through our policies and activities.

Category		Hyundai E&C's Policy and Activities	
 Human Rights	Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights; and	<ul style="list-style-type: none">As a member of the UNGC, Hyundai E&C supports the 'Guiding Principles on Business and Human Rights' and realizes human rights management based on these principles.Hyundai E&C completely revised the Human Rights Charter in 2020 and made a pledge to protect the human rights of all stakeholders, from employees to suppliers and local communities.Hyundai E&C established its D&I (Diversity & Inclusion) Policy in August 2022 to create an organizational culture where diverse employees can combine creative and challenging thinking and contribute to the transition to an inclusive society.
	Principle 2	make sure that they are not complicit in human rights abuses.	
 Labour	Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	<ul style="list-style-type: none">Hyundai E&C operates a labor-management council to promote sound development based on cooperation between labor and management. As of 2022, 927 executives and employees had joined the labor union, ensuring their right to collective bargaining is protected, and it holds regular meetings to discuss and vote on working conditions.Hyundai E&C prohibits all forms of forced labor and child labor and does not tolerate discrimination based on gender, age, race, disability, etc.
	Principle 4	the elimination of all forms of forced and compulsory labor;	
	Principle 5	the effective abolition of child labor; and	
 Environment	Principle 6	the elimination of discrimination in respect of employment and occupation.	<ul style="list-style-type: none">Hyundai E&C has established the eco-friendly management vision, 'GLOBAL GREEN ONE PIONEER,' in respond to global eco-friendly trends and regulations, established environmental management policies across the business, including in distribution and logistics, due diligence, M&As, and among key business partners, and continues to improve them. In addition, in March 2023, we distributed the Environmental Business Guide Map to standardize the form of eco-friendly management-related materials and reflect the enactment and revision of environmental laws.
	Principle 7	Businesses should support a precautionary approach to environmental challenges;	
	Principle 8	undertake initiatives to promote greater environmental responsibility; and	
 Anti-Corruption	Principle 9	encourage the development and diffusion of environmentally friendly technologies.	<ul style="list-style-type: none">As a responsible corporate citizen, Hyundai E&C strives to build trust with stakeholders through compliance and ethics management. We revised our compliance regulations for the Anti-Corruption Act in 2021 and have conducted standard-compliance due diligence of counterparties since.Every year, Hyundai E&C conducts ethics compliance training by department, business unit, and position for domestic and overseas anti-corruption laws, and our anti-corruption management systems and policies. In addition, every year, all executives and employees make the 'Ethics Management Pledge.'Hyundai E&C operates the Cyber Audit Group, a counseling and reporting channel for violations of ethics management such as corruption and handles reported cases according to internal procedures under the principle of maintaining the secrecy of the identity of reporters.
	Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery.	

MAJOR AWARDS & MEMBERSHIPS

2022 Memberships

Hyundai E&C continuously reviews and manages the activities of its trade association memberships. We monitor all trade associations we have joined to see whether they violate the Paris Agreement, which applies to all businesses operated by Hyundai E&C. If a violation is identified, it is reported to management and certain actions are taken, such as withdrawing from the association, withdrawing support, or reconsidering the membership. The associations Hyundai E&C has joined and supported are as follows, and as of December 2022, no association has seriously violated the Paris Agreement.

Memberships	Memberships
Construction Association of Korea	Korea Developer Association
Korea Housing Association	Journal of Coastal Disaster Prevention
International Contractors Association of Korea	Korean Society for Railway
Korea Federation of Construction Contractors	Korean Society of Civil Engineers
Korea Enterprises Federation	Korean Institute of Plant Engineering
Korea Plant Industries Association	Korean Institute of Electrical Engineers
Korea Atomic Industrial Forum	Korean Institute of Landscape Architecture
Korea Electrical Contractors Association	Korea Institute of Facilities Engineering
Korea Nuclear Association	Korean Geotechnical Society
Korea Information & Communication Contractors	Korea Institute of Geothermal Energy Engineers
UN Global Compact Network Korea	Korea Institute of Fire Science and Engineering
Korean Nuclear Society	Korean Institute of Illuminating and Electrical Installation Engineers
Korea Industrial Technology Association	Korean Institute of Electrical and Electronic Material Engineers
Korea Railway Association	Korea Institute of Information & Telecommunication Facilities Engineering
Korea Fire Facility Association	Korean Institute of Architectural Sustainable Environment and Building Systems
Korea Remodeling Association	Korea Institute for Structural Maintenance and Inspection
The Society of Air-conditioning and Refrigerating Engineers of Korea	Korea Institute of Construction Engineering and Management
Korea Ports and Harbors Association	Korea Institute of Ecological Architecture And Environment
Korea Advertisers Association	Korea Disaster Relief Association
Korea Management Association	Korean Academy of Leadership

2022 Awards

Host / Provider	Award	Description
Money Today	2022 Overseas Construction Awards	Grand Prize (Social Infrastructure)
Newsday	2022 Housing Brand Awards	Grand Prize (Housing-Quality)
Money Today	2022 Residential Service Awards	Grand Prize (Green Home)
Asian Economy	2022 Apartment Brand Awards	Grand Prize (Complex Housing)
Hankyung Business	2022 Well-being Apartment Awards	Grand Prize (Space Innovation Division)
Maeil Economy	2022 Livable Apartment Awards	Grand Prize (High-Rise Housing)
Korea Economy	2022 Hankyung Residential Culture Awards in the 1 st half	Grand Prize (Brand)
Money Today	Luxury Housing in Korea Awards	Grand Prize
Korea Economic TV	Representative Apartment Awards	CEO Award (Future Value)
Economist	Green Construction Industry Awards	Grand Prize (Residential and Commercial Complexes)
Asian Economy	17 th Asian Economic Construction Awards	Seoul Mayor's Award (Win-Win Cooperation)
Aju Economy	Aju Economic Construction Awards	Grand Prize (Brand)
Asia Today	Green Construction Awards	Grand Prize (Design)
E-Korea Economy	Construction Real Estate Awards	Best of Best (Residential Wel-fare)
Maeil Economy	18 th Civil Engineering & Construction Technology Awards	Minister Prize
Seoul Newspaper	Green Construction Awards	Best of Best (Design)
eDaily	Construction Industry Awards	Grand Prize (Brand)
eToday	Smart Construction Awards	Best of Best (Brand)
Hankook Ilbo	Green Housing Awards	Best of Best (Brand)
Herald Economy	House to Live in Awards	Best of Best (Best Brand)
Korea Economy	Hankyung Residential Culture Awards in the 2 nd half	Best of Best (Customer Satisfaction)
CDP Korea Committee	2022 CDP Korea Excellent Companies in Climate Change Response and Water Management	Hall of Fame (Climate Change Response)
JoongAng Ilbo	2022 JoongAng ESG Management Awards	Grand Prize (Industrial and Capital Goods)
Chosun Biz	2022 THE ESG AWARDS	Grand Prize (Social (S) Sector Objectives)
Korean Standards Association	2022 Korea Sustainability Awards	KSI (Korean Sustainability)
Asia Design Prize	Asia Design Prize	Gold Winner / Winner
Hannover Exhibition Center	Red Dot Design Award 2022 (World's top 3 designs)	Winner
Hannover Exhibition Center	iF Design Award 2022 (International Forum Design Award) (World's top 3 designs)	Winner
Ministry of Land, Infrastructure and Transport / Korean Institute of Landscape Architecture	12 nd Korea Landscape Award	Minister of Land, Infrastructure and Transport Award
LH	LH Smart Construction Award	3D Printing Technology / Innovation Award
Seoul Metropolitan Government	Seoul Universal Design Awards	Excellence Award
Ministry of Trade, Industry and Energy	Korea Design Awards	Design Management / Minister of Land, Infrastructure and Transport Award
Korea Society of Color Studies	Korea Color Awards	Color Design of Hyundai E&C Art Gangform / Green
Ministry of Land, Infrastructure and Transport	2022 Smart Construction Challenge Innovation Award	Technical competition
Ministry of Trade, Industry and Energy	2022 Good Design Product (GD) Awards	Space/Environmental Design
Korea Federation of Construction Contractors	Best Practices for Construction Technology of the Korea Federation of Construction Contractors	Chairman Prize of the Korea Federation of Construction Contractors
Korea Environment Construction Association	18 th Competition for Best Practices in Construction Environment Manage-ment	Minister Prize (Ministry of Land, Infrastructure and Transport)
Ministry of Environment	30 th Anniversary of Environmental Technology Development Commem-oration	Minister Prize (Ministry of Environment)
International Contractors Association of Korea	Overseas Construction Plant Day Ceremony	Bronze Tower Order of Industrial Service Merit
Ministry of Land, Infrastructure and Transport	Cooperation of Overseas Construction and Plant Meister High School	Ministry of Land, Infrastructure and Transport
Korea International Trade Association	Trade Day Special Merit Selection	Government Reward

GREENHOUSE GAS VERIFICATION STATEMENT



Scope 1 and 2 greenhouse gas emissions from domestic sites of Hyundai E&C in 2022

Terms of Engagement

LRQA was commissioned by Hyundai Engineering & Construction Co., Ltd. (Hyundai E&C) to provide independent assurance of its GHG (greenhouse gas) emissions and reporting of energy consumption ("the report"). This assurance is based on the "Guideline for the operation of GHG/Energy Target Management" using the "Verification Guideline for GHG/Energy Target Management Systems." The report relates to direct GHG emissions and energy indirect GHG emissions from energy use.

Management Responsibility

LRQA's responsibility is only to Hyundai E&C. LRQA disclaims any liability or responsibility to others as explained in the end footnote. The management of Hyundai E&C is responsible for maintaining effective internal controls over all the data and information within the report. Ultimately, the report has been approved by and remains the responsibility of Hyundai E&C.

LRQA's Certification Body Verification Method

LRQA's assurance engagement has been carried out in accordance with its verification procedure using the "Verification Guideline for GHG/Energy Target Management Systems" to obtain a reasonable level of assurance.

The following tasks were undertaken as part of the evidence gathering process for this assurance engagement:

- Visiting Hyundai E&C's headquarters located in Seoul and auditing the management system for controlling the data and records regarding GHG emissions
- Interviewing the relevant persons responsible for managing and maintaining data and associated records
- Verifying data and records related to greenhouse gas emissions and energy consumption in 2022 to the level of raw data

Level of Assurance & Materiality

The opinion expressed in this Assurance Statement has been formed on the basis of a limited level of assurance and at by the professional judgement of the verifier and 5% of materiality.

LRQA's Opinion

Based on LRQA's approach, nothing has come to our attention that would cause us to believe that the Guideline for the Operation of GHG/Energy Target Management and GHG Emissions summarized in the table below is not materially correct.

Dated: 12 June 2023

Byeong-gil Lim

On behalf of LRQA

2nd Floor, T tower, 30, Sowol-ro 2-gil, Jung-gu, Seoul, Republic of Korea

LRQA Reference: SEO6051437

GHG Emissions in the report (ton CO₂eq)

Category	2022
Direct GHG Emissions	22,411.149
Energy Indirect GHG Emissions	57,555.984
Total GHG Emissions	79,964

LRQA Group Limited, its affiliates and subsidiaries, and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'LRQA'. LRQA assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant LRQA entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on according to the terms and conditions set out in that contract. The English version of this Assurance Statement is the only valid version. LRQA assumes no responsibility for versions translated into other languages. This Assurance Statement is only valid when published with the Report to which it refers, and it may only be reproduced in its entirety. Copyright © LRQA, 2022.

GREENHOUSE GAS VERIFICATION STATEMENT



Scope 1,2 and 3 greenhouse gas emissions from overseas sites of Hyundai E&C in 2022

Terms of Engagement

LRQA was commissioned by Hyundai Engineering & Construction Co., Ltd. (Hyundai E&C) to provide independent assurance on of its GHG (greenhouse gas) Inventory (“the report”). This assurance has been carried out based on a limited warranty level and the materiality of professional judgement using the verification procedures of LRQA according to the verification criteria below. The verification procedures of LRQA are in accordance with ISAE 3000 and ISAE 3410.

The scope of the validation includes the domestic and overseas operations and activities of Hyundai E&C, and especially the following requirements.

- Compliance Assessment of the GHG Protocol (revised version) by the World Resources Institute and the World Business Council for Sustainable Development
- Accuracy and Reliability Assessment of data and information on direct GHG emissions (scope 1) and energy indirect GHG emissions from energy (scope 2) from overseas construction sites
- Accuracy and Reliability Assessment of data and information on other indirect GHG emissions (scope 3) from domestic and overseas construction sites

LRQA's responsibility is limited only to Hyundai E&C. LRQA disclaims any liability or responsibility to others or other organizations as explained in the end footnote. The management of Hyundai E&C is responsible for collecting, acquiring, analyzing, and disclosing all the reporting data and information and maintaining effective internal controls over the reporting system. Ultimately, the report has been approved by and remains the responsibility of Hyundai E&C.

LRQA's Opinion

Based on LRQA's approach, nothing has come to our attention from all critical aspects that would cause us to believe that Hyundai E&C has not fulfilled the following.

- The above requirements satisfied
- Accuracy and reliability of data and information summarized in Table 1

This opinion is based on verification to a limited level of assurance and is derived based on the professional judgement of the verifier according to a criterion of materiality.

Note: In the verification of the limited assurance level, the scope of evidence collection is less than that of the reasonable warranty level. Verification of limited assurance levels focuses on collected data rather than directly viewing raw data in the workplace. As a result, verification at a limited assurance level is significantly lower than verification at a reasonable assurance level.

LRQA's Approach

LRQA's assurance engagement is carried out in accordance with LRQA's verification procedures. For this verification, the following activities were carried out as part of the evidence collection.

- LRQA interviewed key personnel responsible for managing GHG emissions data and records.
- Specific construction sites were sampled to review processes related to the control of GHG emissions data and records.
- LRQA reviewed to ensure that parameters used in the calculation of GHG emissions were referenced from recognized sources.
- LRQA reviewed GHG emission data and records for 2022 at the aggregation level.
- LRQA visited the Hyundai E&C headquarters and reviewed additional evidence provided by Hyundai E&C.

Eligibility and Independence of LRQA

LRQA implements and maintains a comprehensive management system that meets the accreditation requirements of ISO 14065 (Greenhouse gases-Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition.) and ISO/IEC 17021 (Conformity assessment-Requirements for bodies providing audit and certification of management systems); and complies with the requirements of International Standard on Quality Control 1 and the Code of Ethics of the IESBA (International Ethics Standards Board for Accountants(IESBA)).

LRQA ensures that appropriately qualified validation assessors are selected based on qualifications, training, and experience. The results of all verification and certification evaluations are being reviewed internally by management to ensure that the approaches applied are strictly observed and transparent.

LRQA is a certification and verification Institute of Hyundai E&C for ISO 9001, 14001, 45001, ISO 50001, and GHG emissions. In addition, LRQA provides Hyundai E&C with various training courses related to the management system. LRQA only provides verification and certification evaluation, and training services to Hyundai E&C, so it does not violate independence and fairness.

Dated: 10 June 2023

Byeong-gil Lim, head of the verification team
On behalf of LRQA

2nd Floor, T tower, 30, Sowol-ro 2-gil, Jung-gu, Seoul, Republic of Korea

LRQA Reference: SEO6051437

Summary of the GHG Inventory Hyundai E&C in 2022

Scope of the GHG report	Tonnes CO ₂ e
Direct GHG Emissions (Scope 1) – overseas construction sites	287,351
Energy Indirect GHG Emissions (Scope 2, location-based) – overseas construction sites	17,518
Other Indirect GHG Emissions (Scope 3)	
· Purchased products and services - operation of domestic and overseas partner construction equipment and production of purchased construction materials	2,736,622
· Use of sold products - Phase of using domestically constructed infrastructure, buildings, and housing	2,153,219
Notes: Scope 2, 'location-based' is a term in the GHG Protocol Scope 2 Guidance (2015).	

- 1) <https://www.ghgprotocol.org>
- 2) This verification does not include verification of scope 1 or scope 2 GHG emissions at domestic workplaces in accordance with the contract with Hyundai E&C. Scope 1 and scope 2 GHG emissions from Hyundai E&C in 2022 were verified by LRQA using an operational control approach in accordance with the guidelines on greenhouse gas target management.

LRQA Group Limited, its affiliates and subsidiaries, and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'LRQA'. LRQA assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant LRQA entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract. The English version of this Assurance Statement is the only valid version. LRQA assumes no responsibility for versions translated into other languages. This Assurance Statement is only valid when published with the Report to which it refers. It may only be reproduced in its entirety. Copyright © LRQA, 2023.

SBTi APPROVAL CERTIFICATE

APPROVED NEAR-TERM SCIENCE-BASED TARGETS

The Science Based Targets initiative has validated that the science-based greenhouse gas emissions reductions target(s) submitted by Hyundai Engineering & Construction conform with the SBTi Criteria and Recommendations (Criteria version 5.0).

SBTi has classified your company's scope 1 and 2 target ambition as in line with a 1.5°C trajectory.

The official near-term science-based target language:
Hyundai E&C commits to reduce absolute scope 1 and 2 GHG emissions 46.2% by 2030 from a 2019 base year.
Hyundai E&C also commits to reduce absolute scope 3 GHG emissions from purchased goods and services, upstream transportation and distribution, use of sold products and investments 25% within the same timeframe.

Data of Approval
July 2023



Partner Organizations



In collaboration with



INDEPENDENT ASSURANCE STATEMENT

To readers of 2023 HYUNDAI ENGINEERING & CONSTRUCTION SUSTAINABILITY REPORT

Introduction

Korea Management Registrar (KMR) was commissioned by HYUNDAI ENGINEERING & CONSTRUCTION to conduct an independent assurance of its Sustainability Report 2023 (the “Report”). The data and its presentation in the Report is the sole responsibility of the management of HYUNDAI ENGINEERING & CONSTRUCTION. KMR’s responsibility is to perform an assurance engagement as agreed upon in our agreement with HYUNDAI ENGINEERING & CONSTRUCTION and issue an assurance statement.

Scope and Standards

HYUNDAI ENGINEERING & CONSTRUCTION described its sustainability performance and activities in the Report. Our Assurance Team carried out an assurance engagement in accordance with the AA1000AS v3 and KMR’s assurance standard SRV1000. We are providing a Type 2, moderate level assurance. We evaluated the adherence to the AA1000AP (2018) principles of inclusivity, materiality, responsiveness and impact, and the reliability of the information and data provided using the Global Reporting Initiative (GRI) Index provided below. The opinion expressed in the Assurance Statement has been formed at the materiality of the professional judgment of our Assurance Team.

Confirmation that the Report was prepared in accordance with GRI standards 2021 was included in the scope of the assurance. We have reviewed the topic-specific disclosures of standards which were identified in the materiality assessment process

- GRI Sustainability Reporting Standards 2021
- Universal standards
- Topic specific standards
 - GRI 201 : Economic Performance
 - GRI 302 : Energy
 - GRI 303 : Water and Effluents
 - GRI 305 : Emissions
 - GRI 306 : Waste
 - GRI 308 : Supplier Environmental Assessment
 - GRI 401 : Employment
 - GRI 403 : Occupational Health and Safety
 - GRI 404 : Training and Education
 - GRI 405 : Diversity and Equal Opportunity
 - GRI 405-2: Ratio of basic salary and remuneration of women to men
 - GRI 414 : Supplier Social Assessment

As for the reporting boundary, the engagement excludes the data and information of HYUNDAI ENGINEERING & CONSTRUCTION’s partners, suppliers and any third parties.

KMR’s Approach

To perform an assurance engagement within an agreed scope of assessment using the standards outlined above, our Assurance Team undertook the following activities as part of the engagement:

- reviewed the overall Report;
- reviewed materiality assessment methodology and the assessment report;
- evaluated sustainability strategies, performance data management system, and processes;
- interviewed people in charge of preparing the Report;
- reviewed the reliability of the Report’s performance data and conducted data sampling;
- assessed the reliability of information using independent external sources such as Financial Supervisory Service’s DART and public databases.

Limitations and Recommendations

KMR’s assurance engagement is based on the assumption that the data and information provided by HYUNDAI ENGINEERING & CONSTRUCTION to us as part of our review are provided in good faith. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied. To address this, we referred to independent external sources such as DART and National Greenhouse Gas Management System (NGMS) and public databases to challenge the quality and reliability of the information provided.

Conclusion and Opinion

Based on the document reviews and interviews, we had several discussions with HYUNDAI ENGINEERING & CONSTRUCTION on the revision of the Report. We reviewed the Report’s final version in order to make sure that our recommendations for improvement and revision have been reflected. Based on the work performed, it is our opinion that the Report applied the GRI Standards. Nothing comes to our attention to suggest that the Report was not prepared in accordance with the AA1000AP (2018) principles.

Inclusivity

HYUNDAI ENGINEERING & CONSTRUCTION has developed and maintained different stakeholder communication channels at all levels to announce and fulfill its responsibilities to the stakeholders. Nothing comes to our attention to suggest that there is a key stakeholder group left out in the process. The organization makes efforts to properly reflect opinions and expectations into its strategies.

Materiality

HYUNDAI ENGINEERING & CONSTRUCTION has a unique materiality assessment process to decide the impact of issues identified on its sustainability performance. We have not found any material topics left out in the process.

Responsiveness

HYUNDAI ENGINEERING & CONSTRUCTION prioritized material issues to provide a comprehensive, balanced report of performance, responses, and future plans regarding them. We did not find anything to suggest that data and information disclosed in the Report do not give a fair representation of HYUNDAI ENGINEERING & CONSTRUCTION’s actions.

Impact

HYUNDAI ENGINEERING & CONSTRUCTION identifies and monitors the direct and indirect impacts of material topics found through the materiality assessment, and quantifies such impacts as much as possible.

Reliability of Specific Sustainability Performance Information

In addition to the adherence to AA1000AP (2018) principles, we have assessed the reliability of economic, environmental, and social performance data related to sustainability performance. We interviewed the in-charge persons and reviewed information on a sampling basis and supporting documents as well as external sources and public databases to confirm that the disclosed data is reliable. Any intentional error or misstatement is not noted from the data and information disclosed in the Report.

Competence and Independence

KMR maintains a comprehensive system of quality control including documented policies and procedures in accordance with ISO/IEC 17021 : 2015 - Requirements for bodies providing audit and certification of management systems. This engagement was carried out by an independent team of sustainability assurance professionals. KMR has no other contract with HYUNDAI ENGINEERING & CONSTRUCTION and did not provide any services to HYUNDAI ENGINEERING & CONSTRUCTION that could compromise the independence of our work.

June 2023 Seoul, Korea



CEO E. J. Hwang

PREPARATION OF THE REPORT









Organization of the Sustainability Steering Committee

Category	Executive Council		Working Group		
Overall	IR Group	Moon Je-Cheol	Sustainability Management Team	Kim Se-Won	Ahn Cheol-Ho
Prosperity	Business Planning Group	Seong Wan-Sang	Business Strategy Team	Park Dae-Gyun	Koh Tae-Ik
	Global Marketing Supporting Group	Noh Jae-Hak	Planning & External Affairs Team	Lee Won-Jae	Jung Hak-Pyeong
	Infra Business Planning Group	Kim Kee-Young	Infrastructure Management & Administration Team	Hong Jae-Hyuk	Hyun Ji-Yul
	Building & Housing Business Planning Group	Lim Ji-Hong	Housing Works Management & Administration Team	Cho Hyeok-Jun	Jung Ji-Hye
	Plant Business Planning Group	Jeong Mu-Sik	Plant Management & Administration Team	Park Beom-Su	Cho Jun-Ki
	Technology Research Center	-	Research Administration Team	Lee Se-Jin	Park Jun-Yong
	Quality Strategy Group	Park Se-Jin	Q-ENG Team	Namgung Han-Sin	Park Seong-Nam
Planet	Project Support Group	Chu Young-Ki	Environmental Management Team	Kim Je-Young	Hong Hyun-Jong
			Project Management Team	You Yong-Bae	Hong Dae-Ho
	Development & Investment Business Division	-	Development & Investment Business Management Team	Lee Woong-Ro	Park Jin-Seop
People	Safety Support Group	Im Byung-Chun	Safety Planning Team	Chae Dae-Byeoung	Yoon Joong-Hoon
	Business Supporting Group	Kim Ki-Hong	Business Support Team	Yeo Cheol-Gi	Jang Gwang-Un
	Human Resources Management Group	Kim Min-Gyu	HR Innovation Team	Kim Hyeon-Woo	Moon Ji-Young
	Public Relations Group	Lee Young-Ho	PR Planning Team	Lee Sun-Young	Park Hyeon-Hui
	Procurement Planning Group	Park In-Ju	Procurement Support Team	Kim In-Dong	Ahn Jae-Hyeok
	Strategy Business Planning Division	-	Culture Design Lab	Kim Yoon	Joo Sung-Hoon / Kang Eun-Bi
Principle	Legal Affairs Group	Min Ki-Hong	Compliance Team	Moon Ji-Hui	Yoon Hye-Jung
	Auditing Group	Yoon Young-Keun	Auditing Team 1	Lee Je-Ju	Lee Byeong-Nae















ESG POLICIES AND NORMS

Click a policy or regulation for details


















Environmental

	Environmental Management Policy	Click 
	Biodiversity Protection Policy	Click 
	Deforestation Prevention Policy	Click 
	Declaration on Coal Exit	Click 

Social

	Ethics Charter and Code of Conduct	Click 
	Human Rights Charter	Click 
	D&I (Diversity & Inclusion) Policy	Click 
	Supplier Code of Conduct	Click 
	Anti-Slavery and Human Trafficking Policy	Click 
	Personal Data Processing Policy Legal Disclaimer	Click 
	Fair-compensation Policy	Click 

Governance

	Corporate Governance Charter	Click 
	Regulations of the Board of Directors	Click 
	HDEC Regulations for Fair Trade Compliance Program	Click 
	Competition Compliance Policy	Click 
	Whistleblowing Policy and Procedure	Click 
	Anti-trust Policy	Click 
	Anti-corruption Policy	Click 
	Anti-money Laundering and Counter-terrorism Financing Policy	Click 
	Sanctions Compliance Policy	Click 