Hanwha Aerospace

Sustainability Report 2022

Hanwha Aerospace

ABOUT THIS REPORT

INTERACTIVE USER GUIDE

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Overview

Hanwha Aerospace transparently discloses its performance and activities in the areas of environment, society, and governance through its sustainability report. By publishing an annual sustainability report, we intend to share Hanwha Aerospace's vision and implementation developments for sustainability management and to actively communicate with stakeholders.

Reporting Standards

This report reflects the indicators of GRI Standards 2021 and UN SDGs (Sustainable Development Goals), TCFD (Task Force on Climate-related Financial Disclosures), and SASB (Sustainability Accounting Standards Board), which are the Sustainability Reporting Guidelines. The financial information in the report has been prepared based on K-IFRS (Korean International Financial Reporting Standards).

Reporting Period

This report contains economic, social, and environmental performance and activities from January 1, 2021 to December 31, 2021. In addition, in the case of quantitative performance, data from the past three years (January 2019 – December 2021) were used to show the time series trend. In case of significant performance outside the reporting period, issues in the first half of 2022 are also reported.

Reporting Scope

The scope of this report covers the headquarter of Hanwha Aerospace and all domestic business sites. If the scope and boundaries of this report require attention, separate annotations have been added to improve readers' convenience.

Independent Assurance

The financial information in this report was independently audited by Samil Accounting Corporation. Non-financial information was independently assured by the Korea Management Register (KMR) to ensure objectivity and reliability.

Inquiry About This Report

For inquiries about this report, please refer to the point of contact below.

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Introduction

Hanwha Aerospace is leaping into the future under its new vision: "a leader in technology, steering the future of the aerospace and mobility industry."

CEO Message

Dear stakeholders, I am Shin Hyun-Woo, CEO of Hanwha Aerospace.

We sincerely thank you for your continued interest in and support for Hanwha Aerospace.

Recently, the aviation industry has developed various alternative technologies due to environmental regulations, namely, high-efficiency engines and engines that reduce carbon emissions. Ultimately, technology development is progressing in the direction of converting the current gas turbine to a hybrid or hydrogen gas turbine, and full electrification. Meanwhile, in the space industry, the conventional "Old space" led by the government with high cost and high performance is now shifting towards "New space" centered on the private sector with emphasis on low cost and commercial value.

In line with these changes, Hanwha Aerospace, under the vision of being "a leader in technology, steering the future of the aerospace and mobility industry", set strategic directions by selecting gas turbine engine, space, and future mobility sectors as intensive development projects. In addition, Hanwha Aerospace will actively practice sustainability management and the value of sharing to help ESG management and the philosophy of "Going Further Together" become embedded in the company's business activities.

First, we will fulfill our corporate social responsibility and role in the global climate crisis and environmental pollution. Hanwha Aerospace will strive to achieve carbon neutrality by 2050 through high efficiency facilities and investment in new and renewable energy facilities and we will actively engage in the development of technologies that can reduce pollutants and carbon emissions from aircraft engines.

Next, we will practice a healthy win-win management with all stakeholders. Hanwha Aerospace will actively participate in creating social values and solving social problems by complying with laws and regulations, practicing social responsibility, and taking the initiative in sharing-centered business practices so that it can grow with customers, executives, business partners, and local communities.

Lastly, we will establish a sound and transparent governance structure. Hanwha Aerospace will continue to strengthen corporate ethics through fair trade and anti-corruption activities, faithfully implement the Corporate Governance Charter enacted for the establishment of sound corporate governance and fair corporate activities, and advance the ESG management system led by the ESG Committee.

Hanwha Aerospace will continue to take the lead in creating a sustainable society and a better future with all stakeholders, and continue to drive growth by internalizing ESG management as a core value. We would like to ask all stakeholders for your support and encouragement.

Thank you.

CEO of Hanwha Aerospace
Shin, Hyun-Woo

Company Profile

Founded in 1977, Hanwha Aerospace has established the highest prominence in Korea in the field of precision machinery. Today, our business operation concerns aviation engines, machinery, and space by diversifying business based on our fundamental technology in the field of optical and imaging technology. We will leap forward as a leader in technology steering the future of the aerospace and mobility industries through continuously developing technology and expanding quality competitiveness.

Company Overview

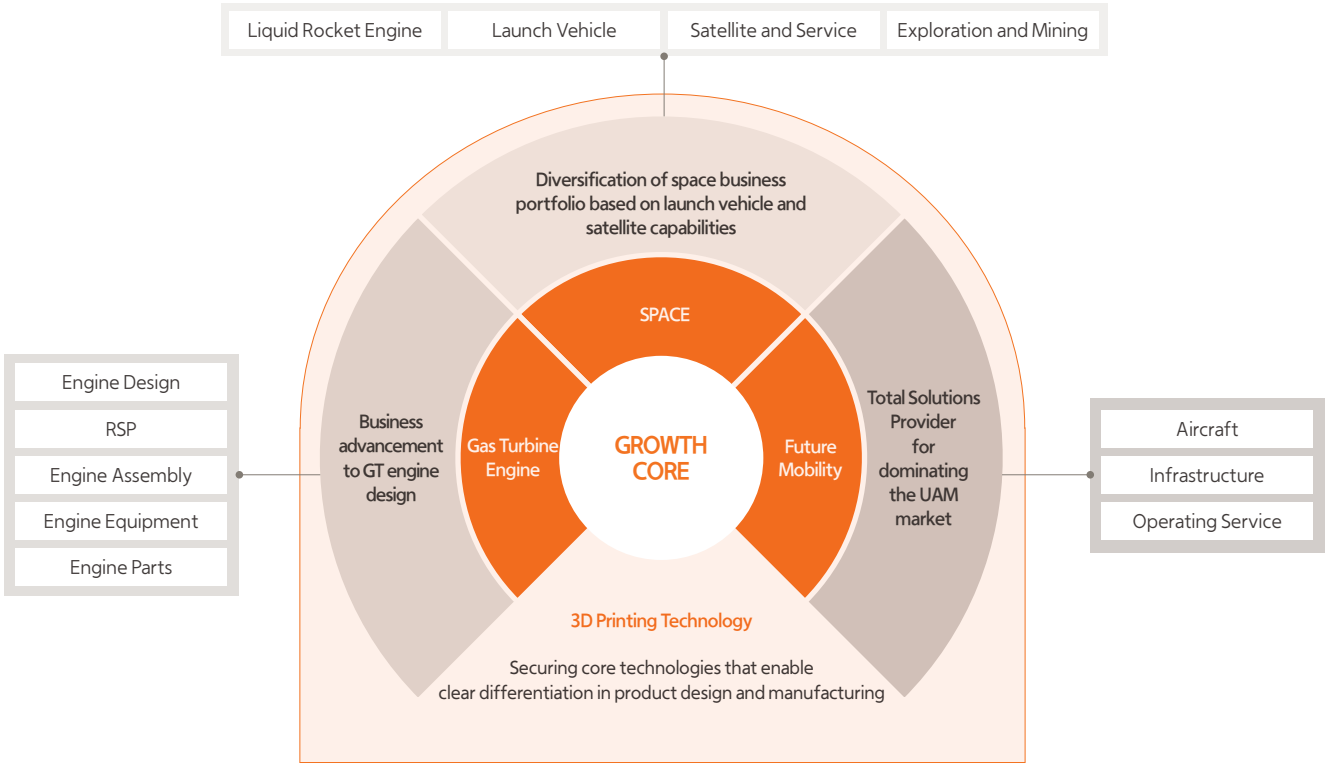
As of the end of December 2021

Company Name	Hanwha Aerospace CO., LTD.
Date of Establishment	August 1, 1977
Head Office	1204 Changwon-daero, Seongsan-gu, Changwon-si, Gyeongsangnam-do (Seongju-dong)
Number of employees	1,953 persons
Credit Rating (Corporate Bond)	Korea Ratings AA- NICE Investors Service AA-
Business Area	Gas turbine engines and parts, aero mechanical systems, spacecraft propulsion system, etc.
Revenue	KRW 6.415 trillion
Total Asset	KRW 11.0458 trillion
Website	www.hanwhaaerospace.co.kr

Vision and Strategy

2030 VISION

Leader in Technology, Steering the Future of the Aerospace and Mobility Industry

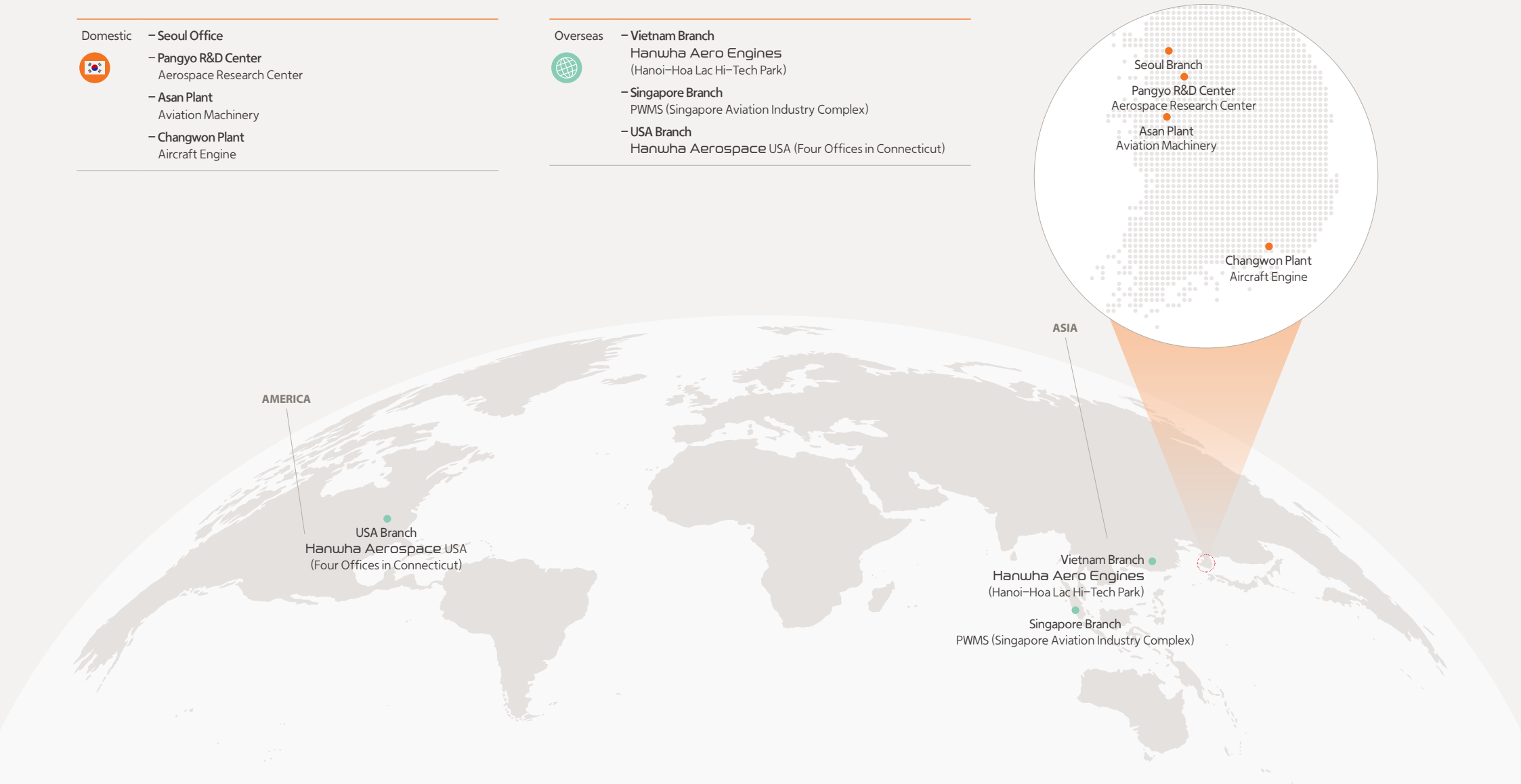


Global Network

Hanwha Aerospace has its head office and plant in Changwon, as well as the Asan Plant, Pangyo R&D Center, and Seoul Office in Korea. In addition, we are conducting a global business based on overseas operations in the United States, Singapore, and Vietnam as of the end of 2021.

Domestic
- Seoul Office
- Pangyo R&D Center
  Aerospace Research Center
- Asan Plant
  Aviation Machinery
- Changwon Plant
  Aircraft Engine

Overseas
- Vietnam Branch
  Hanwha Aero Engines
  (Hanoi-Hoa Lac Hi-Tech Park)
- Singapore Branch
  PWMS (Singapore Aviation Industry Complex)
- USA Branch
  Hanwha Aerospace USA (Four Offices in Connecticut)



OUR HISTORY

General History

1977 Founded Samsung Precision

1978 Designated as a defense business company

1980 Completed construction of Changwon Plant 2

1987 Company name changed to Samsung Aerospace

2000 Company name changed to Samsung Techwon

2010 Completed Pangyo R&D Center
Acquired and integrated Samsung Electronics CCTV Business

2015 Integrated into Hanwha Group (Hanwha Techwin)
Declared new vision, 'Global leader in aviation and defense industry and cutting-edge equipment solution'
Signed partner contract with P&W on International Joint Development Project (RSP)

2018 Company name changed to Hanwha Aerospace

2019 Acquired aviation business (machinery) of Hanwha Corporation Acquired EDAC (USA) aircraft engine part business

2021
- Equity invested in Satrec Initiative, a satellite specialist
- Acquisition of shares in newly issued stocks and convertible bonds of Satrec Initiative

Business History

1979 Started the camera manufacturing and engine maintenance business

1981 Launched the aircraft part manufacturing business

1982 Produced domestic aircraft engine for the first time in Korea

1985 Launched semiconductor part business, started K55 production

1986 Selected as the main company of the Korea Fighter Program (KFP)

1989 Launched industrial equipment business

1994 Shipped first Korean-made engine for the F-16 fighter

1995 Launched energy equipment business

1999 Shipped K9 self-propelled howitzer

2000 Achieved production of one thousand CP-40 chip mounters in Semiconductor System Business Division.

2004 Officially declared global environmental management

2010 Awarded as an excellent company by the Carbon Disclosure Project (CDP) for climate change response

2012 Developed Korean Utility Helicopter (KUH) engine

2014 Established an integrated Environment, Health, and Safety (EHS) system
Received a commendation for environmental merit on Earth Day
Received a commendation from the Minister of National Defense at the Defense Quality Management Awards

2016 Supplied next-generational aircraft LEAP and GTF engine parts

2017 Established the Vietnam branch (constructed on December 6, 2018)

2018 Successfully launched Nuri test projectile

2021
- Participated in the capital increase of KRW 505.8 billion by Hanwha Systems
- Signed a USD 320 million supply contract for aircraft engine parts with GE
- Received an order for the development of a high-reliability electric actuator (EMA) for next-generation transportation from Ministry of Trade, Industry and Energy
- Hanwha Aerospace made Korea's first ISRU-related agreements with six government-funded research institutes
- Signed project contract for 'Conceptual design of small projectile system'

Business Portfolio

Since its establishment, Hanwha Aerospace has been continuously developing technology and strengthening quality competitiveness based on cutting-edge technology to build trust as a leading operator in the aerospace and mobility industry for the past 40 years.

Gas Turbine Engine

Parts business (civil engine parts) | Hanwha Aerospace has established itself as the No. 1 supplier of aviation engine parts globally by continuously collaborating with major engine manufacturers and partners through the aircraft engine parts business. We are supplying more than 500 types of engine parts to major engine manufacturers and partners. In 2015, we signed an RSP contract with P&W for the next-generation GTF (Geared Turbo Fan) engine. In addition, we have advanced to Vietnam in 2018 and the United States in 2019 to expand our manufacturing bases and are organizing a global operating system. In 2021, we successfully completed new development and initial delivery of core parts for Rolls-Royce's advanced Trent engine, and we have perfected the supply of case-type parts that require strict quality and delivery standards.

Maintenance and assembly business (military aviation engine) | Hanwha Aerospace provides military engine MRO (Maintenance, Repair and Overhaul) service, and we assemble engines for each military's major weapon systems and supply them to system makers. In particular, we reduce defective inventory by supporting the Performance Based Logistics service, and we are enhancing the operability of our customers' equipment by enabling the effective use of financial resources. Based on these advanced services and countless success stories, we are actively providing MRO services all over the world.

Space

Hanwha Aerospace has been actively participating in the development of launch vehicle components since it started participating in the space launch vehicle business in 1999 upon developing the scientific observation rocket No. 3 (KSR-III, Korean Sounding Rocket) Gimbal engine driving device. Recently, we have participated in Korea's first low-orbit practical satellite launch rocket, KSLV-II, and are supplying a three-stage liquid rocket engine, turbo pump, engine supply valve, flight control, and posture control system for each rocket.

We delivered five 75t-type liquid rocket engines, one 7t-type engine, and other parts and systems mounted on the Nuri (KSLV-II), which successfully completed its second launch in 2022. Hanwha Aerospace was able to reaffirm its superior quality competitiveness and space launch vehicle development capabilities.

Future Mobility

Hanwha Aerospace is developing and mass-producing flight control systems, landing systems, hydraulic systems, and fuel systems, which are the core components of an aircraft, and by actively participating in the development of unmanned systems in the aviation sector, we are striving to become a leader in the next-generation aviation industry. Recently, hydraulic drives applied to existing aircraft have been converted to electro-mechanical actuators (EMA) following eco-friendly and high-efficiency trends, and we are in the process of developing an electric actuator that will be mounted on the UAM market's aircraft (PAV, eVTOL). We are leading next-generation technology by winning an R&D project from the Ministry of Trade, Industry and Energy to develop a lightweight fuel cell for aviation mobility, and we plan to secure core technology for hydrogen fuel cell for aviation (UAM) by 2024.

Business Portfolio of Subsidiaries

Hanwha Systems

Hanwha Systems is a total defense electronics company, and its business areas include radar, electro-optical equipment, tactical communication system, and combat command system business fields that correspond to the brain and nervous system of the military weapon system. It also provides defense electronics solutions utilizing cutting-edge IT technologies, such as avionics, guided-weapon seekers, electronic warfare, and cyber warfare. The ICT Division provides integrated smart solutions optimized for various fields such as manufacturing, construction, and finance based on state-of-the-art data centers. In recent years, we have selected air taxi businesses using a Personal Air Vehicle (PAV) and satellite antenna business as our new promising business areas going forward and are promoting them proactively.

Business Area

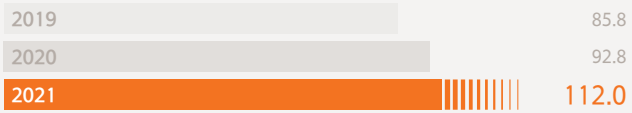
- **Defense Division**
  - Surveillance reconnaissance command, control, and communication system
  - Naval combat system: Combat system for ships and submarines
  - Aerospace system
- **New Business Division**: UAM / Satellite communication
  - Overair: High-performance, high-efficiency gases using vectored thrust
  - Phasor: Low-earth orbit satellite communication antenna
  - Kymeta: Entry-level satellite communication antenna
- **ICT Division**: IT outsourcing, system integration (SI)

Based on the Consolidated Financial Statement

(unit: KRW 1 billion)

Revenue

Operating Profit



Hanwha Defense

Hanwha Defense is engaged in the order, development, production, and aftermarket business of firepower, maneuver systems, anti-aircraft, and unmanned systems businesses, such as the K9 self-propelled howitzer. More recently, it is also focusing on developing cutting-edge new products to prepare for the future battlefield, from unmanned systems to defense robots, remote fire control systems, and lithium battery systems for submarines.

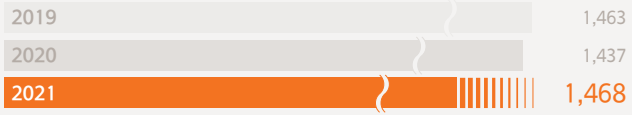
Business Area

- **Ground weapon in the self-propelled howitzer series**
  - K9: The world's most advanced self-propelled howitzer developed with Hanwha Aerospace technology
  - K10: Ammunition carrier to replenish ammunition for K9 self-propelled howitzers
- **Maneuver weapon system**
  - K21: Independently developed infantry fighting vehicle on caterpillar tracks
  - Barracuda: Wheeled armored vehicle
- **Anti-aircraft weapons system**
  - K30: 30mm self-propelled anti-aircraft gun
  - K30 SAM (Hybrid Biho): K30 + Mobile surface-to-air guided weapon (Shingung)
- **Guided weapon launch system**
  - Cheongung: Medium range surface-to-air missile (M-SAM)

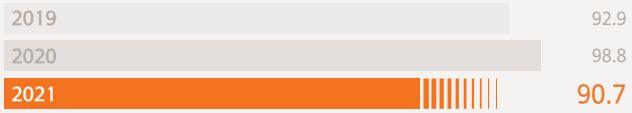
Based on the Consolidated Financial Statement

(unit: KRW 1 billion)

Revenue



Operating Profit



Hanwha Techwin

Hanwha Techwin runs the business of developing, manufacturing, and supplying video security equipment (video surveillance) from cameras and storage devices to operation software. We have secured price competitiveness by independently developing a system on chip (SoC) mounted with optical and lens technology that implements the world's best zoom magnification and image processing technology and intelligent image analysis function based on the technology we have accumulated for 30 years.

Business Area

- **Solution provider using AI image analysis**
  - Image security solutions provided for various fields, such as smart city, smart factory, apartment, transportation, retail, and banking
  - Total lineup of image security products owned, from AI video surveillance and storage device to video management software (VMS)
- **Specialized solutions provided for each area based on image technology**
  - Unmanned shop solution, including quick check out (QCO) solution
  - Prevention solution using thermal imaging camera and AI camera (COVID-19)

Based on the Consolidated Financial Statement

(unit: KRW 1 billion)

Revenue

Operating Profit

Hanwha Power Systems

Hanwha Power Systems' business supplies highly reliable equipment and services required for plant operations to produce, transport, store, and process energy. We are expanding our business continuously into the global market as we enter an engineered compressor business in 2010 from existing standard compressors. Recently, we are entering into the hydrogen charging system business to build an infrastructure for hydrogen energy, which is highlighted as the next-generation eco-friendly energy. In 2020, we were selected as a hydrogen charging system supplier in the 'Complex Energy Hub Project,' which is promoted by the Korea Gas Corporation, and based on this, we have a plan to extend our global hydrogen solution business.

Business Area

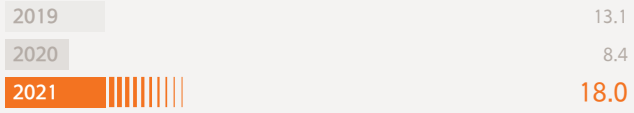
- **Industrial compressors based on high-speed rotating technology of engines for aircrafts**
  - Air Compressor: Standard: Small- to medium-sized flow rate
    On demand: Large flow rate
  - Gas Compressor: Oil & gas drilling, transportation, and storage
    - Upstream: Drilling vessel, LNG Liquefaction
    - Midstream: LNG carriers
    - Downstream : Oil refinery, power plant

Based on the Consolidated Financial Statement

(unit: KRW 1 billion)

Revenue

Operating Profit



Hanwha Precision Machinery

Hanwha Precision Machinery develops chip mounters, which are electronic part assembly equipment, and computer numerical control (CNC) automatic lathe machine tools based on cutting-edge precision mechatronics technology. Chip mounter, our main business, competes with global companies by improving speed and precision through continuous R&D and investment, including operating global development bases. At the same time, we are constantly striving to improve the reliability and convenience of our products.

Business Area

- **Supply of high-performance and high-reliability SMT equipment**
  - High-speed: Smartphone, tablets, etc.
  - Medium-speed: General electronic products
  - Others: Flip-chip mounter (semiconductors), screen print (SMT In-Line), etc.
- **Providing SMT in-line solutions**
  - Increased productivity with optimized solutions
- **Supply of parts for A/M to maintain performance**
  - Quality control by providing regular maintenance and repair services
- **Machine tool business***
  - Manufacture and sales of CNC lathe and MWS machine
  - Securing a stable business structure through portfolio diversification

* Acquired in January 2019

Based on the Consolidated Financial Statement

(unit: KRW 1 billion)

Revenue

Operating Profit

Satrec Initiative

Satrec Initiative is the only company in Korea with satellite systems development capability that was verified in space, and is in the business of developing and producing satellite systems, defense products, satellite images, and analysis services. In particular, it possesses world-class technology that independently designs, manufactures, tests, and operates satellite systems and its small satellites have the world's best price competitiveness for performance. In the future, we plan to diversify our payload portfolio to secure a wider range of overseas customers and participate in the military communication satellite business to create new demands for satellite systems.

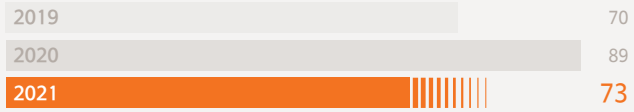
Business Area

- **Development and Production of Satellite System**
  - Manufacturing of EO satellites such as satellite bodies, payloads, and ground bodies
- **Development and production of defense materials**
  - Mobile satellite terrestrial vehicle
  - UAV G/S & Comp.
  - Other satellite-related defense business
- **Satellite image sales and analysis service**
  - Satellite image & value-added service
  - Analysis platform
  - Detection and classification

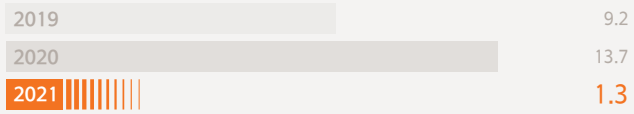
Based on the Consolidated Financial Statement

(unit: KRW 1 billion)

Revenue



Operating Profit



* Consolidated in 2022, not reflected in Hanwha Aerospace's consolidated financial statements for 2019-2021

ESG Highlights

Hanwha Aerospace strategically responds to changes in the business environment by establishing and continuously upgrading the ESG governance system, and we will systematically manage ESG risks and create a sustainable future through transparent communication with all stakeholders.

ESG Management

ESG Management Strategy

Move towards a Sustainable Tomorrow

ESG Areas-Specific Key Initiatives

Environmental

- 2050 Carbon Neutral Response
- Development of eco-friendly technologies and solutions
- Expansion of eco-friendly products

Social

- Internalization of safety culture
- Customer satisfaction and communication enhancement
- Win-win and shared growth with partner companies
- Social contribution activities and community contribution

Governance

- Securing sound governance
- Improving board independence and diversity
- Building a transparent corporate culture
- Preemptive risk management and response

KCGS 's ESG Rating (2021)

Overall | Environmental | Social | Governance

ESG Governance

In June 2021, Hanwha Aerospace established an ESG Committee under the Board of Directors to establish mid- to long-term ESG strategies and policies. We intend to realize long-term sustainable growth by continuously monitoring the implementation status. The regular ESG Committee meetings are held once a quarter, and temporary committees may be held from time to time as needed. The ESG Committee deliberates on Hanwha Aerospace's environmental, social, and governance policies and all matters necessary for ESG management. As of December 2021, the ESG Committee is composed of all outside directors to ensure management transparency and independence.

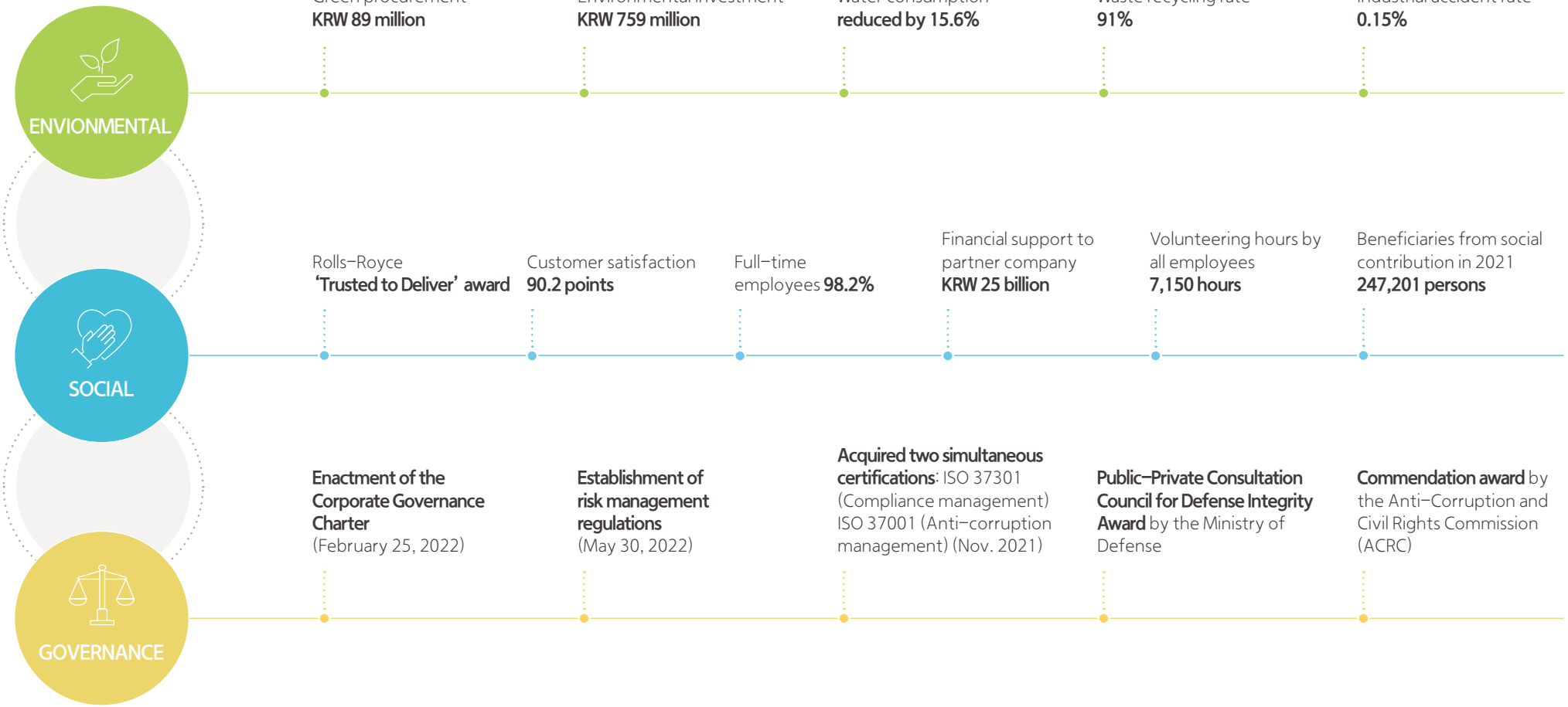
ESG Committee Configuration Status

Name	Status	Background
Lee, Sun Hee	Outside Director	(Current) Professor in Sungkyunkwan University Law School (expert in fair trade and compliance)
Kim, Sang Hee	Outside Director	(Current) Lawyer in Kim Sang Hee Law Firm (expert in compliance and social area)
Choi, Kang-Soo	Outside Director	(Former) Senior Managing Director in Korea Ratings Corporation (expert in finance and economy)
Kim, Hyoun Jin	Outside Director	(Current) Professor in the Department of Aerospace Engineering at Seoul National University (expert in environmental space engineering and future business)

ESG Committee Summary

Date	Agenda	Attendance
23.06.2021	• Appointment of ESG Committee Chairman	100%
14.09.2021	• Sustainable management report publication plan • ESG evaluation progress	100%
20.12.2021	• Report on the ESG management promotion	100%

2021–2022 ESG Key Figures



Double Materiality Assessment

For the selection of significant issues for sustainability, Hanwha Aerospace conducted a double materiality assessment for the first time considering not only environmental and social impacts but also factors that can have a significant financial impact on companies. By collecting the opinions of various internal and external stakeholders, we have derived 10 major ESG issues in consideration of financial and non-financial impacts.

Hanwha Aerospace plans to proactively manage the risks of critical issues identified during business implementation, transparently disclose related activities, achievements, and plans in the sustainability report, and actively integrate and reflect them in corporate management activities.

The Methodology of Double Materiality Assessment

Step1

ESG Issue Pool Configuration

- Configuration of potential issue pool based on the analysis of international standards and ESG evaluation indicator analysis, analysis of similar industry trends, analysis of global leading companies and current industry, media analysis
- Derivation of ESG issue pool through previous year's issue analysis and interviews with major related departments

Step2

Analysis of Environmental and Social Impacts

- Review of international standards and guideline requirements
  - Reflecting international standard indicators including GRI Standards, UN SDGs, K-ESG, ISO 26000, etc.
- Media analysis
  - Media reference of 12 daily newspapers and 35 internet newspapers
  - Analysis of a total of 2,288 articles related to economic, environmental, social performance and ESG issues (analysis period: January 1, 2021 – March 31, 2022)
- Benchmarking analysis
  - Benchmarking analysis of 7 globally advanced companies and defense companies
- Collect opinions from internal and external stakeholders
  - Analyze and collect opinions on ESG issues such as executives and employees, customers, shareholders/investors, business partners, local communities, and media (Survey period: May 9–18, 2022)

Analysis of Financial Impact

- Analysis of ESG finance-related international standard recommendations and rating agencies
  - Analysis of MSCI, S&P CSA global ESG evaluation indicators and SASB and TCFD recommendations
- Analysis of financial materiality for each internal management issue and ESG issue
  - Collecting opinions from surveys and interviews related to financial impact such as executives, managers, and general employees

Step3

Selection and Report of 10 Final Material ESG Issues

- Comprehensive evaluation by quantifying the environmental and social impact and financial impact of each issue
- Selection of final material ESG issues

Configuration of issue pool › Selection of issue candidates from pool: 23 › Selection of final material ESG issues: 10

Double Materiality Assessment Result

Through the double materiality assessment, we selected the 10 final significant issues that could have an environmental, social and financial impact on Hanwha Aerospace and reported the related activities, performance, and goals in detail in this report.

	ESG Issue	Impacts: Socio-Environmental	Impacts: Financial	Stakeholders: Employee	Stakeholders: Customer	Stakeholders: Shareholder/investor	Stakeholders: Cooperative company	Stakeholders: Local community	Page	GRI
Business	Strengthening investment and R&D to expand the future growth-oriented business portfolio	●	◕	●	●	●	●	◔	17–28p	2–6
Governance	Strengthening independence·professionalism·diversity of the BOD	●	◕	◑	◑	◑	◔	◔	63p	2–9, 2–17
Governance	Strengthening business ethics and compliance management	◕	◕	●	◑	●	●	◔	67–73p	205–2, 205–3
Governance	Transparent business operation by strengthening fair trade and anti-corruption systems	●	◕	●	◕	◑	●	◔	67–73p	206–1
Environmental	Setting up carbon neutrality goal and reducing GHG emissions in response to climate change	◕	◑	◑	◑	●	◔	●	33p, 36–37p	201–2, 305–1, 305–2, 305–5
Environmental	Enhancement of energy efficiency in business sites and expansion of renewable energy use	◕	◑	◔	◔	◑	◔	◔	33p	302–1, 302–4, 302–4
Environmental	Strengthen the capability to develop eco-friendly clean technology and products	●	◕	◑	◕	◕	◕	◔	38–39p	302–5
Social	Product responsibility management (product & service quality and safety control)	◕	●	◔	●	●	●	○	45–46p	416–1, 416–2
Social	Securing key talent and developing employee capabilities	◑	◕	●	●	◑	◔	◔	49–50p	401–1, 404–2
Social	Reinforcing employee welfare and realizing a good corporate culture for work	◑	◑	●	◔	◔	◔	◔	50–51p	401–2

○ : LOW ← IMPACT → ● : HIGH

Pioneering Sustainable Aerospace Solutions

Hanwha Aerospace researches technologies that ultimately serves Earth, not the space, with world-class aerospace technology capabilities and a global network.

We will realize Hanwha's space vision for a sustainable and better tomorrow, a space that becomes a solution to planetary challenges.

PIONEERING SUSTAINABLE AEROSPACE SOLUTIONS

Hanwha Aerospace
Mid- to Long-Term Strategic Direction

2030 VISION

Leader in Technology, Steering the Future of the Aerospace and Mobility Industry

Core Business Areas

- Gas Turbine Engine
- Space
- Future Mobility

Main Business Technology

Gas Turbine Engine	Space	Future Mobility
• Engine parts, RSP • Engine assembly, maintenance • Engine design	• Projectile components • Liquid rocket engine • Satellite & service • Exploration & mining	• Gas • Infrastructure • Flight Service

3D Printing Technology

Driving the Future of Aerospace

Business Advancement to GT Engine Design

- Manufacturing and supplying next-generation high-efficiency aviation engine parts
- Developing and localizing KF-21 fighter engine
- To develop parts using 3D printing technology

Challenge to the Universe

Diversification of the Space Business Portfolio

- Construction and supply of six engines called the heart of the Nuri
- Established Hanwha Space Hub-KAIST Space Research Center
- Signed an ISRU agreement with a government-funded research institute as an industry-first among domestic space companies

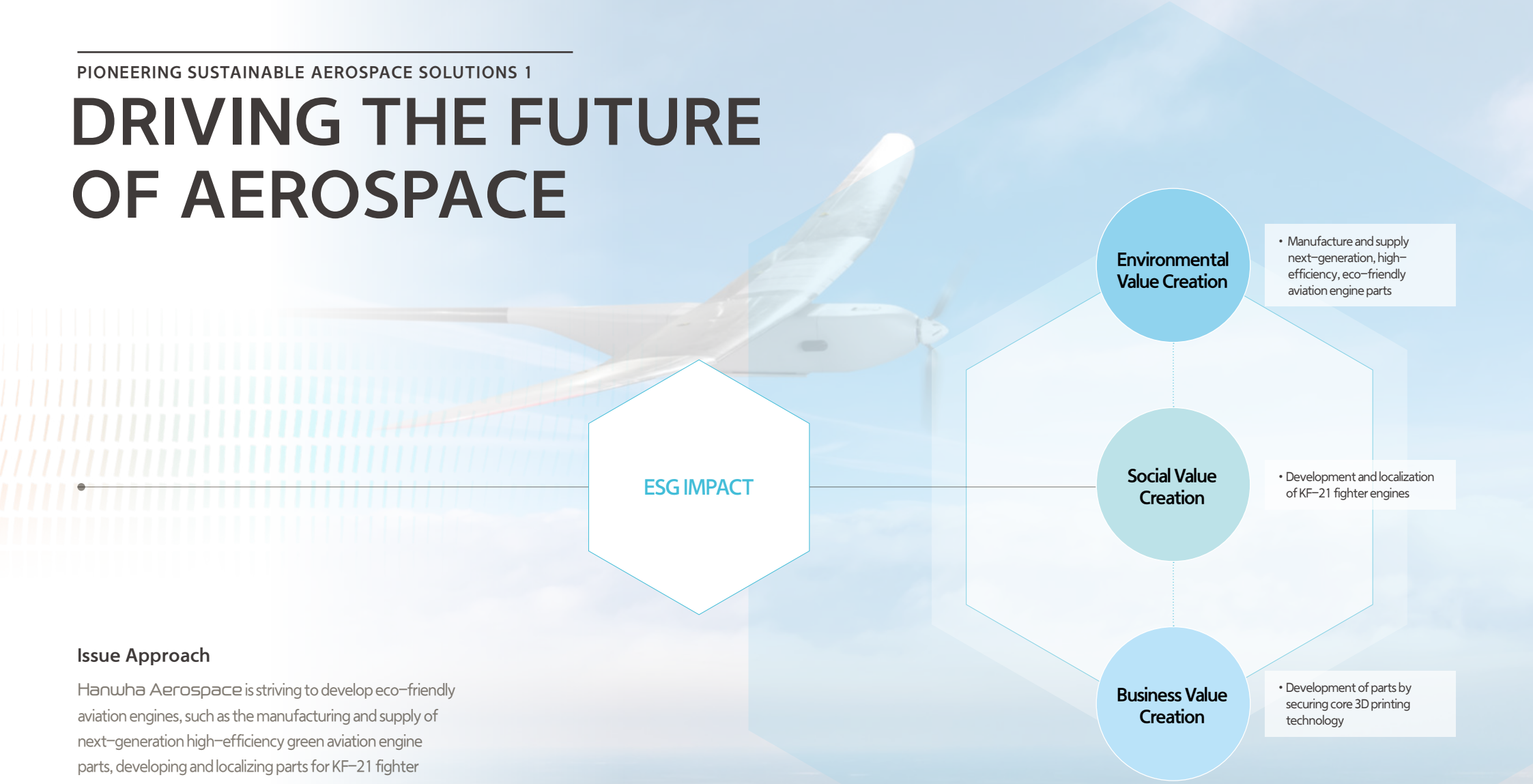
Developing Clean Mobility

Total Solutions ProviderTo Dominate the UAM Market

- Development of electric actuators for future personal air vehicles (PAVs)
- Development of high-performance and lightweight next-generation hydrogen UAM
- Participated in US-based Overair series B investment
  - Hanwha Aerospace invested USD 65 million (approx. KRW 83.6 billion)

PIONEERING SUSTAINABLE AEROSPACE SOLUTIONS 1

DRIVING THE FUTURE OF AEROSPACE



Issue Approach

Hanwha Aerospace is striving to develop eco-friendly aviation engines, such as the manufacturing and supply of next-generation high-efficiency green aviation engine parts, developing and localizing parts for KF-21 fighter engines, and utilizing 3D printing technology, etc. to reduce carbon emissions from aircraft operations.

Technological Development of Eco-friendly Gas Turbine Engine

Manufacture and Supply of Next-Generation High-efficiency Aviation Engine Parts

In 2015, Hanwha Aerospace signed an RSP contract with P&W for the next-generation GTF (Geared Turbo Fan) engine, and we are solidifying our no. 1 position in the global aircraft engine parts market by signing an LTA (Long Term Agreement) contract for LEAP engine parts with GE in 2016. The GTF is P&W's latest eco-friendly engine, which reduces noise by 50% compared to the previous generation.

It not only lowers fuel consumption per seat by up to 25%, but also reduces NOx (nitrogen oxide) emissions by approximately 50% compared to industry standards. In addition, the LEAP engine, also GE's latest model, reduces fuel consumption and CO_2 emissions by 15% and NOx by up to 50% compared to previous generation models.

Aircraft Engine

Aircraft Engine Inspection

SPECIAL CASE

Awarded '2022 Trusted to Deliver Excellence' by Rolls-Royce, UK

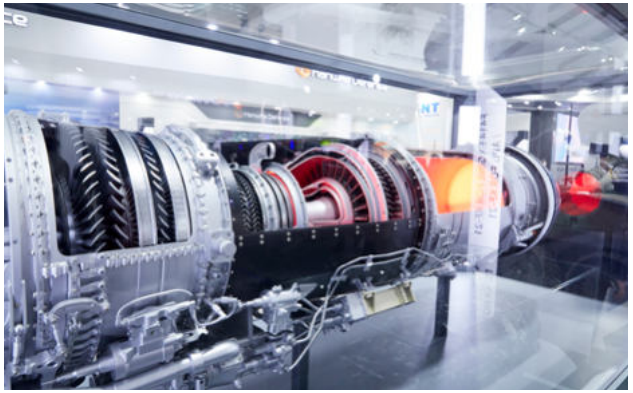
Hanwha Aerospace won the 'Best Supplier Award' in 2018 from Rolls-Royce, one of the world's three largest aircraft engine manufacturers, and not only acquired the world's first Production Part Approval Process (PPAP) certification in 2020, but also selected as a High Performing Supplier Group (HPSG) for the consecutive year. Furthermore, at the 2022 Rolls-Royce Global Aerospace Supplier Conference, we were honored with the 'Trusted to Deliver Excellence' award, which was awarded only to partners with the highest levels of continuous reliability and timely delivery performance for the world. Hanwha Aerospace received this award in recognition of its successful completion of new development and initial delivery of core parts for Rolls-Royce's advanced Trent engine, as well as the perfect supply of case-type parts that require strict quality and delivery timeframe.

Media URL

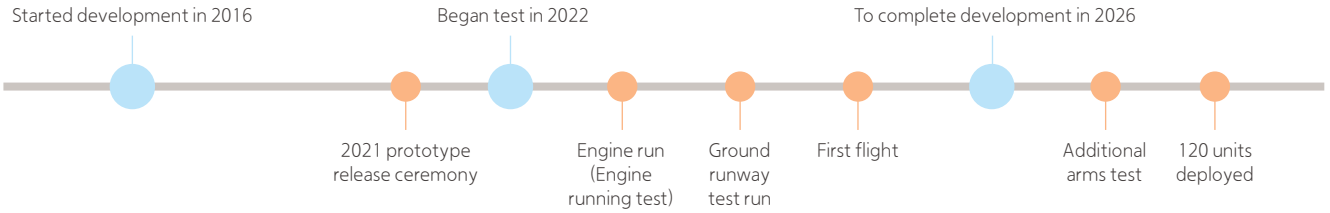
Development of Next Generation Korean Fighter Jet

Development of KF-21 Fighter Engines And Localization of Components

In 2021, Korea was listed as the world's eighth country to develop supersonic fighter jets through the prototype of the Korean next-generation fighter "KF-21 Boramae". The fruits are all the more meaningful because Korea achieved the localization of much of the fighter jet parts that previously relied on foreign imports. Hanwha Aerospace, the only gas turbine engine company in Korea that has been in charge of manufacturing engines that are the heart of fighters, helicopters, and ships responsible for national defense, is leading the integrated development of the F414 engine for the KF-21. Currently, it is being produced in a licensed production method through a technology agreement with GE, and aims to localize the production of major parts, rather than getting transfers of technology and parts.

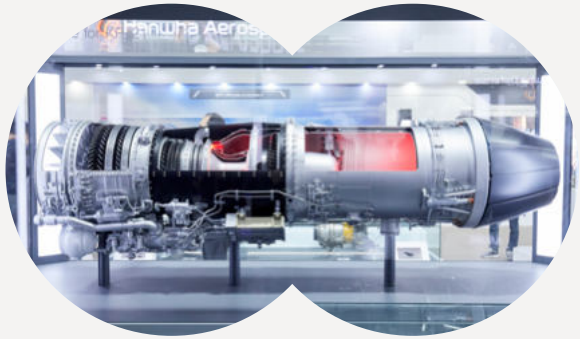


Development Timeline



SPECIAL CASE

Localization of KF-21 components



For the production of the KF-21 fighters, we are promoting the localization of various equipment in addition to the F414 engine. Representative examples manufactured by Hanwha Aerospace include auxiliary power unit (APU), landing gear, flight control integrated servo actuator (FCISA), and leading edge flap actuator (LEFAS). In addition, equipment such as AESA (active electronically scanned array) radar, mission computer (MC), audio command and control system (ACCS), multi-function display (MFD), infra-red search and track (IRST), and electro-optical targeting pod (EOTGP) were developed directly by Hanwha Systems. The fact that Korea can autonomously produce cutting-edge technologies that are challenging to develop indicates that Korea's defense technology has reached a world-level. Currently, approximately 40% of KF-21 has successfully been localized, and we are aiming to achieve a localization rate of 65% based on the first mass produced unit.

Media URL

3D Printing Technology

"Localization of Manufacturing Gas Turbine Parts" using 3D Printing Technology

On February 25, 2022, Hanwha Aerospace and KEIT of the Ministry of Trade, Industry and Energy held a national project initiation ceremony for 'the development of materials and parts manufacturing technology for nickel-based super-heat-resistant alloys'. It aims to develop 3D printing materials and localize parts manufacturing technologies of nickel-based ultra-heat resistant alloys, which are mainly used in gas turbine facilities for power generation and aerospace industry promotion agencies. A total project cost of KRW 26.5 billion will be invested over four years by the end of 2025.

By successfully completing this national project, we plan to contribute to achieving Korea's 2050 carbon neutrality goal by not only localizing the repair and regeneration technology for existing gas turbine parts for power generation, but also expanding our business to the eco-friendly industrial hydrogen turbine market where 100% hydrogen combustion is possible.

Main Technology Development Goals

01 Development of laser cladding (a process of melting alloy powder with a laser heat source and depositing it on the surface of the base metal) for gas turbine blade regeneration

02 Development of core component materials for gas turbines in megawatt-class hydrogen power stations, and laser lamination technology

03 Development of ultra-heat resistant dispersion reinforced materials and manufacturing technology for ultra-sound propulsion engine components

Expected Effect

- Expected to reduce the annual replacement cost by KRW 200 billion due to the successful development of laser cladding technology for regenerating gas turbine blades
- Expected to reduce the maintenance cost by KRW 100 billion by extending the life of parts through regenerative maintenance

PIONEERING SUSTAINABLE AEROSPACE SOLUTIONS 2

CHALLENGE TO THE UNIVERSE

Issue Approach

Starting with the successful launch of the Nuri, Hanwha Aerospace is taking on a new challenge to secure Korea's true sovereignty in space.

Total Service Provider in Space

Hanwha Aerospace, Manufacturing and Supplying Engines, "the Hearts of Nuri"

On June 21, 2022, the first Korean launch vehicle Nuri (KSLV-II) built solely from domestic technology succeeded in its second launch. Nuri is 47.2 meters long, weighs 200 tons, and consists of 370,000 parts.

Hanwha Aerospace took charge of assembling and delivering a total of six engines, including four first-stage 75-ton engines, one second-stage 75-ton engines, and one third-stage 7-ton engines mounted on the three-stage Nuri. Among them, the 75-ton liquid rocket engine jointly developed with the Korea Aerospace Research Institute (KARI) is designed to withstand extreme conditions while the projectile overcomes gravity and reaches the space orbit.

With the successful launch of the Nuri, the Republic of Korea has leaped into the world's 7th space powerhouse. In the future, Hanwha Aerospace plans to not only additionally produce Nuri engines in accordance with the 'Korean Launch Vehicle Advancement Project', but also strengthen its professional capabilities by actively participating in the KARI's plan to discover and foster companies with a comprehensive space launch vehicle system.


First-stage 75-ton engine


Second-stage 75-ton engine


Third-stage 7-ton engine


Live Broadcasting of the Successful Launch of the Nuri

Hanwha Aerospace's Major Plans for the Space Project

Hanwha Aerospace Pushes Forward to Become a Rocket System Operator
– The Challenge to Secure Korea's True Space Sovereignty –

'10 '22 '23 '27 '31

- Korean Projectile Development Project
- Korean Projectile Advancement Project
- Next-Generation Projectile Development Project

Korean Projectile Development Project (2010 – 2022)	Korean Projectile Advancement Project (planned, 2022 – 2027)	Next-Generation Projectile Development Project (planned, 2023 – 2031)
• Completed assembly of 1/2/3-stage engines • Completed attitude control system development • Completed development of propulsion supply system	• Implementation of comprehensive system work • Production and launch of the 3rd Nuri • Transferring core technology to Nuri	• Public-private joint development of next-generation projectiles • Development of cutting-edge 100-ton large engine • Research on innovative technologies such as reuse

Established Hanwha Space Hub-KAIST Space Research Center

In March 2021, Hanwha Aerospace launched the Space Hub, which oversees Hanwha's space industry by bringing together key technologies scattered in the Hanwha Group.
Space Hub is the nation's largest space research center established by private companies and universities in collaboration with KAIST, and Hanwha plans to invest about KRW 10 billion in the research center.
As the first project, we are developing inter satellite links (ISL), a low-orbit satellite communication technology, and plan to study various technologies for the civilian-led 'New Space Era' together.

Space Industry Portfolio Diversification

Hanwha Aerospace, First Korean Space Company to Sign the ISRU Agreement with a Government-Funded Research Institute

On September 9, 2021, Hanwha Aerospace signed a memorandum of understanding (MOU) with a government-funded research institute for the use of privately-funded space resources (ISRU) for the first time among domestic space companies. The business agreement includes cooperation in participating in exploration programs, cooperation in specialized areas for each institution, and cooperation in establishing initial and long-term plans using local resources on the Moon and Mars. This MOU, valid for 10 years after it is signed, may be extended for one year through the written agreement of each party.

Hanwha Aerospace plans to actively lead the space industry in the New Space era and establish an ecosystem for the domestic space industry through the government's contribution and comprehensive cooperation system on the technology of utilizing space resources.

* Six Government Funded Research Institutes: KICT (Korea Institute of Construction Technology) KRISS (Korea Research Institute of Standards and Science), KIGAM (Korea Institute of Geoscience and Mineral Resources), KARI (Korea Aerospace Research Institute), KIER (Korea Institute of Energy Research), KAERI (Korea Atomic Energy Research Institute)

What is In Situ Resource Utilization (ISRU)?

ISRU refers to a facility or system that produces necessary materials using local resources on space planets such as the Moon or Mars, and mainly refers to the production of water, oxygen, solar cells, building materials, and fuel for launch vehicles. In addition, the Artemis Program is currently committed to by 21 countries* with the goal of sending astronauts to the moon by 2024 and building a sustainable manned base on the moon by 2030.

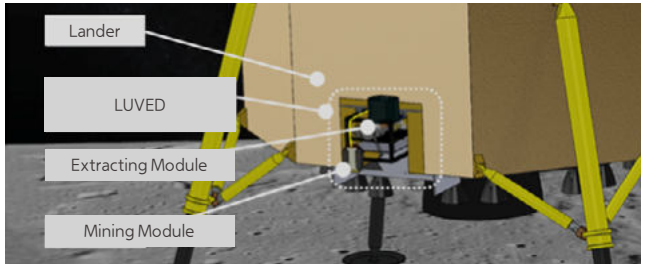
* The Artemis Program (21 nations): USA, Korea, Australia, France, Mexico, Romania, UAE, Bahrain, Israel, New Zealand, Saudi Arabia, UK, Brazil, Italy, Poland, Singapore, Canada, Japan, Ukraine, Colombia, and Luxembourg

MOU Signed on ISRU Technology Development

- Signed a multilateral business agreement for the utilization of local space resources in September 2021
- Agreement on ISRU Technology Development Cooperation based on specialized areas of each institution
- Promotion of cooperation in participating in domestic and foreign space exploration programs

A Study on the Development of ISRU Technology

- Implementation of ISRU technology development planning research organized by KIGAM
- Implementation of mid- to long-term ISRU technology development and moon resource extraction technology development plan
- Hosted the 1st space resource utilization technology workshop inviting NASA researchers

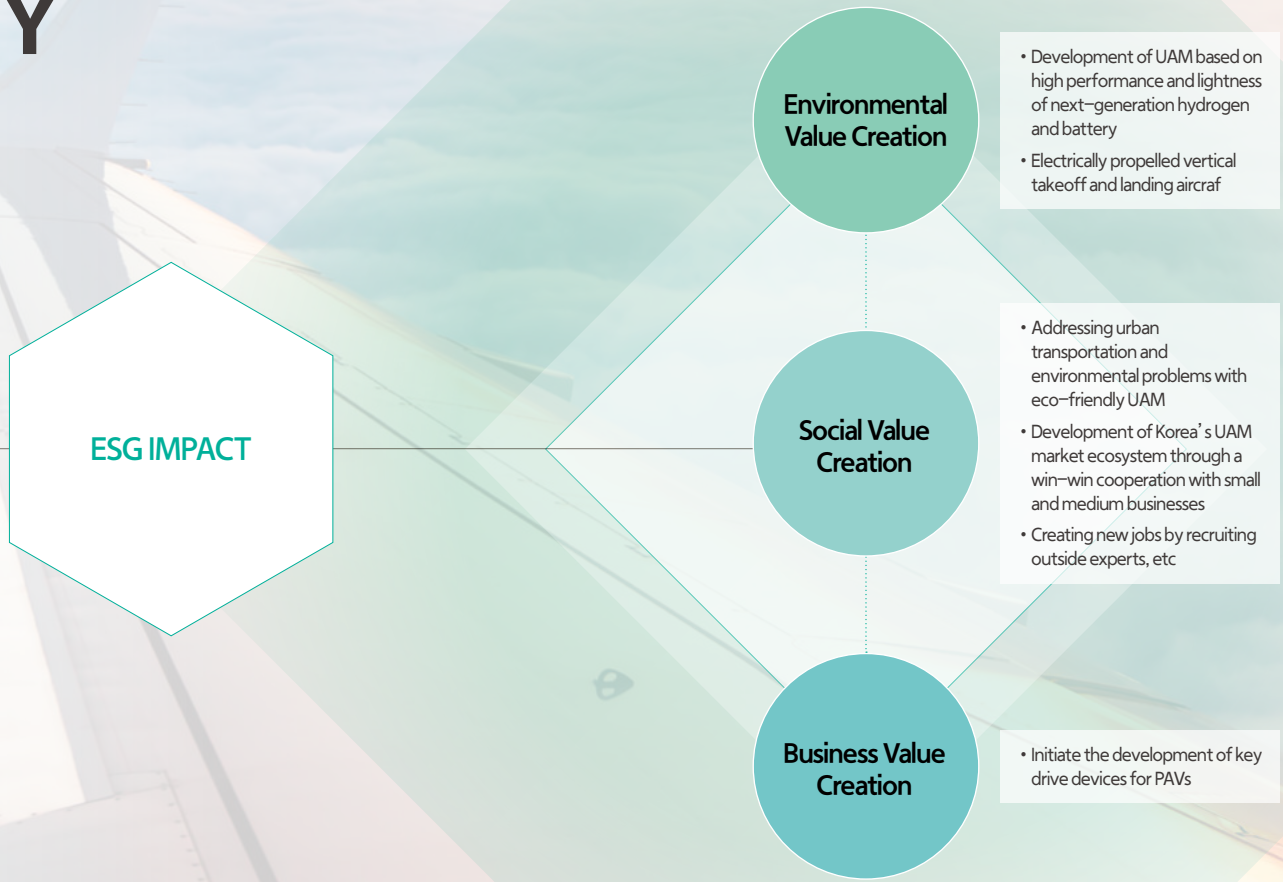


Korean Lunar Lander Project

- Pre-feasibility study in September 2022 and scheduled to launch in 2031
- General system overview and test assessment led by the Korea Aerospace Research Institute
- Working on including ISRU technology demonstration carrier for the extraction of hydrogen and oxygen from the moon's soil to the scientific mission of the moon landing ship

PIONEERING SUSTAINABLE AEROSPACE SOLUTIONS 3

DEVELOPING CLEAN MOBILITY



Issue Approach

Hanwha Aerospace is securing new sustainable growth engines by expanding its portfolio in the future mobility field and developing eco-friendly and high-efficiency technological products.

Total Solution Provider to Build Predominance Over UAM Market

Hanwha Aerospace's FUTURE GREEN MOBILITY Business Areas

Aircraft

Electric Vertical Takeoff and Landing Aircraft

- Low-Noise Vectored Thrust method for downtown navigation

Infrastructure

UATM (Urban Air Traffic Management), Downtown Airport

- Establishment of a traffic management system using radar, communication technology and low-orbit satellite antenna technology
- Construction of the world's largest vertiport in cooperation with Korea Airports Corporation

Service

Future Mobility Integration Service

- Establishment and operation of an operating system for commercial transportation services (passenger and freight)
- Establishment of a linked platform to boarding reservations, check-in, and transportation systems (taxi, bus, railroad, ports, etc.)

With the recent transition from the era of internal combustion locomotives to green mobility, an eco-friendly future mobility is emerging. Eco-friendly mobility is expanding from automobiles including electric vehicles and hydrogen vehicles to cutting-edge transportation such as an urban air transportation (UAM). In addition, according to the Korean Urban Air Mobility Roadmap (K-UAM) announced by the Ministry of Land, Infrastructure and Transport in 2020, the global UAM market size is expected to grow to KRW 730 trillion by 2040.

Accordingly, Hanwha Aerospace participated in creating the Urban Air Mobility (UAM) platform ecosystem, which is attracting attention as a next generation transportation. In addition to actively utilizing internal technological capabilities, we are developing innovative technologies by recruiting external experts and collaborating with domestic and foreign specialized organizations. Hanwha Aerospace will be reborn as a provider of comprehensive mobility solutions by securing new sustainable growth engines and strengthening business competitiveness through eco-friendly and high-efficiency technology development.

Technology Development for the Transition to the Future Mobility Era

Development of Electro-Mechanical Actuator for the Future Personal Air Vehicle

In June 2021, Hanwha Aerospace won an order from the Ministry of Trade, Industry and Energy to develop a "high-reliability electro-mechanical actuator (EMA) for the next-generation transportation" with a total 4-year project cost of KRW 18.4 billion. In line with the recent trend of eco-friendliness and high efficiency, we are promoting the development of 'electric actuators', a core driving device for the future personal air vehicle (PAV), instead of hydraulic driving devices that were applied to existing aircraft, to be used for new-concept air transportation such as drone taxis.
If we succeed in developing a highly reliable electric actuator for PAV for the first time in Korea, we plan to grow into a global company specializing in core driving systems for PAV by entering the domestic and global market for civil aircrafts.

Media URL

Development of Next-Generation Hydrogen- and Battery-based UAM that are Lightweight and have High Performance

In 2022, Hanwha Aerospace won a national R&D project to develop lightweight fuel cell technology for aviation mobility announced by the Korea Energy Technology Evaluation and Planning, an R&D organization under the Ministry of Trade, Industry and Energy. With a total project cost of approximately KRW 21 billion for 4 years (2022-2025), we plan to complete the development of core technologies for hydrogen fuel cells for aviation including improving fuel cell performance and reducing system weight.
In addition, through the R&D project, we will set an example of creating a domestic UAM market ecosystem through a win-win cooperation with small and medium-sized companies to commercialize hydrogen-powered UAMs. Furthermore, we plan to expand to the electric propulsion system business for small and medium-sized aircrafts in the long term.

Media URL

Participated in the US-based Overair Series B Investment

Hanwha Aerospace, together with Hanwha Systems, participated in the Series B investment worth a total of USD 115 million (about KRW 147.9 billion) conducted by Overair, a UAM technology leader based in Santa Ana, California. Overair also selected Hanwha Aerospace and Hanwha Systems that represent Hanwha Group's aerospace business as commercialization partners. Furthermore, Hanwha Aerospace and Overair are developing 'battery-based electric propulsion systems' that act as engines for UAM aircrafts, and will cooperate in developing and supplying a future hybrid electric propulsion system that combines gas turbines or hydrogen fuel cell systems with electric batteries in line with UAM aircrafts that will be diversified to be used for long-distance and multi-seater services.

Media URL

ESG Performance

In order to achieve sustainable management, Hanwha Aerospace and its executives and employees extend various efforts across different areas to build trust with customers, suppliers, investors, and all other interested parties.

ENVIRONMENTAL

Hanwha Aerospace puts safety and health as its No. 1 priority.
As a member of the global community, Hanwha Aerospace will strive toward becoming the top global leader in safety, health, and environment (SHE) management, thereby contributing to qualitative growth and environmental conservation.

KEY PERFORMANCE

Safety / Health / Environmental System

- Newly enacted SHE Management Policies by the CEO (as of December 2021)
- ISO45001 certification (Changwon Plant) and KOSHA-MS certification (Asan Plant)

Environmental Impact Management

- Water usage down from 2020 by 15.6%
- Recycling rate 91%

Eco-friendly Products and Services

- Green purchase KRW 89 million
- KRW 759 million invested in environment

Safety and Health Management

- Cases of serious accidents 0
- Cases of legal violation of safety and environment laws 0
- Industrial accident rate 0.15%

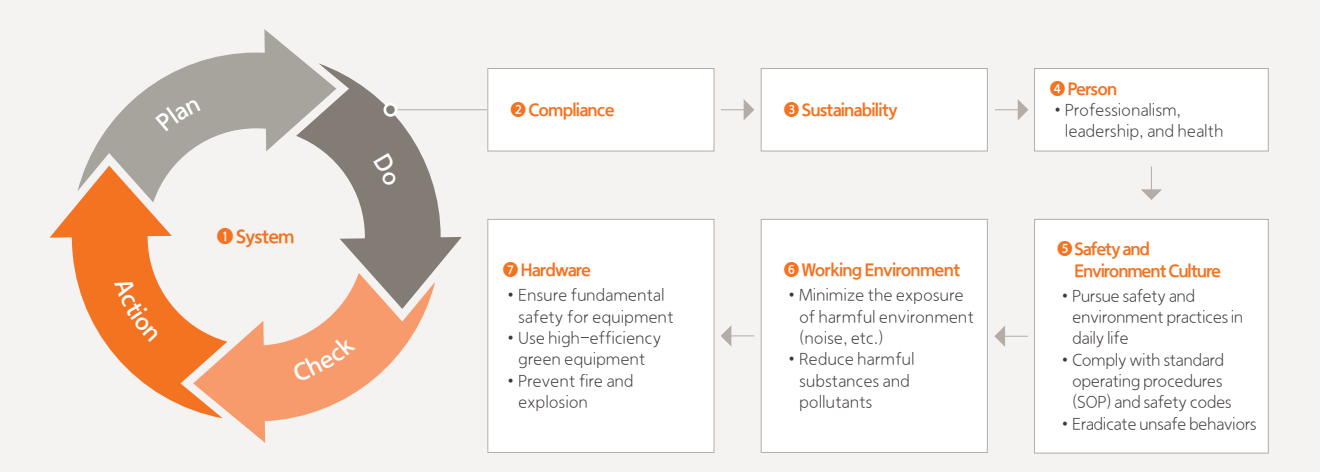
Safety / Health / Environmental System

Hanwha Aerospace strives to provide all workers with a safe and healthy working environment. Hanwha Aerospace will implement its own SHE system through systematic management and an organic implementation structure.

Safety, Health, and Environment (SHE) Management System

Aerospace SHE Way

Hanwha Aerospace exerts multi-faceted efforts to achieve its environmental and safety mission of "Building a healthy and clean environment for Hanwha Aerospace." We have defined four implementation strategies: enhanced accident prevention / compliance; enhanced safety and environmental awareness; healthier executives and employees; and advanced safety environment. It also established the Aerospace SHE Way to apply the PDCA (Plan, Do, Check, and Action) approach to each area for making environmental management more effective. We will spare no effect to achieve three zeros (zero accident, zero loss, and zero defect) across all areas.



KEY PERFORMANCE

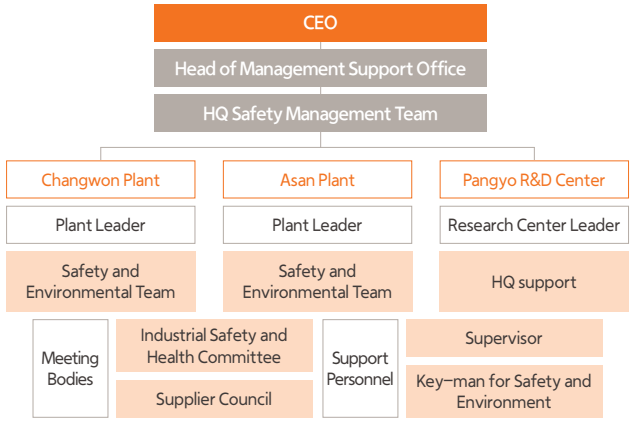
Enactment of New SHE Management Policies by the CEO
(as of December 2021)

ISO45001 certification (Changwon Plant) and KOSHA-MS certification (Asan Plant)

Management Policies and Strategies

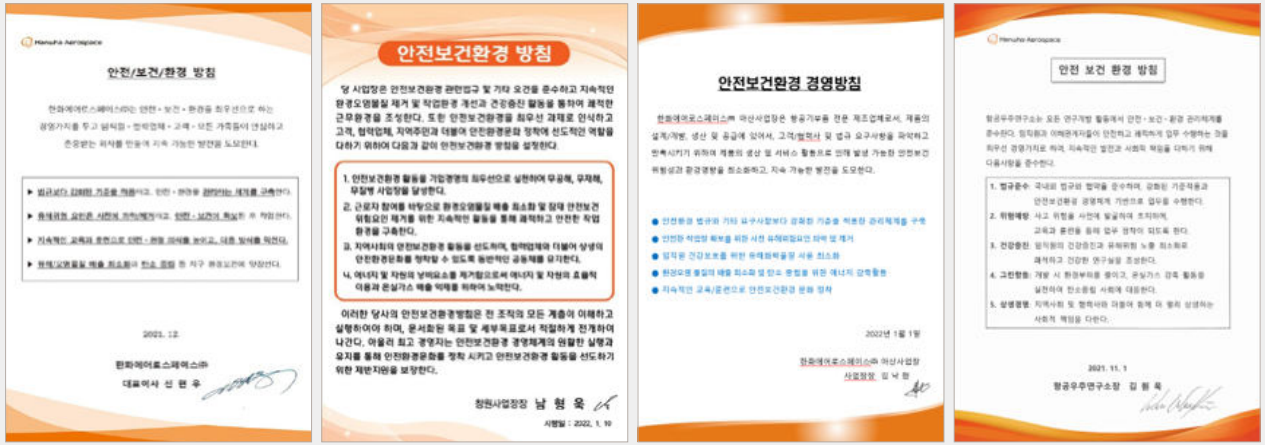
Mission	Build a Healthy and Clean Hanwha Aerospace
Vision	Provide all workers with safe and healthy working environment
Goals	Achieve three zeros (zero accident, zero loss, and zero defect)
System	Implement business in close connection with the tasks across the seven sectors
Strategy	• Enhance accident prevention and compliance • Enhance safety and environment awareness • Improve the health of employees • Advance safety and environmental levels

SHE Implementation Organization Chart



SHE Management Policy

Every plant and institution of Hanwha Aerospace (Changwon Plant, Asan Plant, and Pangyo Research Center) establishes and publishes its own SHE policies. In December 2021, the company also enacted its new SHE Policies stipulated by the CEO. The new policy reaffirmed the importance of, and Hanwha Aerospace's commitment to, safety, health, and environment. All business sites, plants, and departments plan to establish detailed action plans based on the policy to achieve environmental and safety missions and uphold the value of SHE across the company's business activities.



SHE Management Policies by the CEO and heads of Changwon Plant, Asan Plant, and Pangyo R&D Center

Safety / Health / Environmental Policy by CEO

Hanwha Aerospace puts safety, health, and environmental management as its No. 1 priority and pursues sustainable growth by building a reliable company to gain trust and respect from its executives and employees, suppliers, customers, and all affiliates and subsidiaries.

- Apply stricter criteria than the laws and regulations, and build a system for safety and environment management
- Identify and remove hazard/risk factors in advance, and postpone operations until safety and health are ensured
- Raise safety and environment awareness through continuous training and education, and learn how to address relevant issues
- Minimize harmful substances and pollutants, and lead environmental conservation, including carbon neutrality

External Certifications

Hanwha Aerospace has systematically managed its plants since 1996 and acquired the ISO* 14001 (Environment Management System) and OHSAS* 18001 consecutively. Changwon Plant acquired the ISO 45001 (old OHSAS 18001), and Asan Plant received the KOSHA-MS (old KOSHA 18001) certification from the Korea Occupational Safety and Health Agency, once again proving the trustworthiness of the company's safety management system. The company plans to continue its efforts to obtain SHE system certifications across the company and build pleasant and healthy work environments.

Environmental Impact Management

Hanwha Aerospace takes various actions to address global environmental regulations by reducing environmental impact and practicing green management, particularly through its manufacturing plants. The company plans to measure environmental impact and improve systems across the full cycle of materials procurement, product manufacturing, distribution, sales, and disposal.

Environmental Impact Management System

Hanwha Aerospace currently operates environmental and chemical facilities, the Green Center capable of detecting and responding to anomalies and leakages, and the General Disaster Control Center capable of managing energy / utility usage and monitoring firefighting-requiring situations. The company has also established the PDCA (Plan, Do, Check, and Action) management system based on the environmental management system certification (ISO 14001) to detect and manage environmental impact.

The Safety and Environment Team establishes annual policies and goals for reviewing relevant work plans, and closely monitors and improves environmental impact in manufacturing processes through autonomous environment and safety management systems overseen by the production lines.

Response to Climate Change

Management of Greenhouse Gas (GHG) Emissions

2050 Carbon Neutrality | To meet national and international demands for reduced GHG emissions, Hanwha Aerospace plans to achieve carbon neutrality by 2050. To that end, the company will actively invest in new and renewable energy equipment for the energy sector, which accounts for 85% of total GHG emissions, and achieve carbon neutrality by improving equipment efficiency and purchasing carbon credits.

GHG Emission Management | Hanwha Aerospace is committed to complying with its GHG emission management obligations under the Framework Act on Low Carbon, Green Growth. Since the Eco-Winner 2020 event in 2009, the company has continuously taken actions to reduce energy consumption and ensure efficient management at business sites. In 2014, Changwon Plant was designated as a GHG Target Management Site, which means the plant is annually assigned emission targets by the government. The plant transparently manages GHG emission through verification by a third-party agency.

Improving Energy Efficiency

Hanwha Aerospace monitors and manages energy usage through the Seoul Emergency Operations Center. At power peaks, the company reduces energy usage by adjusting power loads of equipment that consume considerable amounts of energy and by reducing energy consumption. It also encourages efficient energy usage through energy-saving activities such as using high-efficiency LED lights, selling unused equipment, and installing power timers. Pangyo R&D Center operates a 20.5kW photovoltaic generation system on the rooftop, resulting in more than four tons of GHG reduction per year. Although the power generated by the system is small in capacity, just enough for internal consumption, it raises employees' awareness of how vital renewable energy is.

KEY PERFORMANCE

Water usage **down from 2020 by 15.6%**

Recycling rate **91%**

Yearly GHG Emission (unit: tCO_2eq)

2019	28,585
2020	27,707
2021	28,236

Yearly Energy Consumption (unit: GJ)

2019	576,606
2020	561,429
2021	577,718

Resource Circulation

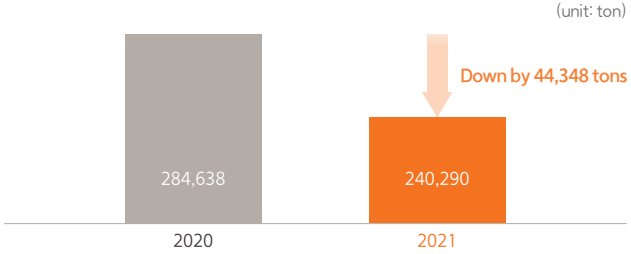
Water Management

Hanwha Aerospace manages its water consumption through the Emergency Operations Center, and by building a monitoring system across all production cycles from water usage to discharge. The company takes various reduction activities across multiple areas (environment and safety, production, and daily life), and reduced water consumption by 4,000 tons by halving the workload required for the alkaline cleaning process. It plans to expand its water consumption / wastewater reduction activities by optimizing the duration of high-pressure spraying during the automated cleaning process.

The company also reuses rainwater at wastewater treatment facilities. By replacing tap water with rainwater as the main source for landscape management, Hanwha Aerospace lowered water bills and improved landscaping efficiency. The company also reuses discharged water to manufacture chemicals used at wastewater facilities and to clean chemical rooms. These efforts resulted in water recycling equivalent to 203 tons per year (0.1% of the annual water consumption). Hanwha Aerospace plans to expand its water reuse capabilities.

Hanwha Aerospace uses its own wastewater treatment facilities to process wastewater from the galvanizing, surface processing, development and fixing, and thermal processing. The company has developed and complies with the Water Treatment Operation Manual to ensure adequate operation and transparent management. The company has set a stringent pollutant control criteria for water discharged from its wastewater treatment facilities, which is only 30% of the legally required amount. Moreover, an independent agency monitors its pollutant concentrations every month, displaying results of 0 to 9% of levels required under the law.

Water Consumption



Waste Control

Hanwha Aerospace produces around 2,000 to 2,500 tons of waste per year from its manufacturing processes. Accordingly, the company continues its waste control activities to achieve the target recycling rate of 95%. Waste production and recycling are monitored at least once a month, and integrated management is executed through internal reports. In addition, waste service providers are evaluated on-site before contracting to ensure lawful transport and disposal of wastes from the sites. Even after the contract takes effect, the providers are evaluated for improved timeliness and safety through the contract term. Hanwha Aerospace also launched participatory campaigns aimed at engaging all executives and employees in lawful disposal of wastes, improvement of the recycling rate, and waste reduction activities, including the campaign to reuse tools on-site.

Key Functions of Emergency Operations Center

Power	Power Supply Stabilization and Prediction Control – Real-time voltage, power (peak), and power factor confirmation / control – Data-based power demand prediction and control
Utility	Utility Supply Stabilization and Energy Control – Water, air, and steam supply – Temperature / humidity control for industrial equipment
Fire Prevention	Rapid response to emergencies through fire monitoring and control – Monitoring / control of automated fire detection and firefighting equipment – Double monitoring at the Emergency Operations Center (2 shifts) and the main gate

Emergency Operations Center

Green Center

Environmental Impact Reduction

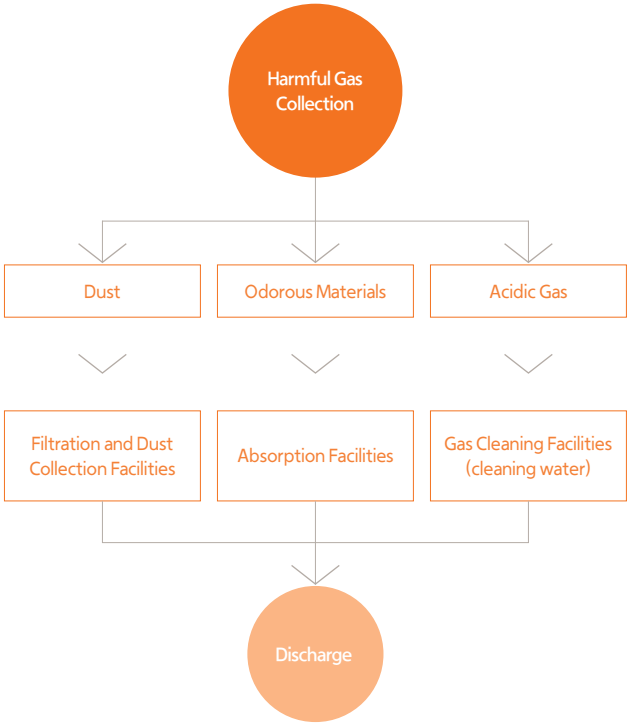
Air Quality Management

Hanwha Aerospace repairs and improves its air quality facilities on a regular basis and applies strict internal regulations on pollutant control (30% of the legal requirements) for strict control and monitoring. 264 facilities inside Changwon Plant emit pollutants, and the plant operates 68 air quality facilities. In addition, the company replaced deteriorated and small-scale air quality facilities with high-efficiency facilities to improve operational efficiency and further reduce pollutant emissions.

Harmful Chemicals Management

Hanwha Aerospace has built and operates collection equipment, automated circuit breakers, and alarm facilities to prevent the leakage of chemicals used and stored at production sites and ensure safe management of chemical substances. All facilities handling chemicals are inspected on a weekly basis. Changwon Plant has two storage facilities for harmful chemicals. The company uses the facilities to safely transport, store, and discharge around 30 tons of harmful chemicals used at the site. Hanwha Aerospace also has its own environmental safety system for MSDS management and approval. All chemicals used at the plants are reviewed by the Safety Environment Team for harmfulness, hazard, management, and handling facility requirements. The purchase system is operated so that only approved materials can be purchased. The information about the approved chemicals is stored in a high-accessible system open for all to use. For preemptive response to increasingly strict chemical management regulations, the company steadfastly monitors the relevant laws and regulations, along with activities to replace harmful chemicals.

Air Quality Management



Harmful Chemicals Management Process

Harmful chemical emission(s) in 2021 0 case

① Prior Approval
Prohibited to purchase non-approved chemicals
- Reviewing laws / regulations / internal standards through IT systems
- Resolve legal / regulatory risks in practical affairs through notifying use before and after adoption, and other methods

② Facility Management
Management of Chemical Handling Facilities
- To comply with legal requirements for storage / use / retention facilities
- Control accident risks through regular inspections

③ Materials Improvement
Reduce harmful / high-risk substances
- Identify target substances and check for replacements
- Compare hazards / risks → replace harmful substances

④ Environmental Improvement
Improvement of Chemical Usage Environment
- Improve worksite ventilation (local exhaust ventilation, etc.)
- Improve similar environments through horizontal deployment

SPECIAL SECTION

TCFD-Recommended Disclosures

Hanwha Aerospace plans to assess risks and opportunities posed by climate change pursuant to the recommendations by the Task Force on Climate-Related Financial Disclosures (TCFD) and establish and achieve long-term goals and strategies for 2050 Carbon Neutrality.

Governance Structure

In June 2021, Hanwha Aerospace established the ESG Committee for responsible climate response governance. The committee is solely comprised of outside directors. The committee holds regular quarterly meetings and irregular (ad hoc) meetings to review and deliberate on key climate and environmental issues, establish the company's mid- to long-term carbon neutrality strategies, and monitor its progress. The ESG Committee has established and operates the Environment and Safety Committee to establish and implement eco-friendly management plans. The strategies developed by the Board of Directors (BOD), the ESG Committee, and the Environment and Safety Committee are executed and managed by environment and safety departments at the headquarter and each plant.

BOD
Deliberates and adopts agendas on climate change and eco-friendly matters

ESG Committee
Deliberates and discusses key climate change and eco-friendly issues

Environment and Safety Committee
Monitors issues and detailed tasks on climate change

Environment and Safety Departments at HQ and Plants
Handles climate response and SHE tasks

Management Strategies

Hanwha Aerospace identifies the financial impact of possible risks to its business activities and develops plans to address them based on their significance. The company monitors the progress of response to each risk on a regular basis and applies the required improvements across its business activities. The company will continue to minimize risks and foster a stable management environment by pursuing business strategies reflecting response to climate change.

Category		Identified Risks	Possible Financial Impact	Response Status	Period
Physical Risks	Typhoons, floods, and other natural disasters	Damage to plants and infrastructure from floods, landslides, and other disasters	Financial, personal, and physical loss caused by delayed production and damage to worksites	• Build an emergency response system and the relevant facilities • Conduct safety inspections and training on a regular basis	Short-term
	Adverse weather events and global warming	Increase in power consumption caused by global warming	Increase in power consumption caused by global warming	• Enhance environment and safety system monitoring for energy efficiency management	Mid- to long-term
Transition Risks	Policies and Regulations	Carbon border tax,GHG emissions trading, and other GHG reduction policies	Increase in power consumption caused by global warming	• Manage GHG emissions and develop/implement GHG reduction strategies	Short- / Mid- to long-term
		Increased demand for energy efficiency improvement and the use of green energy	Transition costs incurred by expansive use of low carbon energy sources	• Increase energy efficiency by building and increasing new and renewable energy facilities at plants	Mid- to long-term
		Enactment/revision of environmental regulations	Fines / sanctions against violations	• Assign the ESG Committee / Legal Team review the relevant laws, and apply the results to policies	Short-term
	Markets and Technologies	Increased demand for green and high-efficiency products	Increase research and development (R&D) expenses to expand green product portfolios	• Develop sustainable products such as next-generation high-efficiency aircraft engines, and engines using new and renewable energy	Mid- to long-term
	Reputation	Demands from global green initiatives	Investment withdrawal and customer loss	• Respond to TCFD and other global initiatives and disclose relevant information	Mid- to long-term

SPECIAL SECTION

TCFD-Recommended Disclosures

Risk Management

Hanwha Aerospace identifies the opportunities and risks posed by climate change mainly through its Environment and Safety Committee and the ESG Committee by considering uncertainties in the business environment and various regulations addressing climate change, and by assessing their impact on the company's activities. It chooses appropriate response strategies and projects based on the frequency and severity of each risk and has set up an operational system to control climate risks.

❶ Identify Climate Risks	• Identify opportunities and risks posed by climate change – Environmental regulations, natural disasters, market and reputation issues, etc. • Analyze the impact of each risk element on businesses and the company – Business strategies, financial impact, R&D direction, etc.
❷ Define Risk	• Define risks based on the impact of risks and opportunities in the short/medium/long-term • Develop strategies and tasks to address identified risks
❸ Risk Management and Response	• Implementation of strategic tasks for identified risks
❹ Follow-up Measures	• Monitor risk management performance and identify improvements • Plan next year's annual activities and develop implementation tasks

Indicators and Reduction Targets

To meet the demand for GHG reduction in Korea and abroad, Hanwha Aerospace plans to achieve carbon neutrality by 2050. To achieve the goal, the company plans to gradually reduce its GHG emissions by 2025. Hanwha Aerospace uses its environment and safety monitoring system to control monthly GHG emissions from each plant and strives to identify the status of GHG emissions, review progress, and achieve reduction targets.

GHG Emissions

	2019	2020	2021
GHG Emissions	28,585 tCO_2-eq	27,707 tCO_2-eq	28,236 tCO_2-eq
GHG Intensity*	2.4	2.6	2.3

To reduce GHG intensity every year until 2025 (Scope 1+2)

Keeping GHG emission level less than 95% or more from GHG intensity YOY

* Intensity: GHG emission against revenues (unit: tCO_2-eq / KRW 100 million)

Eco-friendly Products and Services

Hanwha Aerospace conducts its own product assessment for environmental hazards, resource efficiency, and energy efficiency. The company will not spare investment and technological development, with the objective to minimize the products' impact on the environment and build them to be more eco-friendly.

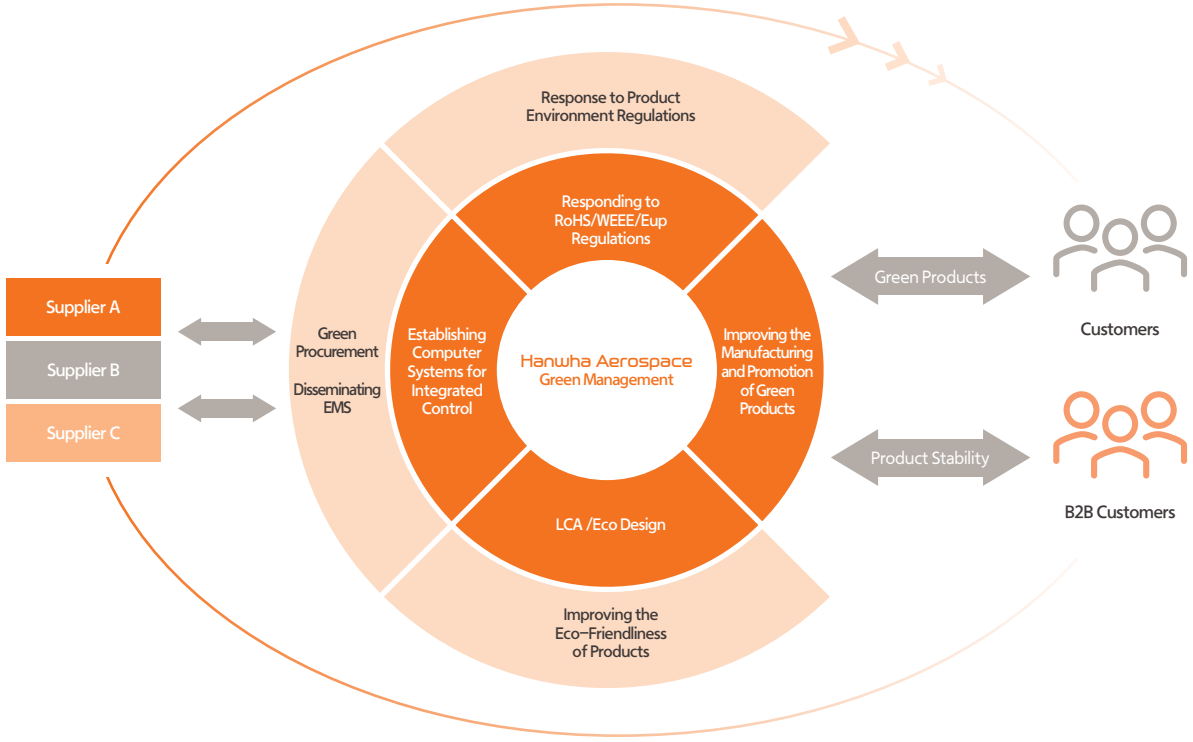
Improve Product Eco-Friendliness

Green Management Declaration

In order to comply with global environmental standards and ensure the sustainability of its business areas, Hanwha Aerospace declared its commitment to Green Management in November 2009. The company expressed its strong will for green management by voluntarily signing a green procurement agreement with the Ministry of Environment and continued to make environmental investments. The company will continue to develop green technologies, conduct life cycle assessments (LCAs), and improve the eco-friendliness of its products.

Product Management System

In order to keep environmentally harmful substances out of its products, Hanwha Aerospace thoroughly inspects its products from the development and design stage. In addition, it assesses all parts provided by suppliers through the environmental management systems (EMS) upon purchase to ensure eco-friendly product management through green procurement from early stages. The company also keeps a keen eye on various global regulations at a regular basis and operates a computer system for integrated control to ensure the eco-friendliness of its products.



KEY PERFORMANCE

Green purchase
KRW 89 million

KRW 759 million
invested in environment

Green Procurement

Green procurement refers to the act of evaluating a supplier's environmental management capabilities during the supplier selection and supply sourcing stages, and using green products and services. Hanwha Aerospace inspects the environmental impact of its parts and consumable supplies in advance for eco-friendly supply chain management and the production of green products. The company also developed a procurement manual that requires prioritization of the purchase of certified eco-friendly products for subsidiary materials, equipment, and office supplies. Hanwha Aerospace carries out systemic green procurement activities by assessing the environment impact of purchased products and applying the results to procurement decisions.

Significance of Green Purchase

Suppliers	Hanwha Aerospace	Customer
Production of green parts	Green procurement	Production of green products

Green purchase goals

- To comply with product regulations / standards
- To use at least five green-certified items per plant
- To acquire products with environmental score marks or carbon score mark

Green Procurement Outcomes

(unit: KRW 1 million)

Green Technology

In recognition of the importance of eco-friendly businesses in the future, Hanwha Aerospace took preemptive steps to expand its product portfolio of green and high-efficiency goods, and develop technologies for sustainable products. To further these efforts, the company reorganized its electric propulsion task force into an organization that directly reports to the CEO. The Electric Propulsion Task Force (TF) researches electric propulsion systems for aviation applications. The TF strives to design sustainable power systems for aircraft engines with less carbon emission.

In June 2021, Hanwha Aerospace won the contract for the Development Project for Highly Reliable Electro-Mechanical Actuator (EMA) as a Next Generation Vehicle. Unlike the hydraulic actuators used in older aircraft, EMA uses electricity to generate revolution and control mechanical movements. This eco-friendly device does not produce pollutants (e.g., carbon), and boasts higher safety and efficiency. Under the contract, the company plans to develop and commercialize Korea's first EMA for future personal air vehicles (PAVs) such as drone taxis by 2024.

Hanwha Systems and Hanwha Defense, subsidiaries of Hanwha Aerospace, are also actively adopting green technologies. Hanwha Systems is jointly developing the urban air mobility "Air Taxi," which uses an electric propulsion system that does not produce pollution. Hanwha Defense is currently developing an energy storage system (ESS) for green vessels, thereby responding to global environmental regulations and rebuilding itself into a global company specializing in vessel ESS.

Raising Environmental Awareness among Employees

Hanwha Aerospace also carries out various activities to internalize its environmental management system and raise awareness of the seriousness of environmental issues. The company organized training sessions on harmful chemical substances and safety management practices in 2021 for 1,170 trainees and conducted 15 emergency response training sessions under various scenarios, including chemical leakage and environmental facility failures. In addition, the company organizes and implements various environmental campaigns with its executives and employees to disseminate a green culture. From the "Smaller Soup Bowl Option" program for reduce food waste to "Upcycling" programs, Hanwha Aerospace works with the executives and employees for our environment.

CASE STUDY

Environmental campaigns with employees

In April 2021, Hanwha Aerospace organized a campaign to make "upcycled" dolls using regenerated fabrics, cotton, and other materials with its employees. The dolls are shaped after sea lions, turtles, and whales to stress the importance of the marine environment. The dolls were given as gifts to children at daycare centers around the Pangyo R&D Center and Asan and Changwon Plants on May 5, Children's Day.

Safety and Health Management

Hanwha Aerospace never compromises when it comes to safety. Therefore, it established Zero Accident Goals and manages all plants and business sites based on its goals. In response to increased public interest in safety issues and stricter government regulations, the company will continuously strive to prevent safety risks and foster workplace safety from preventing accidents.

Safety and Health Management System

In order to create a safe environment for workers, Hanwha Aerospace systematically manages the safety and health of its executives and employees based on the ISO 45001 certification. In addition, the company builds safety and environment systems and conducts product line evaluations to advance and consolidate relevant systems. The company will continue to deploy various safety audit activities led by the heads of plants, business sites, and departments as well as the Safety and Environment Team to achieve safer working environments.

KEY PERFORMANCE

Cases of serious accidents
0

Cases of legal violation of safety and environment laws **0**

Industrial accident rate
0.15%

Safety and Health Management

Safety awareness in our people	Train workers who abide by safety procedures based on high awareness and deep knowledge on safety • Enhance rewards and punishments: execute the "Three-Strikes" system for safety and health violators; provide incentives for workers/departments/suppliers showing outstanding performance
Hardware safety	Safe use of machines / instruments / equipment • Reinforce safety devices and inspection of dangerous machines/instruments • Establish a roadmap for fundamental safety of dangerous equipment
Safety before / during work	Identify and address potential risks in advance • Enhance identification of serious and potential risks • Postpone operations until safety and health requirements are fully met

Key Indicators

Reduce risks by controlling industrial accidents at plants

Accidents in plants and business sites (unit: no. of cases)

2019	4
2020	2
2021	3

Prevent accidents by identifying and alleviating potential risks

Identify risk assessment tasks (unit: no. of tasks)

2019	131
2020	131
2021	111

Safety and environment evaluation score

Score for safety and environment management (unit: points)

2019	91.2
2020	92.5
2021	96.6

Safety Risk Management

Management of Risk Factors

Hanwha Aerospace intensively analyzes potential accidents with high recurrence and broad applicability and draws measures for improvement through the Autonomous Safety Risk Observation System, which encourages workers to identify potential risks on their own, and the "Tasanjiseok (Learn from Mistakes)" System to horizontally deploy near-miss cases. Under the Autonomous Safety Risk Observation System, employees identify risk factors, near-miss cases, and safety environment recommendations and report them to supervisors for on-site actions and prevention of safety accidents. Under the Learn from Mistakes System, a plant-wide training session is held when a risk factor is identified to prevent accidents in an early stage. In addition, Hanwha Aerospace uses methods to analyze potential risks at the individual worker level. The company uses a computer system to develop identified risk factors into tasks and manage the task schedule. Lastly, key management items are incorporated into standard work procedures and disseminated to all business sites through employee training. In addition, Hanwha Aerospace has selected three potential risk factors customized for different departments for each department to perform management centered on the risk factors. In addition, the company defined eight emergencies in the Emergency Response Policy (fire/explosion, safety accident, chemical leakage, wastewater/air pollutant leakage, gas leakage, and natural disasters) and established the response process for each scenario. The company conducts department-level training at least once a year for various emergencies and develops processes applicable to actual emergencies through post-training environment and safety evaluations and feedback.

2021 SHE Level Assessment and Risk Identification Results

Business site	SHE Level Evaluation			No. of identified hazard risk(s)*
	System	Performance (KPI)	Department evaluation (average)	
Changwon	98.2	97.4	95.6	3,680
Asan	98.2	95.1	92.8	242
Pangyo	N/A	N/A	96.0	42
Total	–	–	–	3,964

* No. of identified risks: high-risk factors, autonomous safety observations, themed reviews (flood, thaw, winter season, hygiene, etc.)

Emergency Types

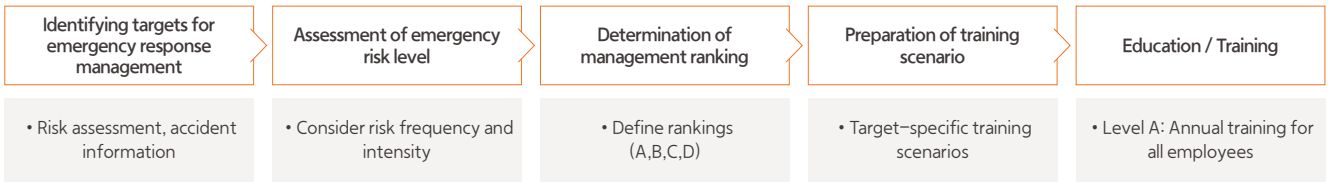
No.	Emergency	Actions
1	Fire / Explosion	Training / scenario
2	Chemical Leakage	Training / scenario
3	Oil Leakage	Training / scenario
4	Wastewater Flooding	Scenario
5	Air Pollutant Leakage	Scenario
6	Safety Accidents	Scenario
7	Gas Leakage	Scenario
8	Natural Disasters	Scenario

Serious Accident Prevention

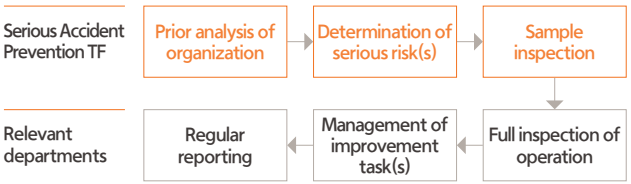
Hanwha Aerospace monitors newly enacted and revised safety and health laws and regulations on a regular basis, focusing on key laws and regulations. After the Serious Accident Punishment Act took effect in January 2022, workplace safety and health has taken even greater importance. Hanwha Aerospace has been striving to make its workplaces safer under the goal of achieving three zeros (zero accident, zero loss, and zero defect), and adopted stricter policies for industrial accident monitoring in 2022. The company organized a manager meeting to explain the Serious Accident Punishment Act, describe the roles of managers, and raise their safety awareness. In the future, the company will set up the Serious Accident Prevention Task Force to identify risk factors in advance and prevent accidents. The TF analyzes previous accidents, identifies risk factors, and cooperates with relevant departments to determine and control serious risks.

In 2022, Hanwha Aerospace started to conduct compliance evaluation on a monthly basis. The company's business sites are evaluated from multiple perspectives through monthly reviews by subject, and the identified shortcomings are immediately addressed to minimize on-site risk factors. In addition, through monthly on-site inspections by the CEO and weekly on-site inspections by plant / business site managers, the company ensures that improvements are made on a constant basis. The company plans to establish annual safety management plans including risk assessment and on-site inspections for more systemic prevention of serious accidents.

Risk Management Process



Procedures to Control and Prevent Severe Accidents



Advancing Employee Health

Hanwha Aerospace employees are exposed to risks of skeletomuscular diseases, due to the nature of the aircraft part manufacturing business. In response, the company conducted a regular investigation of skeletomuscular risk factors in January 2022 and selected high-risk processes for more thorough diagnosis and improvement.

The company also continuously strives to expel and replace inhalable or acute poisoning substances or other materials that cause 24 major occupational diseases. It monitors workers with abnormal findings and deploys in-house experts to promote the health of its executives and employees. In-house physical therapists, kinetic therapists, and trainers plan and operate exercise programs tailored to the industry and prescribe customized exercises with diverse processes for various individuals. Moreover, Changwon and Pangyo Plants hires counselors to provide mental health programs for executives and employees.

In addition, to protect the health of executives and employees from the risks posed by COVID-19, Hanwha Aerospace took comprehensive measures to overcome the pandemic under the leadership of the Safety and Health Manager. The company took preventive and response measures, including remote working, vaccine leave, support for suspected patients requiring testing, and provision of quarantine kits to employees on overseas business trips. The company will continue to strive to protect the health of executives and employees against diseases.

Health Care Programs

Health Check-Up	• Select hospital and checkup items • Same health checkup provided for spouses (40 and older)
Noise Reduction / Hearing Care for Employees	• Identify and improve noise-producing processes • Offer hearing retainment programs and supply protective equipment
Remote Healthcare Activities	• Individual / department-level Walking Challenge Programs (rewards granted to high-performing departments / individuals)
Physical Therapy /Health Management Office	• Hiring physical therapists and industrial nurses to reside in the office
Response to Infectious Diseases	• Building disease control systems at sites
Job Stress Management	• Resident counselor and mental health office

Health Management Office

Health Campaign for Executives and Employees

Outreach Stretching Programs

Raising Safety Awareness of Employees

In order to raise the awareness of its executives and employees on the importance of health, Hanwha Aerospace delivers briefing sessions on safety environment policies through cable television (CATV) to all employees. The company also posts notices on safety resolutions on equipment and facilities at each plant and business site and carries out safety culture activities to raise employees' safety awareness.

Executives and employees are required to complete six hours of safety and health training each quarter. Both the company and its suppliers monitor the quarterly training status and report the results to the chief manager.
Supervisors are also required to complete 16 hours of training each year, and newly appointed supervisors are instructed to complete the supervisor training within a month.

Each plant and business site operates the Aerospace Safety Health Environment Management (ASHEM) system. ASHEM refers to the guidebook on safety and health laws and operation practices that supervisors must know. It proposes practices and standards to build safer and healthier workplaces. All supervisors are required to receive ASHEM training and pass the test. Failed trainees need to retake the training and test and achieve the minimum score to pass and complete the ASHEM training. ASHEM is reissued annually to reflect revisions in relevant laws and policies quickly. Starting in 2022, the company plans to develop ASHEM for on-site personnel and use it in training sessions.

Safety and Health Support for Suppliers

Hanwha Aerospace builds safety environment and culture with suppliers through joint safety and health programs and consultative bodies. All plants conduct quarterly joint inspections with the supplier consultative body to identify safety environment issues and improvements for safer and more pleasant working environment. More than 300 employees from 34 suppliers are dispatched to the company's sites. Hanwha Aerospace helps suppliers comply with industrial safety regulations and other requirements, provides consultation on risk assessment, as well as meaningful assistance with work environment improvement and health promotion activities.

In particular, the company organizes safety and health policy briefing sessions as part of its shared growth programs with suppliers. It supports suppliers to build their own safety management systems by supplying protective equipment and providing technical support for risk assessment and risk assessment accreditation. In addition, in order to prevent potential accidents experienced by supplier employees working at the company's sites, Hanwha Aerospace provides assistance for safety management in business sites, including reviewing harmful chemicals, risk assessment, and prevention of serious accidents through related systems. In addition, the company grants awards to suppliers with outstanding environment and safety activities to recognize their efforts and encourage all workers to practice safety and health activities.

SOCIAL

Hanwha Aerospace strives for a robust shared growth with all stakeholders.
We will spare no effort for joint growth with our customers, employees, suppliers and local communities.

KEY PERFORMANCE

Customers

- Quality improvement proposals by employees **15,235 submitted**
- Received the Rolls-Royce **'Trusted to Deliver Award'**
- Customer satisfaction **90.2 points**

Employee

- Ratio of permanent employees **98.2%**
- Training expenses for executives and employees **Approx. KRW 902 million**
- Launched contactless organizational culture platform **<Gonggan, Gonggam> (meaning "Space, Empathy")**

Supply Chain

- Total no. of technical support to suppliers **16 cases**
- Total procurement from suppliers **KRW 800.8 billion**
- Total financial support to suppliers **KRW 25 billion**

Local Community

- Donated amount **KRW 810 million**
- Volunteer work hours of employees **7,150 hours**
- Beneficiaries of social contribution activities **247,201 persons**

Customer

Armed with a customer-centered mindset, Hanwha Aerospace always strives to provide customers with the best quality. The company announced the Quality Charter to achieve quality innovation, built a quality management system, and continues to review and improve on its processes to meet customers' expectations and requirements.

Quality Management

Quality Management System

Hanwha Aerospace ensures and maintains high quality throughout its products based on its strict quality policies. The company announced the Company-Wide Quality Charter to achieve and maintain top quality. Its executives and employees carry out their duties in accordance with the Five Codes of Conduct that aim at customer-centeredness, focusing on the basics, having a professional mindset, addressing root causes, and creating new customers. The company also establishes annual quality strategies and goals, and seeks new ways to achieve perfect quality. The company plans to meet customer requirements through a customer-centered quality management system and improve its quality system for their satisfaction.

Quality Charter

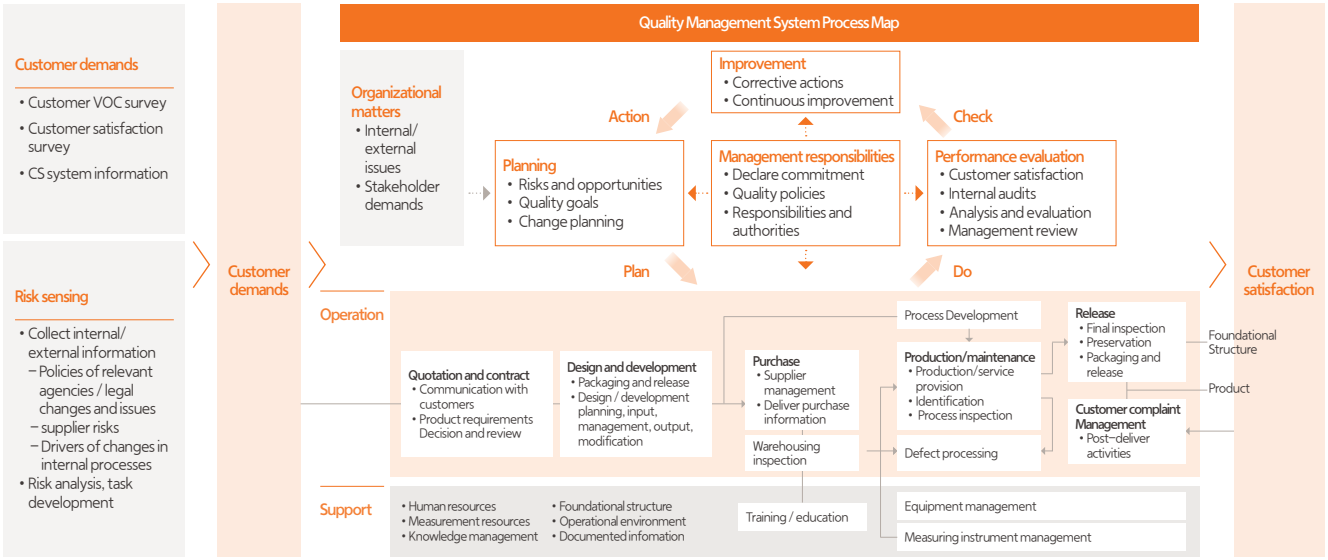
Quality Vision

Our Quality Goal is to Exceed your Expectations.
We aim for the sky when it comes to quality to impress our customers.

Codes of Conduct

Customer-centeredness	Focus on the basics	Professional mindset	Address root causes	Create new customers
Address the market's quality requirements from customers' perspective, and apply them to actual tasks to find solutions	Strictly comply with rules and processes and maintain the company's pride in its quality	Maintain a strict sense of responsibility and know that each employee must take the initiative for quality	Find solutions for all problems in the field, and address the root cause of problems	Meet customers' requirements in a rapid and precise manner, to retain lifelong customers based on quality

Customer-centered quality management system



KEY PERFORMANCE

Quality improvement proposals by employees
15,235 submitted

Received the Rolls-Royce
'Trusted to Deliver Award'

Customer satisfaction
90.2 points

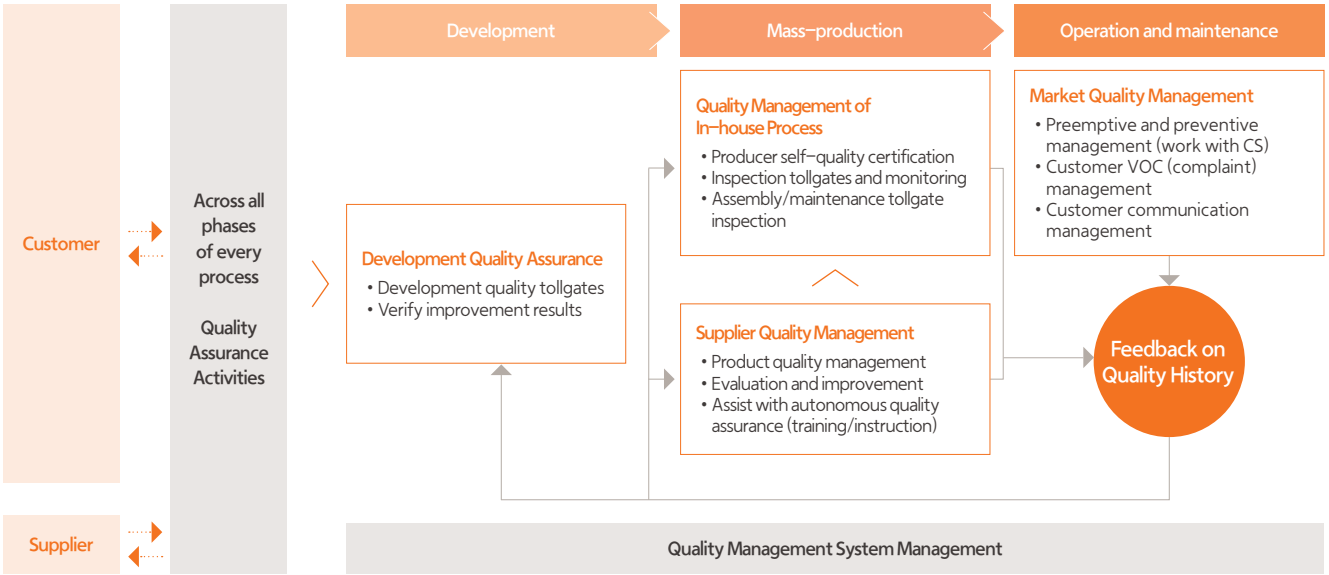
Quality Management

Hanwha Aerospace has built and operates a systemic quality management system capable of achieving the best quality without product defects. The company uses statistical process control systems to analyze the process capability ("CPK") of key parts and carry out visual management. The company also focuses on identifying and removing potential defects caused by human errors in advance. To this end, it identifies potential defects by encouraging executives and employees to submit voluntary proposals for improvement and grant rewards for outstanding "mistake-proof" cases. In addition, in-house reviewers with expert knowledge in quality improvement conduct quality reviews on a regular basis, and the company continues to train quality experts to improve executives / employees' quality assurance capabilities.

Product Safety

An aircraft engine's small error or defect may lead to a serious accident. Accordingly, Hanwha Aerospace strives for impeccable inspection and quality assurance between production processes under the goal of "Zero Defect." Inspections of tollgates, single products, and finished products are conducted between processes to monitor product stability. As for new products and mass production of new products, a quality assurance tollgate is set up for each phase to assure the quality of mass-produced goods through evaluation and improvement. As for manufacturing processes such as processing and assembly, the company only approves producers who pass the evaluation for self-quality assurance capability. These activities prevent critical defects and errors related to product safety during the manufacturing process.

Quality management and improvement processes



Performance of Mistake-Proof Operations

Monthly Average Proposals per Manufacturing Worker (unit: No. of tasks)

Proposal to Improve Employees' Capacity in Quality Management

No. of Proposals (unit: No. per person)

Quality Expert Training Status

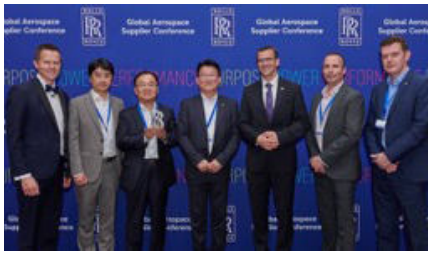
Category	No. of persons
Quality Management Engineers	2
Metal Material Engineers	2
QMS (Quality Management System) Reviewers	3
Non-destructive Level III	2
CQEs (Certified Quality Engineers)	7
CREs (Certified Reliability Engineers)	3
LCS (Laboratory Control at Source)	2

Certifications and Awards

Each year, Hanwha Aerospace obtains and renews quality certifications for each plant and business site through reviews conducted by external certification labs to assess the operation of its quality management and control system. Starting with the aerospace quality management system standard—AS 9100 (currently KS Q 9100) certification—the company obtained A 9110 and the NADCAP* certification (special processes), thereby building strict quality management processes. In addition, the company obtained an ISO 17025 certification for its in-house labs and calibration labs, improving the reliability of its test analysis and measurement quality. In January 2021, Hanwha Aerospace received grade 1 in the Product Part Approval Process (PPAP) by Rolls-Royce, one of the top three global aircraft engine manufacturers. It jumped up as the world's first Rolls-Royce supplier with authorization for self-assessment and approval of products for mass-production. This means that Hanwha Aerospace has been granted the authority to assess and approve its own parts and determine whether the parts satisfy quality levels before moving on to mass production.

In May 2022, Hanwha Aerospace received the prestigious "Trusted to Deliver Excellence Award" from Rolls-Royce. The award is provided to the top suppliers among the 180 raw material, parts, and machine processing suppliers of Rolls-Royce. These certifications and awards evidence Hanwha Aerospace's commitment to timely delivery and impeccable quality.

* Hanwha Aerospace Changwon Plant (HQ), and Vietnam Plant



2022 Global Aerospace Industry Supplier Conference

PPAP Grade 1

Support for Suppliers' Quality Management Efforts

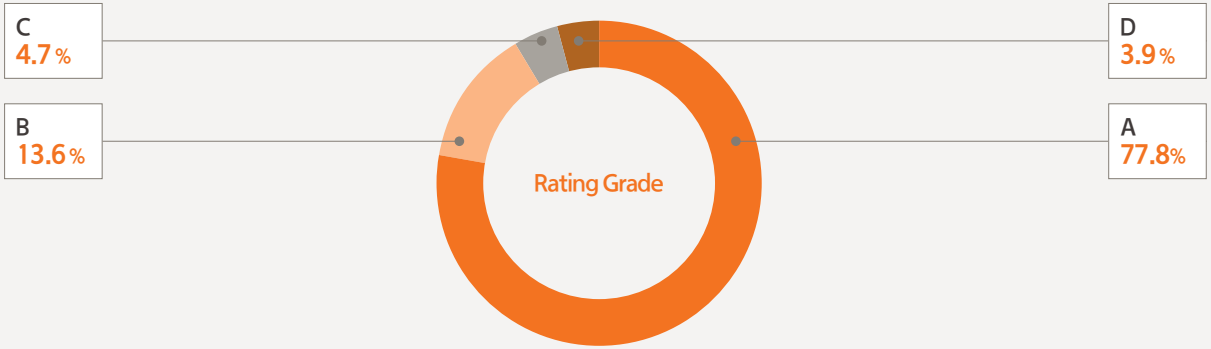
Hanwha Aerospace helps suppliers satisfy the company's quality expectations by improving their overall product quality through raising their awareness on quality management, strengthening their capabilities in quality assurance, and supporting them on the technological and quality management front. The company also operates the Delegated Supplier Quality Representative (DSQR2) program for suppliers' executives and employees to improve their quality assurance capabilities. In addition, under the Q-STEP1 program, the company issues red flags to low-performing suppliers to encourage quality improvement. Hanwha Aerospace will continue to strive for shared growth through technical, quality, and management support, and work with suppliers to provide higher quality to customers.

Suppliers Participating in DSQR2

Number of suppliers participated

(unit: no. of suppliers)

2021 Quality Evaluation Results



Customer Satisfaction

Focusing on the Voices of Customers (VOC)

In order to raise customer satisfaction and supply reliable products, Hanwha Aerospace analyzes external risks related to customer requirements and complaints and continues to improve internal processes. Upon receiving a complaint, the company lights up the VOC signal to notify all employees. In case of defects during the manufacturing process, the relevant worker issues a red flag to prevent recurrence and facilitate resolutions in early phases. In addition, Hanwha Aerospace uses the customer relationship management (CRM) system to share service and key performance indicator (KPI) status with the management and related departments. Afterward, it escalates the issues as agendas at company-wide meetings to improve quality while minimizing customer complaints. Recently, the company expanded its scope of VOC collection to include all opinions of interested parties and use the collected VOC in developing big data to secure competitiveness and identify new improvement tasks.

Customer Satisfaction

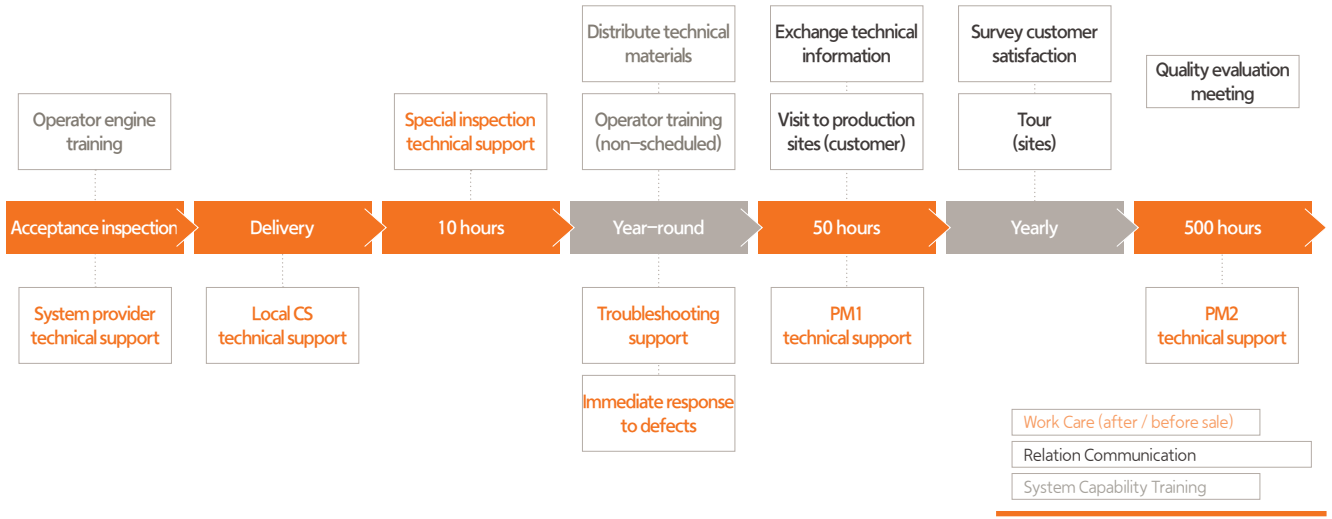
Hanwha Aerospace uses its own survey questionnaire and process to conduct customer surveys and analyze the results. The satisfaction survey consists of four stages: planning, visiting customers, result analysis, and feedback. Customer responses are collected through various before-service (BS) activities including base tours, exchange meetings, and quality evaluation meetings. The company prepares customer satisfaction reports for the management to monitor customer satisfaction levels and organizes briefing sessions with relevant departments to incorporated customer needs in business strategies and ideas for improvement in the field. Moreover, Hanwha Aerospace sets its yearly goals based on the customer satisfaction survey results and selects and implements improvement activities across different areas.

Customer Satisfaction survey results

Timely Service Rate* survey results

* Timely service rate: the percentage of services processed within the processing period (30 or 90 days); calculated based on cumulative results

On-time Customer Service System



Customer Support

Hanwha Aerospace carries out various customer support activities to collect and respond to customer requirements. First, CS personnel are dispatched to key military bases (Army, Air Force, and Navy) to help customers maintain equipment operation rate at 100% and operate an on-time service system for timely satisfaction of customer demands. Second, the company operates a CS situation room as well as a real-time control room connected with the CRM system for faster customer service, product improvement, and service promotion. Finally, other activities include technical support for acceptance inspection, training, mutual visits between customers and the company, exchange of technical information, quality evaluation meetings, and other support activities open to partners and customers. The company will continue to support customers' needs and practice customer-centered management.

Employee

Hanwha Aerospace offers various welfare programs to improve the satisfaction of employees toward the organization and their jobs and promote work–life balance. The company will continue to listen to the voices of its executives and employees and build management–labor relationships based on shared growth and harmony.

Recruitment

Fair Recruitment Process

For flexible responses to changes in the global industrial environment and the company's competitive edge, Hanwha Aerospace recruits talented workers aligned with the core values of the Hanwha Group: challenge, dedication, and integrity. The company provides equal opportunities to all applicants under a fair evaluation system to prevent discrimination based on gender, nationality, race, and other elements. It pays particular attention to employing people with disabilities and people of national merits for more diverse executives and employees. The company uses Hanwha Group's employment website "Hanwha–in" for timely recruitment of the required talents and utilizes presentation sessions, debates, situation–based interviews, and other techniques to select the best applicants for the recruiting areas.

Quick link to Hanwha–in

KEY PERFORMANCE

Ratio of permanent employees
98.2%

Training expenses for executives and employees
Approx. KRW 902 million

Launched contactless organizational culture platform
〈Gonggan, Gonggam〉 (meaning "Space, Empathy")

Talent Development

Talent Development System

Hanwha Aerospace is looking for workers aligned with the core values required of Hanwha employees and practices the principles derived from the values. To that end, the company set four directions for talent development - Value, Leadership, Job training, and Global - and operates a talent development system based on the four directions. In addition, the company utilizes various training programs to improve the professional competence of employees and train future global leaders.

Talent Development System

Enhance professional competence and train global leaders

1. Provide digital–based training at all times in the age of smart work
2. Actively operate optional excellence training focused on core personnel

	Value	Leadership	Job Training	Global
	# Internalize values # Aware of role in organizatio	# Tiered # Organizational management capabilities	# Site / job centered # High efficiency / performance	# Global competence building # Job–relatedness
Digital Training	• Introductory Program • Promotion Program	• Organization Leader Workshop • New Team Manager Program*	• On–site Job Program	• Contactless Language Program
Optional Training	• Internship Program for Onboarding of Newcomers*	• Team Manager Candidate Program • Promotion Candidate Program • Super Leader Program* • Organization Onboarding*	• DT Champion Program* • Revision to Training System	• Overseas Relocation Candidate Program • Language Program • Overseas Corporation Program*

* New programs launched in 2021

Talent Development Programs

Value | Hanwha Aerospace plans and operates various training programs for new executives and employees for them to internalize Hanwha values and gain awareness of their roles within the organization. In addition, the company offers training programs for existing executives and employees based on their rank and position, as well as special training for promotion candidates.

Leadership | Hanwha Aerospace operates systematic leadership training programs to enhance leaders' competence in leading the organization and its members and find new leaders to ensure the company's future. The Innovative Leader Program, the Organization Leader Workshop, and the On-Site Manager Program are designed to improve the competence of the company's current leaders. The training programs for new executives, team managers, and promotion candidates (manager or higher) are designed to train managers and executives to lead the future.

Job Training | Hanwha Aerospace organizes practical training programs through field departments and training departments to deliver on-site knowledge required to jump into given roles immediately. In addition, in order to improve the expertise of outstanding employees, the company offers various programs, including overseas training programs. In 2021, the company chose "fostering talents with expertise through excellence training" as the key goal for its training and education and continues to improve and refine its training and education systems into more precise and effective systems.

Global | As an aviation and defense firm, the majority of Hanwha Aerospace's customers are global businesses. It means that its employees need a high level of global work skills. As such, the company develops its own foreign-language textbooks tailored to the industry, provides learning support, and operates overseas relocation candidate programs, advanced level-based language programs, and other training programs. In addition, it exerts substantial efforts to improve the global competence of its executives and employees by encouraging them to obtain grade 1 in the English speaking test (OPIc AL) and granting additional points in promotion reviews based on the candidates' language levels.

Performance Evaluation and Rewards

Transparent Performance Management

Hanwha Aerospace strives to consolidate a culture of fair evaluation and rewards and build a training program management system so that executives and employees can continue to produce high-quality outputs. Task objectives are defined in a cascading order in connection with the company's business goals at the department and individual level and interim interviews are conducted to manage progress.

How Task Objectives are Established

Reasonable Remuneration

The wage structure of Hanwha Aerospace consists of the base wage and holiday bonuses, along with compensation programs based on individual and organizational outcomes, including the merit pay and the incentive pay. These reward systems are designed to ensure that departments and individuals with outstanding achievements receive fair and reasonable rewards while motivating executives and employees to work harder.

Compensation Programs

Merit Pay	A type of compensation system based on individual merits. Each individual is evaluated for his / her performance (performance rating) and the result is applied to next year's wages.
Productivity Incentive	An incentive system that grants a part of surplus values generated by a company's business management and efficient operation of its human resources, equipment, and technologies to its employees, as compensation for improving their work efficiency.
Profit Sharing	A system that distributes dividends to executives and employees to reward each plant's or business site's good performance.

Happiness for Employees

Culture of Work-Life Balance

Certified as a Family-Friendly Company | After being named a family-friendly business in 2013, Hanwha Aerospace has been maintaining the certification to support work life balance of its executives and employees. The Family-Friendly Business Certification is issued by the Ministry of Gender Equality and Family under the Act on the Promotion of Creation of a Family-Friendly Social Environment to businesses with the best family-friendly practices, including support for childbirth and childcare, flexible work arrangements, and the development of family-friendly workplace culture. Hanwha Aerospace will continue to foster a family-friendly social environment and actively support executives and employees for them to maintain balance and harmony between their family life and work life.

Certified as a Mother-Friendly Company | In 2020, Hanwha Aerospace obtained the Mother-Friendly Workplace Certification from the Korean Committee for UNICEF, which the company still maintains today. The certification authorizes the company's efforts to provide maternal protection and nursery spaces within the workplaces, protect the survival and development of children's rights under Article 6 of the Convention on the Rights of the Child (CRC) and contribute to reducing medical expenses by encouraging breastfeeding.

Support for Reemployment of Retirees | Hanwha Aerospace provides reemployment support to executives and employees near the age of retirement to address changes in the aging society and provide opportunities to design the latter half of their lives. The supports focus on career and life design and include counseling and other tailored services. The company engages service providers to ensure efficient follow-up management.

Welfare Programs

Hanwha Aerospace has various welfare programs designed to help executives and employees address common issues such as health, child education, housing, and post-retirement life, thereby improving their quality of life. The company also grants sabbatical months to promoted employees and long-term employees to refresh and rejuvenate for improved work efficiency.

Welfare Programs

Housing Support	• Offer company housing to provide executives and employees with residential environments suitable for their life cycles
Child Education Support	• Offer scholarship and training programs and systems to help employees pay for children's tuitions and provide high-quality educational opportunities.
Leisure Activity Support	• Provide various cultural programs • Provide financial and facility support for sprots / leisure activities and resorts
Birthday Events	• In order to promote organizational immersion and employee relationship, present employees with bakery or cake coupons on their birthdays
Medical Support	• Offer physical checkup on a regular basis • Offer medical and financial support to employees with health issues
Post-Retirement Support	• Provide various pension plans for stable post-retirement life

Employee Communication

Enhanced Communication

Change Agent (CA) Activities | Change Agent (CA) activities have employees gather in small groups to share their honest thoughts and feelings. The activities enable employees to share conversations comfortably and honestly on grievances and suggestions, and can be used as a delivery channel to the management.

25 Empathy Camp | 25 Empathy Camp is an in-house program that bridges communication among employees. The company supports each department in planning and implementing a two-day program (on weekdays). It serves as a forum of harmony and communication where employees can build a foundation for cooperation and collaboration away from their workplace.

Contactless Organizational Culture Project <Gonggan, Gonggam> | Hanwha Aerospace launched the Gonggan, Gonggam (meaning "Space, Empathy") Project, a contactless organizational culture project to overcome COVID-19 blues and to cheer up employees affected by the prolonged social distancing policies during the COVID-19 pandemic. The project actively used social media platforms for various events and communication activities for executives and employees and their families. The three seasons of the project ("Overcome COVID-19 Blues," "Happy Family Life (Work Life Balance)" and "Healthy Work Life") were positively received by executives and employees. The Gonggan, Gonggam Project was originally planned as a one-time event, but it grew to be an organizational culture portal where the CEO shares business strategies and future visions and employees communicate with each other.

Labor-Management Communication

Hanwha Aerospace protects workers' basic rights under three labor laws secured under the constitution, namely: the right to organize, the right of collective bargaining and the right to collective action. Not only does the company hold quarterly meetings with the labor union but also implements various labor-management programs to foster corporate culture based on shared growth and harmony. In addition, the company operates various communications channels including CA activities and the Smart Complaint Centers to listen to the voices of its executives and employees and apply their opinions to business administration and operations. It also organizes quarterly business briefing sessions to help executives and employees understand the overall business management of the company and engage them to participate in corporate growth and development.

Agreements Made in the Labor-Management Committee in 2021

Quarter	No. of Agreements
Q1	34
Q2	10
Q3	14
Q4	68
Total	126

Supply Chain

Hanwha Aerospace pursues shared growth trade practices and fulfills its social responsibilities as a member of the global business ecosystem. It offers various shared growth programs to foster a "business ecosystem to go far—together."

Supply Chain Management

Procurement System

The company has launched a renewed version of the procurement system tailored to the aviation business called Hanwha Aerospace Supplier Hub (HASRM), which means the company can now purchase supplies and maintain inventories more efficiently. Applicants can request to be registered as a supplier using the HASRM while the suitability assessment progress starts simultaneously, reducing the time required for supplier registration. To prevent supplier operation risks, the system prohibits arbitrary revisions made to the contract information without the supplier's consent.

Selection and Organization of Suppliers

Hanwha Aerospace uses its electronic purchase system (Supplier Hub) to practice its four fair trade guidelines to build fair trade practices with new suppliers. Companies registered as potential suppliers are officially registered as suppliers after careful reviews and on-site due diligence by the evaluation group. As of 2021, Hanwha Aerospace trades with 774 suppliers across its Changwon and Asan Plants.

Evaluation of Suppliers

Hanwha Aerospace evaluates its suppliers on a yearly basis, focusing on their quality, cost, and delivery. Outperforming suppliers are granted incentives, including free materials, exemption from loss/disposal costs, and increased trade quantities to build suppliers' capabilities and competitiveness.

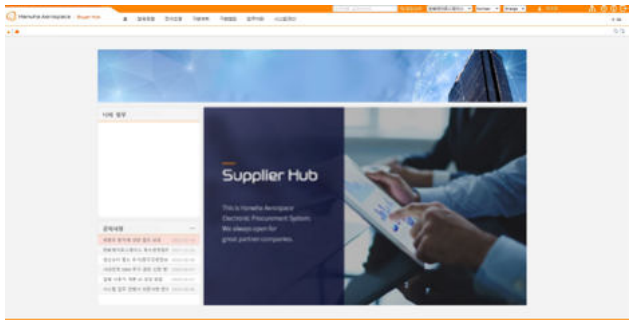
Four Guidelines

1. Guidelines on Signing Contracts
2. Guidelines on Supplier Selection and Management
3. Guidelines on the Establishment and Operation of the Subcontracting Deliberation Committee
4. Guidelines on Proper Procedures for Issuance and Preservation of Documents

Status of Suppliers

Changwon	464 suppliers
Asan	310 suppliers

Total 774 suppliers



HASRM (procurement system)

KEY PERFORMANCE

Total no. of technical support to suppliers
16 cases

Total procurement from suppliers
KRW 800.8 billion

Total financial support to suppliers
KRW 25 billion

Shared Growth Support

Shared Growth Implementation Strategies

Hanwha Aerospace practices the philosophy "to go far together" through its roadmap: Build the foundation for shared growth → Improve suppliers' competitiveness → Advance continuous growth. The company maintains transparent collaborations with suppliers to meet global standards and regulations and carries out various support and exchange activities for shared growth. In particular, the company offers various shared growth programs for revenue growth, quality improvement, management support, and cost competitiveness. Hanwha Aerospace plans to continuously support not only primary suppliers but also secondary and tertiary suppliers for enhanced competitiveness and sustainable management.

Strategies to Promote Shared Growth

Enhanced competitiveness	Sustainable management	Cooperation network	Shared growth culture
Strengthen competitiveness	Sustainability Management	Communication	Win–Win Culture
Share know–how for technical, quality, and productivity improvements to enhance suppliers' self–sustainability and cost competitiveness in the global market	Advance sustainable growth through management support to minimize suppliers' management risks	Encourage sincere communication and sharing of visions and strategies for stronger partnership	Build transparent and fair–trade relationships through compliance and fair–trade agreements

Strengthen suppliers' development capabilities and their foundation for sustainable management for Hanwha Aerospace to grow into an aerospace mobility technology leader

Shared Growth Programs

Improving Suppliers' Competitiveness | Hanwha Aerospace provides tailored technical support and training to improve suppliers' competitiveness. Aircraft engine parts, actuators, fuel system parts, and other products provided by suppliers require a high level of professionalism in production technologies that are not easily accessible in the market, making it difficult for suppliers to independently acquire the required technologies. To overcome these circumstances, Hanwha Aerospace offers tailored technical support through a technical support organization. The company also organizes technology exchange meetings bi–annually to share the latest trends in the global aviation industry and technology, and to improve productivity and innovation activities through shared growth and cooperation fund for domestic technology development. Moreover, it implements public–private partnerships for R&D and technical support for companies to develop items that domestic institutions intend to purchase to reduce development expenses of new products for enhanced cost competitiveness in the nation. When necessary, the company operates programs to benchmark leading global companies to track technological trends in the global market.

Technical support	Operate an organization dedicated to technical exchange and support
Improve productivity	Industry innovation activities to support process improvement
Develop indigenous technologies	Public–private partnerships for R&D and technical support to develop items with high purchasing demand by domestic institutions

2021 Performance

Productivity improvements for key parts from suppliers	16 cases (10%)
Providing technical support for suppliers to reduce unit prices	KRW 166,594,000 reduced in total

Support for Sustainable Management

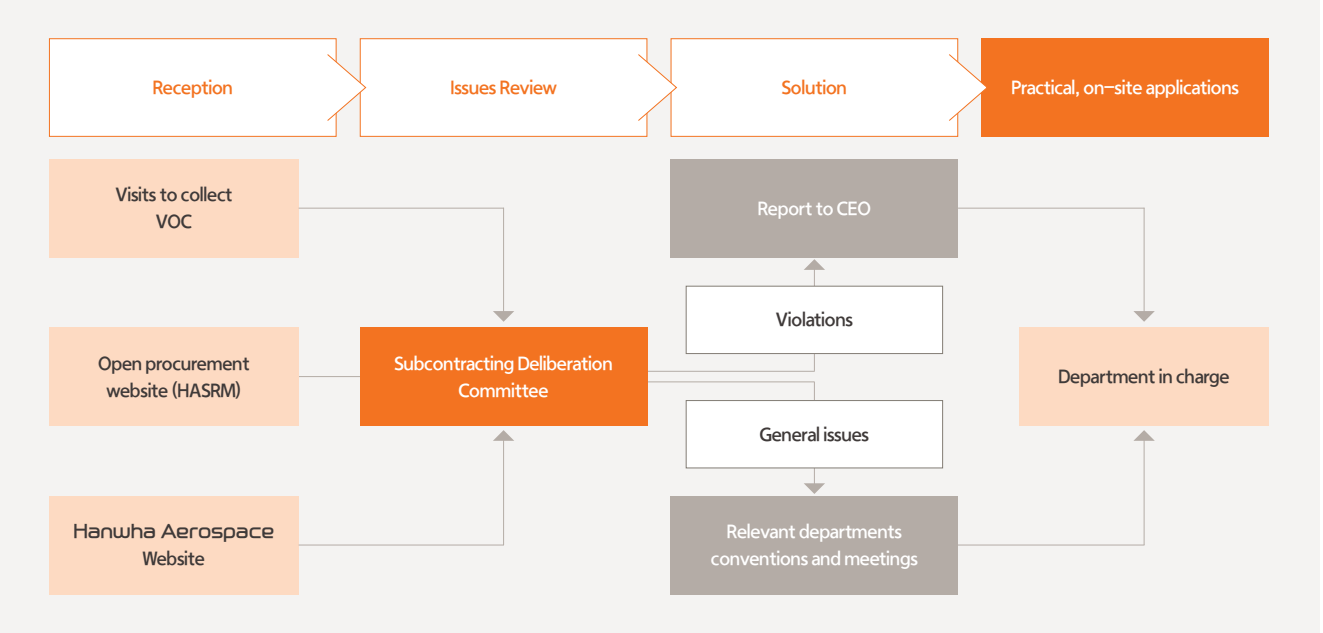
Hanwha Aerospace offers financial support and technical protection programs to lower management risks for suppliers while pursuing sustainable management and expanding the program to secondary and beyond suppliers. The company pays for suppliers' products in cash three times per month to improve suppliers' cash flow and manages KRW 25 billion for win-win collaboration funds to support suppliers having difficulties in investing or financing their businesses. In addition, the company provides other support programs including the rental of special equipment and tools required for mass production, operation of cooperative safety environment programs to prevent serious accidents, and interest cost reduction through early payment during holiday seasons. Particularly, in 2021, the company supported suppliers suffering from serious financial distress during the COVID-19 pandemic under a win-win guarantee program with the Korea Technology Finance Corporation.

2021 Performance

Shared Growth Fund	KRW 25 billion
Free lease of special equipment and tools	159 cases (KRW 520 million)
Technology escrow support	6 cases (KRW 2 million)
Financial support for suppliers affected by COVID-19	KRW 1.5 billion
Free materials and cost exemption for loss / disposal	KRW 140 million

Cooperation Network | Hanwha Aerospace operates the Win-Win Collaboration Council as a consultative body for communicating and creating synergy effects with suppliers, as well as business briefing meetings. The company also communicates with suppliers through various channels to hear their voices and provide solutions. The Subcontracting Deliberation Committee reviews matters requiring reviews under the Fair Transactions in Subcontracting Act and operates a system to address suppliers' VOCs in real-time.

Supplier VOC Process



Consolidate Fair Trade Culture

Agreements on Fair Trade and Shared Growth | Hanwha Aerospace signs shared growth agreements with suppliers to settle fair-trade culture and support shared growth. The agreement specifies the standards for fair supplier selection and management under the four guidelines of the Fair-Trade Commission. These standards contain detailed actions to comply with the Fairness in Subcontracting Act and properly incorporate their own profits while conducting reasonable deals. The company also keeps its commitment by fulfilling obligations by faithfully implementing shared growth cooperation programs aimed at joint growth between the company and suppliers.

Subcontracting Deliberation Committee | Hanwha Aerospace has established the Subcontracting Deliberation Committee to review its own practices for potential violations. The reviewed items include: appropriateness of new contracts; registration and deregistration of suppliers; unfair terms or unfair transfer of responsibilities; processing of price adjustment requests from subcontractors; and legality of request process for technical data. The company also established guidelines to ensure compliance with the instructions in case of receiving technical materials with little effort on the part of suppliers despite when the percentage of Hanwha Aerospace's technical data in the materials is high. The company also operates a system for immediate issuance of technical material requests.

Guidelines for Transparent Business | Hanwha Aerospace worked with suppliers to enact business guidelines for a clean trade culture and requires its executives and employees and suppliers to comply with the guidelines. The guidelines are publicly available at the electronic procurement system (Supplier Hub, HASRM). The website includes a compliance forum, an ethical management report menu, and an anonymous reporting center that receives submissions 24/7 through SRM VOC to improve trade practices.

Business Guidelines

Hanwha Aerospace employees shall be prohibited to violate any following guideline when trading with current trade partners or institutions intending to trade with Hanwha Aerospace:

1. I shall not receive any bribe including money, cash equivalents, and gifts;
2. I shall not receive hospitality such as excessive meals, golf and liquor;
3. I shall not loan or borrow money for personal purposes;
4. I shall not inflict financial or physical harm or demand unfair requests;
5. I shall not provide financial preference regardless of regulations;
6. I shall not not obtain the shares of a non-listed account with business relations;
7. I shall not disclose the Company's tangible or intangible information assets or internal information;
8. I shall not lead or help the Company's employees to transfer to a competitor company; or
9. I shall not engage in any act that may undermine activities to maintain and succeed clean organizational culture or damage corporate values and company images.

Hanwha Aerospace E-Procurement System

Hanwha Aerospace Business Guidelines

Sustainable Procurement

Hanwha Aerospace creates world-glass products and services by securing global procurement competitiveness and complying with transparent procurement practices. The company will strictly comply with global standards, and practice responsible procurement across the global supply chain.

Conflict Minerals

Hanwha Aerospace does not use or purchase minerals from conflict areas or materials containing such minerals. The company has discontinued transactions with Iran and Russia, which are currently classified as conflict regions. Nor does the company use tin, tantalum, tungsten, and gold mined from ten conflict nations in Africa including the Democratic Republic of Congo and the Republic of Rwanda. The company plans to offer training and promotional activities for not only its plants and business sites but also suppliers to ensure strict compliance with its ban on conflict minerals.

Strategic Material Management

Hanwha Aerospace fulfills its social responsibilities for global security and world peace, complies with the relevant laws including the Foreign Trade Act, and carries out the Compliance Program of the Korean Security Agency of Trade and Industry (KOSTI).

Local Community

Hanwha Aerospace has been building trust with local communities based on the philosophy of "Trust and Loyalty." The company follows the principle to "Going Further Together" rather than "Quickly Alone" and fulfills its social responsibilities as a corporate citizen.

Social Contribution Strategy

Social Contribution Vision

Hanwha Aerospace practices sharing under its social contribution vision and strategy to join local communities in addressing their challenges and contribute to positive changes and growth. Through preserving a sustainable environment, helping young people's dreams come true, and contributing to addressing local issues, the company seeks to achieve its vision to "Go far together with the world," and continue its social contribution activities to meet stakeholder demands.

Social Contribution Organization

For more professional social contribution activities, Hanwha Aerospace has established the Social Volunteer Office under the head of the Social Volunteer Group, with dedicated personnel and social welfare workers at each site. The Office establishes annual plans pursuant to the company's social contribution strategies, and each site develops its monthly volunteer plans, which they carry out with their employees. Furthermore, the Social Volunteer Office offers various training, rewards, and donation programs to engage employees and raise awareness about sharing.

Social Contribution Vision

Vision	Going Further Together with the world		
Core Values	ECO-FRIENDLINESS	DREAM	TOGETHER
Strategy	Sustainable conservation of environment	Supporting young people to achieve their dreams	Contribution to local issues

Social Contribution Organization

KEY PERFORMANCE

Donated amount
KRW 810 million

Volunteer work hours of employees
7,150 hours

Beneficiaries of social contribution activities
247,201 persons

Social Contribution Activities

To practice its vision of "Go far together with the world," Hanwha Aerospace implements social contribution programs in three categories: "Development of Human Resources," "Encouragement," "Eco-friendliness," and "Volunteering." Each category includes a wide range of programs backed up by active participation and support from the management and employees. The company plans to work with employees for more robust social contribution activities.

Programs in Operation

Going Further Together with the world

Eco-friendly activities	Talent development activities	Supporting activities	Volunteer activities
– Eco Wetland Plogging	– Aerospace Mentoring* – Aero Academy – Hanwha Flame Messenger – Hanwha Safety Protector	– Happy Hanwha Day – Online Talent Donation – Supporting Casual Sports for People with Disabilities – Publishing Picture Books Written by Families of Children with Disabilities – Holiday Sharing Activities – Local Community Support – Matching Grants	– Handcarts of Love – DIY Furniture Volunteer Activities – Hands-on Volunteer Activities – Summer Kimchi-Making to Share Love – Any Volunteer Challenge of Love – Departmental Volunteer Teams

* Scheduled for 2H/2022

Process for Program Operation

1. Establish plans	2. Select volunteers	3. Perform activities	4. Share results
Receive support requests / proposals and establish criteria for activities, etc.	Promote ···› Participant registration ···› Encourage participation by volunteering teams (if short on volunteers)	Performing activities in multiple forms (e.g., sharing talent, faithful volunteering)	Build feedbacks using sharing win, and company bulletin boards

Feedback

Eco-Friendly Activities

Eco Wetland Plogging | In June 2022, Hanwha Aerospace organized the Eco Wetland Plogging for the environment. The activity was carried out in two "plogging" sessions, including explanations to foster understanding on wetlands and plogging activities for cleaner environments. Plogging is an environmental campaign originated from Sweden. Plogging is the combination of the Swedish expression "plocka upp," which means "to pick up", and the English word "jogging." The participants picked up trash while jogging and signed carbon neutrality practice pledges to express their commitment to preserving the environment and reducing carbon emissions. Hanwha Aerospace will continue to carry out various environmental activities in the future.

Talent Development Activities

Aero Academy | Hanwha Aerospace operates Aero Academy for adolescents to provide them with education and career opportunities in aeronautical and mechanical engineering. Participants create and fly their own remote controlled (RC) aircraft. They have fun during the process while naturally obtaining theoretical and practical knowledge about aeronautical mechanical engineering. 2021 Aero Academy was implemented under a systematic 16-session curriculum with 22 students, who explored their career options in the aeronautical mechanical industry and engineering. The Aero Academy will continuously contribute to training future talents in the future aeronautical mechanical industry.

Hanwha Flame Messenger | Despite the diversification of occupations and significant changes in students' career aspirations, they have limited access to vocational information in their areas of interest. Through the Hanwha Fire Messenger program, Hanwha Aerospace invites popular celebrities for students to listen to their lectures, talk with them, and enjoy their concerts. During this process, students get a chance think about their future and find the "flame" inside for their dreams. Launched three years ago, Hanwha Flame Messenger is sponsored by Asan Plant, in cooperation with the Chungnam Regional Office of ChildFund Korea and the Cheonan Office of Education. In 2021, the program invited a TV celebrity to Ssangyong High School in Cheonan for a special lecture on future careers. The 2022 program invited a famous wrapper to Cheonan Girls' High School.

Hanwha Safety Protector | Hanwha Aerospace Asan Plant signed a memorandum of understanding (MOU) for a project to raise safety awareness among children living in the northern part of Asan and the Asan Welfare Center and Namchang Elementary School and improve their ability to respond to disasters and accidents. Through the "Hanwha Safety Protector" Project, Hanwha Aerospace organized eight classes on themes such as school, transport, crimes, cardiopulmonary resuscitation, and firefighting for first and second graders at Namchang Elementary School, along with the repair and replacement of unsafe facilities in and outside of the school. The safety education is expected to yield positive outcomes including reduced accidents in the area.

Supporting Activites

Matching Grants | Each month, Hanwha Aerospace employees voluntarily donate a set portion of their salaries. The company matches the donations from the employees under the Matching Grants program. All donations are used in various projects and programs for the local communities and vulnerable groups. In addition, in order to encourage employees to participate in social contribution activities, the company operates a social contribution system on intranet and selects and rewards volunteers with outstanding performance each year to compensate for their contributions.

Online Talent Donation | Hanwha Aerospace implemented the Online Talent Donation program. The program shares via YouTube what employees have learned in craft courses such as soap making, natural cosmetics making, rattan craft, video editing, etc. Although the pandemic has hindered participation in face-to face programs, the company provided hobby kits to culturally disadvantaged groups and shared online hobby contents, continuing its social contribution efforts through remote technologies.

Daily Sports for Persons with Disabilities | In April 2022, the Asan Plant of Hanwha Aerospace signed an MOU with the Asan Welfare Center for Persons with Disabilities to run daily sports activities for persons with disabilities. The MOU will arrange a firm foundation for the company to engage in sponsoring and volunteer activities to help persons with disabilities enjoy sports and leisure activities. It will contribute to promoting their health and leisure activities by helping them find sports activities suitable for their respective disabilities and aptitudes.

Happy Hanwha Day | On Happy Hanwha Day, Hanwha Aerospace employees and their families donate hand-made items. In October 2021, in celebration of the 69th anniversary of the Hanwha Group, the company donated 109 sets of daily necessities to children, youths, and low-income families in the area. The number 109 signifies the group's anniversary, October 9. The donations were hand-made by approximately 100 employees and their families. Donated items include cloth bags, card purses, pencil cases, speakers, and other eco-friendly upcycled products. In May 2022, the company presented local elderly citizens with carnations and various gifts to celebrate Parents Day. Hanwha Aerospace employees will continue to practice sharing with the community.

Volunteer Activities

Handcarts of Love | Each month, Hanwha Aerospace makes and delivers Handcarts of Love to local elderly citizens who collect wastepaper. These lightweight handcarts are equipped with a brake and party hats for safety and convenience. The company invests around KRW 40 million each year to finance the handcart program. The program was widely known as a model case of talent donation, and other local communities benchmarked the company's lightweight handcart design. So far, the company signed MOUs with eight provinces / cities and 12 institutions to share technologies.

Summer Kimchi-Making to Share Love | Hanwha Aerospace has changed its previous kimchi sharing event to the Summer Kimchi-Making to Share Love event. All the ingredients are purchased from the company's sister village, Gwirae-myeon in Wonju-si, Gangwon-do Province, and every kimchi is hand-made by executives and employees to be delivered to neighbors in need. This donation also contributes to boosting the economy in agricultural districts. In 2022, the company delivered the kimchi through Seongnam Child Welfare Center Association and social welfare facilities to support people going through difficult times during the COVID-19 pandemic.

DIY Furniture Volunteer Team | Hanwha Aerospace's DIY Furniture Volunteer Team make and deliver hand-made furniture to low-income families, single-parent families, and other vulnerable groups and social welfare facilities. Each month, around 40 executives and employees make tables, bookshelves, drawers, wardrobes, and smaller furniture such as chairs at the company workshop. The crafts are then delivered to vulnerable families in need, and the volunteers install the furniture as needed. Woodworking classes are available for interested employees to improve the quality of the furniture. This steadfast program contributes to promoting welfare in local communities.

Hands-On Volunteer Activities | In consideration of the pandemic-induced difficulties with in-person visits by volunteers, Hands-On Volunteer Activities was launched as a volunteer program that uses hands-on kits. Executives and employees made gift baskets using the hands-on kits and donated them to around 250 families of people with disabilities within the province through the Gyeongsangnam-do Welfare Center for Persons with Disabilities in November 2021. The gift basket included coloring tumblers, upcycled card cases, and moth frames, which were all the more meaningful as they were hand-made by our employees.

GOVERNANCE

Hanwha Aerospace pursues transparent corporate culture through sound governance, employees' legal compliance, and ethical management throughout workplaces. It will continue to put utmost effort into minimizing risks through fair management activities and level up as a sustainable corporation.

KEY PERFORMANCE

Governance

- **Enacted the Charter of Corporate Governance** (Feb. 25, 2022)
- **Nominated two female directors** (Mar. 29, 2021)
- Attendance of the Board of Directors (BOD) **97%**

Ethical Management

- **Appreciation plaque** by Transparent Public-Private Council for National Defense under the Ministry of National Defense
- Ethical management training course completed by **ALL employees**

Compliance Management

- Acquired both **ISO 37301 (compliance management) and ISO 37001 (anti-corruption management)** (Nov. 2021)
- **One of the global top 5** companies for Anti-Corruption and Corporate Transparency, according to the Defense Companies Index (DCI)
- **Awarded** by the Anti-Corruption & Civil Rights Commission

Risk Management

- **Enactment of risk management regulations** (May 30, 2022)
- Reorganization of the **Risk Management Council (RMC)**

Information Security

- Cases of cyber security accidents **0**
- Cases of leakage of clients' personal information **0**
- Cases of usage of client information for secondary purposes **0**

Governance

Hanwha Aerospace pursues sustainable growth through sound governance based on fairness, transparency, and independence. To this end, it conducts consistent inspections to improve governance management and strives to facilitate open-minded communication with all stakeholders.

Governance Policies

Through transparent governance, Hanwha Aerospace discloses the entirety of its Articles of Incorporation on the company website. Based on the Articles of Incorporation, the company ethically executes its decision-making process and operations. Furthermore, Hanwha Aerospace transparently discloses its operation status through annual corporate governance reports. It publishes whether operations have followed the Corporate Governance Codes on the website to enhance stakeholders' understanding of the matter

The Articles of Incorporation of Hanwha Aerospace

Status of Compliance with the Corporate Governance Codes

KEY PERFORMANCE

Enacted the Charter of Corporate Governance
(Feb. 25, 2022)

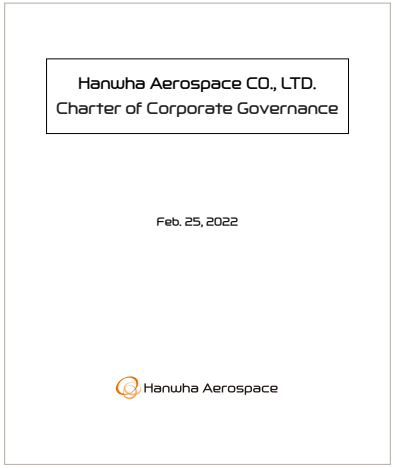
Nominated two female directors
(Mar. 29, 2021)

Attendance of the Board of Directors (BOD)
97%

Enactment of the Charter of Corporate Governance

To reinforce the system for fair corporate activities, Hanwha Aerospace enacted and announced its Corporate Governance Charter on Feb. 25, 2022. It has established sound governance based on fairness, transparency, and independence for sustainable growth and enacted the Corporate Governance Charter to secure the rights and benefits of various stakeholders. Hanwha Aerospace also stipulated regulations and responsibilities regarding governance to arrange a firm foothold for a more sound and efficient decision-making.

Charter of Corporate Governance



Chapter 1. Shareholders
Chapter 2. The Board of Directors
Chapter 3. Audit Organization
Chapter 4. Stakeholders
Chapter 5. Disclosure

Charter of Corporate Governance

Organization of the BOD

Procedures for the Nomination of Directors

All directors of Hanwha Aerospace are recommended through legitimate and transparent procedures, and the final nomination is made through the general shareholders' meeting. Internal directors are nominated upon the BOD's ruling, where candidates are selected based on their comprehensive capacities and fitness for the company's management environment. The nominated internal director is then introduced at the general shareholders' meeting. Independent directors are recommended through the Independent Director Recommendation Committee based on their fitness to the company's management environment. The Notice of the Convention of the Shareholders' Meeting is provided to deliver sufficient information on the candidate to promote shareholders' meticulous decision. Moreover, regular reports are provided to disclose the history of activities performed by existing directors so that shareholders may consider the candidate's fitness to the company's management environment. As it did in 2021, information was provided in 2022 on, including but not limited to, the detailed career background of director candidates to be nominated or renominated, their relationships with the largest shareholder, institutions that recommended the candidates and their basis of recommendation, and the transaction history with the corresponding institution at least 31 days before the general shareholders' meeting.

Organization of the Board of Directors (BOD)

According to Article 23 of Hanwha Aerospace's Articles of Incorporation, the BOD shall consist of three to seven directors. As of May 2022, Hanwha Aerospace's BOD comprises two inside directors, one non-executive director, and four outside directors - a total of seven directors. The BOD forms a balance between outside directors with expertise in various fields and inside directors that have a profound understanding of the company. Based on this balance, responsible management is fulfilled. The company will continue to reinforce the BOD's supervisory function and develop it as a decision-making organization that promotes corporate growth.

Organization of the BOD

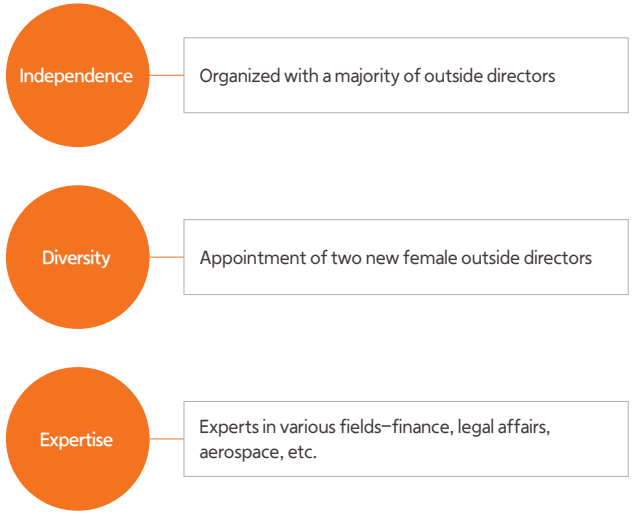
(As of May 2022)

Classification	Name	Gender	Position	Appointment Date	Scheduled End of Tenure	Expertise	Major Careers
CEO	Shin Hyun-Woo	Male	Chairperson of BOD / Chairperson of Executive Committee	Mar. 28, 2022 (Initially appointed on: Jun. 29, 2015)	28.Mar.24	Overall business administration	BA, Seoul National University Former) Vice President of Hanwha Corporation/Defense Current) CEO of Hanwha Aerospace Current) Non-Executive Director of Satrec Initiative
Inside Director	Kim Dong-Kwan	Male	-	Mar. 29, 2021	29.Mar.23	General corporate management	BA, Harvard University Former) CCO of Hanwha QCELLS &Advanced Materials Current) CEO of Hanwha Solutions Current) Head of Strategy Division of Hanwha Corporation Current) Non-Executive Director of Satrec Initiative
Non-Executive Director	Kim Seung-Mo	Male	Member of Executive Committee / Member of Remuneration Committee	Mar. 29, 2021 (Initially appointed on: Mar. 22, 2019	29.Mar.23	General corporate management	BA, Sungkyunkwan University Former) CEO of Hanwha QCELLS Current) CEO of Hanwha Corporation Current) Non-Executive Director of Satrec Initiative
Outside Director	Kim Sang Hee	Male	Chairperson of Internal Trade Committee / Chairperson of Remuneration Committee / Member of Outside Director Candidate Recommendation Committee / Member of Audit Committee / Member of ESG Committee	Mar. 28, 2022 (Initially appointed on: Mar. 23, 2018)	28.Mar.24	Legal affairs	MA, Seoul National University Former) Vice Minister of Justice Former) Chief Prosecutor of the Daejeon High Prosecutors' Office Current) Attorney at Kim Sanghee Law Firm
Outside Director	Choi Kang-Soo	Male	Chairperson of the Audit Committee / Chairperson of Outside Director Candidate Recommendation Committee / Member of Internal Trade Committee / Member of Remuneration Committee / Member of ESG Committee	Mar. 28, 2022 (Initially appointed on: Mar. 23, 2018)	28.Mar.24	Finance	BA, Hannam University Former) Non-Executive Director of the Korea Credit Bureau Former) Executive Director of Korea Ratings Corporation
Outside Director	Lee Sun Hee	Female	Chairperson of the ESG Committee / Member of Audit Committee / Member of Internal Trade Committee	Mar. 29, 2021	29.Mar.23	Legal affairs	Ph. D, Seoul National University Former) Judge of Seoul High Court Current) Professor of Sungkyunkwan University Law School
Outside Director	Kim Hyoun Jin	Female	Member of Outside Director Candidate Recommendation Committee / Member of ESG Committee	Mar. 29, 2021	29.Mar.23	Aerospace	Ph. D, UC Berkeley Current) Professor of the Aerospace Engineering Department of Seoul National University Current) Outside Director of Hyundai Transys Current) Director of the Institute of Control, Robotics, and Systems Current) Non-executive director of the National IT Industry Promotion Agency

Features of the Board of Directors (BOD)

Hanwha Aerospace considers independence, diversity, and expertise as significant values that the BOD must possess and use in its operations. Certified independent directors with no point of interest with the company comprise 57% of the BOD for enhanced independence. To ensure efficient and expertise-based decision-making, independent directors with professionalism in various fields, such as finance, judicial affairs, and aerospace, have been appointed. Furthermore, diversity was considered a significant factor for efficient decision-making that reflects various views to prevent representation of persons with specific backgrounds or interest relationships. Therefore, as of Mar. 2021, two female outside directors were appointed to promote gender diversity.

Features of Hanwha Aerospace's BOD



Committees under the BOD

Hanwha Aerospace established and operates six committees under the BOD for enhanced expertise and efficiency in BOD operations. The establishment of the Audit Committee and Outside Director Candidate Recommendation Committee have been enforced under laws and regulations, and the Internal Trade Committee, Remuneration Committee, Executive Committee, and ESG Committee have been founded upon the BOD's determination for enhanced professionalism and efficiency. Each Committee has stipulated its purpose of establishment, rights and responsibilities, and organization, qualification, and nomination procedures under corporate regulations so that each organization consists of qualified and appropriate personnel with profession in its field for reinforced expertise and efficiency in decision-making.

See Committee Regulations

Operation Status of Committees under the BOD

Committees	Audit Committee	Internal Trade Committee	Remuneration Committee	Outside Director Candidate Recommendation Committee	Executive Committee	ESG Committee
Organization	Three outside directors	Three outside directors	Two outside directors, one non-executive director	Three outside directors	One inside director, One non-executive director	Four outside directors
Functions	Auditing overall company operations, including the financial status	Prior deliberation of affiliates' internal trades for enhanced transparency through the establishment of the fair-trade compliance system	Prior deliberation of the remuneration ceiling for registered directors for enhanced objectivityand transparency	Recommending outsidedirector candidates with certified independence, diverse background andexpertise	Inspecting, deliberating, and determining common pending issues, matters consigned from the BOD, and management environ-ment for quick and smooth management decision-making	Enhancing ESG (environmental, social, and governance) management to realize long-term, sustainable growth
No. held (2021)	8	6	1	2	10	3
No. of Agendas (2021)	7 resolved 15 reported	9 resolved 1 reported	1 resolved	2 resolved	17 resolved	1 resolved 3 reported

BOD Operations

BOD Activities

Hanwha Aerospace's holds two types of BOD meetings: regular and spontaneous. The regular BOD meeting is held on a fixed interval on the fourth Wednesday of every odd-numbered month, whereas the spontaneous BOD meeting is held on an ad hoc basis. Ten rounds of BOD were held in 2021, and 42 agendas were discussed and reported in the meetings. According to Article 29 of the Articles of Incorporation and Article 10 of the Regulations of the BOD, matters in the BOD shall be resolved when the majority of directors attend and the approval of the majority of attended directors is gained. As of 2020, 2021 saw a high attendance rate of 97% of BOD meetings. Profound discussions were made while accomplishing a high degree of participation.

BOD Activities

No. of BODs held	Resolved and reported agendas	Attendance rate
10	42 (35 resolved and 7 reported)	97%

Assessment and Remuneration

The remuneration for directors is transparently paid within the approved amount at the general shareholders' meeting. Remuneration for inside directors is calculated comprehensively based on the payment standard and assessment methods under the internal human resources (HR) system. Although there are no stipulated assessment procedures on the remuneration for outside directors, the history of activities performed by the outside director are taken into consideration when determining his/her renomination when his/her term ends. Performance assessment items include BOD attendance, utilization of field expertise by providing highly effective and appropriate consulting for management decisions, degree of contribution in internal control and monitoring operations on critical corporate financial risks.

Remuneration is provided equally to all outside directors within the remuneration ceiling amount for directors. The 2021 annual remuneration ceiling amount for all directors, including outside directors, is KRW 9 billion, which reflects a breakdown of activity performance fees, degree of contribution, and other expenses. Qualitative and quantitative assessment standards will be established to ensure fairness.

Remuneration for Directors

(As of Dec. 31, 2021)

Category	Total remuneration amount (KRW 1 million)	No. of director(s)	Average per capita remuneration (KRW 1 million)
Registered Directors (excluding outside directors and the Audit Committee	943	3	314
Outside Directors (excluding the Audit Committee)	66	1	66
Members of Audit Committee	255	3	85
Total	1,264	7	181

Training and Support for Outside Directors

Hanwha Aerospace operates various support programs for all outside directors to fulfill their roles faithfully. Whenever a new outside director is appointed, it provides company overview data to enhance his/her understanding of Hanwha Aerospace, along with opportunities to visit and inspect its main workplaces in Korea and abroad. For incumbent outside directors, it regularly provides information on recent pending issues on management and preceding explanations on agendas before the BOD is held. Moreover, the company provides accounting-related training to the Audit Committee in compliance with Article 12 of its Internal Accounting Management Regulations to enhance its expertise. Whenever additional consultation is required to execute auditing tasks, it supports expert consulting by connecting experts according to the Audit Committee's request. Apart from the above, the company arranges conferences exclusively held among outside directors separately from the BOD to promote outside directors' independence in task performance. Following 2020, the outside directors-exclusive conference was held once in 2021 as well. Hanwha Aerospace will continue to hold such conferences and expand opportunities to deliver business information.

Training for Outside Directors

Date	Trainees	Participants	Contents	Leader
23.Mar.21	New Outside Directors	Lee Sun Hee, Kim Hyoun Jin	Core corporate and management issues	IR Team Leader
22.Jul.21	Audit Committee	Choi Kang-Soo, Lee Sun Hee	Case Study of Audit Committee Activities	KPMG Samjong Accounting Corp.
10.Aug.21	Audit Committee	Choi Kang-Soo, Lee Sun Hee	Internal Accounting Management System	KPMG Samjong Accounting Corp.
28.Dec.21	Audit Committee	Kim Sang Hee, Choi Kang-Soo, Lee Sun Hee	Internal Accounting Management System	KPMG Samjong Accounting Corp.

Shareholder-Friendly Management

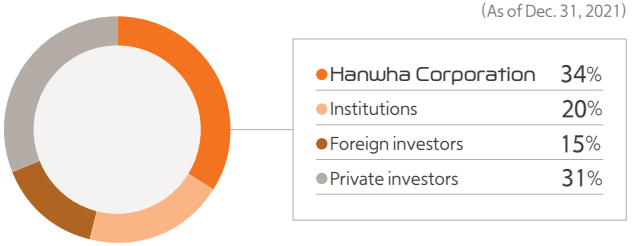
Status of Shareholders

According to Hanwha Aerospace's Articles of Incorporation, 200,000,000 shares may be issued, and the par value of each share is KRW 5,000. All issued shares are ordinary shares, and every shareholder has equal voting rights according to the number of shares.

As of Dec. 31, 2021, Hanwha Aerospace's total number of issued shares is 50,630,000, and Hanwha Corporation, the largest shareholder, possesses 33.95% of all shares.

Shareholder Status

(As of Dec. 31, 2021)



Types of Shares and Voting Rights

(As of Dec. 31, 2021)

Category	No. of shares
Issued shares	50,630,000
Non-voting shares (treasury stocks)	60,588
Voting shares	50,569,412

Enhancing Shareholder Value

Protection of Shareholders' Rights | To regulate and ensure shareholders' rights, Hanwha Aerospace stipulated shareholders' rights by enacting the Corporate Governance Charter on Feb. 2022. Particularly as an attempt to provide information in a timely manner necessary for shareholders to exercise rights, it provides notices on the Convention of the General Shareholders' Meeting four weeks before the meeting is held as specified under the Corporate Governance Codes. In the case of the 2021 General Shareholders' Meeting, it delivered the notice 31 days before the meeting.

Regular general shareholders' meetings are held within three months after the termination of every business year, whereas spontaneous general shareholders' meetings are held on an ad hoc basis. For more shareholders to participate and exercise their rights in the general shareholders' meeting, Hanwha Aerospace tries to avoid the time of year when most general shareholders' meetings are held. To support shareholders who cannot participate, it operates an e-voting system. Moreover, it utilizes the e-POA (Power of Attorney) system for every shareholder to execute proxy voting rights for enhanced convenience and to ensure that minority shareholders may efficiently exercise their rights legitimately.

Charter of Corporate Governance - [Article 1] Shareholders' Rights

① Shareholders shall possess basic rights granted to shareholders under the Commercial Act and relevant Acts and subordinate statutes.

② Measures for matters causing severe changes to Hanwha Aerospace (hereinafter referred to as the "Company") shall be determined according to relevant Acts and subordinate statutes and the Articles of Incorporation to maximize the insurance of shareholders' rights at the general shareholders' meeting.

③ The Company shall provide shareholders with the date, place, agenda, and other relevant information long before the general shareholders' meeting is held, and the date and place shall be considered to allow the attendance of as many shareholders as possible.

④ Shareholders may propose agendas for the general shareholders' meeting according to related Acts and subordinate statutes and inquire and request more information on the agenda.

Shareholder's Proposal Rights | To respect and actively reflect shareholders' opinions, Hanwha Aerospace executes the shareholders' proposal system. Shareholders who possess more than 3% of issued shares, excluding non-voting shares, or have possessed more than 0.5% shares for six months or longer may propose purposes of general shareholders' meetings, such as appointing a new director, in writing or e-document six weeks before the regular general shareholders' meeting based on the date held in the previous year. Upon the reception of the shareholder's proposal, legal examinations will be executed on the agenda before introducing it as the purpose of the general shareholders' meeting.

Shareholder Return Policy | Hanwha Aerospace returns a certain amount of its profits to benefit shareholders mainly through retiring its own shares or providing dividends. Representative examples are the execution of retirement and reacquisition of treasury stocks in the business year of 2019 (retired in 2020), and in 2021, it provided cash dividends to maximize shareholders' benefits. The breakdown of dividends for the last five years and the breakdown of retired shares are published on the website, and whenever executed, the repurchase / retirement of shares and dividends are separately disclosed to inform shareholders.

Status of Dividends

Category	2019	2020	2021
(Consolidated) Current net profit (unit: KRW 1 million)	132,205	121,426	252,581
(Separate) Current net profit (unit: KRW 1 million)	27,746	28,407	119,344
(Consolidated) Earnings per share (KRW)	2,558	2,390	4,989
Total cash dividends (KRW 1 million)	-	30,366	35,399
(Consolidated) Cash propensity to dividend (%)	-	25.01	14.01
Cash dividend yield rate (%)	-	2.15	1.50
Cash dividend per share (KRW)	-	600	700

※ Based on the consolidated financial statements, the (consolidated) current net profit means the net income of the parent company's owner, and the earnings per share means the basic net profit per share.

Communication with Shareholders | To promote active communication with shareholders, Hanwha Aerospace performs various investor relations (IR) activities. IR briefing sessions are held quarterly, bi-annually, and annually to address business progress while actively responding to shareholders' requests for IR meetings. It also provides various IR information in line with shareholders' requests through the corporate website and displays the contact point and e-mail address of the IR Team to answer and consult inquiries at any time. Moreover, it discloses its significant IR information in Korean and English to raise accessibility and fairness for shareholders. Furthermore, in 2020, it has introduced a new audio webcasting system in the management performance briefing session. Unlike existing conference call-type briefing sessions, where only a limited audience of analysts of security companies or fund managers could participate over the phone, Hanwha Aerospace arranged a shareholder-friendly environment by enabling real-time communication and hearing of online performance briefing through its website.

2021 IR Performance

General shareholders' meeting	Participation in Corporate Day and conferences led by security companies	Corporate briefing session
1 round	3 round	4 round
Corporate briefing session Follow-up conference calls Non-deal roadshow (NDR)	**Financial disclosure on DART* (English version)**	**Financial disclosure on DART* (Korean version)**
7 rounds	29 rounds	84 rounds

* DART: Data Analysis, Retrieval and Transfer System

Ethical Management

Hanwha Aerospace executes integrity management that puts ethics and responsibility as No. 1 priorities. It continuously inspects whether actions have followed ethical management, listens to the voices of stakeholders, and arranges environments to promote integrity.

Ethical Management System

Vision of Ethical Management

Hanwha Aerospace practices ethical management to prevent corporate damage, protect employees, and promote voluntary compliance. Arranging an ethical management environment is an essential element for the company to continue as a going concern and secure shareholders' trust.

Hanwha Aerospace will practice ethical management activities through its domestic and overseas business sites and subsidiaries to secure shareholders' trust.

KEY PERFORMANCE

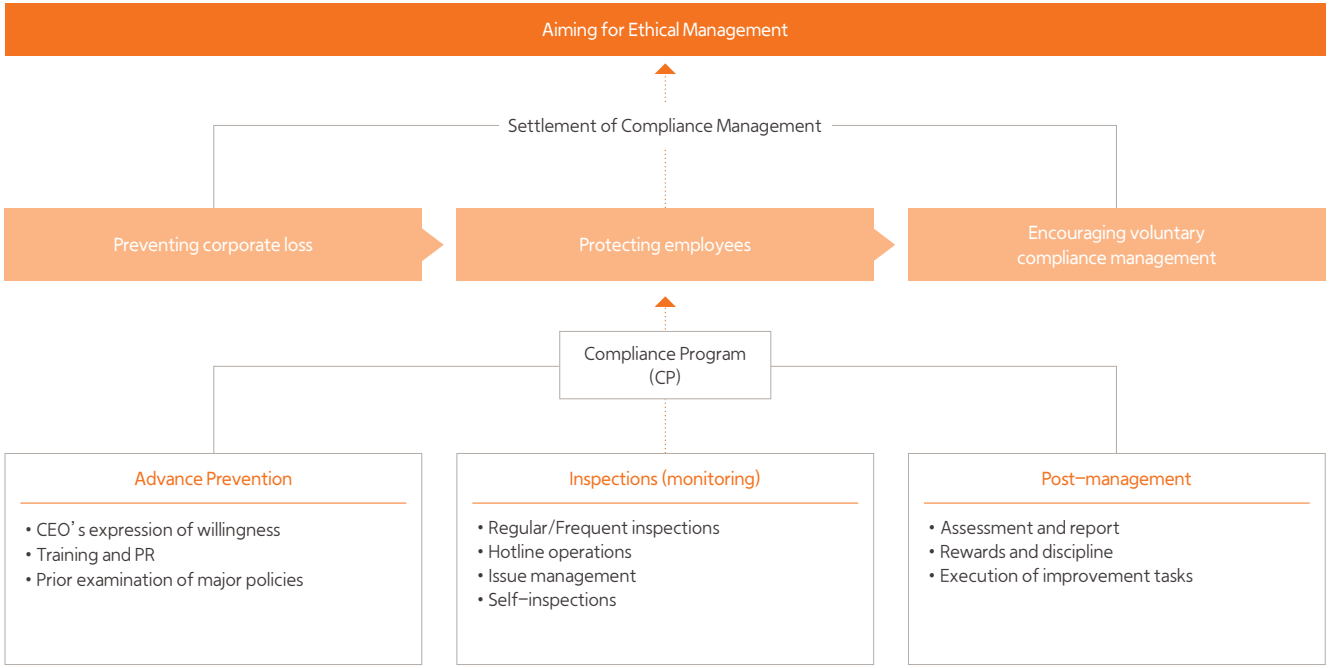
Appreciation plaque
by the Transparent Public–Private Council for National Defense under the Ministry of National Defense

Ethical management training course completed by
ALL employees

Administration System for Ethical Management

Hanwha Aerospace settles compliance management through a cycle of proactive measures for prevention, inspection, and post–management to accomplish its ultimate goal of ethical management by fulfilling various activities. To proactively prevent ethical risks, the company actively expresses its will to fulfill ethical and compliance management through internal bulletin boards, broadcasts, and company magazines, providing employee training on ethical management, and conducting self–inspection and self–monitoring activities. It executes training and inspections to establish the foundation of the ethical management action system, and propels training and inspections to internalize the system. Furthermore, it will continue to improve and develop the system.

Directionality of Ethical Management Operations



Putting Ethical Management into Action

Grievance System

Hanwha Aerospace operates an Alert Notification Channel for internal personnel and stakeholders to secure a transparent and fair ethical management system. It also operates a Smart Grievance Center for issues such as workplace bullying, power tripping, and sexual harassment to be reported immediately through the system. Systemized management supports not only grievance counseling but also investigations and disciplinary procedures to be taken on reported matters. Confidentiality is strictly secured by guaranteeing the reporter's anonymity and non-disclosure of reported cases so that no disadvantages whatsoever are incurred to the reporter.

Reporting Hotline

Types of Report

- Employees' misappropriation of money and bribery
- Employees' illegal business performance
- Requests or provision of money, valuables, and entertainment
- Holding illegal shares of unlisted companies
- Cases of employees having two jobs
- Demoralization incurred by sexual harassment
- Workplace bullying
- Other violations under the Code of Ethics

Grievance Procedures

1) Case reports	2) Factual investigation	3) Resolution
– Reception of reports through the online Alert Notification Channel and Smart Grievance Center	– Investigation of relevant facts and issues	– Feedback on measures and post-management (e.g., disciplinary measures) – Reinforcing recurrence prevention activities

Ethics Training for Employees

Hanwha Aerospace operates various training programs to enhance employees' awareness of ethical and compliance management. Ethical management training is provided for new employees upon their entry and additional training is offered to executives and leading personnel for equal educational opportunities.

Training is implemented for all employees regarding workplace bullying and sexual harassment. "Training Course for Workplace Bullying and Sexual Harassment" has been included as a subject in customized training courses for each department, along with question and answer (Q&A) sessions and consulting services. Moreover, the company fulfills risk management by appointing a person in charge to provide counseling and conduct investigations on reported cases and to train the appointed "Prevention Officer."

It also executes compliance training on subjects of anti-corruption and fair trade for all employees. Notably, in fair trade, it additionally provides special courses on revisions in relevant laws and current trends for relevant departments. Furthermore, it identifies risks in each department and operates trial compliance courses that executives lecture to each department. In 2021, 44% of executives have lectured trial courses.

Performance of 2021 Ethical Management Training

Progress of Ethical Management Training

Basic compliance training for all employees	915 completed
Compliance training for executives and leading personnel	123 completed in the first half and 124 completed in the second half of 2021
Training newcomers / experienced workers / promoted employees (Entry course for compliance management)	30 completed
Lecture on the willingness to comply by executives	Lecture by 11 executives and 26 position-holders
Customized training (by department, 17 subjects)	2,437 rounds attended in total

Ethical Management Training by Subject

Preventing sexual harassment in the workplace	100% completed (1,968/1,968)
Preventing workplace bullying	100% completed (1,968/1,968)
Special training on fair trade (on laws on subcontracting and mutually beneficial cooperation)	527 completed

Performance Assessment and Post-Management

Hanwha Aerospace fulfills ethical management by operating a cycle of identifying improvement tasks through performance assessment of ethical management and modifying identified points of improvement.

Since 2013, it has annually conducted the "win-win growth index" assessment led by the Korea Commission for Corporate Partnership and included the "compliance index" as an executive assessment criteria to encourage its management team to be a role model in compliance activities. Since 2019, the company expanded the above policy to regular personnel. Moreover, it carries out regular assessments for a self-inspection of compliance for employees to conduct a self-check regarding compliance risks. Launched in 2021, the Compliance Committee of Hanwha Aerospace reports and resolves compliance control activity results bi-annually and assesses the effectiveness of the compliance support and review system thereafter to establish and execute improvement measures.

Self-Monitoring Activities to Prevent Risks

Frequency	Minimum 3 times / year
Content	On the protection of personal information, non-disclosure of business secrets, prevention of collusion (price-fixing), anti-corruption, compliance with laws onsubcontracting and mutually beneficial cooperation, sexual harassment / bullyingin the workplace

Encouraging Employees' Self-Inspection through the Compliance Program Management System (CPMS)

Frequency	Minimum 2 times / year
Content	Compliance with internal regulations and reviewing legal knowledge

Internal and External Communication

Since 2017, Hanwha Aerospace has participated in the pledge ceremony of the United Nations Global Compact (UNGC) Fair-Player Club to realize its efforts for anti-corruption and compliance/ethical management. It continuously interchanges with the UNGC and externally expresses its corporate will to practice anti-corruption and compliance. Moreover, it signed up for the TI Korea Forum launched by Transparent International (TI) Korea for the continuous performance of anti-corruption management.

Meanwhile, as a defense company, Hanwha Aerospace has participated as a representing entity that practices transparency in the defense sector at the Transparent Public-Private Council for National Defense with the Ministry of National Defense and the Public-Private Council for Transparent Defenseled by the Defense Acquisition Program Administration (DAPA). At the TI Korea Forum for Transparent National Defense held by TI Korea, Hanwha Aerospace presented best practice cases to enhance the transparency of Korea's national defense, evidencingits fulfillment of ethics and compliance management.

Compliance Management

Based on the belief that sustainable management starts from compliance management, Hanwha Aerospace operates anti-corruption policies throughout its business sites and subsidiaries. To secure the reliability of the entire defense industry, Hanwha Aerospace will continuously enhance employees' awareness of compliance management and improve various institutional strategies rooted on firm philosophies and strong will.

Compliance Management System

To enhance transparency in management and inculcate a law-abiding spirit in employees, Hanwha Aerospace conducts various compliance management activities. It therefore enacted the "Code of Conduct," the "Criteria on Compliance Control," and "Anti-Corruption Regulations" to arrange a sound foundation for ethics and compliance management to be abided by not only employees but also suppliers. In 2021, it newly enacted regulations under the "Manual for Compliance and Anti-Corruption Management" to reinforce its compliance management system.

KEY PERFORMANCE

Acquired both
ISO 37301 (compliance management) and ISO 37001 (anti-corruption management)
(Nov. 2021)

One of the global top 5
companies for Anti-Corruption and Corporate Transparency, according to the Defense Companies Index (DCI)

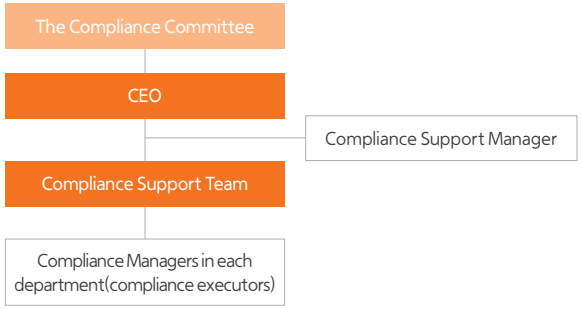
Awarded by the
Anti-Corruption & Civil Rights Commission

Exclusive Organization for Compliance Management

Hanwha Aerospace has organized an exclusive organization for compliance management for the earnest execution of compliance management activities. Being the ultimate decision-making organization on compliance control, the Compliance Committee comprises leading executives, including the chairperson (CEO), business division heads, chiefs of business headquarters, heads of business sites, and department head for company-wide management of all staff. The operation status of compliance control, revisions and legal measures, status of inquiries and reports, results of taking corrective measures, and other issues are reported at least on a bi-annual basis with critical matters deliberated. Thus, the committee acts as the control tower of compliance management.

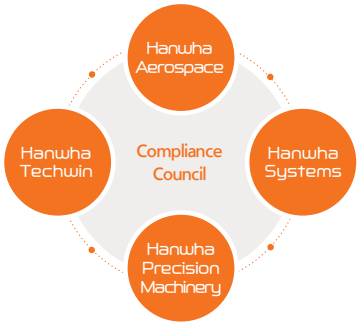
It also appoints compliance assistants to operate all matters regarding compliance control, organizes exclusive organizations for compliance activities, and manages practical affairs for ethical/compliance management. Furthermore, the committee appoints compliance executors in each department to promote a smooth collaboration between exclusive organizations and departments and encourage voluntary compliance operations.

Dedicated Organization for Compliance Management



Compliance Council

The four affiliates of Hanwha Group in the machinery, aerospace, and defense businesses- Hanwha Aerospace, Hanwha Techwin, Hanwha Power Systems, and Hanwha Precision Machinery—form and operate a comprehensive compliance council. The council shares each company's operation status of compliance management through regular meetings held bi-annually and independently perform a wide scope of activities, such as enacting regulations on compliance management, providing awards for excellent performers, anddetermining corrective action for violators.



Expanding the Scope of Compliance Management

According to stricter national and international laws on compliance, such as the revision of the Regulations on the Deliberation of Contracts under the Defense Acquisition Program Act, the application scope of the 2018 Internal Regulations on Compliance Control has been expanded from employees to suppliers and stakeholders. Laws and regulations for practical management of suppliers' compliance activities, such as providing relevant training, compliance pledge, and applying specific terms and conditions for contracts, have also been added. Furthermore, the company has held an agreement ceremony to sign an agreement on fair trade and shared growth with suppliers and actively strives to encourage stakeholder participation in corporate-related compliance activities, such as hosting the "Win-Win Balance with Suppliers" Academy for suppliers.

Compliance Program (CP) Operations

The Compliance Program (CP) is a comprehensive and well-structured system to encourage and support voluntary legal compliance and conduct frequent screening so that every Hanwha Aerospace employee will strictly follow all laws and regulations. The CP includes all systems required for internal control, such as the legal compliance system, the risk management system, and others. The CP supports determinations on whether laws had been complied with in main corporate management areas, from fair trade and subcontract management to financial and accounting management.

Hanwha Aerospace introduced the CP to practically internalize voluntary legal compliance. To this end, under the support of the Compliance Support Team and Compliance Support Manager, it actively examines the compliance progress and improves relevant internal systems. Through the CP, Hanwha Aerospace will continue to prevent corporate loss and damage incurred by legal violations, protect employees, and build a reliable management environment to gain the trust of clients and stakeholders.

Subjects to be Managed under the CP

- Fair-trade / Subcontracting
- Product liability
- Intellectual property / Trade secrets
- Finance / Accounting
- Environment / Safety
- Labor-management / Organizational culture
- Anti-corruption

Stages of CP Operation and Key Factors

Step 1: Planning	• Enactment of compliance and basic policies • Establishment of compliance standards and procedures
Step 2: Execution and Operation	• Compliance support organization (department) • Compliance support manual • Code of Conduct
Step 3: Monitoring and Improvement	• Inspect compliance progress and impose corrective action(s) • Revise training, educational, and program regulations

Results of Voluntary CP Activities in 2021

Activity sector		Date	Method / Content	Execution results
Voluntary review	Risk monitoring by department	April, June, August	Reviewing risks through checklists by subject	First round: Subcontracting/Mutually beneficial cooperation laws Second round: Anti-corruption Third round: Preventing internal trading, protecting business secrets, and preventing sexual harassment and bullying
	System self-inspection by employees	1st: May 10–21 2nd: Jul. 12–23	Each employee connects to the compliance system to take tests	First round: 1,026/1,028 (99.8%) Second round: 1,007/1,011 (99.6%)
Compliance activities	Company-wide compliance action pledge	Apr. 12–23	Commitment via online and offline	1,033 / 1,034 (99.9%)
	Proposals for improved compliance activities	August	Improvement proposals received by the compliance support system	78 proposals
	System inquiries	Year-round	Compliance risk inquiries (via CPMS or e-mail)	–

Assessment and Awards by External Institutions

In Nov. 2021, Hanwha Aerospace became Korea's first defense company to simultaneously acquire international certificates for the compliance management system (ISO 37301) and anti-corruption management system (ISO 37001). In particular, the certificate for the compliance management system (ISO 37301) was introduced by the International Organization for Standardization (ISO) to assess whether corporate compliance policies and management systems comply with global standards and are performed effectively. Hanwha Aerospace quickly responded to meet the required standards, and as a result, its ethical and compliance management system was certified to be at a global level. Moreover, it was ranked B and joined the top 12% of defense companies globally according to the 2020 Defence Companies Index on Anti-Corruption and Corporate Transparency (DCI) announced by TI, ranked first in Asia, and entered the Top 5 rankings globally. Assessment items were categorized into ten areas: relations with suppliers, interchanges with clients, internal control, and others. In 2020, 134 companies in 38 countries around the world were evaluated. After being nominated as an assessment subject in 2012, Hanwha Aerospace has shown progress every time the evaluation took place, which is every three to four years, making 2020 results even more meaningful.

Hanwha Aerospace was also certified as a defense company in Korea with excellent results according to its anti-corruption index and received the honor of being awarded by the Chairperson of the Anti-Corruption & Civil Rights Commission. Furthermore, it received an appreciation plaque from the Transparent Public-Private Council for national defense under the Ministry of National Defense, was presented an award certificate by the Public-Private Council for Transparent Defense (DAPA), and obtained an Individual Award Certificate for Transparency by DAPA. As evidenced above, numerous external institutions certified the company's efforts in anti-corruption management.

Award Ceremony for the Certification of
the Compliance Management and Anti-Corruption Systems

DCI Evaluation Results

* Third evaluation since the initiation of DCI evaluations in 2012 at TI UK

DCI Evaluation Results

Internal Trade Deliberation Committee

Hanwha Aerospace operates the Internal Trade Deliberation Committee to fulfill fair and justifiable procedures in selecting other parties to trade with. Internal trade deliberation procedures, such as enacting regulations on the deliberation of internal trade, managing internal trade agreements, and storing deliberation data, are organized between/among affiliates to be reviewed by the Internal Trade Commission on a monthly basis. Based on prior legal examinations, profound deliberations are executed. The company puts utmost effort into efficient and fruitful operations of the Internal Trade Commission.

Raising Compliance Awareness

Code of Conduct

Based on integrity management, Hanwha's management philosophy, Hanwha Aerospace stipulates detailed guidelines and norms of behavior under the Code and Conduct for employees to follow all laws and regulations under the Compliance Control Criteria as well as CP and establish a transparent and honest organizational culture. The Code of Conduct is provided in Korean, English, and Chinese so that all employees in Korea and abroad can understand every detail and put them into action.

Code of Conduct

① We shall comply with relevant laws and company regulations.
② We shall implement fair and transparent competition in the free market economy domestically and abroad and conduct legal and just transactions.
③ We shall comply with quality standards to prevent defective items from being produced in the development and manufacturing phases.
④ We shall protect and maintain the confidentiality of the intellectual property rights, trade secrets, and other information of the company and third parties.
⑤ We shall operate the corporate decision-making organization according to laws and company regulations and comply with justifiable accounting and disclosure standards.
⑥ We shall comply with environmental and safety laws and company regulations.
⑦ We shall eliminate unjustifiable discrimination in employment and work and prohibit misconducts disrupting our sound corporate culture.
⑧ We shall neither pursue personal interests through company tasks nor commit illegal acts against interested parties due to a conflict of interests.

Written Pledge on Compliance Management

All Hanwha Aerospace employees submit a signed written pledge on compliance management every year based on a deep understanding of relevant regulations. The provisions under the written pledges abide by laws and ethics and include various compliance obligations regarding fair-trade, anti-corruption, protection of business secrets, co-existence with suppliers, and other matters. The written pledge system started in 2021 when Compliance Commissioners signed the written pledge for compliance, quickly leading to 1,034 employees following their path. Employees also submit written pledges for transparent management to the company, which states that the employee commits to neither provide nor receive bribes from suppliers, respond to illegal requests, nor provide money or valuables.

Compliance Events

To integrate a culture of compliance into everyday life, Hanwha Aerospace operates various programs for employees to participate in every year, such as Compliance Week and Day for Compliance Executors. Compliance Week is an event aimed at settling compliance culture and has been held for a week every June since 2016. In 2021, the Sixth Compliance Week event was held for five days, from June 21 to 25, under the theme, "A Trip for Justice in June," to make compliance management a daily routine. Various events, including the slogan contest exhibition, Quizzes, and identification via the Channel H application, encouraged employees' participation and showed that learning the law was fun and easy. The event was contact-free to prevent COVID-19 from spreading, and not only Hanwha Aerospace's business sites but also subsidiaries, including Hanwha Techwin, Hanwha Precision Machinery, and Hanwha Power Systems participated in the event. Moreover, the "Day for Compliance Executioners," an employee event, was held. It reports annual results of compliance activities along with an awarding ceremony for excellent compliance executioners to raise employees' awareness of compliance management.

Award-Winning Slogans in Compliance Week

"Together, we can create a sustainable future."
"The first step matters. That's why century-old companies start with ESG management."
"MSG makes your mouth water. ESG creates a better future."

Compliance Hotline

Hanwha Aerospace operates the Compliance Hotline, where any person is free to advise or whistle-blow compliance management-related matters. The whistle-blower may choose to reveal his/her real name or keep it anonymous. Violations subject to be reported concern all legal violations, which include all stipulations under the Compliance Control Criteria and Code of Conduct. Internal employees may report through the CPMS on the intranet, and external parties may report through the company website. Reports shall be confidential at all costs as specified under relevant regulations, and the system ensures that no disadvantages are incurred to reporters whatsoever.

Contact Point for the Compliance Hotline

Phone No.	+82-70-7147-7761
Fax	+82-31-8018-3967
Address	6, Pangyo-ro 319 beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea (Postal Code: 13488)
E-mail	compliance1@Hanwha.com

Risk Management

Internal risks in industries may loom as a threat or cultivate new opportunities. Hanwha Aerospace will meticulously identify and respond to risks in all areas to cultivate new opportunities for organizational growth.

Building a Proactive Response System

Hanwha Aerospace identifies potential risks throughout its business administration and determines prevention and response procedures under "Regulations on Company-Level Risk Management" on May 30, 2022, to maintain a sound and safe corporate management. Based on the regulations above, the company regularly reviews risks regarding corporate management and manages proactive response systems to minimize management losses from a mid- to long-term point of view.

Integrated Risk Management System

Hanwha Aerospace established and operates organized risk management systems for regular risk assessments and reports. Each department executes regular risk assessments annually. Risk assessments are executed in a fixed format regarding issues identified by each department and stakeholder requirements, which are comprehensively reviewed based on their frequency and severity, and each risk element is ranked thereafter. Evaluations compare similar risks in the past with the pending case so that risks may be more systematically identified. Apart from regular risk assessments, additional evaluations are executed on an ad hoc basis upon the Risk Management Council's (RMC) consultation when exceptional cases occur, such as revisions in laws, systems, and key management policies.

As a rule, action plans must be established and prepared in written form for risk items that exceed certain risk ratings. Even when risk items have low-risk ratings, action plans may be established upon the department head's determination. Action plans and responses taken according to action plans by each department are reported to the department in charge of risk management. The department head of risk management evaluates risk response performances taken by each department and reports the assessment results at least once a year to the BOD.

Company-Wide Risk Management Policy

KEY PERFORMANCE

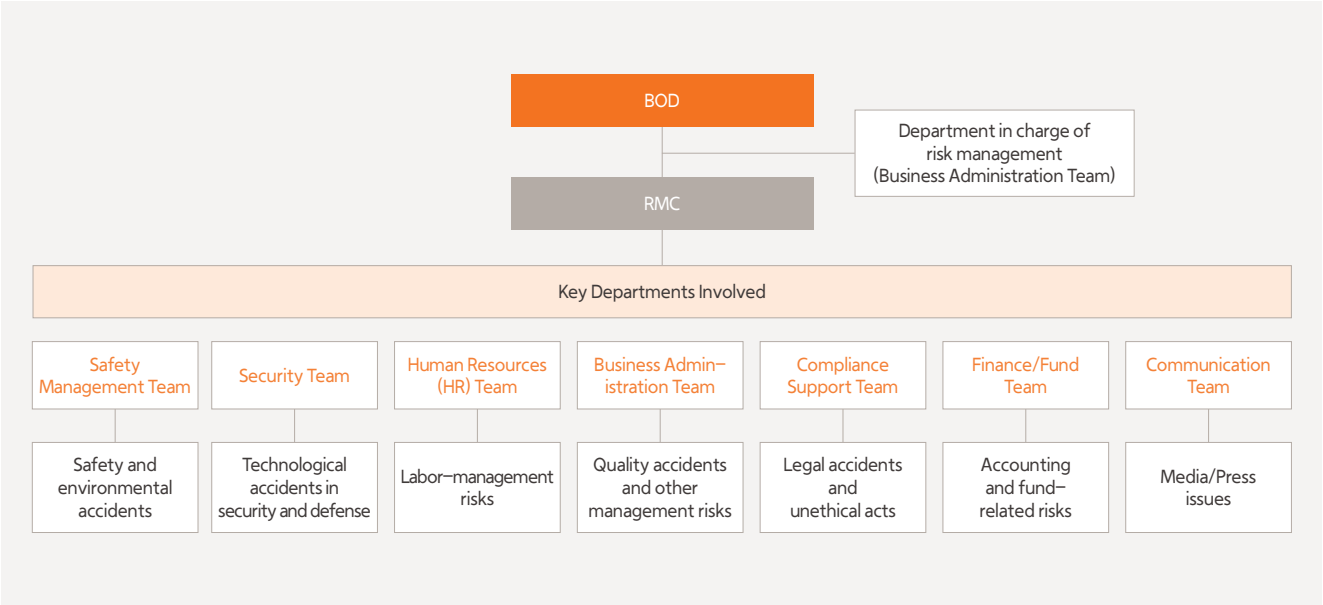
Enactment of risk management regulations
(May 30, 2022)

Reorganization of the
Risk Management Council (RMC)

Risk Management Organization

Hanwha Aerospace identifies potential risks throughout its business administration and effectively determines their severity by organizing the Risk Management Council (RMC) and promoting its collaboration with departments involved. The head of the department in charge of risk management (the Business Administration Team) leads RMC operations, along with personnel holding team manager–level posts in departments involved, including the Security Team, Compliance Support Team, Finance and Accounting Team, and Safety Management Team. The company shares pending issues regarding risk through the RMC, which fulfills the role of reassessment and response measures of risks. Significant matters determined by the RMC are introduced as agendas to be reported to the BOD to support the management's efficient decision–making.

The Organization for Risk Management



Financial Risks

To respond to risks regarding finance, signing awarded contracts, and businesses, Hanwha Aerospace executes regular monitoring to prevent weaknesses and risks in management. To take proactive measures to manage risks in signing awarded contracts, the company reviews bidding and contractual risks of critical projects and standardizes its risk management system to identify potential business risks. Moreover, it has drawn business risks subject to management through regular risk sensing. For high risks, the Company–Level Response Team takes proactive measures. Furthermore, it tracks and manages potential weaknesses, such as bad debt, malignity stocks, lawsuits, claims, compensation deferral, and others, and manages pending issues through weekly reports and year–round operations of its Response Team.

Non–Financial Risks

Safety and Health Risks

To maintain zero accidents and zero hazards and respond to safety and health risks, Hanwha Aerospace continuously reviews and improves environmentally harmful elements in business sites and improves safety and health management activities and programs for workers. The prior deliberation/approval and post–management systems are operated to manage risks threatening safe environments systematically. Risks are identified in advance through the prior deliberation process, and the post–management system checks whether requirements under the prior deliberation have been met. Risks requiring mid– to long–term management are registered to the risk management system for regular monitoring. The CEO and business site leaders execute safety and health examinations regularly to draw risk elements and establish and propel improvement measures, and safety and health management executors showing outstanding performance are rewarded for their excellence. This is how Hanwha Aerospace strives to minimize safety and health risks.

Environmental Safety Risks

For active responses to risks, Hanwha Aerospace establishes response tasks for potential environmental and safety risks by registering and managing improvement measures, dates, and persons in charge of the risk management system, manages various tasks, and conducts statistical analysis for active response to risks. Once an environmental risk is identified, it monitors the status until 100% improvement has been accomplished no matter what through its strict computer system. Moreover, it strictly manages risks from occurring through the weekly monitoring of legal revisions and assigns the Chief Management Officer of each business site to lead monthly conferences on main environmental and safety issues to put its utmost effort into establishing proper improvement measures to prevent recurrence.

Information Security

Hanwha Aerospace possesses the best technologies and information assets in the defense industry. Accordingly, it emphasizes the significance of information security and technological protection throughout its business sectors and endeavors to furnish a safe and stable security environment.

Information Security Management System

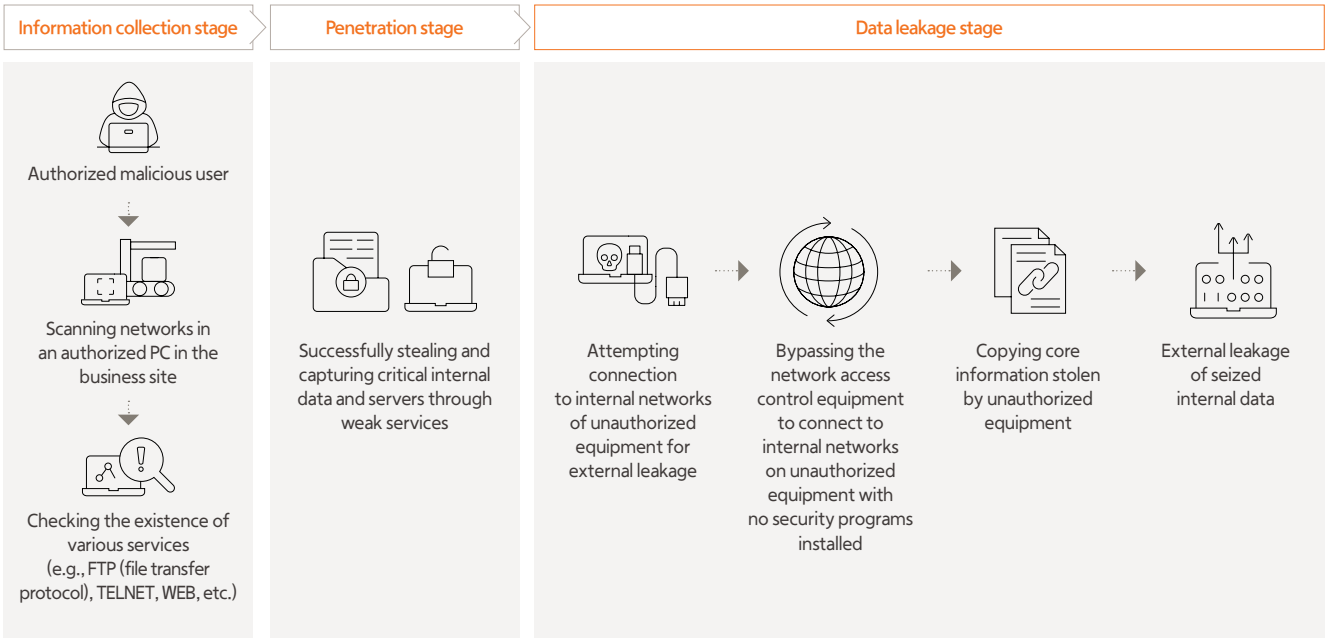
Dedicated Organization for Information Security

Hanwha Aerospace appointed its in-house Chief Security Officer (CSO) and Chief Information Security Officer (CISO) to reinforce information security and efficiently manage risks. Moreover, it organized the Security Team and security-exclusive personnel for systematic performance of information security tasks. Operation and management of the information security system and security control have been consigned to suppliers.

The Information Security System

Hanwha Aerospace has achieved zero cyber security accidents and leakage of clients' personal information in 2021 through systematic, phased management through its information security system. Apart from the annual integrated external survey on the actual situation of the protection of defense technologies, the company proactively responds to various cyber security risks by: separating physical networks between its intranet and internet networks, reporting e-mails containing malicious codes and malware, decrypting document files in personal computers (PC), building security systems, including the automatic deletion program of saved data in PCs with internet access, executing penetration testing, regular examination of information systems, and others.

Conducting Penetration Simulation Tests



KEY PERFORMANCE

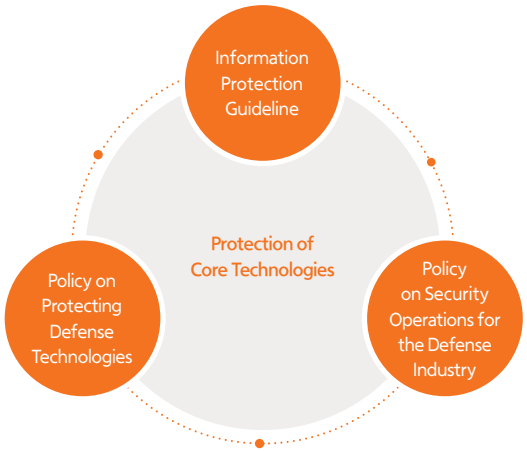
Cases of cyber security accidents
0

Cases of leakage of clients' personal information
0

Cases of usage of client information for secondary purposes
0

Protecting Technologies and Confidentiality of Defense Industry

To protect defense technologies, the most crucial element in the defense industry, and confidentiality, Hanwha Aerospace executes strict security management for its employees and suppliers' employees and operates systems that prevent and control illegal wiretapping. Moreover, it improves intelligent security solutions and real-time response against penetration detection and builds facility and cyber security systems to effectively prevent security risks of leaking the company's information assets and defense technologies. Furthermore, it enacted various security-related internal regulations, such as the "Information Protection Guideline," "Policy on Security Operations for the Defense Industry," "Policy on Protecting Defense Technologies," and others, and actively responds to changes in the security environment through regular revisions. It will continue to efficiently protect confidentiality and technologies in the defense industry through annual security activities, perform action plans to safeguard defense technologies, and regularly establish measures to improve potential security weaknesses.



Protection of Personal Information

Hanwha Aerospace strictly abides by the "Act on the Promotion of Information and Communications Network Utilization and Information Protection" and strongly insists on taking administrative, physical, and technical countermeasures to ensure the safety and protection of clients' personal information from getting lost, stolen, leaked, falsified, or damaged. First, it decrypts important personal information to be saved and managed and technologically controls external parties from illegally accessing the information. Second, it appoints the Personal Information Protection Officer and Manager and enhances administrative personnel's expertise and responsibility in tasks through frequent information security training. Finally, for physical protection, it restricts external parties from entering the computer center by designating it as a protection zone. For more information on the purpose of and protection measures on using personal information, please visit the Privacy Policy section on the company's website, open to everyone.

Hanwha Aerospace's Privacy Policy

Raising Employees' Awareness on Security

Cyber security is a critical issue that should be applied throughout all business sectors. Accordingly, Hanwha Aerospace provides various company-level training programs on protecting information for employees' enhanced understanding and awareness on cyber security. To regularly raise awareness on how vital information protection is, first, it operates online security training courses annually for all employees and provides security training at least once a year for residing suppliers. Second, it executes additional security training for employees involved in security violations more than two times a year to encourage them to take more aggressive action against cyber security threats and to highlight the importance of security management. Finally, it encourages all employees to actively participate in security training led by the DAPA, companies supporting military security, and other public and external institutions.

Security training hours	4hours (Average training hours per person)
No. of security trainees	1,953persons (Training completed by all employees)

ESG Factbook

Economic

Consolidated Statements of Financial Position

(unit: KRW 1 million)

Category	2019	2020	2021
Assets			
Current assets	4,563,607	5,122,726	6,283,538
Cash and cash equivalents	1,000,122	1,330,706	2,528,070
Other financial assets	122,858	65,243	97,695
Trade and other receivables	1,293,046	1,044,534	1,037,055
Derivative assets	1,879	614	425
Inventories	1,329,690	1,590,630	1,604,807
Other current assets	804,706	1,090,580	944,018
Non-current assets held for sale	11,305	419	71,468
Non-current assets	4,144,804	4,342,090	4,762,293
Other financial assets	60,209	67,125	280,139
Long-term trade and other receivables	58,543	50,190	46,025
Derivative assets	19,210	22,396	28,867
Other non-current assets	22,679	26,191	37,096
Tangible assets	1,821,964	1,897,668	1,898,105
Intangible assets	1,881,380	1,895,462	1,977,189
Investments in associates	64,442	84,909	182,319
Righ-of-use assets	84,438	134,436	149,397
Deferred tax assets	131,939	163,713	163,156
Total assets	8,708,411	9,464,816	11,045,831

Category	2019	2020	2021
Liabilities			
Current liabilities	3,329,042	3,900,357	4,330,103
Trade and other payables	762,736	756,455	886,973
Lease liabilities	29,669	29,891	32,997
Borrowings and debentures	504,161	696,597	782,701
Derivative liabilities	1,264	2,997	208
Income tax payables	25,377	37,741	96,792
Other current liabilities	2,005,835	2,376,675	2,505,107
Liabilities held-for-sale	0	0	25,325
Non-current liabilities	2,524,014	2,574,734	2,784,169
Long-term trade and other payables	268,346	229,254	249,306
Lease liabilities	53,067	103,710	116,223
Borrowings and debentures	1,588,357	1,647,896	1,848,717
Employee benefit liabilities	514,870	504,829	499,496
Derivative liabilities	923	5,599	179
Deferred tax liabilities	86,412	80,108	66,902
Other non-current liabilities	12,038	3,338	3,346
Total liabilities	5,853,055	6,475,090	7,114,272
Equity			
Equity attributable to owners of the Parent Company	2,486,059	2,597,746	2,889,235
Share capital	265,650	265,650	265,650
Capital surplus	412,052	412,758	428,765
Capital adjustments	0	(482)	(2,198)
Accumulated other comprehensive income	332,426	338,620	385,008
Retained earnings	1,475,931	1,581,200	1,812,010
Non-controlling interests	369,296	391,979	1,042,324
Total equity	2,855,355	2,989,725	3,931,558
Total liabilities and equity	**8,708,411**	**9,464,816**	11,045,831

Distribution of Economic Values for Stakeholders

Category		Unit	2019	2020	2021
Customers	Sales (non-consolidated)	KRW 1 million	1,190,923	1,059,925	1,224,760
Employees	Wages and welfare benefits		221,009	216,047	224,289
Shareholders and investors	Total amount of share retirements and cash dividends		25,160	30,366	35,399
Suppliers	Outsourcing expenditure		124,699	113,255	102,799
Local communities	Donations		1,215	748	807
Government	Corporate tax expenses		37,940	14,645	14,335

Stock Ownership

Category		Unit	2019	2020	2021
Ownership status	Hanwha Corporation	%	33.34	33.95	33.95
	CEO		0.01	0.03	0.03
	National Pension Service		13.23	11.04	11.54
Total number of shares	Number of shares issued	Share(s)	51,560,000	50,630,000	50,630,000
	Number of shares outstanding		51,560,000	50,609,562	50,569,412

R&D

Category		Unit	2019	2020	2021
R&D Investment	R&D expenses	KRW 1	438,334	462,480	585,486
	Ratio of R&D expenses to sales	%	8.3%	8.7%	9.1%
	R&D personnel	Person(s)	298	278	281

Government Support

Category	Unit	2019	2020	2021
Government subsidies	KRW 1 million	3,181	3,156	4,019

Environmental

Environmental Management

Energy Consumption

Category	Unit	2019	2020	2021
Total	TJ	577	561	578
Power	TJ	497	486	500
Fuel	TJ	80	76	78
Consumption intensity	GJ/ KRW 100 million	48	53	47
Energy consumption reduction	TJ	7	2	5

* Total amount of energy consumption from Changwon Plant and Asan Plant (energy consumption from Pangyo R&D Center excluded)

Greenhouse Gas (GHG) Emissions

Category	Unit	2019	2020	2021
Total (Scope 1+2)	tCO_2eq	28,585	27,707	28,236
Scope1	tCO_2eq	4,479	4,132	4,282
Scope2	tCO_2eq	24,106	23,575	23,954
GHG emission intensity	tCO_2eq/ KRW 100 million	2.4	2.6	2.3

* Total amount of GHG emissions from Changwon Plant and Asan Plant (emissions from Pangyo R&D Center excluded)

Water Consumption

Category	Unit	2019	2020	2021
Total	Ton(s)	228,717	284,638	240,290

* Total amount of water consumption from Changwon Plant and Asan Plant (water consumption from Pangyo R&D Center excluded)

Waste Discharge

Category		Unit	2019	2020	2021
Waste generated	Total	Ton(s)	2,194	1,931	1,902
General waste	Incineration	Ton(s)	61	64	59
	Landfill	Ton(s)	0	0	0
Designated waste	Incineration	Ton(s)	37	28	17
	Landfill	Ton(s)	26	28	26
	Neutralization	Ton(s)	98	70	74
Waste recycling	Amount of waste recycled	Ton(s)	1,972	1,741	1,726
	Ratio of waste recycled	%	89.9	90.2	90.8

* Total amount of waste from Changwon Plant and Asan Plant (waste from Pangyo R&D Center excluded)

Hazardous Chemical Substances

Category	Unit	2019	2020	2021
Leakage of hazardous chemical substances	Case(s)	0	0	0

Air Pollutant Emissions

Category	Unit	2019	2020	2021
Dust	mg/m^3	3.11	2.67	1.43
Total hydrocarbons	ppm	18.11	23.71	18.72

* Average concentration of air pollutant emissions from Changwon Plant and Asan Plant

Water Pollutant Emissions

Category	Unit	2019	2020	2021
Chemical Oxygen Demand (COD)	mg/L	4.49	5.8	5.76
Biological Oxygen Demand (BOD)	mg/L	2.22	2.32	4.66
Suspended Solids (SS)	mg/L	1.66	1.07	0.76

* Concentration rate of water pollutant emissions from Changwon Plant

Green Management

Category	Unit	2019	2020	2021
Green procurement volume	KRW 1 million	89	81	89
Green management-related spending and investment	KRW 1 million	608	747	759

Assessment of Suppliers' Environmental Performance

Category	Unit	2019	2020	2021
Ratio of suppliers assessed for environmental performance	%	100	100	100
Companies identified to have negative environmental impact	Number(s)	0	0	0

Compliance with Environmental Regulations

Category		Unit	2019	2020	2021
Violations of environmental regulations	Fines	KRW	0	0	0
	Number of lawsuits filed	Case(s)	0	0	0
	Number of non-financial punishments	Case(s)	1	0	0

Safety and Health Management

Occupational Accidents

Category		Unit	2019	2020	2021
Number of occupational accidents	Total	Case(s)	6	4	6
Number of deaths	Employees	Case(s)	0	0	0
	Contractors	Case(s)	0	0	0
Number of major injuries	Employees	Case(s)	6	3	3
	Contractors	Case(s)	0	1	3
Number of minor injuries	Employees	Case(s)	0	0	0
	Contractors	Case(s)	0	0	0
Number of serious accidents	Employees	Case(s)	0	0	0
	Contractors	Case(s)	0	0	0
Occupational accident rate	Employees (business sites based in Korea)	%	0.29	0.15	0.15
	Contractors	%	0	0	0.01
LTIR (Lost Time Injury Rate)	Employees	-	0.93	0.24	0
OIFR (Occupational Illness Frequency Rate)	Employees	-	0.47	0.47	0.73

Social

Employees

Category		Unit	2019	2020	2021
Total Employment					
Total number of employees (in Korea)		Person(s)	2,036	2,012	1,953
By employment type	Subtotal	Person(s)	2,036	2,012	1,953
	Permanent employees	Person(s)	1,968	1,971	1,918
	Ratio of permanent employees	%	96.7%	98.0%	98.2%
	Temporary employees	Person(s)	68	41	35
	Ratio of temporary employees	%	3.3%	2.0%	1.8%
By gender	Subtotal	Person(s)	2,036	2,012	1,953
	Male		1,917	1,894	1,842
	Female		119	118	111
By age	Subtotal	Person(s)	2,036	2,012	1,953
	Under 30		168	137	107
	30 to 50		1,369	1,260	1,160
	Over 50		499	615	686
By rank	Subtotal	Person(s)	2,036	2,012	1,953
	Executives		29	29	33
	Managerial positions		680	728	741
	Middle-managerial positions		225	209	200
	Non-managerial positions		1,102	1,046	979
By region	Domestic business sites	Person(s)	2,036	2,012	1,953
	Seoul/Pangyo		305	323	349
	Changwon/Asan		1,731	1,689	1,604
	Overseas business sites		959	884	936
Average Length of Continuous Service					
Employees' average length of continuous service	Permanent employees	Years	17.8	18.7	19.3
	Temporary employees		20.8	11.8	9.6

Category		Unit	2019	2020	2021
Diversity of Employment					
Female talent	Subtotal	Person(s)	32	35	37
	Number of female executives		1	1	1
	Number of female workers in managerial positions		31	34	36
	Ratio of female workers in managerial positions (managers and above)	%	4.5	4.6	4.8
Employment of socially vulnerable persons (permanent+ temporary)	Persons with disability	Person(s)	42	42	38
		%	2.1	2.1	1.9
	National veterans	Person(s)	53	55	55
		%	2.6	2.7	2.8
New Hires					
Total number of newly recruited employees (domestic)		Person(s)	51	21	33
By employment type	Subtotal	Person(s)	51	21	33
	Permanent (as new employees)		40	16	21
	Temporary positions (excluding dispatched workers)		11	5	12
By gender	Subtotal	Person(s)	51	21	33
	Male		39	17	29
	Female		12	4	4
By age	Subtotal	Person(s)	51	21	33
	Under 30		21	4	7
	30 to 50		28	16	18
	Over 50		2	1	8

Category	Unit	2019	2020	2021
Turnover and Retirement[1]				
Total number of retirements and turnovers	Person(s)	52	55	60
Voluntary turnover and retirement	Person(s)	32	22	36
Voluntary redundancy		0	0	0
Voluntary turnover[2] (voluntary retirement)		32	22	36
Involuntary turnover and retirement	Person(s)	20	33	24
Regular retirement		20	33	24
Resignation under instruction (dismissal, discipline, etc.)		0	0	0
Turnover rate	%	2.6	2.7	3.1
Rate of voluntary turnover and retirement		1.6	1.1	1.8
Rate of involuntary turnover and retirement		1.0	1.6	1.2

1) Permanent worker basis
2) Employees who left the company by choice to move to a different company, pursue educational opportunities, or for personal reasons and childcare

Maternity and Parental Leaves

Category		Unit	2019	2020	2021
Number of employees taking maternity leave	Subtotal	Person(s)	4	4	4
	Male		0	0	0
	Female		4	4	4
Number of employees returning to work after maternity leave	Subtotal	Person(s)	4	4	4
	Male		0	0	0
	Female		4	4	4
Ratio of return from maternity leave	Subtotal	%	100	100	100
	Male		0	0	0
	Female		100	100	100
Number of employees taking parental leave	Subtotal	Person(s)	18	12	12
	Male		5	5	5
	Female		13	7	7
Number of employees returning to work after parental leave	Subtotal	Person(s)	14	10	12
	Male		3	4	5
	Female		11	6	7
Ratio of return from parental leave	Subtotal	%	77.8	83.3	100
	Male		60.0	80.0	100
	Female		84.6	85.7	100
Number of employees serving 12 months or longer after return from parental leave	Subtotal	Person(s)	14	10	12
	Male		3	4	5
	Female		11	6	7
Ratio of employees serving 12 months or longer after return from parental leave	Subtotal	%	100	100	100
	Male		100	100	100
	Female		100	100	100

Employee Training and Education

Category	Unit	2019	2020	2021
Total expenses for training	KRW 1 million	1,395	428	901
Total number of participating employees	Person(s)	2,036	2,012	1,963
Total hours of training[1]	Hour(s)	50,587	27,055	33,332
Training expense per person	KRW 1,000/ person	685	213	459
Training hours per person	Hour/person	25	13	17

1) Excluding legally-compulsory education programs (including those for compliance and security); figures from 2019 and 2020 partially revised owing to the application of a new training hour calculation method

Performance Evaluation

Category	Unit	2019	2020	2021
Employees subject to performance evaluation[1]	Person(s)	2,031	1,977	1,905
Employees who received regular performance evaluation		2,031	1,977	1,905
Ratio of employees who received regular performance evaluation	%	100	100	100

1) Excluding permanent workers with service periods of less than three months in accordance with internal regulations

Labor Union Membership

Category	Unit	2019	2020	2021
Number of employees available for joining the labor union	Person(s)	1,594	1,534	1,491
Number of employees joining the labor union		605	556	509
Ratio of employees joining the labor union	%	38.0	36.2	34.1
Number of labor–management council meetings held	Session(s)	3	1	4
Number of resolved agendas at labor–management council meetings	Case(s)	4	3	2

Retirement Pension

Category		Unit	2019	2020	2021
Retirement pension (Defined Benefit)	Number of pension holders	Person(s)	1,894	1,355	1,272
	Amount of pension held	KRW 1 million	156,533	132,282	143,155
	Amount under management on a consolidated basis (DB)	KRW 1 million	12,096	11,739	11,323
Retirement pension (Defined Contribution)	Number of pension holders	Person(s)	135	189	209
	Amount under management on a non-consolidated basis (DC)	KRW 1 million	8,080	11,603	12,615

Employee Wages

Category	Unit	2019	2020	2021
Ratio of average basic salary of women to men	%	82	82	84

Customers

Category	Unit	2019	2020	2021
Customer Satisfation				
Customer Satisfaction Measurement[1]	Point(s)	88.7	88.9	90.2
PW	Grade	Under Performing	Performing	Under Performing
GE		AV(Average)	EX(Excellent)	AV(Average)
RR		CL(Class Leading)	CL(Class Leading)	CL(Class Leading)
Voice of the Customer (VoC) Management				
Ratio of customer complaints handled on time[2]	%	87	89	90

1) The ratio of customers who responded "satisfied" out of the total number of customers who responded to the survey
2) The ratio of complaints handled in 30 or 90 days; calculated on a cumulative basis

Local Communities

Category		Unit	2019	2020	2021
Corporate Social Responsibility (CSR) Activities					
CSR activities	Expenses spent	KRW 1 million	523	365	241
	Number of beneficiaries	Person(s)	18,810	149,805	247,201
Donations	Total donation amount	KRW 1 million	1,215	748	807
	Donations by the company		978	523	644
	Donations by employees		237	225	163
Employee volunteering	Number of participants	Person(s)	3,026	659	2,103
	Participation rate	%	148.6	32.8	107.7
	Total volunteering hours	Hour(s)	14,199	3,444	7,150
	Volunteering hours per employee	Hour/person	4.7	5.2	3.4
Policy Support Expenditures					
Contributions and other expenditures	Support for military troops	KRW 1 million	95	48	52

Supply Chain

Suppliers

Category		Unit	2019	2020	2021
Total number of suppliers	Subtotal	Number(s)	800	872	774
	Changwon		488	502	464
	Asan		312	370	310
Total procurement from suppliers	Total procurement (Changwon)	KRW 1 million	816,402	783,750	699,018
	Procurement from local suppliers		210,656	197,111	191,756
	Ratio of procurement from local suppliers	%	25.8	25.1	27.4
	Total procurement (Asan)	KRW 1 million	70,579	126,906	101,759
	Procurement from local suppliers		54,456	92,805	77,319
	Ratio of procurement from local suppliers	%	77.2	73.1	76.0

Win–Win Growth Index (Korea Commision for Corporate Partnership)

Category	Unit	2019	2020	2021
Evaluation result	Grade	Inadequate	Excellent	N/A

Implementation of Fair Trade Agreements (Korea Commision for Corporate Partnership)

Category	Unit	2019	2020	2021
Evaluation result	Grade	N/A	Excellent	N/A

Activities to Promote Mutual Growth

Category		Unit	2019	2020	2021
Mutual growth fund	Total amount of fund (A+B)	KRW 1 million	24,000	34,000	25,000
	Amount of fund from financial institutions (A)		12,000	12,000	3,000
	Amount of fund from Hanwha Aerospace (B)		12,000	12,000	22,000
	Total amount of fund executed		24,000	34,000	25,000
Technical support	Number of tasks	Time(s)	37	39	16
	Number of technical data deposits	Case(s)	5	6	6
Support for COVID 19–hit suppliers	Relief fund for businesses in need	KRW 100 million	n/a	6	15

Governance

Board of Directors (BOD)

Category		Unit	2019	2020	2021
BOD composition	Inside directors	Person(s)	1	1	2
	Non-executive directors	Person(s)	1	1	1
	Outside directors	Person(s)	3	3	4
	Ratio of female directors	%	0	0	29
BOD operation	Number of meetings held	Session(s)	10	9	10
	Attendance rate	%	92	98	97
	Number of agenda items	Number(s)	33	40	42

Director Remuneration

Category		Unit	2019	2020	2021
Registered directors (excluding outside directors and Audit Committee members)	Number of directors	Person(s)	2	2	3
	Total remuneration	KRW 1 million	653	545	943
	Average remuneration per director		354	273	314
Outside directors (excluding Audit Committee members)	Number of directors	Person(s)	0	0	1
	Total remuneration	KRW 1 million	0	0	66
	Average remuneration per director		0	0	66
Audit committee members	Number of directors	Person(s)	3	3	3
	Total remuneration	KRW 1 million	264	241	255
	Average remuneration per director		82	80	85

CEO Remuneration

Category	Unit	2019	2020	2021
CEO remuneration amount	KRW 1 million	653	545	579
Average compensation of all employees	KRW 1 million	84	79	80
Ratio of CEO remuneration to average wage of employee	Multiples	8	7	7

Compliance

Category		Unit	2019	2020	2021
Compliance with laws and regulations	Number of violations	Case(s)	0	0	0
	Number of lawsuits filed	Case(s)	0	0	0
	Number of non-financial punishments	Case(s)	1	0	0
	Amount of fines imposed	KRW 1 million	0	0	0
Compliance with fair trade regulations	Number of violations	Case(s)	0	1	0
	Amount of fines imposed	KRW 1 million	0	0	0

Information Security

Category	Unit	2019	2020	2021
Number of cybersecurity accidents	Case(s)	0	0	0
Number of personal data leaks	Case(s)	0	0	0
Number of cases in which customer information was used for secondary purpose(s)	Case(s)	0	0	0

Ethics/Compliance Education and Training

Category		Unit	2019	2020	2021
Ethical management education	Total hours of training and education	Hour(s)	1,723	1,050	1,037
	Number of participating employees	Person(s)	1,723	1,050	1,037
	Training hours per employee	Hour/person	100	100	100
Compliance education	Total hours of training and education	Hour(s)	1,723	1,050	1,037
	Number of participating employees	Person(s)	1,723	1,050	1,037
	Training hours per employee	Hour/person	100	100	100
Sexual harassment prevention education	Total hours of training and education	Hour(s)	2,004	2,040	1,968
	Number of participating employees	Person(s)	2,004	2,040	1,968
	Training hours per employee	Hour/person	100	100	100
Fair trade education	Total hours of training and education	Hour(s)	1,782	1,006	527
	Number of participating employees	Person(s)	891	503	527
	Training hours per employee	Hour/person	200	200	100
Compliance-related cases reported internally	Number of corruption cases reported	Case(s)	1	3	0
	Number of cases for which corrective measures were taken	%	100	100	N/A

Appendix

UN SDGs Commitment

The UN SDGs (UN Sustainable Development Goals) are a common set of goals of the global community to address environmental, social, and economic issues. Under the overarching framework of the UN SDGs, Hanwha Aerospace engages in a wide range of activities to create a sustainable future for everyone.

UN SDGs	Goal targets	Major Activities of Hanwha Aerospace
End poverty in all its forms everywhere.	1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable. 1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.	• Offer financial support to those in underserved communities through Matching Grant, a program under which employees voluntarily donate a certain portion of their monthly wages • Produce wheeled carts for seniors collecting waste paper in local communities and share technological knowhows for manufacturing lightweight hand carts with local governments across Korea • Expand job opportunities for those in socially marginalized groups through preferential bonus points for people with disabilities and national veterans
End hunger, achieve food security and improved nutrition and promote sustainable agriculture.	2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.	• Provide foods including kimchi to underserved households, welfare centers, and childcare centers in local communities via volunteering activities, starting as Winter Kimchi Sharing (since 2013) and later continuing as Summer Kimchi Sharing (since 2016)
Ensure healthy lives and promote well-being for all at all ages.	3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.	• Protection of employees' health: Conduct regular inspections for assessng risks of musculoskeletal disorders, eliminate harmful substances that induce 24 major occupational diseases (including inhalable substances), early management of those with symptoms, and deploy internal experts • Response to COVID-19: Operate programs for telecommuting/vaccination leaves, support testing for those with symptoms, and provide personal protection kits to employees going on business trips abroad
Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.	4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations. 4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.	• Hanwha Aero Academy: Offer opportunities for adolescents to get aviation machinery-related trainings and career searching via programs for RC aircraft production, business site tour, and mentoring, to foster future talents • Hanwha Flame Messenger: Provide students with opportunities to explore their career path through lectures and talk concerts with famous speakers • 100% completion of the ethical education program for employees in 2021
Achieve gender equality and empower all women and girls.	5.1 End all forms of discrimination against all women and girls everywhere.	• Certified by UNICEF Korea as a 'Mother-Friendly Workplace' in 2020 and maintained the certification • 100% participation in the sexual harassment prevention education program • Promote a childcare-friendly work environment via the operation of relevant programs, including flex-time working hours, educational support for employees' children, and support for breastfeeding mothers at the workplace
Ensure availability and sustainable management of water and sanitation for all.	6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.	• Monitor water-related processes from water usage to water discharge • Recycle discharged water for developing chemicals to treat wastewater and for cleaning chemical rooms • Treat wastewater generated from manufacturing processes using internal treatment facilities to keep the level of pollutants from discharged water 30 percent below regulatory requirements

UN SDGs Commitment

UN SDGs	Goal targets	Major Activities of Hanwha Aerospace
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.	**8.2** Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors. **8.3** Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.	• Acquisition of quality certifications: Obtained the quality management system certification for the aerospace industry (KS Q 9100), certification for aviation maintenance (AS 9110), NADCAP accreditation for special processes, and the ISO 17025 certification for in-house laboratories • Rolls-Royce's PPAP certification (level 1): Authorized to give approval for inspected products for mass production for the first time in the world • Support quality management of suppliers via the DSQR2 system for delegated supplier quality representatives and Q-STEP 1 system for comprehensive quality assessment • Support for occupational health and safety of suppliers: Conduct council meetings with suppliers on a quarterly basis to verify their compliance with safety and health regulations, and support the establishment of a safety management system • Improvement of suppliers' business competitiveness: Host quarterly meetings with suppliers to share internal technological knowhows and industry trends • Cooperation for mutual growth: Offer financial support and technology protection measures to minimize management risks of suppliers; ensure early payments ahead of holiday seasons
Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.	**9.4** By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.	• Achieved number one for long-term agreements for global aircraft engines; to be included in the top five globally for the RSP (Risk and Revenue Sharing Partnership) business by 2025 • Expand the portfolio for eco-friendly businesses by placing the electric propulsion task force team under the direct leadership of the CEO, launching the electro-mechanical actuator (EMA) development business, and developing electricity-based urban air mobility (UAM) technologies • Promote the life cycle assessment (LCA), a technique to evaluate environmental impact in accordance with the ISO 14010 standards
Ensure sustainable consumption and production patterns.	**12.3** By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.	• Prohibiting the use of conflict minerals: Ban the purchase and use of four major conflict minerals (tin, tantalum, tungsten, gold) mined from conflict zones to comply with enforcement decrees of conflict mineral-related regulations and the European Union's conflict mineral restrictions • Suspend business transactions with countries currently classified as conflict regions (e.g., Iran, Russia)
Take urgent action to combat climate change and its impacts.	**13.2** Integrate climate change measures into national policies, strategies and planning. **13.3** Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.	• Reinforcement of energy management capabilities: Train energy experts for each organization, conduct tasks for energy rationalization, and operate an integrated disaster prevention center to monitor energy consumption • Operate a carbon mileage scheme to raise employees' awareness on reducing energy consumption under which mileage points are earned for energy saving efforts in daily life
Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.	**16.5** Substantially reduce corruption and bribery in all their forms. **16.6** Develop effective, accountable and transparent institutions at all levels.	• Promote transparent hiring processes and business transactions through the screening system for the recruitment of retired public officials • Anti-corruption efforts: Participated in the UNGC Compliance Commitment Ceremony, and joined the Transparent International (TI) Korea Forum in 2021 as a defense company in the Ministry of National Defense's public-private council to promote a transparent defense industry • Certification for compliance efforts: Acquired the ISO 37301 (compliance management) and ISO 37001 (anti-corruption management) certifications

Stakeholder Communication

At Hanwha Aerospace, we define customers, employees, local communities, shareholders/investors, suppliers, government, and academic institutions as major stakeholders that share the impact of our business operations. We will further strive to listen to the opinions of our stakeholders and communicate with them through various channels to consolidate a trusting relationship.

Stakeholder	Major Issues	Communication Channels
Customers	– Quality of services and solutions – After-sale maintenance services – Latest technologies and industry trends – Disclosure of information to prevent mis-selling – Safe product use	– Customer visits and technical support – Customer satisfaction surveys – Handling customer complaints and operating contact centers – Technical information exchange sessions and quality assessment meetings for customers – Hanwha Aerospace's online website, newsroom, and social media channels
Employees	– Employment and labor environments – Training and career development – Diversity and equal opportunities – Respect for human rights – Labor-management relations	– Labor-management council – Corporate intranet – Change Agent (CA) for each department – Grievance handling and reporting channels
Local Communities	– Invigoration of local economies – Environmental protection – Social contribution activities – Contribution to the UN SDGs – Transparent disclosure of information regarding the company's ESG impacts	– Media Day and press releases – NGOs and other related organizations, employee volunteer groups – Hanwha Aerospace's online website and social media channels
Shareholders and Investors	– Economic and financial performance – Investment strategies – Risk management – Sharing business-related information	– General shareholders' meeting – Electronic disclosure – Regular and occasional IR meetings and NDRs – Conferences hosted by securities companies
Suppliers	– Ecosystem for promoting fair trade practices and mutual growth efforts	– Councils and meetings with suppliers (e.g., the mutual growth council) – Internal deliberation committees – Voice of Customer (VOC) channels for suppliers – Reporting channels to promote fair trade practices and anti-corruption measures
Government and Academic Institutions	– Indirect economic effects – Compliance management and policy engagement – Faithful tax payments – Transparent disclosure of information	– Attending policy meetings – Participation in government collaboration programs – Activities with academic institutions and other associations

GRI Standards

GRI Standards	Category	Index No.	Indicators	Reported Page(s)	Others
Universal Standards					
GRI 2: General Disclosures 2021	The organization and its reporting practices	2-1	Organizational details	6-7p	
		2-2	Entities included in the organization' s sustainability reporting	2p	
		2-3	Reporting period, frequency and contact point	2p	
		2-4	Restatement of information	2p	
		2-5	External assurance	2p, 97p	
	Activities and workers	2-6	Activities, value chain and other business relationships	6-13p	
		2-7	Employees	83p	
		2-8	Workers who are not employees	83p	
	Governance	2-9	Governance structure and composition	87p	
		2-10	Nomination and selection of the highest governance body	62p	
		2-11	Chair of the highest governance body	63p	
		2-12	Role of the highest governance body in overseeing the management of impacts	64p	
		2-13	Delegation of responsibility for managing impacts	64p	
		2-14	Role of the highest governance body in sustainability reporting	14p, 64p	
		2-15	Conflicts of interest	-	Compliance with regulations regarding conflicts of interest in the Commercial Act and other domestic laws
		2-16	Communication of critical concerns	75p	
		2-17	Collective knowledge of the highest governance body	63p	
		2-18	Evaluation of the performance of the highest governance body	65p	
		2-19	Remuneration policies	65p	
		2-20	Process to determine remuneration	65p	
		2-21	Annual total compensation ratio	65p	
	Strategy, policies and practices	2-22	Statement on sustainable development strategy	14p	
		2-23	Policy commitments	14p, 32p, 72p	
		2-24	Embedding policy commitments	33p, 43p, 51p, 73p	
		2-25	Processes to remediate negative impacts	74-75p	
		2-26	Mechanisms for seeking advice and raising concerns	51p, 65-66p	
		2-27	Compliance with laws and regulations	70-73p	
	Stakeholder engagement	2-29	Approach to stakeholder engagement	91p	
		2-30	Collective bargaining agreements	85p	

GRI Standards	Category	Index No.	Indicators	Reported Page(s)	Others
Material Topics					
GRI 3: Material Topics 2021	Material topics	3–1	Process to determine material topics	16p	
		3–2	List of material topics	16p	
		3–3	Management of material topics	16p	
Economic Performance (GRI 200)					
GRI 201: Economic Performance 2016	Economic Performance	201–1	Direct economic value generated and distributed	80p	
		201–2	Financial implications and other risks and opportunities due to climage change	36–37p	
		201–3	Defined benefit plan obligations and other retirement plans	85p	
GRI 205: Anti–corruption 2016	Anti–corruption	205–2	Communication and training about anti–corruption policies and procedures	70–73p	
		205–3	Confirmed incidents of corruption and actions taken	87p	
GRI 206: Anti–competitive Behavior 2016	Anti–competitive Behavior	206–1	Legal actions for anti–competitive behavior, anti–trust, and monopoly practices	70–73p	
Environmental Performance (GRI 300)					
GRI 302: Energy 2016	Energy	302–1	Energy consumption within the organization	81p	
		302–3	Energy intensity	81p	
		302–4	Reduction of energy consumption	81p	
		302–5	Reductions in energy requirements of products and services	81p	
GRI 303: Water and Effluents 2018	Water and Effluents	303–1	Interactions with water as a shared resource	34p	
		303–2	Management of water discharge–related impacts	34p	
		303–5	Water consumption	34p, 81p	
GRI 305: Emissions 2016	Emissions	305–1	Direct (Scope 1) GHG emissions	81p	
		305–2	Energy indirect (Scope 2) GHG emissions	81p	
		305–4	GHG emssions intensity	81p	
		305–5	Reduction of GHG emissions	33p, 81p	
GRI 306: Effluents and Waste 2016	Waste	306–1	Waste generation and significant waste–related impacts	34p, 81p	
		306–2	Management of significant waste–related impacts	34p, 81p	
		306–3	Waste generated	81p	
		306–4	Waste diverted from disposal	81p	
		306–5	Waste directed to disposal	81p	

GRI Standards	Category	Index No.	Indicators	Reported Page(s)	Others
Social Performance (GRI 400)					
GRI 401: Employment 2016	Employment	401-1	New employee hires and employee turnover	49p, 83p	
		401-2	Benefits provided to full-time employess that are not provided to temporary or part-time employees	51p	
		401-3	Parental leave	84p	
GRI 402: Labor Management Relations 2016	Labor Management Relations	402-1	Minimum notice periods regarding operational changes	51p	
GRI 403: Occupational Health and Safety 2018	Occupational Health and Safety	403-1	Occupational health and safety management system	40p	
		403-2	Hazard identification, risk assessment, and incident investigation	41p	
		403-3	Occupational health services	42-43p	
		403-4	Worker participation, consultation, and communication on occupational health and safety	41-43p	
		403-5	Worker tranining on occupational health and safety	43p	
		403-6	Promotion of worker health	42p	
		403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	40-41p	
		403-8	Workers covered by an occupational health and safety management system	40-41p	
		403-9	Work-related injuries	82p	
		403-10	Work-related ill health	82p	
GRI 404: Training and Education 2016	Training and Education	404-1	Average hours of training per year per employee	84p	
		404-2	Programs for upgrading employee skills and transition assistance programs	49-50p	
		404-3	Percentage of employees receiving regular performance and career development reviews	85p	
GRI 405: Diversity and Equal Opportunity 2016	Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	83p, 87p	
		405-2	Ratio of basic salary and remuneration of women to men	85p	
GRI 406: Non-discrimination 2016	Non-discrimination	406-1	Incidents of discrimination and corrective actions taken	67-68p	
GRI 407: Freedom of Association and Collective Bargaining 2016	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	51p	
GRI 413: Local Communities	Local Communities	413-1	Operations with local community engagement, impact assessments, and development programs	56-60p	
		413-2	Operations with significant actual and potential negative impacts on local communities	-	Not applicable to this indicator
GRI 414: Supplier Social Assessment 2016	Supplier Social Assessment	414-2	Negative social impacts in the supply chain and actions taken	82p	
GRI 416: Customer Health and Safety 2016	Customer Health and Safety	416-1	Assessment of the health and safety impacts of product and service categories	38-39p	
		416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	82p	
GRI 418: Customer Privacy 2016	Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	76-77p	

SASB Index

Aerospace & Defense (RT-AE)

Topic	Code	Accounting Metric	Reported by Hanwha Aerospace
Energy Management	RT-AE-130a.1	(1) Total energy consumed	577,718 GJ
		(2) Percentage grid electricity	86.5%
		(3) Percentage renewable	N/A
Hazardous Waste Management	RT-AE-150a.1	Amount of hazardous waste generated, percentage recycled	N/A
	RT-AE-150a.2	Number and aggregate quantity of reportable spills, quantity recovered	0 case
Data Security	RT-AE-230a.1	(1) Number of data breaches	0 case
		(2) Percentage involving confidential information	0%
	RT-AE-230a.2	Description of approach to identifying and addressing data security risks in company operations and products	76p, 77p
Product Safety	RT-AE-250a.1	Number of recalls issued, total units recalled	The company does not internally manage this indicator topic.
	RT-AE-250a.2	Number of counterfeit parts detected, percentage avoided	
	RT-AE-250a.3	Number of Airworthiness Directives received, total units affected	
	RT-AE-250a.4	Total amount of monetary losses as a result of legal proceedings associated with product safety	KRW 0
Fuel Economy & Emissions in Use-phase	RT-AE-410a.1	Revenue from alternative energy-related products	The company does not internally manage this indicator topic.
	RT-AE-410a.2	Description of approach and discussion of strategy to address fuel economy and greenhouse gas (GHG) emissions of products	
Materials Sourcing	RT-AE-440a.1	Description of the management of risks associated with the use of critical materials	55p
Business Ethics	RT-AE-510a.1	Total amount of monetary losses as a result of legal proceedings associated with incidents of corruption, bribery, and/or illicit international trade	0 case
	RT-AE-510a.2	Revenue from countries ranked in the "E" or "F" Band of Transparency International' s Government Defence Anti-Corruption Index	N/A
	RT-AE-510a.3	Discussion of processes to manage business ethics risks throughout the value chain	70p, 71p

TCFD Index

Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

Topic	TCFD-Recommended Disclosures	Reported Page(s)
Governance	a) Describe the board's oversight of climate-related risks and opportunities.	36p
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	36p
Strategy	a) Describe the climate-related risks and opportunities the company has identified over the short, medium, and long term.	36p
	b) Describe the impact of climate-related risks and opportunities on the company's businesses, strategy, and financial planning.	36p
	c) Describe the resilience of the company's strategy, taking into consideration different climate-related scenarios, including a 2° C or lower scenario.	36p
Risk Management	a) Describe the company's processes for identifying and assessing climate-related risks.	37p
	b) Describe the company's processes for managing climate-related risks.	33p, 37p
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the company's overall risk management.	37p
Metrics and Targets	a) Disclose the metrics used by the company to assess climate-related risks and opportunities in line with its strategy and risk management process.	37p
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	37p, 81p
	c) Describe the targets used by the company to manage climate-related risks and opportunities and performance against targets.	33p, 37p

Independent Assurance Statement

To readers of Hanwha Aerospace sustainability Report 2022

Introduction

Korea Management Registrar (KMR) was commissioned by Hanwha Aerospace to conduct an independent assurance of its sustainability Report 2022 (the "Report"). The data and its presentation in the Report is the sole responsibility of the management of Hanwha Aerospace. KMR's responsibility is to perform an assurance engagement as agreed upon in our agreement with Hanwha Aerospace and issue an assurance statement.

Scope and Standards

Hanwha Aerospace 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 the Core Options of the GRI standards 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
- Universal standards
- Topic specific standards
  - GRI 205: Anti-Corruption
  - GRI 302: Energy
  - GRI 305: Emissions
  - GRI 401: Employment
  - GRI 404: Training and Education
  - GRI 416: Customer Health and Safety

As for the reporting boundary, the engagement excludes the data and information of Hanwha Aerospace' 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 Hanwha Aerospace 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.

Independent Assurance Statement

Conclusion and Opinion

Based on the document reviews and interviews, we had several discussions with Hanwha Aerospace 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 Core Option of the GRI Standards. Nothing comes to our attention to suggest that the Report was not prepared in accordance with the AA1000AP (2018) principles.

Inclusivity

Hanwha Aerospace 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

Hanwha Aerospace 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

Hanwha Aerospace 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 Hanwha Aerospace actions.

Impact

Hanwha Aerospace 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 Hanwha Aerospace and did not provide any services to Hanwha Aerospace that could compromise the independence of our work.

August 2022 Seoul, Korea

CEO **Eun ju Hwang**

E. J Hwang

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Hanwha Aerospace