Sustainable Solutions, **Sustainable Tomorrows**



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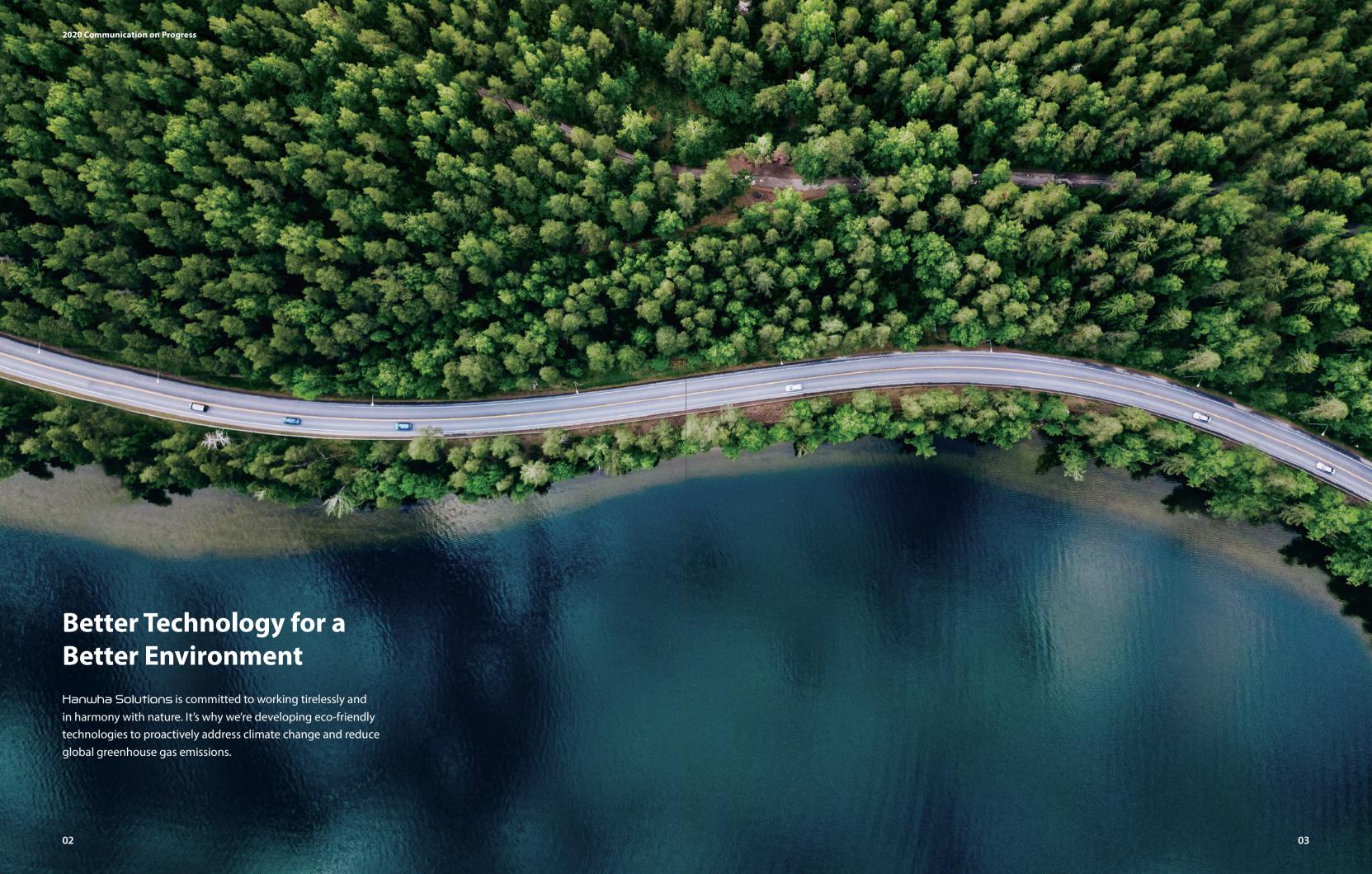
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UNGC COMMUNICATION ON PROGRESS

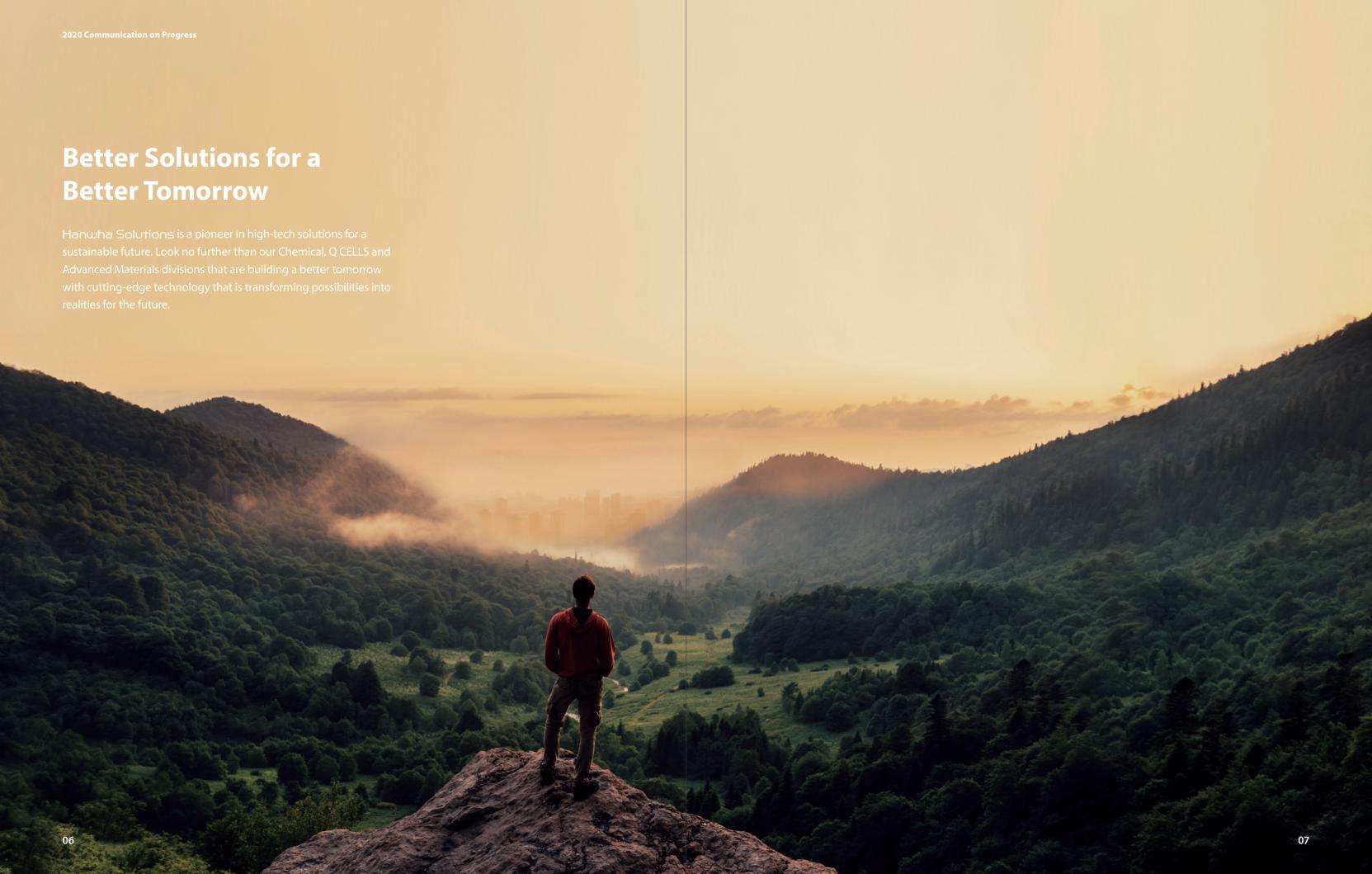
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Hanwha Solutions' competitive differentiation has been achieved with in-house technology that is evident in our sustainable solutions across markets in chemical, solar and advanced materials. We're driven by a pioneering spirit and dedication to the end users of our products and services. Our integrity guides us to do what's right and to do it well. Our three divisions – Chemical, Q CELLS and Advanced Materials – are each committed to achieving and maintaining our global leadership, not just to be the best at what we do, but to solve problems for our customers, our communities, and our environment.

Our sustainable solutions that produce energy to advanced materials make a difference to tomorrow and to customers worldwide. Hanwha Solutions' proven approach to success is to be creative, stay competitive and to adapt to on paradigm shifts in each of the industries in which we do business.







2020 Communication on Progress > Part1. Company Profile Message from the CEO

Sustainable solutions for all, from energy to materials



Hanwha Solutions' smart energy solutions and customer-focused materials are designed to help the world achieve its sustainable development goals and make it a better place for all.

Message from the CEO

Hanwha Solutions is becoming a global leader in energy and materials solutions and living up to our new vision: "Sustainable solutions for all, from energy to materials." We are also making efforts to achieve the global agenda for a sustainable future. To this end, we're constantly working to solve issues that impact the environment, economy and global communities.

We joined the UNGC Global Compact in 2012 to grow our business together with stakeholders, customers, shareholders, suppliers, and employees. Since then, we have adopted and put to practice the UNGC's Ten Principles for human rights, labor, environment, and anti-corruption throughout our management activities.

This *Communication on Progress* report contains key activities and achievements we're making toward our effort to comply with UNGC's Ten Principles.

We're proud of our accomplishments, however, there's more to do in this difficult but very meaningful journey. This is a journey that requires solutions that have yet to be found. At Hanwha Solutions, we have the confidence to succeed, we just need your faith that we'll follow through in creating value for this generation and the generations to come – the kind of value that sustains us all, and the world we live.

Thank you.



December 2020

Gu-Young LeePresident & CEO
Hanwha Solutions

2020 Communication on Progress > Part1. Company Profile Company Overview

Company Overview

Hanwha Solutions was formed in 2020 with the merger of Hanwha Chemical, Hanwha Q CELLS and Hanwha Advanced Materials. We aim to deliver sustainable solutions for the planet through smart energy solutions and customer-focused materials. We are committed to enriching the future with sustainable solutions for all, from energy to materials.

Company Information

> Company Name Hanwha Solutions Corporation

Year Founded 1965

No. of Employees 5,546 (As of March 2020)

CEO Gu-Young Lee, Hee-Cheol Kim, Doo-Hyung Ryu, Dong-Kwan Kim

Major Businesses Chemicals: PO, PVC, CA, TDI

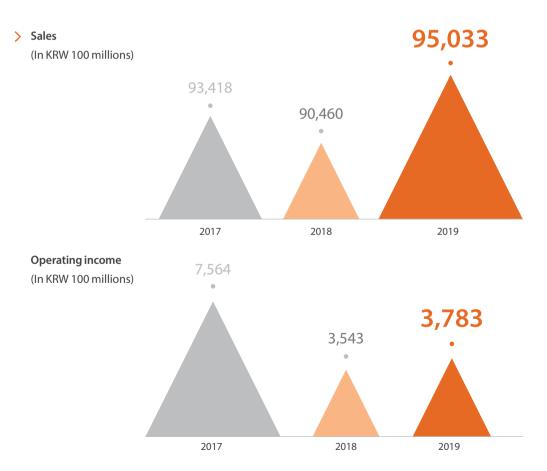
Q CELLS: Solar cells & modules, energy, system solutions, downstream

activities, energy retail

Advanced Materials: Automotive materials, electronics materials, solar materials

Head Office Hanwha Building, 86 Cheonggyecheon-ro, Jung-gu, Seoul, Korea

Key Economic Performance

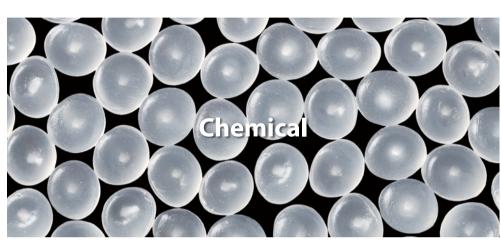


Products at a Glance

We're deeply committed to developing products of the highest quality. And, we track and analyze industry trends and the changing needs of our customers. As a leader with great technology and products, our Chemical Division is directly contributing to the industry it's in. Our Q CELLS Division, renowned for its manufacturing technology, is the leader of global energy solutions with the world's No. 1 market share in solar energy in several countries. And our Advanced Materials Division is finding great success with its innovative product lineup across lightweight composite, solar and electronic materials.

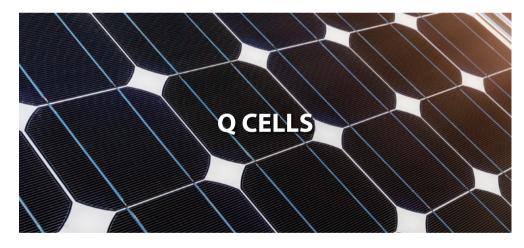
Chemical Division

- · PO (Polyolefin)
- LDPE, EVA, LLDPE, HDPE, wire and cable compounds, hydrogenated hydrocarbon resin
- PVC (Polyvinyl Chloride)
- PVC resin, CPVC, PSR, plasticizer, OA, PA / MA
- · CA (Chlor-Alkali)
- Caustic soda, chlorine, EDC, VCM, ECH, hydrochloric acid, HYPO
- TDI (Toluene Diisocyanate)
- TDIs, TDI derivatives, TM, TDAs, XDI



Q CELLS Division

- · Solar Modules
- Q.PEAK DUO-G5, Q.PEAK DUO-G6, Q.PEAK DUO-G7, Q.PEAK DUO-G8, Q.PEAK DUO BLK ML-G9 (ZERO-GAP), Q.PEAK DUO L-G8.3/BFG (Bifacial)
- Energy System Solutions
- Q.HOME+ ESS HYB-G2, Q.FLAT-G5, Q.MOUNT
- Downstream Activities
- Energy Retail



Advanced Materials Division

- · Automotive Materials
- StrongLite (GMT, glass fiber matreinforced thermoplastic), SuperLite (LWRT, low weight reinforced thermoplastic), BuffLite (EPP, expanded polypropylene), IntermLite (Auto interior material, PMC), SMC (Sheet molding compound)
- · Type 4 Composite Material
- Solar Materials
- EVA sheet, back sheet
- Electronic Materials
- LinkTron (Materials for mobile device and display)
- Advanced Materials

UN Global Compact (UNGC)

Hanwha Solutions joined the United Nations Global Compact in January 2012. Since then, we have honored and complied with the UNGC's ten principles of human rights, labor, environment, and anti-corruption. As a global company, we have a responsibility to serve as a good corporate citizen and to this end, we will continue to practice the UN Global Compact's Ten Principles.

The UN Global Compact's Ten Principles





1. Human Rights

Principle 1 Businesses should support and respect the protection of internationally proclaimed human rights.

Principle 2 Businesses should make sure that they are not complicit in human rights abuses.



2. Labor

Principle 3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.

Principle 4 Businesses should uphold the elimination of all forms of forced and compulsory labor.

Principle 5 Businesses should uphold the effective abolition of child labor.

Principle 6 Businesses should uphold the elimination of discrimination in respect of employment and occupation.



3. Environment

Principle 7 Businesses should support a precautionary approach to environmental challenges.

Principle 8 Businesses should undertake initiatives to promote greater environmental responsibility.

Principle 9 Businesses should encourage the development and diffusion of environmentally friendly technologies.



4. Anti-Corruption

Principle 10 Businesses should work against corruption in all its forms, including extortion and bribery.

Sustainability Management System

One way in which Hanwha Solutions seeks to maintain and increase its competitiveness is by embracing future growth engines for sustainable growth. To do this, Hanwha Solutions is modifying its business structure. Whether it is with new growth engines or new solutions, we're employing cutting-edge management systems and making changes inside and out to improve sustainability today, so we can make it better for everyone, tomorrow.



Our Promise for Sustainable Growth

> As a forward-looking, socially responsible company, Hanwha Solutions requires all employees to observe six key principles in their daily operations. These principles reflect our business objectives and management philosophy:

 $\cdot \ \text{We conduct all business to ensure social and environmental sustainability and benefit}$

 $\cdot We \, respect \, regional \, characteristics \, where \, we \, conduct \, business \, and \, contribute \, to \, local \, development \, and \, contribute \, to \, local \, development \, and \, contribute \, to \, local \, development \, and \, contribute \, to \, local \, development \, and \, contribute \, to \, local \, development \, and \, contribute \, to \, local \, development \, and \, contribute \, to \, local \, development \, and \, contribute \, to \, local \, development \, and \, contribute \, to \, local \, development \, and \, contribute \, to \, local \, development \, and \, contribute \, to \, local \, development \, and \, contribute \, to \, local \, development \, and \, contribute \, to \, local \, development \, and \, contribute \, to \, local \, development \, and \, contribute \, to \, local \, development \, and \, contribute \, to \, local \, development \, and \, contribute \, to \, local \, development \, and \, contribute \, contri$

· We address the wishes of stakeholders and improve in areas where they raise concern

· We meet our duty to law and ethical standards sincerely and fairly

 $\cdot \ \, \text{We respect the importance of environmental management and comply with environmental,} \\ \, \text{safety, and health guidelines} \\$

· We share with communities and take part in social contributions with pride and responsibility

2020 Communication on Progress > Part1. Company Profile

Key Directions of Sustainability Management

> Hanwha Solutions conducts sustainability management with a view toward economic, social, and environmental goals, while also reflecting the diverse opinions of our stakeholders.

Category	Directions	Organizations
Compliance Management	 Comply with laws and market regulations Conduct periodical education programs and appoint compliance officers for promoting compliance management Develop clear ethical guidelines and a whistle-blowing system Appoint foreign and female external directors to solicit a range of opinions and diversify the Board members Divide the Chair of the Board and CEO for enhancing the independence of the Board Monitor compliance practices and build a management system to prevent compliance risks 	Chemical Division: CR Planning Team / Legal Affairs Team Q CELLS Division: Corporate Legal Office
Corporate Citizenship	 Set systematic strategies for social outreach activities Conduct social contribution programs to engage local communities Promote employee voluntary and active participation Continue social contribution activities customized for beneficiaries Provide fundamental problem-solving programs such as vocational training for self-sustaining 	Chemical Division: General Affairs Team Q CELLS Division: Talent Planning Team Advanced Materials Division: Personnel Team / Sejong General Affairs Team
Environmental Management	 Diversify the business portfolio through eco-friendly and future-oriented approaches Continuously improve the safety and eco-friendliness of products Foster competitiveness in renewable energy technologies Establish and operate environmental, safety, and health management systems Comply with environmental laws, regulations and external requirements and minimize environmental pollution and risks Disclose environment, safety and health policies and related information in a transparent manner Conduct resources and energy-saving programs 	Chemical Division: Environment Safety Team / R&D Center Q CELLS Division: Environmental Safety Team Advanced Materials Division: Environmental Technology Team
Win-win Partnership	 Establish partnerships based on trust Grow together with customers Enhance the competitiveness of suppliers Build autonomous fair-trade practices 	Chemical Division: Partnership Development Team QCELLS Division: Planning and Coordination Team Advanced Materials Division: Planning and Coordination Team Team
Talent Management	Implement fair, systematic and transparent talent development Adopt systems to encourage work-life balance Empower female employees Provide rational performance assessment and training opportunities for capability growth	Chemical Division: HR Planning Team / Recruiting Strategy Team / Labor- Management Relations Team QCELLS Division: Talent Development Team Advanced Materials Division: Personnel Team

Stakeholder Communication

Hanwha Solutions has formed collaborative relationships with stakeholders, including customers, shareholders, suppliers, non-profit organizations and government agencies. We regularly distribute relevant information through our website and social media. In order to reflect the opinions of stakeholders on sustainable development through seamless interactions, we provide the communication channels listed below.

Key Communication Channels

Shareholders and Investors

General shareholders' meetings
Annual reports, disclosures
IR meetings
IR presentations

Annually, we organize a general meeting of shareholders and investors to inform them of our business and financial performance. We also provide time for shareholders to present their opinions on key agendas. Through periodic IR sessions and analyst days, we disclose key management performance data. From the IR presentation for first quarter of 2020, we introduced "audio webcasting," the first of its kind among Hanwha affiliates.

Employees

Sustainability Management System > Stakeholder Communication



• Square channel (Chemical Division) • Employee meetings

Our Chemical Division has an open door

policy for employee communication to

employees through Square, an internal

encourage the flow of creative ideas,

discussions and feedback from

communication channel. We also

maintain careful, cooperative labor-

management relations through our

Labor-Management Council and

employee meetings.

Employee meetingsLabor-ManagementCouncil

Chaired by the CEO, we conduct informal meetings with the CEOs of supplier companies to address their problems and seek mutually beneficial solutions.

Through cooperation with the Korea Energy Agency, we help to enhance the competitiveness of supplier companies in the energy industry, as well as supporting facility investment.

Supplier and Customer

· Supplier CEO meetings

· Shared growth activities

· Seminars on energy

(Chemical and Advanced Materials divisions)

Companies

Local Communities and Environmental Organizations



Volunteer activitiesEnvironmental preservation

Safety Council
 (Chemical and Advanced Materials divisions)

 Solar Startup Academy (Chemical and Advanced Material divisions)

We provide a range of socio-cultural assistance for the socially marginalized. Working with local communities, we conduct periodic environmental preservation activities and lead in the maintenance of a clean local environment. We also operate Solar Startup Academy to boost our solar power generation business.

Government and NGOs



Partnership Committee
 Fair trade agreement
 Mutually beneficial
 relationship index

By operating the Internal Transaction
Committee, Internal Transaction Review
Committee and Subcontracting Review
Committee, we maintain our compliance
through laws and transparent management.
We proactively respond to key industry issues
through meetings and voluntary agreements
with government and non-governmental
organizations. We also actively fulfill our
commitment to fair-trade agreements and the
Win-Win Index, an index to measure how
large corporations treat small-sized
subcontractors.

Creating a more sustainable future for our planet



Together

> Part2. UNGC Communication on Progress

Hanwha Solutions has a single purpose to continue making positive impact to economies, societies and the environment. We have pride in leading with our smart energy solutions and advanced materials technologies tailored to the needs of our customers but it is our progress toward a better world and our shared success with people where we find true satisfaction.

Human Rights

A corporate culture that embraces dignity and respect

Hanwha Solutions fosters a culture of dignity and respect at work. The cornerstone of our culture of dignity and respect is promoting a positive work environment and making our employees feel valued. We also encourage our employees to join in the greater efforts to give back to the communities by volunteering and implementing social activities to improve the welfare of local communities and ultimately, to a better future for all.

Talent at Hanwha Solutions

> At Hanwha Solutions, trust and loyalty are integral to everything we do. Our trust means to be honest and reliable for anyone, under any circumstances. And loyalty is our ties with others that once forged, are cherished and forever. They are reflected in our core values of challenge, dedication and integrity – they are also part of our corporate culture practiced by our talented employees at Hanwha Solutions.

Our Talent

Our greatest asset is our talented people who share our core values and can act on them.

Core Values



that we are not afraid to challenge the status quo and instead, we pursue excellence through change and

Our value "Challenge" means

innovation. Our people:

- Proactively work to become the best professionals in our field.
- Are open minded and creative in their approach in finding new opportunities.
- Set and achieve challenging goals with a "can do" spirit.



We are dedicated, loyal, and we highly value relationships with companies, customers and colleagues. Our people:

- Think "we" first and make common goals, our higher priorities.
- Stress the importance of keeping customer promises and constantly seek to increase customer value.
- Work together and trust our colleagues to do what's right.



We are people of integrity and we act in accordance to a set of ethical and moral principles from which we derive our sense of pride. Our people:

- Engage in honest and fair business practices, seeking to achieve long-term goals without temptation for short-term gains.
- Treat others with respect and transparency. We focus abilities, performance, and acting virtuously regardless of consequence or circumstance.

Employee Welfare Benefit Plans

Hanwha Solutions provides a variety of employee welfare benefit programs that recognize, reward, and take care of our employees. One example is our *Get Refreshed Vacation* time that provides up to ten paid-time-off days for personal use. Our employees can use this time to relax or devote time for self-development. We also offer a range of benefits to take care of our employees, including: health insurance that covers medical expenses for employees and their families; housing assistance; stipends for certain events, recognition awards; cash awards; shuttle services to/from work; fitness club access/privileges; personal development assistance; resort vouchers; family leave; and more.

Self-development Opportunities and Vacations

- One-month sabbatical after promotion
- Years of Service Awards (10, 20 and 30 years) that includes a paid flight to an international destination
- Company funded domestic or international PhD programs (Chemical Division)
- Regional specialist job training programs (Chemical Division)
- Cash awards for exemplary performances
- Annual cash awards for outstanding employees in various positions
- Discounted vouchers for any
 Hanwha Resorts in South Korea
- On-site workplace language train
- Three-month cultural training opportunity for new employees at international subsidiaries (Advanced Materials Division)

Housing and Education for Dependents

- Local company housing or dormitory (private room)
- Relocation reimbursementTuition support for children
- (including admission fees)
- Personal business leave
- Interest-free home loans (Chemical Division)
- Interest-free housing funds for singles living away from family (excludes employees working in Seoul metropolitan area) (Advanced Materials Division)

· Childcare financial assistance

 Additional pay for rural locations (Chemical and Advanced Materials divisions)

Work-Life Balance

- Flexible working during pregnancy
- Maternity leaves
- Bereavement leave for miscarriage or stillbirth
- · Paternity leave
- Flexible working during early stages of parenthood
- Childcare leave
- Pregnancy support, including leave and financial support for those having difficulty becoming pregnant

Social Contribution

> Hanwha Solutions remains committed to doing its part as good corporate citizen. Our part is to help make the future of the world brighter and the people in it, healthier. We believe this vision is best realized by working, sharing, and caring, together. This is why we created and live by our slogan: "Go Further Together."

Corporate Citizenship

Go Further Together

Hanwha's founding philosophy is to contribute to society through business.

And coupled with our belief and practices to integrate our *Trust* and *Loyalty* in everything we do, we're building strong bonds with communities and working together with partners, businesses, and people to drive societal change. After all, we "Go Further Together."

Social Contribution Mission

We believe we can go further together and build a better future

Core Areas and Vision

Talent Development

Help employees achieve their dreams



Enrich people's lives

Eco-friendly Environment

Create a greener tomorrow



Foster the spirit of sharing

Social Contributions to Enhance Lives

Through our social contributions, Hanwha Solutions is creating a sustainable tomorrow where everyone can live better lives. To make the world a healthier, cleaner, and happier place to live, we have implemented a range of programs that include those that help future generations prosper, preserve the environment, promote culture and the arts, and help those less fortunate.





Healthy Workplace

- Health insurance for employees
- Health insurance for employee family members (Chemical Division)
- Health exams paid by Hanwha for employees and their spouses
- On-site fitness club
- On-site health clinics
- Team-building activities e.g. Group attendance to sporting events

Happy Workplace

- Shuttle service to work
- · Workplace cafeteria
- On-site social activities and entertainment
- Get Refreshed Vacation time
- Gift cards
- Gifts on Labor Day and company anniversaries

Eco-friendliness Education Program

> Energy Class for Tomorrow

Since 2013, the Chemical Division has overseen the Energy Class for Tomorrow, an employee volunteer program that helps elementary students understand how important sustainable energy is in their lives. The program offers hands-on experience for children to learn about renewable energy sources that lead to a pollution-free future. To provide in-depth learning opportunities, we developed courses by collaborating with an outside professional education center, Korea Environmental Education Center. As a result, in 2018, we won the grand prize at the Donation for Education Award from the Ministry of Education, and was accredited as a leader in educational philanthropy. In 2019, the program was also designated as an excellent environmental education program by the Ministry of Environment.

Hanwha Eco School

Under our slogan "Friends for Tomorrow," our Advanced Materials Division has been leading co-prosperity efforts within local communities since 2015. And by operating the Hanwha Eco School program for elementary school students in Sejong City and Eumseong city, we're giving children the opportunity to take part in various scientific experiments that teach sustainability and programs with hands-on experiences. Through phenomena-based instructions, we are teaching children to improve their ability to solve problems and at the same time, inspiring their interest in energy and protecting the environment. We have an agreement with elementary schools in Sejong City and Eumseong city to provide a curriculum for senior students every year. Professional science instructors versed in multidisciplinary instructional approach, oversee 12 programs that are rich in science experiments, and experiential learning activities on sustainability and various scientific concepts.

Community Program > Headquarters: (Chemical Division)

Volunteer Programs That Use Employee Talent

We Care Volunteer Corps is a program we established to reconnect international adoptees with their families in Korea. Our employees who are fluent in foreign languages help as coordinators for this program. Global Village Classes is another program we developed to provide support to children who are in multicultural families. In addition, our photo club members offer free photos to celebrate the first birthday of babies at orphanages. And our National Pottery Contest for the physically challenged encourages them to take part in cultural activities.

Daedeok R&D Center:

Educational Programs That Leverage Employee Expertise

Our Daedeok R&D Center established the Hanwha Chemical School that enables children to learn about chemicals through unconventional and fun coursework. As part of career development for local high school students, the center provides access to Gyeonggi Dream College for their chance to explore higher education opportunities. The center also promotes joint social contribution activities in partnership with other affiliates of Hanwha Group within the Chungcheong area.

Supporting for Marginalized Areas and Multicultural Families

Volunteers from the Yeosu Plant visit and help residents in neighboring islands learn to prevent fire accidents and make their surroundings safer with the help under our Loving Islands and Local Communities campaign. They are all part of our belief of Go Further Together and our plan to support families with multicultural backgrounds. We're also driving awareness among locals and pushing campaigns that protect marine life, as part of our social contribution activities.

Ulsan Plant:

Collaboration with Regional Professional Organizations and Other Corporations

The local, social contribution activities initiated by the employees at the Ulsan Plant include: a stream bank cleanup program that uses soil balls containing effective microorganisms (EM); an event for war veterans and patriots; periodic volunteer activities hosted by a partnership between our production teams and outside professional organizations; Kimchi-making activities led by employees' families; and joint projects with local corporations.

Community Program (Q CELLS Division)

Headquarters:

Eco-friendly and Community Service for a Sustainable Future

Since 2018, we have been using soil balls containing effective microorganisms (EM) and removing harmful plants along the Hongjecheon stream in Seoul. On every traditional Korean holiday, our employees distribute food to the underprivileged and provide low-income single mothers with traditional Korean wear so that they can dress appropriately for a long-held tradition with their newborns. Other programs include vocational training for the developmentally disabled and support for low-income families with a disabled family member.

At Plants across Korea:

Promoting Sports for the Disabled in the Chungbuk Area

One of the things we're doing to help communities is to give the people with disabilities a chance to participate professionally in sports. On July 23, 2019, we established the Hanwha Q CELLS Special Sports Team organization. We actively recruited and trained athletes with disabilities in the Chungbuk region. We built a support system for these athletes and established a sports organization where these talented athletes with disabilities could excel.

Community Program (Advanced Materials Division)

Headquarters:

Volunteer Programs for the Community and Social Value

Since 2017, we have sponsored the Neulharang Choir. This is a choir that is made up of children representing nine children centers in Sejong City. We're also helping the citizens of Sejong to move safely and more freely through the city with the Barrier Free campaign, an initiative to build ramps for wheelchair, silver vehicles, and strollers. In addition, we support the underprivileged and people in need during traditional holidays, Children's Day and Parents' Day in collaboration with community welfare institutions.

Sejong and Eumseong Plants:

Volunteer Activities Linked to Local Social Welfare Institutions

By establishing partnerships with nursing facilities, residential facilities for the disabled and general social welfare centers within the Chungbuk area, we have been able to initiate and sponsor a wide range of volunteer programs. This is our way of continually sharing our success as a business with local communities and their children, the elderly, and the disabled.

Eco-Friendly Solar Energy Sharing (Q CELLS Division)

> Happy Sunshine Campaign

Hanwha is driving the use of sustainable energy in communities with expertise gained from vertical integration of our solar businesses. Our best-known program is Happy Sunshine, a project where we donated a total of 2,014kW solar power generation systems to 291 welfare centers in South Korea to help them save on utility bills. We also operate the Hanwha Hope Project where we donated solar power generation systems to elementary schools in underserved areas in China.

Hanwha Solar Forest

Since 2011, the Hanwha Solar Forest campaign has planted 500,000 trees across seven locations in Korea, Mongolia, and China. Our three forests in China and one in Incheon used the seedlings grown by solar energy facilities and donated by Hanwha. Hanwha Solar Forest is the first demonstration of how solar energy can be used to prevent desertification. The UNCCD has praised it as a best practice, urging others to follow.

Solar Panels Donated to Davos

The World Economic Forum, held annually in Davos, Switzerland, draws attention to pressing issues facing the world, such as environmental sustainability. In a show of support, we have donated photovoltaic modules to the City of Davos since 2013. The solar modules donated by Hanwha Solutions have a capacity of 340KW. This amount of energy is enough to reduce 20 tons of CO2 emissions per year.

Clean Up Mekong Campaign

In June 2019, to commemorate World Environment Day, Hanwha launched the Clean Up Mekong campaign to help address one of the world's ongoing environmental issues: water waste. We donated solar-powered boats that could remove waste from the Mekong River before the river water empties into the Pacific Ocean. We also developed a digital media campaign to publicly raise environmental awareness and educate the people of Vietnam on the use of eco-friendly energy and their responsibility to prevent climate change.









Labor

Enhancing our labor-management culture through collaboration and win-win relationships

Hanwha Solutions's approach to maintaining a win-win labor-management relations is to make there's alignment to the vision and trust between the employees and management. There's ongoing appraisal and feedback that is both fair and helpful between the employees and management. We do our best to promote an organizational culture where employees are protected from discrimination, highly productive, engaged and satisfied.

Personnel System

A Fair and Transparent > Hanwha Solutions strives to build and maintain a work culture where employees are respected, engaged and continually encouraged to do their best with the support of a value-based, performance-driven personnel system. We evaluate and compensate individuals based on competency and performance. At the same time, we empower employees to set their own professional goals and evaluate their progress. Employees are expected to align their work objectives to that of their team and their organization but it's also an opportunity to develop professionally. Team leaders meet one-on-one with the employee where appraisal feedback is given and the employee can understand their evaluation and progress. Select employees who exhibit exceptional performance are put on a fast track to promotion through a special promotion program. The program is designed to encourage young talents to think out-of-the box, challenge the status quo, gain confidence and develop quicker into leaders in their careers.

Labor-Management Cooperation

> Chemical Division

Chemical Division		
Category	Content	
Wage and Collective Bargaining Agreement	 Wage Negotiations: Union member employee negotiations to increase wage (annually) Collective Bargaining: Union member employee negotiations to change working conditions (biannually) 	
Labor-Management Consultative Body Operation	 Labor-Management Council: Meetings to improve workplace environment (quarterly) Industry Safety and Health Council: Meetings to improve industrial safety (quarterly) 	
Joint Labor- Management Safety Activities	 Joint Labor-Management Safety Inspection: Joint labor-management managers inspect on-site safety (monthly) Joint Labor-Management Safety Campaign: Joint labor-management safety campaign and training (annually) 	
Family Day Invitations	 Parent Invitation: Invitation extended to parents of employees for recreation programs (annually) Spousal Invitation: Invitation extended to the spouse of employees to culture or lifestyle lectures (biannually) Children's Camp: Retreats and events for the children of employees (biannually) 	
Employee Engagement Activities	 Long-Service Celebration: Anniversary celebration for long-service employees (annually) Event for Rotational Shift Workers: Team building activities such as hiking and a party (annually) 	
Others	 PCOVID-19 Preventive Activities: Take temperatures of everyone entering the workplace Joint labor-Management Social Contribution Activities: Financially support multicultural families, descendants of national heroes who've died for the country, etc. 	

Q CELLS Division

Category	Content
Labor-Management Discussions	Labor-Management Council: Meetings between management and labor unions to improve workplace environment (quarterly)
	 Industry Safety and Health Council: Meetings between management and labor unions to improve industrial safety (quarterly)
Joint Labor-	Joint Labor-Management Safety Inspection: Joint labor-management on-site safety inspection (annually)
Management Safety Activities	 Joint Labor-Management Safety Campaign: Joint labor-management safety campaign and training (semiannually)
Labor-Management Partnership	Labor-Management, Supplier Meeting: Meeting between labor-management and suppliers for a win-win partnership (twice a year)
	 Benchmarking Labor-Management Best Practice: Benchmarking best practices by labor- management (annually)
	• Joint Labor-Management Workshop: Workshop for win-win, harmonious labor-management relationships (annually)
Employee	A Happy Workplace: Invitation extended to family members of employees for glamping (four times a year)
Engagement Activities	• Baseball Games: Watching Hanwha Eagles baseball games (twice a year)
Others	COVID-19 Preventive Activities: Measuring the temperature of everyone entering the workplace is standard operating procedure
Others	 Joint Labor-Management Social Contribution Activities: Briquettes of Love campaign, rewards for Going Further Together initiative, etc.

Advanced Materials Division

Cotegory	Content
Wage and Collective Bargaining Agreement	 Wage Negotiations: Union member employee negotiations to increase wage (annually) Collective Bargaining: Union member employee negotiations to change working conditions (biannually)
Labor-Management Consultative Body Operation	 Labor-Management Council: Consultation on improving workplace environment (quarterly) Meal Committee: Consultation on restaurant environment and meal quality improvement (quarterly) Industry Safety and Health Council: Consultation on industrial safety improvement (quarterly) Work Uniform Quality Improvement Committee: Consultation on work uniform quality improvement (twice a year)
Joint Labor- Management Workshop	 Joint Labor-Management Workshop: Workshop for win-win, harmonious labor-management relationships (annually) Collective Bargaining Committee Workshop: Workshop to promote communication among members of the Collective Bargaining Committee (annually)
Labor-Management Cooperation Education	 Joint Labor-Management Education: Education class on building harmony in labor-management relationships, class on cooperation and resolving workplace conflicts (annually) Change and Innovation Education: Education class for union members to help them manage change and innovation (annually)
Career Transition Assistance Program	Support for Workers Aged 50 and Older: Career transition assistances such as vocational training and financial support for employment
Others	 COVID-19 Preventive Activities: Take temperatures of everyone entering the workplace Joint Labor-Management Social Contribution Activities: Help people in need in neighboring communities, etc.

Diversity and Anti-Discrimination

Hanwha Solutions complies with the conventions of the International Labor Organization and all domestic labor laws. We prohibit child labor and forced labor. We also do not tolerate discrimination based on gender, religion, political affiliation, social status, nationality, or ethnicity, in hiring, assignments, promotions, compensation, or education. We require cross-cultural training for both executives and employees because we believe in building mutual respect and work against human rights violations in the workplace.

Work-Life Balance

> Hanwha Solutions promotes gender equality and women empowerment at the workplace through a variety of programs. During pregnancy, we guarantee periodic prenatal screenings, and allow mothers to adjust their office hours during pregnancy and the first stages of parenting. We provide maternity protection programs, including maternity leave that exceeds normal standards and our legal obligation. Additionally, our Chemical and Advanced Materials divisions provide childcare leave. We also offer four weeks of paid paternity leave for male employees to encourage a better balance between work and family. We celebrate pregnancies by providing pregnant employees with a gift set, "Mom's Package," which includes guides offering advice on protecting mothers and their newborns, as well as supplies that will assist mothers through their pregnancy. And one month before new mothers return to work from their maternity leave, we hold counseling sessions organized by trained personnel managers. These sessions help mothers relieve some of the psychological anxiety that may result from long-term maternity leave and and help them address issues around getting readjusted to work.

Prevention of Sexual Harassment

All Hanwha Solutions employees are required to attend sexual harassment prevention sessions at least once a year as part of our company-wide effort to maintain a healthy workplace culture and improve work satisfaction. We appoint at least one male and one female employee as sexual harassment prevention counselors at each of our workplaces. These counselors are responsible to ensuring that relevant programs are offered and attended by everyone in their organizations. We are establishing a work culture that is sexual harassment-free by making sure that those accused of sex offense cannot contact their accusers, all incidents are thoroughly investigated, and the stiffest penalties are applied to any sexual misconduct, including prosecution to the full extent of the law.









Environment

Responsible environmental management for a sustainable future

As a leader in solar energy solutions, Hanwha Solutions plays a large role when it comes to climate change response and national greenhouse gas reduction plans. We are also making a concerted effort to preserve natural resources such as air, water, and soil across regional communities. Part of our efforts include setting and following strict guidelines in the treatment of hazardous chemicals to reduce the risk of environmental incidents. By developing eco-friendly technologies, we are building a cleaner and safer environment for the future.

Air Pollution Protection

➤ Hanwha Solutions conducts a range of activities to efficiently manage and reduce harmful air pollutants. Our plants have signed the Voluntary Agreement for the Reduction of Air Pollutants with local governments in and around the regions where we do business. We utilize the latest control systems such as LDAR¹¹ and TMS²¹. We have also set stricter internal standards as part of our continuing efforts to create a cleaner air environment.

Division	Activity
Chemical Division	 Reduce fugitive emissions of air pollutants Continue to operate LDAR systems and reduce odor-causing substancesr
Q CELLS Division	 Adhere to the Voluntary Agreement by reducing high-concentrations of fine in the air Comply with the stricter internal standards for air pollutant emissions Install double-walled pipes to minimize fugitive emissions
Advanced Materials Division	 Reduce air pollutant emissions Minimize air pollutant emissions by replacing raw materials with those that are harmless

- 1) LDAR (Leak Detection and Repair): This system is installed at production facilities and is designed to periodically measure chemicals generated from non-point pollutant sources, including valves, flanges and pumps. In a bid to minimize the emission of VOCs, the system repairs leaking components immediately in the event of out-of-range emissions.
- 2) TMS (Telemetry System): This system is an automatic, around-the-clock air pollution treatment system that measures levels in the concentration of air pollutants and sends related data to the control center.

Water Conservation

> In an effort to preserve the environment, we carefully control and monitor wastewater management across the entire production process. All wastewater generated at our plants is treated primarily at on-site contamination prevention facilities. The processed wastewater is then transported to wastewater and sewage treatment facilities for reprocessing. Through continual testing and analysis for water quality and pollutant levels of effluent, hazardous substance leaks from the plant is prevented.

Division	Activity
Chemical Division	 Wastewater management Control effluent concentrations in wastewater at a water analysis laboratory
Q CELLS Division	 Analyze water pollutants of effluent periodically Comply with the enhanced internal standards for wastewater discharge regulations
Advanced Materials Division	Manage and comply with effluent concentration in wastewater through ongoing testing and analysis

Waste Treatment and Soil Protection

> To maximize waste recycling, Hanwha Solutions continually improves its production processes. We strive for fair and legitimate waste disposal by developing new business relationships with outsourced recycling providers and conducting regular due diligence. We also prevent soil contamination by detecting them early through periodic assessments of our manufacturing facilities and separate storage facilities.

Division	Activity
Chemical Division	Inspect and evaluate recycling contractors for outsourcing work
	Inspect and evaluate recycling contractors for outsourcing work prior to signing contract for managing waste disposal legitimately
Q CELLS Division	 Continue to work with outsourced recycling service companies to find ways to improve recycling of waste
	$\bullet \ \ \text{Build underground storage facilities to house hazardous chemicals and prevent soil contamination}$
Advanced Materials Division	Test soil for contaminants at a qualified lab

Chemical Management

An environmental accident caused by chemicals is a serious issue that can lead to irreversible damage. Hanwha Solutions has established a management policy for preliminary review of new chemicals and their treatment. We also strictly comply with international standards such as REACH¹, RoHS², and GHS³. And ongoing training sessions and enhanced responsive plans, we are fully prepared to address almost any accident quickly and effectively.

Division	Activity
	Enhance response plans for chemical accidents
Chemical Division	 Introduce stricter chemical management guidelines
Chemical Division	 Intensify review process of new chemicals prior to use
	Respond to restricted materials issues at home and abroad
	Monitor chemical leak detection alarms at all times
Q CELLS Division	Review new chemicals prior to warehousing
	Conduct regular training to strengthen the ability to respond chemical accidents.
Advanced Materials	Replace chemicals with harmless alternatives
Division	Strengthen environmental safety review process of new chemicals

- 1) REACH (Registration, Evaluation, Authorization and Restriction of Chemicals): It is the EU's newest chemical management program, which includes the registration, evaluation, authorization, and restriction of chemicals in terms of amount and toxic level.
- 2) RoHS (Restriction of Hazardous Substances): This regulates six hazardous materials used in the electronics material industry, including Pb, Hg, and Cd.
- 3) GHS (Global Harmonized System): The system is a globally accepted labeling system for chemical toxic level.





Strategies for Climate Change Response

In line with the government's Green New Deal policy, Hanwha Solutions proactively deal with global climate change and emissions trading schemes. We preemptively identify risk and opportunity factors and participate in a Group-wide committee to address management issues related to emissions trading schemes. Also, we focus on building a sustainable future by expanding the supply of eco-friendly energy, such as with solar and hydrogen. Hanwha Solutions is quickly becoming an eco-friendly company and a leader in climate change issues. We've been recognized for our work by winning the industry's top grade for our solar module carbon certification system.

Mid- to Long-term Vision and Target

Vision

To achieve green, sustainable growth for all with solutions ranging from energy to advanced materials

Goal

To effectively address global climate change with eco-friendly energy-focused management systems

Strategy and Mission

Strategy	Mission
Eco-friendly Management System	 Manage greenhouse gas (GHG) reduction objectives on a mid- to long-term basis Implement strategies for emissions trading schemes Develop an organization to address low-carbon and eco-friendly management issues Establish an energy usage management system
GHG Reduction Activity	 Develop and implement GHG reduction tasks Attract external funding for GHG reduction Lay infrastructure for GHG management Reinforce energy reduction activities at workplaces
External Partnership	 Enhance marketing activities promoting low-carbon policies Implement external carbon offset projects Prepare for government policies

Greenhouse Gas Reduction

> Our Chemical Division is taking the lead in responding to climate change through the development of clean energy solution technologies. By replacing electrolytic cell membranes, reducing steam through waste heat recovery and more activities, we have reduced annual greenhouse gas emissions by 525,000 tons as compared to 2017.



Analysis of Eco-friendliness

The eco-friendliness of a product is a top priority for our customers and the environment. Hanwha Solutions manages product quality through the analysis of restricted hazardous substances (RoHS), total volatile organic compounds (TVOCs) and compliance with the EU REACH SVHC. Our R&D centers are striving to secure eco-friendliness and safety of materials through the advancement of analysis systems and improved reliability for analyzing hazardous substances.

Division	Category	Activity
Chemical Division (Daedeok R&D Center)	Hazardous Substances Analysis	 Analyze RoHS, including Pb, Cd, Cr, Hg, brominated flame retardants (BFRs) Analyze nine phthalates¹⁾ Analyze other hazardous substances upon request, such as heavy metals, in addition to those designated as RoHS
	TVOCs Analysis and Evaluation	 Analyze TVOCs, fly ash (FA) and individual VOCs²³, including 20L small chamber, headspace, TD, Tedlar bags, HPLC, GC, GC and MSD, for raw materials and finished products Analyze TVOCs and FA discharged amount from raw materials and finished products for construction and automotive interiors
Advanced Materials Division	Hazardous Substances Analysis (mandatory once a year)	 Analyze RoHS I, II restricted hazardous substances (I: Pb, Cd, Cr, Hg, Br, Cl) (II: DBP, BBP, DIBP, DEHP) Analyze 17 phthalates Analyze five organic tin compounds (TBT, TPT, DBT, DOT, TBTO) Analyze five heavy metals (Sb, As, Sn, Be, Ni) Analyze other hazardous substances upon request
	EU REACH SVHC Compliance	Analyze 201 EU REACH substances of very high concern (SVHC) Analyze product-specific materials upon request

- 1) Phthalates: Chemical additives used in softening plastics.
- 2) Volatile Organic Compounds (VOCs): Cause photochemical smog by generating oxidizing materials such as ozone through a photochemical reaction in the air.



Eco-friendly Technology

Division Activity Eco-friendly Plasticizer (ECO-DEHCH) • In response to the growing eco-friendly markets, we developed an eco-friendly non-phthalate plasticizer. Following toxicity tests, we verified and registered the product as an eco-friendly material and began commercial production. To produce high-quality general-purpose plasticizers that are eco-friendly and specialized, we are also developing new products and manufacturing processes while conducting stability and processability assessments. **Chemical Division** Paste Resin for Eco-friendly Wallpaper When using low-VOC additives, paste resin has a low melting point and high viscosity. To resolve the issue, we developed a high-performance hybrid paste resin (PSR) that features a high melting point and lower viscosity. To help wallpaper manufacturers, we provide ongoing technical assistance for seamless eco-friendly wallpaper production. Carbon Footprint for Product (CFP) in France Our CFP certificate in France allows us to attain additional points in bidding for public sector projects due to the CFP evaluation calculated by carbon footprints across the solar value chains. CFP evaluation obtained through carbon certification is counted as an assessment element when bidding for public sector projects over 100kW. Solar Module Carbon Certification in South Korea • The carbon certification system is designed to give incentives to the products with the **Q CELLS Division** CFP labeling certificate, which can be obtained by converting the amount of greenhouse gas emitted during solar module manufacturing cycle of polysilicon, ingot, wafer, and cell to module. *The assessment can be implemented using one of the two methods listed below. We use the GHG emission coefficient method - GHG emission coefficient: Value chain emission calculated using country-specific data - Manufacturer's life cycle assessment (LCA): LCS method assesses GHG emissions produced throughout the product lifecycle per company, product and site. It is used to quantify and evaluate the environmental impacts of all inputs and outputs related to product manufacturing. **Eco-friendly Materials for LWRT** · By using eco-friendly materials for making low weight reinforced thermoplastic (LWRT), we can reduce the use of adhesives, thereby reducing odor and VOCs. We use thermoplastic resin and composite materials to produce light-weight and recyclable products. Our low-weight products help end-product manufacturers reduce energy costs and GHG emissions, leading to eco-friendly design products. **Advanced Materials** Division **Environmental Management System Certification** We obtained certifications for Environment Management System and Health & Safety Management System. And we strive to preserve the environment of local communities, improve the workplace environment and prevent workplace accidents. Certified Products: Automotive materials such as StrongLite, SuperLite and BuffLite; electronics materials such as LinkTron and its applications; and sheet molding compound (SMC)

> Part2. UNGC Communication on Progress

Awards and Certifications

Chemical Division



2013 Carbon Trust Standard (CTS) Certification

• We are the first chemical company in Korea to obtain South Korea's CTS certification in recognition of our continued efforts to reduce greenhouse



2014 Carbon Disclosure Project (CDP) Carbon Management Special Award

 Recognized as a leader in responding to climate change by participating in the carbon disclosure



and ICT Award

recognition of

achievements in

developing eco-

(ECO-DEHCH)

friendly plasticizers

• Won the IR52 Jang

Young-Shil Award in

2018 Ministry of Science ISO 14001 Certification

(also

· Maintained the environmental management system certification



2018 ISO 45001 Certification

> Maintained the occupational health and safety management system certification



Best Environmental Management System Company Award

 Won the award for establishing an environmental management system and implementing systematic performance management

O CELLS Division



2017 Climate Change **Grand Leaders Award**

- Business Sector

 Won the award for contributing to domestic climate change response



Best Company to Work For

 Selected Best Company by the Korea Ministry of **Employment and Labor**



2018 ISO 14001 Certification

 Obtained the environmental management system certification



2018 ISO 45001 Certification

 Obtained the occupational health and safety management system certification



Safety Korea Training for Disaster Response Citation

· Won the citation for successful training implementation

Advanced Materials Division



2019 ISO 22301 Certification

 Obtained the business continuity management certification



2019 ISO 14001 Certification

 Obtained the environmental management system certification



2019 **Excellent Level of Green Office Award**

· Won the Green Office award at Excellence Level (G-Gold) for creating an eco-friendly office environment



2020 ISO 45001 Certification

 Obtained the occupational health and safety certification



2020 Citation of Merit for Environmental Conservation

• Won the citation for contributing to environmental cleanup activities in the community

Anti-**Corruption**

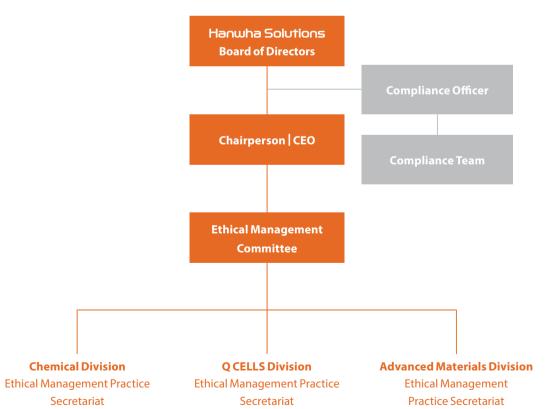
Ethical management pursuing transparent and fair business activities

Hanwha Solutions has established and implemented compliance guidelines that conform to business laws and integrates across our business. We identify regulatory compliance laws and regulations, as well as any potential risks concerning employees or legal issues, and take precautionary steps to curb those risks. We also proactively respond to growing demands for compliance management at home and abroad as we obtained ISO 37001 and ISO 19600, the international standards for anti-bribery and compliance management systems.

Ethical Management Organization

The Ethical Management Committee is chaired by our CEO. Under the Board of Directors, we have a compliance officer and team that oversees our business and employee activities to comply with the principles of ethical and compliance management. The compliance officer conducts regular compliance inspections and reports the results to the BOD. And the Ethical Management Practice Secretariat for each division supervises the ethical management activities of the entire company. Accordingly, our business divisions conduct a range of educational programs such as sexual harassment and corruption prevention education for all employees.

Ethical Management Organization



Our Pledge to Comply and Adhere to a Code of Conduct

> Hanwha Solutions strictly complies with compliance laws, anti-corruption code of conduct, and our employees practices ethical behavior. All of us at Hanwha Solutions are required to be familiar with the following pledge and we are committed to implement, and maintain this code.

- We shall pursue the satisfaction of our customers, shareholders, and employees. We shall engage only in fair-trade practices with our suppliers and competitors and earn their trust.
- We shall always respect our customers and their needs will always guide our development. We shall only provide services that benefit the customers to ensure value creation and earn their trust.
- We shall comply with all applicable laws and trade practices in local communities where we do business. We shall compete in a way that is fair and ethical.
- We shall maintain a relationship with our suppliers that is cooperative and based on mutual trust. Our business practices will be transparent, fair, and for mutual growth.
- We shall continue our responsibility as ethical corporate citizens. We will contribute to the mutual growth of individuals and the company through self-development and with ethical behaviors.
- We shall treat all employees with respect and dignity. We will give recognition for their abilities and achievements. We will strive to foster and encourage creativity.
- We shall protect the interests of our shareholders and contribute to local communities and the nation with transparency and sustainable products.

Protection

Customer Information > Hanwha Solutions strictly manages all information including customers' personal information. The information security team supervises all security practices to safeguard all information in accordance to laws, regulations, protocol and procedures. The Information Security Secretariat conducts information protection training and promotes security awareness for every division and all suppliers. We have also designated the Chief Information Security Officer (CISO) and Chief Privacy Officer (CPO) to oversee all operations to protect and control the assets and information online and offline.

Category	Activity
Information Technology	 Manage authentication and authorization access control as well as intrusion detection and prevention systems to block cyber terrorism and hacking
	 Prevent security incidents and ensure business continuity by effectively managing our Information Security Management System (ISMS) 24 hours a day, 365 days a year
Security	• Encode and secure sensitive customer data using a highly secure encryption algorithm
	 Use vulnerability/penetration testing and security programs to prevent personal information leaks and malware entry
Information	Minimize the amount of personal information collected
	• Immediately dispose of collected information when the purpose of collecting and using customer information is achieved or the period expires
Security	• Guarantee data subject rights such as access, correction, deletion and process termination
Management	 Conduct regular security audits, vulnerability checks, reviews of managing and supervising security service provider, and periodic training
	Put in place non-disclosure agreement for employees and suppliers
Physical Information Security	Restrict access, employ surveillance and perform security tests of areas or facilities that house information related assets
	 Manage people access (employee and supplier) and apply physical controls to protect from assets from unauthorized access, power loss, fire, theft, and flood
	Follow/adhere to laws, regulations, protocols, procedures, and best practices

Key Ethical Management Activities

With the aim of protecting consumers and their rights, we strictly adhere to advertising and marketing laws & regulations. And to ensure ethical business practices that adhere to both local and international laws & regulations, Hanwha Solutions practices managerial ethics, creates awareness for compliance and encourages employees and stakeholders to participate in activities that strengthen our compliance with ethical management standards.

Category	Activity
Ethical Management Guidelines	We practice ethical management. Our guidelines prohibit unfair selection of suppliers, acceptance of money or gifts for preferential treatment, misuse of company assets and information, sexual harassment, inappropriate conduct, and undue assertion of power or authority. Violators are required to submit a report to the executives in charge and subject to dismissal in addition to arrest and prosecution for crime.
ISO 37001/19600	A first for Hanwha Group and the industry, we obtained ISO 37001 and 19600 certifications, which are the international standards for anti-bribery and compliance management systems. This is our bold step toward structuring ethical management to the next level as we look to overhaul company regulation, enhance our monitoring system, and conduct risk assessments for each department.
Regular and Occasional Compliance Audit	Hanwha compliance officers conduct compliance audits twice a year across all organizations in the company. They then report the results to the BOD. In preparation, Hanwha Solutions conducts its own audits periodically to identify any significant issues and to verify that proper compliance management practices are in place.
Managerial Ethics Education and Distribution	We raise awareness for compliance and prevent violations of related laws and regulations by educating our employees on both local and foreign anti-corruption laws, such as the Improper Solicitation and Graft Act and the Foreign Corrupt Practices Act (FCPA). On every traditional local holiday, we post ethical management practice guidelines across internal bulletin boards for employees to see. We also encourage our suppliers to practice fair and transparent trade.
Whistleblower System	We promote fair, ethical and transparent work practices. Both internal and external stakeholders have access to the Ethical Management Practice Secretariat to report any corruption or unfair business practices in accordance to the code of ethics and code of conduct. We guarantee anonymity and confidentiality for reporters or whistleblowers.
Advertisement and Sponsorship Guidelines	We prohibit unethical marketing practices and employ principle-based management to adhere to the laws and regulations for advertisements and sponsorships. We comply with advertisement laws and regulations and have no record of violations.
Disseminate Management Ethics across Supply Chain	We expect that all business partners involved in any part of the supply chain from raw materials to final production, disseminate and practice management ethics. It starts with the signing of the Fair Trade Practice Agreement, Compliance and Corruption Prevention Agreement.







Becoming a global leader in the industry is but a milestone for Hanwha Solutions. Our ultimate mission is to improve lives and help communities flourish. As a global corporate citizen that is deeply committed to improving social values, as well as the economic value, we will fulfill our goals, and by doing so, make the world a better place for all.

