

# Hanwha Newsletter

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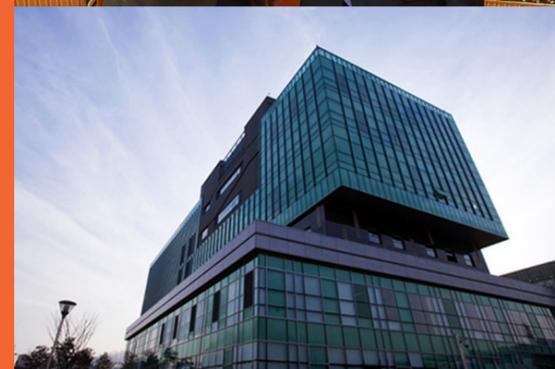
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# Defining the Next Generation Chemical Technology

## Investment in Sustainable Chemical Solution Building a Foundation for the Green Revolution



### Sustainability, the Talk of the Petrochemical World

Petrochemicals and the need for them are all around. They are used to produce phones, clothing, housewares, paints, rubber toys, beverage bottles, computers and even the plastic bags we carry our grocery in. Petrochemicals have long enriched countless lives but are now also considered the main culprit behind the CO2 emissions that affect the global climate changes that in turn causes floods, droughts, extreme temperatures, and other abnormal climate changes around the globe. And as the global petrochemical industry in response, strives to shift towards more stable and sustainable next-generation products, Hanwha also seeks solutions. Hanwha is developing its next generation of technologies that will push the boundaries of the chemical industry.

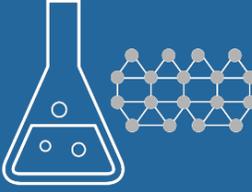
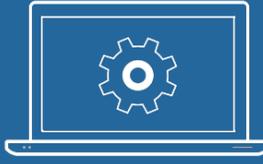
### Seeking Sustainability in Next-Generation Original Technologies

Hanwha has been interested addressing global environmental issues and that interest has led the company to develop environmentally friendly chemical products, materials, and processes. In line with its effort, Hanwha partnered with Korea Advanced Institute of Science and Technology (KAIST), a distinguished research-oriented science and technology institution in Korea. Together, they established the KAIST-Hanwha Chemical Future Technology Research Center dedicated to finding sustainable energy sources. The center's projects include the development of original technologies for next-generation chemicals and high-purity process technologies that can contribute to dramatic energy savings.

The collaboration between Hanwha and KAIST advances academic research while taking new technologies to market. These state-of-the-art original technologies will be crucial to building a sustainable chemical industry capable of responding to the uncertainties of the future.

The KAIST-Hanwha Chemical Future Technology Research Center is currently involved in four research projects in the fields of biotechnology, material and surface modification, catalyst, process design and engineering.

### The Key Research Projects at KAIST - Hanwha Chemical Future Technology Research Center

<p>01 Biotechnology Research</p>  <p>Using renewable inedible biomass to develop an ecofriendly bio process</p>	<p>02 Material &amp; Surface Modification Research</p>  <p>super absorbing polymer</p> <p>Optimization of crosslinking process for super absorbent polymer surfaces</p>
<p>03 Catalyst Research</p>  <p>Development of efficient high-activity catalyst</p>	<p>04 Process Research</p>  <p>Development of efficient processes, products, and manufacturing systems</p>

These are key research projects that focus on developing technologies to enable production via ecofriendly and efficient processes that could soon be put to application. They will help Hanwha lead the chemical industry and move further away from oil dependency while enabling producers to reach greater efficiency and reduce more waste.

Where will the petrochemical industry be in a century? Will we be able to eliminate the Great Pacific Garbage patch in the North Pacific Ocean? The answer to the future of the petrochemical industry lies in sustainable chemical solutions. And the answer that Hanwha seeks will come from cutting-edge research and development of alternative sustainable solutions that will serve as the foundation for green chemistry. ■



## Technology Initiative A Better Future with New Chemical Technologies



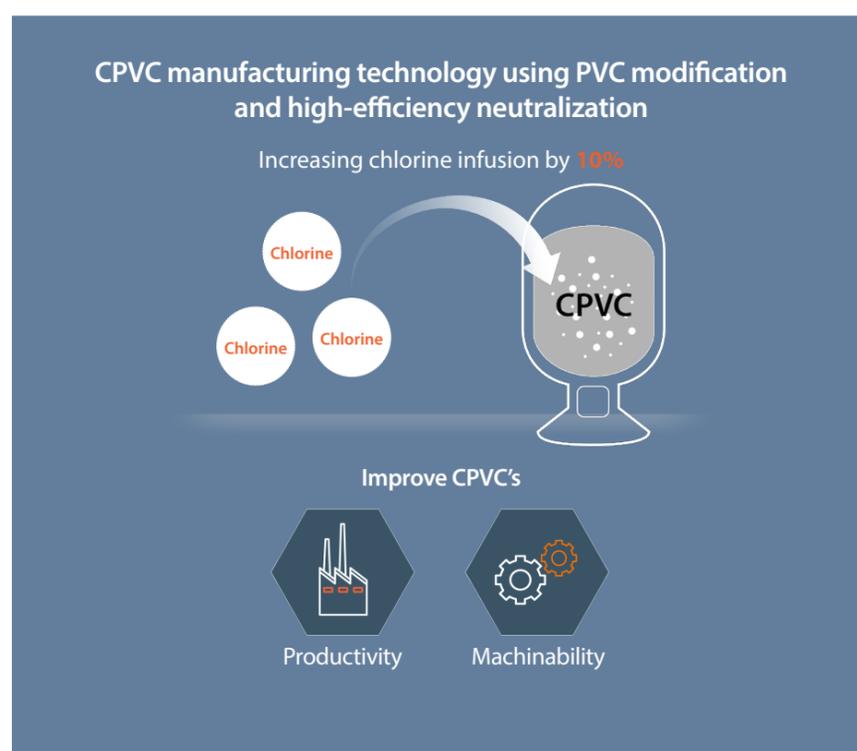
The global chemical industry is shifting from general purpose products to high value-added products using technological innovations. Amidst this wave of change, Hanwha stands out for successfully developing two new technologies. Each technology has earned the New Excellent Technology (NET) certificate in December of 2016. The NET certification is a prestigious title given by the Korean Agency for Technology and Standards (KATS) to newly developed technologies. The recognitions effectively put Hanwha on the map as a technology powerhouse.

The research teams of Hanwha Chemical R&D Center have played a pivotal role in obtaining these certificates. They serve as the backbone of Hanwha's efforts in laying the foundation for becoming a global leader in the chemicals market through the proprietary development of original technologies.

### Increasing Value through the Latest in CPVC

The NET-certified CPVC manufacturing technology using PVC modification and high-efficiency neutralization drastically improves the productivity and workability of CPVC. An extensive range of plastic goods that we use daily are made of PVC. CPVC is PVC polymer infused with 10% more chlorine to make it highly resistant to heat, pressure, and corrosion. CPVC is widely used for their heat and chemical-resistant characteristics and is the best material for sprinkler

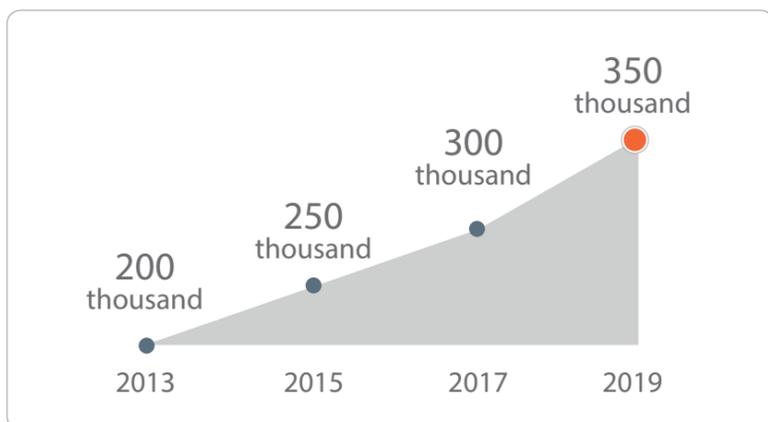
piping, hot water pipes, and specialized pipes for industrial liquid handling.



The Hanwha Chemical R&D Center's principal research engineer Seon Jeong Jin is the leader of the CPVC project and he said, "The key to the successful development of the proprietary technology was our ability to apply chemical materials to extremely diverse applications. Our goal was to discover the base PVC resin suited for the CPVC development process. Based on our technical capability and the knowhow we accumulated over the past 20 years on PVC, we were able to develop a resin that accelerates chlorination and neutralization of by-products while maximizing the amount of extrusion. This discovery led to our breakthrough in CPVC manufacturing technology."

### Projected Growth in CPVC Demand

(unit: tons)



\* Source: Hanwha Chemical

The global demand for CPVC is increasing. Hanwha Chemical's effective CPVC manufacturing technology will help the company meet the increasing global demand for CPVC. CPVC has 15% higher productivity compared to traditional methods.

Hanwha Chemical completed a CPVC production plant in Ulsan, Korea. This plant began production in March of this year and has the capacity to produce up to 30,000 tons of CPVC per year. And by adding the CPVC production line at the Ningbo plant in China, Hanwha Chemical plans to double this number to 60,000 tons per year by 2020.

The Hanwha Chemical research team has also launched a project to improve the quality of standard PVC by applying new CPVC technology to the PVC lines it currently operates. The team's extensive research and development efforts are expected to be recognized as a model case-study to show the rest of the petrochemical industry on how to add value to general purpose products.

### Why Some Experts Call Hybrid Metallocene the "Dream Catalyst"

Another new technology developed by Hanwha Chemical is MDPE/HDPE<sup>1</sup> gas-phase polymerization using high-activity metallocene hybrid catalyst. This is a gas-phase polyethylene (PE) production technology that takes advantage of the outstanding operational stability of MDPE/HDPE and is aimed at drastically improving the mechanical properties, chemical resistance, and machinability of the material relative to the existing PE manufacturing technology. The new technology enables the production of high value-added PE products which can remain in service for more than 50 years under high temperatures and pressures under different applications.

<sup>1</sup> MDPE (Medium Density Polyethylene) and HDPE (High Density Polyethylene) have outstanding properties in terms of strength, mechanical property, and machinability. They are used in the production of packing films, containers, pipes, and crates.

### MDPE/HDPE gas-phase polymerization using high-activity metallocene improves the properties of polyethylene :



Mechanical Property



Chemical Resistance

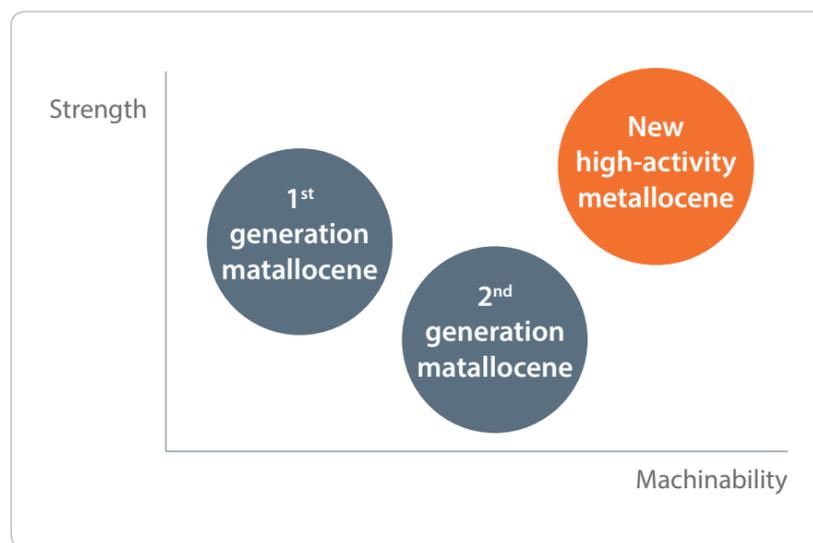


Machinability

First-generation metallocene has high mechanical strength but poor machinability, whereas the second-generation of the substance has better machinability but lower strength.

The new high-activity metallocene represents a breakthrough, overcoming the shortcomings of both metallocene generations by being stronger mechanically and having great machinability. It is for this reason that the new metallocene is dubbed the "dream catalyst" or the "catalyst of the future."

### Metallocene Properties by Type

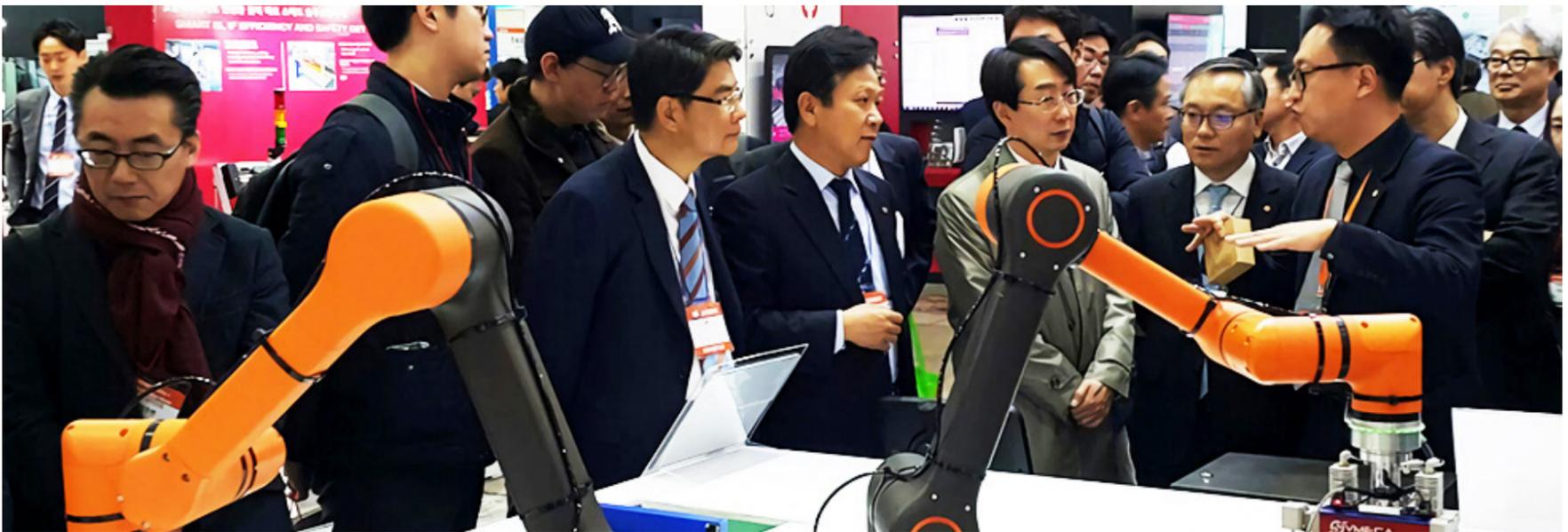


The Hanwha Chemical research team made a strategic move to focus on the development of metallocene for MDPE/HDPE in order to secure a competitive edge in the global market. Currently, 95 percent of metallocene is being used for making films that are widely adopted in food packaging and containers, and this innovative push resulted in the successful development of a totally new material demonstrating optimal strength and machinability.

"While most petrochemical companies focus on developing technology and expanding their market shares of metallocene for film production, we have been dedicating our efforts to the development of a technology targeting MDPE/HDPE, an unexplored area in the field of metallocene. Moreover, we leveraged the gas-phase PE production system already under operation by Hanwha's petrochemicals division to secure a more cost-competitive and ecofriendly technology than the existing slurry production system of our competitors. We expect the hybrid metallocene method to boost the productivity of the plastics industry at large."

And while continuing their work on these projects, research teams at the Hanwha Chemical R&D Center are increasing their efforts to advance Hanwha Chemical's core competency by developing more cutting-edge technologies. In so doing, the company will not only join the global petrochemical industry shift to the manufacture of high value-added products, but also lead it. ■

# Hanwha Techwin Enters the Collaborative Robot Market



Hanwha Techwin officially launched its collaborative robot at Automation World 2017

The Fourth Industrial Revolution<sup>1</sup> has ushered in a new era of “technologies that is blurring the lines between the physical, digital, and biological spheres,” Klaus Schwab, Founder and Executive Chairman, World Economic Forum. Representative and central to this revolution is robotics – a field that Hanwha Techwin has successfully made inroads into because the company had anticipated its importance. The company is the first among Korean enterprises to release a collaborative robot<sup>2</sup> and their feat represents both the company’s technological ability and its responsiveness to the evolving global market. Hanwha Techwin launched this collaborative robot, HCR-5, on March 30th and announced its vision for a full-fledged operation in robotics.

#### <sup>1</sup> Fourth Industrial Revolution

Unlike the previous 3 industrial revolutions that are characterized primarily by advancements in technology, the Fourth Industrial Revolution describes an era of new and disruptive ways in which emerging technologies are enabling the interconnectivity between billions of people to the web and to machines, resulting in unprecedented optimizations in business, manufacturing, and asset management.

#### <sup>2</sup> Collaborative Robot

A collaborative robot is a robot that assists human operators in close proximity. It mostly performs tasks exposed to high risk of burns or caught-in or -between incidents, such as metal processing and injection molding, and automates tedious and repetitive manual jobs like screwing and parts assembly. Unlike conventional industrial robots which require large spaces separated from operators, collaborative robots require less space, are affordable, and easy to control.

Over the years from having successfully built businesses – aviation & defense, energy & industrial equipment, and security (CCTV) – Hanwha Techwin has

amassed deep expertise in precision machinery, control technology, image analysis, and software technology. Hanwha Techwin’s foray into robotics – including unmanned surveillance robot and autonomous vehicles – was not only the result of a pragmatic decision to apply their knowhow, but also the natural next step forward.

For the robot industry, Hanwha Techwin’s collaborative robot is a practical solution that saves time and labor in manufacturing. The conventional or mainstream robot in today’s manufacturing industry is typically an unmanned industrial robot. These robots, however, are costly, take up large spaces, need to be separated from their operators, and require skilled technicians to control them. They are usually unaffordable for small to medium-size companies.

In contrast, collaborative robots work directly alongside their operators and do not require large spaces. So for manufacturing companies of any size, they are easy to operate, safe, and relatively affordable.

The HCR-5 is Hanwha Techwin’s first collaborative robot for the robot market. The HCR-5 has high appeal for its affordability, high performance, easy operation, safe and attractive design.

The HCR-5 has a low initial investment that translates to a lower barrier to entry. It also costs less to operate. The HCR-5 only requires 1 control box and 1 teach pendant to control two robots. This reduces the operating cost to about 30 percent less than with other industrial robots.

The HCR-5 has a reach radius of 91.5cm – the farthest reach among robots in the same class. It has a repeatability of only 0.1mm, making it ideal for precision work. And the HCR-5 robot only weighs 20kg, so it can be easily moved without a forklift or any other special transporting equipment.

Another standout feature of the HCR-5 is its easily programmable user interface. A touchscreen teach pendant and a direct teaching function allow operators to teach the robot tasks by simply moving the robot body with their hands. Besides being deceptively convenient, HCR-5’s collision detection function also ensures the operator’s safety by automatically stopping when an imminent impact is

detected.

Lastly, the source of the HCR-5's appeal is its design. It won Germany's iF Design Award 2017, one of the world's top three design awards, for its product design. The HCR-5 received positive reviews for its mix of simple straight lines and smooth curves with color harmony of black and orange colors that seem to represent the harmony between a robot and its human operator, working side-by-side.

"We expect that the launch of Hanwha Techwin's collaborative robot can serve as the momentum for Korea's robot industry to grow," said Hanwha Techwin CEO Shin Hyun-Woo at the robot's launching event. "We are committed to investing continuously in the robot business and make inroads into Asia, Europe and the wider global market."

The global collaborative robot market is currently valued at \$191.86 million (as of 2016) but it is expected to grow 60 percent year over year to \$32.19 billion by 2022. ■



HCR-5

# Hanwha, GE to Bolster Biz Cooperation

*This is an article published by The Korea Times, Korea's popular English language newspaper.*



*Hanwha Group Chairman Seung Youn Kim, right, shakes hands with General Electric Chairman Jeffrey Immelt during a meeting at Hanwha headquarters in downtown Seoul, Monday. The two discussed a range of issues, such as internet of things and smart factories, and agreed to further strengthen their business partnership. / Courtesy of Hanwha Group*

Hanwha Group and General Electric (GE) have agreed to cooperate on industrial internet, internet of things (IoT) and other newly emerging technologies to strengthen their business partnership, Korea's eighth-largest conglomerate said Tuesday.

Hanwha Chairman Seung Youn Kim met with GE Chairman Jeffrey Immelt at the group headquarters in Seoul Monday, discussing ways to advance bilateral business ties.

"GE has been a global leader in the ongoing industrial digitalization. I am impressed by what the U.S. firm has been doing to innovate itself," Kim was quoted as saying by Hanwha officials during a meeting with Immelt.

"We would like to enhance our corporate competitiveness by more closely cooperating on industrial internet and other emerging fields with GE. I also expect the two companies will work together to develop new growth models." Hanwha Techwin, one of the group's defense goods manufacturers, has been cooperating with GE on airplane engines and gas turbines since the 1980s, according to Hanwha officials.

Last year, Hanwha Techwin signed a memorandum of understanding to adopt GE's knowhow and expertise on industrial internet to transform its plants into smart factories.

"We have been maintaining a strong partnership with GE in areas of aircraft engines and other aviation components for years. With GE selected as an engine supplier last year for Korea's next-generation KF-X project, Hanwha will help its American partner to produce engines for 240 fighter jets."

The official also said Kim and Immelt agreed to work together to make the best use of the IoT and other next-generation technologies, as well as jointly exploring a possible collaboration on solar panels. ■

# Explore This Month's News of Hanwha and Its Affiliates, Taking the Initiative in All Corners of the World



## China



Hanwha Life

### Sino-Korea Life Insurance Co., Ltd.

Sino-Korea Life Insurance conducted an Earth-Hour Campaign to celebrate Arbor Day as their first joint labor union activity of 2017. At a suburban location, the employees of the company's labor union committee participated in the tree-planting event and promised to create lush green forests.



Hanwha Life

### Sino-Korea Life Insurance Co., Ltd.

Sino-Korea Life Insurance was selected as the "Best Brand of Promise and Credit 2016," by the China Foundation of Consumer Protection. This is the fourth consecutive year (since 2013), the company was honored for its integrity and trustworthiness. The company has built a reputation as a reliable insurer in China through its integrity management and customer service, laying the foundation to be one of the most trusted brands by Chinese customers.



## Czech Republic



Hanwha Advanced Materials

### Hanwha Advanced Materials Europe

In March, Hanwha Advanced Materials Europe conducted a training course for its employees on operation techniques and procedures for forklifts, cranes and binders. The purpose was to improve workplace efficiency and safety in

accordance to local labor laws and regulations. Because training in the workplace is essential for work and safety, these types of training are expected to take place throughout the year.



## Japan



Hanwha Q CELLS

### Hanwha Q CELLS Japan Co., Ltd.

**Hanwha Q CELLS Japan Bolsters Its Premium Brand Image at the Biggest Solar Exhibition in Japan**

From March 1st to the 3rd of 2017, the 10th International Photovoltaic Exhibition

PV EXPO 2017 was held in Japan's largest convention and exhibition center in Japan, Tokyo Big Sight. The PV EXPO is also the biggest smart energy trade show in Japan and this year, it attracted more than 62,000 visitors and 1,570 companies

from 31 countries. Aptly, Hanwha Q CELLS Japan occupied the biggest booth at the expo and showcased Q CELLS' latest product line and next generation models. The booth sported a black tie theme to convey a premium look to its products as well as to celebrate the launch of all-black colored products.

The industry's most efficient module Q.PEAK series with monocrystalline Q.ANTUM technology and the Q.PLUS series with an upgraded polycrystalline Q.ANTUM technology were both presented at the booth. Hanwha Q CELLS Japan also introduced solutions for rooftops, low-voltage and industrial purpose products developed through German engineering and R&D.

The company's flagship product Q.PEAK-G4.1 series was on display alongside its new low-voltage PV Q.MAX PLUS F series, designed to meet the needs of Japanese customers. Hanwha Q CELLS Japan showed off its next-generation smart module and half-cell double-sided glass module, a product that nicely represents the company's outstanding technology coupled with German engineering insight.

During the second day of the event, Dr. Jörg Müller, both a PV cell specialist



and the R&D cells director of Hanwha Q CELLS GmbH in Thalheim, spoke at a PV EXPO Technical Seminars on the development history of solar cells. Dr. Jörg's expertise and authority in the field reinforced Hanwha's reputation for technological innovation and its leadership in the industry. Hence, Hanwha Q CELLS Japan was able to easily promote its No.1 worldwide business capabilities and boast its achievements to a widely receptive audience.

## **United States of America**

### **Hanwha Advanced Materials**

#### **Hanwha Advanced Materials America**

Hanwha Advanced Materials America (HAUS) participated in the FOAM EXPO 2017 which was held in the United States for the first time. This expo is North America's leading foam exhibition and conference for the technical foam manufacturing supply chain industry.

A total of 206 companies attended the expo from Feb 28th through March 2nd in Novi, Michigan, including foam molding manufacturers, raw material suppliers, equipment suppliers and R&D institutions. HAUS displayed 20 types of expanded

polypropylene (EPP) beads at its booth. Their various applications were also featured in products such as auto seat cushions, distribution boxes, chairs, ice boxes and heat exchangers.

During the event, HAUS successfully established contacts with people from all over the industry and took the opportunity to introduce its products to potential customers.

## **Vietnam**

### **Hanwha Life**

#### **Hanwha Life Vietnam**

##### **Hanwha Life Vietnam Spreads Hope to the Underprivileged through Social Contribution**

Hanwha Life Vietnam has partnered with the Sponsoring Association for Poor Patients (SAPP), a charity organization based in Ho Chi Minh City, to assist with its community support program.

The program was officially launched on March 22nd, 2017 at an official signing ceremony hosted by Hanwha Life Vietnam and the SAPP. At the signing ceremony, a gift of 310 health insurance cards worth \$8,130 were issued to disadvantaged families in Ho Chi Minh City's Tan Binh District. The remaining health insurance cards will be donated to poor people in Thanh Hoa, Nghe An, Ha Tinh, Dak Nong, Kon Tum, Quang Tri and Ca Mau. By the end of the year, Hanwha Life Vietnam plans to sponsor more than 9,500 health insurance cards (valued at \$87,500) for those living in poverty across Vietnam.

This is the fourth year in a row that Hanwha Life Vietnam and the association have worked together to increase healthcare access for those in need. In the last three years, Hanwha Life Vietnam has provided more than \$275,620 to the program, benefitting 27,260 people nationwide.



The company has also carried out various other charitable activities across the country that have demonstrated Hanwha's strong commitment to the community. Since 2013, new houses, schools and medical centers worth \$962,500 were all donated.

For its contributions to society, Hanwha Life Vietnam was given the 2015 Corporate Social Responsibility Award by Vietnam's Ministry of Planning & Investment and Korea's Ministry of Trade, Industry & Energy. ■

# Refining a Sustainable Architecture

*“Environmentally-friendly architecture” describes architectural structures designed to enable humans and nature to coexist in mutual harmony. Important tools for minimizing environmental pollution include energy and resource conservation, and energy regeneration including the use of new and renewable energies. Let’s take a look at some success stories of using solar power, a key renewable energy, to achieve sustainable and eco-friendly architecture.*



## Beijing’s Fangcaodi, China’s Pioneering Eco-friendly Building

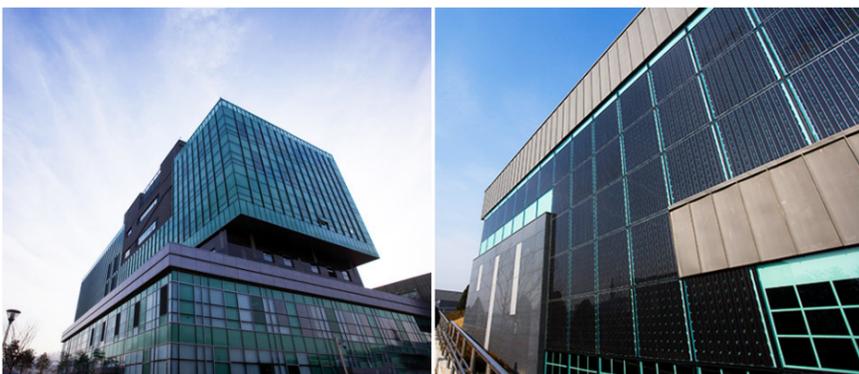
Fangcaodi, a shopping complex in Beijing, China, has drawn the attention of the architecture community and received a number of top awards including “Best Green Building” at the 2010 MIPIM ASIA, the world’s leading property exhibition hosted in Hong Kong, China.

This structure was the first in China to receive the highest “platinum” rating by the American system for certifying green buildings, thanks to the introduction of an eco-friendly system called “building-integrated photovoltaics”, or BIPV.

BIPV is a system that uses solar-power modules to act as both a building material and a source for power generation. This technology is applied to materials used for windows, walls, balconies and rooftops, and can be used by the building to generate its own electricity and power itself. By not requiring additional external power, BIPV can considerably reduce environmental pollution.

## Hanwha Engineering & Construction Builds Renewable Energy Landmarks

Hanwha E&C is taking part in these efforts to help humans and nature coexist. In 2012, Hanwha E&C developed BIPV technology in cooperation with Hanwha Q CELLS, the largest solar cell and one of the biggest module manufacturers in the world. This breakthrough technology was introduced to maximize energy efficiency in two of Korea’s best-known eco-friendly buildings—the Sangnok-gu District Office and the Changwon Solar Tower.



The Sangnok-gu District Office building, located in the city of Ansan, South Korea, uses solar power modules installed on its exterior walls to generate electricity. By making its own power, the building helps reduce energy consumption and prevent global warming, and has become a government institution that actually helps save taxpayer money.



Solar Tower, located in the Changwon Marine Park, takes the form of a solar power tower as its name implies. Photovoltaic modules are installed on the exterior of the building, shaped like a giant unfurled sail, to generate 1,264kW of electricity per day, enough to power 200 households. This building has been widely recognized for its contribution to boosting energy efficiency and revitalizing the local economy, and is considered to be one of Korea’s top renewable energy landmarks.

These are just a few examples that show us that in the future, we can expect to see solar power generation systems that are integrated into buildings to not only help make electricity but provide the structures with specular and innovative designs. ■

# Hanwha Group Hosts Roundtable for Startups at the Boao Forum for Asia Annual Conference 2017



Dong Won Kim, the Head of FinTech and the Head of Innovation Center of Hanwha Life, center, participates in the Boao Forum's roundtable at the Dongyu Island Hotel

Leaders of Hanwha Group participated in the Boao Forum for Asia (BFA)<sup>1</sup> Annual Conference held in Boao, Hainan Province, China, for the fourth consecutive year. This year's forum was held from March 23rd to 26th.

At the BFA forum, Hanwha became the first Korean company to host an official roundtable event. The roundtable discussion was called "From Made in Asia to Created in Asia" with founders from 20 Asian startups as panelists. The founders in their 20s and 30s were from China, Japan, Korea, India, and Thailand. The event lasted two full hours from 9 a.m. to 11 a.m. on the 24th of March at Boao's Dongyu Island Hotel in the Hainan Province of China.

Dong Won Kim, the Head of FinTech and the Head of the Innovation Center of Hanwha Life, who had previously made his debut at the forum last year as an official panelist of the Young Leaders Roundtable, hosted the roundtable of international startup panelists. He later met with key figures and engaged in nongovernmental economic diplomacy discussions on themes of global interest.

<sup>1</sup> Also known as Asia's World Economic Forum, Boao Forum for Asia is held every year. It is the biggest forum in Asia and attracts politicians, government leaders and company representatives from over 30 countries.

## Dong Won Kim leads the discussion on the growth potential of Asia's startup ecosystem

The panelists included: Anisha Singh of India's leading online shopping service Mydala; Chang Wen Lai of Singapore's delivery service giant Ninja Van; Anthony Tan of Southeast Asia's largest car sharing platform Grab; and Yod Chinsupakul of Thailand's biggest restaurant review site Wongnai.

The startup founders who spoke at the roundtable shared stories of their challenges and successes – all driven by their ideas and ambitions they harbored since they were young. They also exchanged their views on the potential of driving further growth for their businesses by networking across Asia.

The panelists engaged in vigorous discussions on ways to grow the potential of the startup ecosystem in the Asian region. They talked about their ideas for securing open innovation strategy, creating new growth engines for Asia's future growth, and the importance of tapping into a startup network.

"We hosted the roundtable to discuss how much creative influence can be brought to the global market by Asian countries – countries that can boast a long history and tradition," said Dong Won Kim, after the roundtable. "If Asian startups can be interconnected with one another, it can lead to much greater potential."

He urged participants to forge a "pan-Asian startup ecosystem" to effectively share experiences and know-how of global startups that have created something out of nothing, and help Asian startups make inroads into the global market.

Among all sessions held at this year's BFA, the "From Made in Asia to Created in Asia" was undoubtedly the most multi-national. The participants expressed enthusiastic support for the initiatives discussed and agreed to hold regular forums going forward to seek measures to continuously develop the ecosystem of Asian startups.

After the talks, Kim said, "With this roundtable, we build momentum by assembling competitive Asian startups that Hanwha's DreamPlus, Korea's first conglomerate-led startup accelerator, will support in Korea and abroad. And our vision is for them to each grow to become a unicorn<sup>2</sup> company, the dream of all startups."

<sup>2</sup> A unicorn is an unlisted startup company valued at over USD 1 billion, even before going public. The list of past unicorn companies include: Uber, Airbnb, Pinterest, GitHub, MongoDB, Evernote of the U.S.; Xiaomi, Didi Chuxing, DJI of China; and Coupang of Korea.



*Dong Won Kim, Head of FinTech and Head of Innovation Center of Hanwha Life, left, shakes hands with Zhao Haishan, vice mayor of Tianjin, right.*

In the afternoon, Kim met Zhao Haishan, vice mayor of Tianjin<sup>3</sup> together with Hanwha Asset Management CEO Yong-Hyun Kim, and shared his interests in the city and its free trade zone as well as the investment environment there. Mr. Dong Won Kim also asked the vice mayor's cooperation in securing an operation license from Asset Management Association of China so that Hanwha Asset Management could set up a local office in the city.

Mr. Yong Hyun Kim and Mr. Dong Won Kim were also joined by Hanwha Life Vice President Seung Jun Hwang and they each served as representatives of the Hanwha Group at the BFA Annual Conference. They met with global leaders over the four days of the forum, exchanging ideas and often finding accord on key areas.

<sup>3</sup> Tianjin is a metropolis and the largest port city in northeastern China with a population of 15.4million. It is one of the four direct-controlled municipalities (along with Beijing and Shanghai) and is central to the Bohai Economic Rim.

### **Hanwha DreamPlus, the cradle for Asian startups**

The Hanwha Group hosted the roundtable discussion with startup companies at this year's BFA against the backdrop of its startup incubator DreamPlus, an ambitious program Hanwha is pursuing in Korea and abroad.

DreamPlus is Hanwha Group's own startup accelerator program led by Dong Won Kim. It provides end-to-end support for startup activities across Asia through its network including DreamPlus Shinsa and DreamPlus 63 in Korea, DreamPlus Tokyo in Japan, and DreamPlus Shanghai in China.

DreamPlus 63 is Korea's only FinTech support center led by Hanwha Life insurance company located in the 63 Building in Yeouido, Seoul, the hub of Korea's financial industry. The center is currently receiving the 2nd round of applications from startups desiring to become tenants at DreamPlus 63. The tenants of DreamPlus 63 are provided with office space, access to different facilities, promotional services, and other benefits. Earlier, on March 15, DreamPlus 63 held the 1st DREAMERS' DAY, a forum for sharing success stories of the 1st group of DreamPlus 63 tenants. The next group of startup tenants are expected to concentrate on other technologies such as chatbots, IoT, wearable devices, and other fields that can create synergy in the financial industry.

DreamPlus also offers GEP (Global Expansion Program for domestic startups looking to sell their products overseas) and various other activities to support young startups and ecosystems in Korea and abroad. ■