

# Hanwha Newsletter

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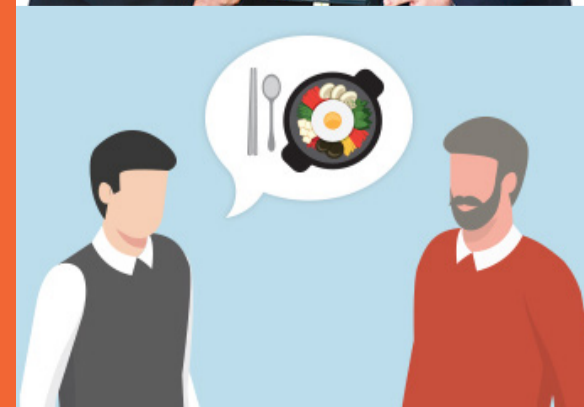
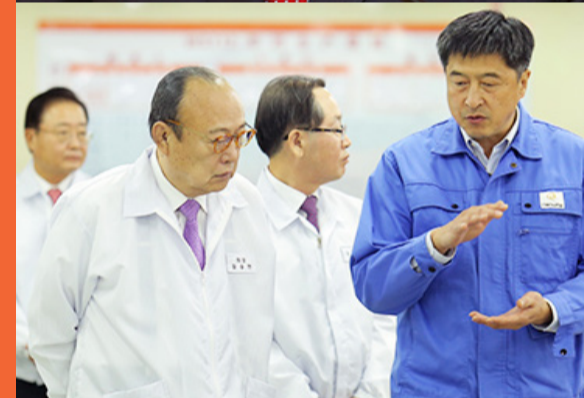
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## 2018 New Year's Message from Chairman Kim



Seung Youn Kim, Chairman

My beloved members of the Hanwha family,

Warm greetings to every Hanwha member around the globe on this joyous New Year filled with hope. Last year, despite macro-environmental business uncertainties, we posted our highest ever revenue and profit in Hanwha Group's history. While some credit is due, in part, to improvements in the external business environment in some industries, the larger credit goes to every Hanwha employee who worked tirelessly together to enable the growth of this company, and allow us to go further.

It's been twenty years since the Asian financial crisis and the IMF bailout. And while we can all recall hardships and sacrifices during those times, we've also come out of it not only stronger but also transformed. We continue to lead this transformation, but we're grounded in our fundamentals – fundamentals upon which we are building our new future. People are taking notice, we're gaining recognition and raising the prominence of Hanwha in all corners of the world.

We are still facing strong winds of change in an era that is both tumultuous and exciting. The 4th industrial revolution is now upon us, a disruptor of both consumer and industrial markets. To compete in it requires change that is nothing short of revolutionary. To succeed, we need to embrace the immutable truth that "a person who does not think ahead about the distant future is sure to be troubled by worries close at hand (Confucius)." We have to invest in our affiliate companies and help them build the core competencies that can compete at the global level and win ten years from now in future markets. We must do this together.

And together, let us demonstrate the power of Hanwha when it is united and how we are stronger in the face of crisis. Let us show we are not merely weathering the surging waves of change, but riding them and taking advantage of all the opportunities they present, sure to carry us to a bigger world, a better world.

Amidst all changes from the outside, I would like to call upon every Hanwha team member to change ourselves from within. Let us make an **enterprise-wide**

**effort to innovate, revamp and optimize so that we may be competitive for the future and become world-class.** We cannot do this by merely holding on to what works today or cutting costs and reducing investments. On the contrary, we must be aggressive, implementing strategies that drive changes for future growth and going beyond just closing the gaps between us and our competitors. We must lead and build on the foundation for tomorrow. For this, every Hanwha company must commit to developing sustainable core competencies with which to compete globally. This requires advancing the business structure to developing products and technologies that are not about keeping up, but leading the way. Our goal is to deliver substantial changes and outcomes across the board.

A unit of one may not seem like a lot but its effect can be astounding. One degree between 211°F and 212°F is what makes water boil—it is what makes the difference. And so, if innovation could be measured as temperature, at Hanwha, we must raise it by just one degree. This one degree of innovation, effort and persistence by each and every one of you will bring out the potential in yourselves, your teams, and the revolutionary change we seek.

**We must also invest in our people and cultivate a culture that can compete globally.** The company that succeeds in this age of the 4th industrial revolution will be the one that has the right people. People who can completely change their way of thinking without limits, without boundaries. People who can lead by embracing disruptive innovations. These are the people we need, and our companies must be there to support them. Our companies need to nurture and train experts here and abroad – those who can lead with knowledge and invest in technologies that can fascinate the next generation. We must continue to build a culture of entrepreneurial spirit and communication that is synonymous with the youthful passion we so much value at Hanwha. Between the millennials and the baby boomers of our generations, we can create an effective synergy that will take root and enable us to work better than ever before. Working with speed, working smart, and working safe are not to be just words to be spoken but they must be

part of our culture. They are the basic requirements of the digital innovation era and the era beyond; so, let's start by incorporating them into our daily routines.


**Lastly, at Hanwha, we must always act with integrity and continue to garner trust, as we go further together.** The social and ethical yardstick by which enterprises are measured worldwide is becoming ever more rigorous. We must never compromise our integrity or put our customers' trust in us at risk for the sake of profit or growth. Like a commander on the battlefield who risks his life for the greater good, so must an enterprise do everything it can to keep the trust of its customers. At Hanwha, our loyalty to our customers comes first, before all else.

Only a gain earned fair and square through market competition will be valued. Any act to seek easy gains, for example, by pressuring suppliers for unjustifiable price reductions, will not be tolerated. Profits gained by such means may be disguised as financial gains in the short term but they will never be sustainable in a competitive market. We must always take the right path, however difficult. It must be a path that involves cooperation, a path on which the weak are not taken advantage of but where the benefits are mutual and can help us go further, together.

Dear Hanwha family, the Olympic Winter Games PyeongChang 2018, an event of great national significance, will at last be held in South Korea next month. This is an unprecedented opportunity as the first event of the New Year for South Korea to take center stage before the international community. We at Hanwha should actively take part and contribute in this once-in-a-life-time event. Instead of regarding the Olympics simply as an event organized and hosted by the country, we should look to the Olympic spirit of fair play and to the athletes who practice them. Let us compete as the Olympians do, this year, on our journey to become No. 1, with a fervent drive to innovate, like never before.

I wish you and your families a New Year filled with good health and true happiness.

January, 2018

Seung Youn Kim  
Chairman  
Hanwha Group 



# Hanwha Group Chairman Visits Hanwha Q CELLS Factory in Qidong, China

- Hanwha Group Chairman Seung Youn Kim predicts that "Hanwha's Solar Energy business will get stronger, better and lead globally"
- After being acquired by Hanwha, the Qidong Factory achieved the lowest module failure rate in its history and the best cost competitive advantage in the market
- Hanwha Group Chairman Seung Youn Kim attended the Korea-China Business Forum held on December 13th in Beijing
- Hanwha Group's businesses in China make significant economic contributions to the Chinese economy as well as to Korea's



Hanwha Group Chairman Seung Youn Kim (center) visiting the Hanwha Q CELLS Factory in Qidong, Nantong City, located in Jiangsu Province.

On December 11th, Hanwha Group Chairman Seung Youn Kim began his trip to China by visiting the Hanwha Q CELLS factory in Qidong, located in Nantong City of Jiangsu Province. The Qidong plant is central to Hanwha Group's solar energy business in China. The purpose of his trip was to reaffirm the group's commitment to the employees and to their goal to produce the highest quality solar products in the world.

After touring the operations at the Qidong plant, Chairman Kim praised everyone for overcoming the challenges that the company faced soon after the acquisition. He commended the workers' perseverance, to which he attributed Hanwha's position today as a leading company in the global solar power industry.

"We will increase our global competitiveness while mass-producing the highest quality products using our in-house technology, right here in Qidong," said Chairman Kim.

He added, "We must continually manufacture the most competitive photovoltaic products in the industry. We need to source only quality parts produced not just in Korea but also in Malaysia, China and beyond." He went on to say, "There is a Chinese saying, The waves of the Yangtze River drive the next set of waves forward. Coincidentally, the Qidong Factory is located at the Yangtze River, and like this famous verse, it can be our giant wave that pushes our solar business forward."

Hanwha Q CELLS (Qidong) Co., Ltd. was acquired by The Hanwha Group in August 2010, as part of Hanwha Q CELL's strategy to foray into solar energy business.

Since then the Qidong Plant has been instrumental in Hanwha's rise to become the world's leading solar energy company.

The original production volume was 500MW for cells and 800MW for modules. Today, the Qidong plant, under Hanwha's leadership, produces a volume of 2.5GW for cells and 2.5GW for modules. In addition, after acquiring the German Q CELLS in 2012, Hanwha has actively infused advanced technology into the plant and dramatically improved the quality. The Qidong plant has reduced its module failure rate by 60% - the lowest in China. And by increasing its productivity, the company has successfully achieved a cost competitive advantage in its market.



Monument unveiling ceremony of Hanwha Q CELLS Qidong factory (from the middle of the front row, Chairman Seung Youn Kim, Dong Kwan Kim, CCO of Hanwha Q CELLS, Seong Woo Nam, CEO of Hanwha Q CELLS Co., Ltd.)

Chairman Seung Youn Kim visited Hanwha Q CELLS (Qidong) Co., Ltd to praise the company for becoming one of China's top solar company for the first time since Hanwha had acquired it 8 years ago.

Chairman Kim expressed special interest and affection towards the solar energy business and said, "Our long-term plan is for the Hanwha Group to develop the business and cultivate renewable solar energy for mankind. We will also work to make the solar energy industry in Korea, its leading industry."

Last July, Chairman Kim had also visited the solar cell manufacturing facility in Jincheon where heavy investment continues to be made, and emphasized that such investment will "increase domestic employment and foster the growth of the solar industry."

Chairman Kim also urged executives and employees to "continue their efforts to build mutually beneficial relationships with other corporations and clients in China while working to fulfill Hanwha's corporate social responsibilities in China."

As part of President Moon's economic delegation to China, Chairman Kim also visited Beijing to attend the Korea-China Business Forum on the 13th and meet with other political financial figures in China.



*Chairman Seung Youn Kim (second from left in the second row from the back) with Hanwha Q CELLS Qidong factory executives.*

During his visit to Beijing, Chairman Kim made a stop at Hanwha Advanced Materials. Hanwha Advanced Materials also has two other corporate locations in Shanghai and Chongqing. The company supplies lightweight automotive materials to Chinese companies and other global automakers, including Hyundai and KIA.

Besides Hanwha Q CELLS and Hanwha Advanced Materials, Hanwha has other manufacturing companies in China including Hanwha Techwin, Hanwha Chemical, Hanwha Total Petrochemical, and most recently, Hanwha Life Insurance.

The Hanwha companies collectively generate approximately USD 1.8 billion dollars in China alone. Hanwha Group also plays a vital role in the economic exchanges between Korea and China with trade valued at more than USD 5.5 billion dollars per year. ■



## New Year's Greetings



## New Year's Greetings from Hanwha Global Offices



### Hanwha Q CELLS America Inc.

Those of us at Hanwha Q CELLS America, Hanwha Q CELLS USA, and 174 Power Global would like to wish you a Happy New Year! We wish you all the joys of the season and every happiness throughout the coming year. Happy 2018!



### Hanwha Europe GmbH

The photo is from our Christmas Party from the whole Hanwha Europe GmbH. A message from our Managing Director Mr. Ku, Ja Bong:

We want to thank you for showing so much love and appreciation for Hanwha Europe this year. We would like to ask for your continuous support in 2018 and wish all of our Hanwha family health and happiness in the New Year. We will try our best to further ignite Hanwha's "fireworks" in Europe. Let's go Hanwha!



### Hanwha Q CELLS (Qidong) Co., Ltd.

New Year's Message From Kim Sang Hoon, Executive Director and Hanwha Q CELLS Qidong Plant Manager

To my global Hanwha family:

The many challenges of 2017 have passed and we are now greeting a hopeful 2018. Speaking for all of us here at Hanwha Q CELLS' Qidong Plant, I would like to wish you all a Happy New Year. I hope that you will all have peace of mind and much success in 2018.

Looking back at 2017, our Chinese factory, like all of our other affiliates, experienced a year of constant innovations. We successfully introduced single crystal solar cells onto the market. Our 6BB manufacturing line was modified in order to improve quality while simultaneously reducing costs in order to be profitable. Although there were many difficulties, we were able to achieve our goals thanks to our employees' dedication and ability to step up to the challenge spirits of 'challenge' and 'dedication'.

I would like to take this opportunity to share with you our goals for 2018: to post a profit of \$60 million, produce up to 2.6GW of solar cells, and to also produce up to 2.5GW of solar modules.

Finally, I would like to thank the global Hanwha family for all of your hard work.

I hope that in the next year, all of us at Hanwha will work together to become the leader in all of our industries.

Have a Happy New Year!





## Hanwha TOTAL Petrochemical Trading (Shanghai)

New Year's Greetings from SHTC

We bid farewell to the Year of the Rooster and welcome the Year of the Dog. As we greet 2018, everyone here at Hanwha Total Petrochemical Shanghai would like to wish you all a Happy New Year.

I hope all goes well for you and that the coming year will be filled with happiness and joy.



## Hanwha Advanced Materials America LLC

New Year's Greeting Message

Hello, my name is Chris Hickman. I am the plant manager of the Opelika, Alabama division of Hanwha Advanced Materials America. On behalf of everyone here, I would like to wish ALL of our Hanwha family around the world a safe, happy, and productive new year!



## Hanwha Advanced Materials Mexico S. De R.L. De C.V.

Hello, Hanwha Advanced Materials Mexico would like to wish you all a very Happy New Year!

We welcome a year that promises new challenges, trusting that we will be able to overcome them by working as a team, pooling our efforts to face every obstacle that presents itself, and sharing the happiness of every victory.

It would be difficult to summarize everything we want to achieve next year, but we believe that our main resolution will be to maintain the essence of our vision and values in our daily work.

With joy in our hearts, the Hanwha Advanced Materials Mexico team wishes you a ... Happy New Year 2018!



## Hanwha Q CELLS GmbH

New Year's greetings from Jochen Endle, Hanwha Q CELLS GmbH.

Hello everyone! It's Jochen Endle from Hanwha Q CELLS.

2018 is upon us, and it is going to be a tough year with many challenges. However, we like that! We know at Hanwha, challenges are meant to be overcome. If we combine our forces, we will be able to overcome any challenge that comes our way. 2018 is going to be a great year. I'd like to wish everyone a very happy, successful New Year!



## Hanwha Advanced Materials (Beijing) Co., Ltd.

New Year's Message from Hanwha Advanced Materials Beijing:

A new year and a new hope. I wish for this coming year to be brighter than the last and that all your hopes and dreams come true.

May all your projects go smoothly and come to fruition.

- Li Yunpeng, Design Team



## Hanwha E&C Iraq Representative Office

New Year's greeting Message

Hello, my name is Ali Fateh Ibrahim. On behalf of the team in Iraq, I would like to wish all members of the Hanwha family a very Happy New Year! In particular, I hope the E&C division achieves even more in 2018 and continues being successful, as it is considered to be one of the pioneer companies here in the Middle East. I see a very bright future in Iraq as we are currently in the construction process of the Bismayah New City project. ■

Please go to the following link to see your colleagues' video messages : <https://www.hanwha.com/en/greetings>



## Business Highlights

# Hanwha Q CELLS – Kalyon Enerji Joint Venture Starts Construction of 500 MW Fully Integrated Photovoltaic Manufacturing Facility in Turkey

- Official ground-breaking ceremony attended by Turkish Prime Minister Binali Yildirim and Minister of Energy and National Resources Berat Albayrak on Thursday, December 21, 2017
- 500 MW of fully integrated photovoltaic manufacturing facility together with on-site R&D center
- Solar modules from the manufacturing facility to equip 1,000 MW YEKA solar power plant in Turkey



Presenting a solar cell plaque during the groundbreaking ceremony: (from left) Senior Vice President and Head of Hanwha Q CELLS Turkey Ho Woo Shin, Energy Minister Berat Albayrak, Prime Minister Binali Yildirim

Hanwha Q CELLS Co., Ltd. ("Hanwha Q CELLS" or the "Company") (NASDAQ: HQCL), one of the world's largest photovoltaic manufacturers of high-quality, high-efficiency solar modules, announced that it held a groundbreaking ceremony for the construction of 500 MW of fully integrated photovoltaic manufacturing facility in Ankara, Turkey on December 21, 2017.

The new production facility is result of the Karapinar Renewable Energy Resource Area ("YEKA") tender, which the Turkish government had awarded to the consortium of Hanwha Q CELLS and Kalyon Enerji in March 2017. In addition to the manufacturing facility, Hanwha-Kalyon joint venture will also establish on-site R&D center to carry out various R&D projects in solar technology. The manufacturing facility will be fully integrated from ingot, wafer, cell and module processes, and once completed, the module produced from this facility will be used for the construction of the 1,000 MW (AC) solar power plant to be built in Konya-Karapinar, Turkey, the largest single-site plant in the world.

Hanwha Q CELLS will implement its proprietary Q.ANTUM high efficiency solar cell technology. Q.ANTUM technology boosts the real life yields from a solar system, by applying a passivation layer on the solar cells back side (PERC), by adding various technological features, like Hot-Spot Protection and TRA.Q laser marking

and by controlling the various degradation effects (PID, LID, LeTID). Hanwha Q CELLS has vast experience in the PERC cell technology and reached the milestone of 1 billion mass production of Q.ANTUM solar cells in the summer of 2017.

"Today, we lay the foundation for the future of energy technologies and enrich renewable alternative energy sources in Turkey", says Turkish Prime Minister Binali



Officials from the Turkish and South Korean government and representatives of Hanwha Q CELLS and Kalyon Enerji are posing for a group photo after the groundbreaking ceremony



*(from left) Kalyon Enerji Chairman Cemal Kalyoncu,  
Turkish Prime Minister Binali Yıldırım, Turkish Energy Minister Berat Albayrak,  
and Senior Vice President and Head of Hanwha Q CELLS Turkey Ho Woo Shin*

Yıldırım. "YEKA project is one of the most ambitious energy projects in the world today, and can only be realized by high competencies and expertise by Hanwha Q CELLS, a global leader in solar power, and Kalyon, a leader in construction and infrastructure projects."

Seongwoo Nam, CEO of Hanwha Q CELLS said "Hanwha Q CELLS is proud to be joining forces with the government of the Republic of Turkey and Kalyon Enerji. We will contribute our manufacturing expertise as well as our technology leadership. We are fully committed to execute this YEKA project successfully leveraging combined competencies of Hanwha Q CELLS and Kalyon Enerji and to make it an important milestone on Turkey's path towards sustainable energy supply for the people of Turkey." ■



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



## China

### Hanwha Chemical

#### Hanwha Chemical (Shanghai) Co., Ltd.

From December 15th to the 17th, the China International Coatings Exhibition (CHINA COAT 2017) was held in Shanghai, China. This is a venue to explore new business opportunities, exchange know-how, share experiences, and build partnerships. CHINA COAT 2017 is its 22nd anniversary where more than 100,000 people from 1,200 companies in 34 countries were. At the exhibition, Hanwha Chemical held a booth to introduce the company's latest alkali-soluble resin (ASR) and emulsion that are used as raw materials for water-based inks and overprint varnishes (OPVs). With the most advanced coating properties and eco-friendly features, the products can greatly improve work environments.



At the exhibition, Hanwha Chemical promoted its products and engaged in technology-exchange activities, giving the company an opportunity to discuss the application of advanced technologies and the development of the solar industry.

### Hanwha Q CELLS

#### Hanwha Q CELLS (Qidong) Co., Ltd.

##### Hanwha Q CELLS' New Q.PEAK G5 Receives 'Top Runner' Certificate

On December 8, Hanwha Q CELLS Qidong Plant completed the pilot of its new high-efficiency single crystal solar module – the Q.PEAK G5 series. Upon completion, the company received a Top Runner certificate for achieving high standards set by the China Quality Certification Center (CQC). The Top Runner certification is part of the Chinese government's special plan to encourage the production and adoption of high-efficiency photovoltaic modules that meet high levels of generation capacity. To determine the most advanced technology, CQC used an evaluation system to analyze the solar modules in terms of efficiency, environmental adaptability and durability.

The certified Q.PEAK G5 combines Hanwha Q CELLS' proprietary Q.ANTUM technology and the industry's first 6-busbar technology to dramatically improve the power production in real-world settings. Q. PEAK G5 modules consisting of



60 cells and 70 cells differ in maximum output and are optimized for various conditions found in residential, commercial and general terrestrial power plants.

The Top Runner certification helps Hanwha Q CELLS lead the way to provide superior solutions for customers in the Chinese market.

### Hanwha TOTAL Petrochemical

#### Hanwha Total Petrochemical Trading (Shanghai)

On November 18th, the 9th Kimchi sharing event was held near the Daesan factory with local residents, 37 representatives from partner companies and 770 Hanwha Total Petrochemical employees from China, Japan and Taiwan.





This is an annual event hosted by Hanwha Total Petrochemical every November to spread the traditions and culture of Korea through the sharing of the Kimchi dish with local residents and Hanwha's overseas partners. At the same time, it serves as an opportunity to promote the local agricultural products. The kimchi made

during the event was wrapped in Hanwha Total Petrochemical's high-quality polypropylene (PP) wrapper and delivered to the families who participated in the event.



### Hanwha Advanced Materials

On December 20, Hanwha Advanced Materials held its 3rd annual Innovation Festival. These festivals are designed to boost employees' self-esteem and loyalty. Individuals and teams who made contributions to the company's development were rewarded according to a set of standards and criteria for evaluation. Approximately 150 people attended the event, including CEO Sun Suk Lee, other executives and employees from headquarters, the Eumsung plant and the Lightweight Composite Materials Development Center.

The event concluded with all the employees sharing best practices from their divisions before they bonded over refreshments. At the event, Lee said, "All of our employees, who have been contributing to the growth of our company this year,



are today's heroes. Next year, I hope you continue this legacy by doing your best as heroes of innovation and achieve our collective vision to secure future growth."

### Hanwha Corporation Hanwha Corporation/Explosives

On November 30, Kyeong Seok Ok, the new CEO of Hanwha Corporation/Explosives, went on a hardhat tour at the Boeun plant which was recently named 2017's best plant out of all 79 facilities operated by all 20 affiliates in the Hanwha group for its safety and environmental record. On his tour, Ok said "We are very pleased to recognize this facility for its excellent safety management performance." He also encouraged employees at the plant to keep up their hard work.



### Hanwha Hotels & Resorts

On December 19th at the aquarium Aqua Planet 63, Hanwha Hotels & Resorts signed an MOU with Smart Study promising close cooperation, co-branding and exchange of content. Smart Study is a global content company that has created the globally renowned character Pinkfong. The company's Shark Family has 1.5 billion views on Youtube from avid fans around the world.

Hanwha Hotels & Resorts announced that it will not only feature Pinkfong in its four aquariums operated nationwide, but also plan to work on joint projects to release co-branded products. The partnership also includes the launch of experiential learnings, educational programs and a new underwater attraction. Kyu Geun Lee – managing director of Hanwha Hotels & Resort – said, "As the



demand for cultural content grows, we see enormous opportunities to extend our business into new industries. By combining brand awareness and the global influence of Pinkfong, Hanwha can deliver more value to a wider audience". He added, "In the future, we plan to showcase Pinkfong content using the latest technology such as virtual reality and holograms."

### Hanwha Hotels & Resorts

On December 21st, the 2nd Bazaar Happy Story 2017 charity event was held at 63 Building in Yeouido, Korea. This charity event is aimed at fostering unity between various organizations to help socially disadvantaged people. More than 30 teams from headquarters and national business offices were invited. Hanwha Hotels & Resorts sold items donated by employees where the proceeds will go to helping the marginalized members of society and to the Beautiful Store – a Korean





nonprofit organization and charity shop.

A session called Communication Day was also held to provide employees the opportunity to learn about the company's vision, strategy and the state of the business status across every department. Seok Moon, CEO of Hanwha Hotels

## Hanwha TOTAL Petrochemical

### Hanwha Total Petrochemical's Polypropylene Production Exceeds Ten Million Tons

On December 5th, Hanwha Total Petrochemical's production of polypropylene (PP) exceeded a cumulative total of 10 million tons since its commercial operation began in 1991. Polypropylene is a raw material essential in manufacturing plastic products. Polypropylene produced by Hanwha Total Petrochemical is recognized for its superior quality. Hanwha Total Petrochemical's Flow Mark-free PP, used primarily for automobile exteriors, was recently awarded as a world-class product by the Ministry of Industry and Commerce in Korea. The world-class product is given only to companies whose product(s) rank at least the 5th in the world or hold at least 5% of the global market share. At the ceremony held on December

& Resorts, said, "The bazaar that we started last year to provide opportunities for employees to communicate and unite, has been a complete success. The company will continue supporting these initiatives in the future and give back to our communities."



19th, Hee Chul Kim, CEO of Hanwha Total Petrochemical, praised the employees, "Thanks to your efforts, our company has been able to exceed cumulative production total of ten million tons. I hope we continue to make products recognized worldwide."

## United States of America

### Hanwha Q CELLS

#### Hanwha Q CELLS America Inc.

From December 4 to 5, Hanwha Q CELLS participated in 'Solar Canada 2017', held at the Metro Toronto Convention Center in Toronto, Ontario. Canada's largest solar energy conference and exposition, the event is annually hosted by the Canadian Solar Industries Association (CanSIA). At the exhibition, Hanwha Q CELLS showcased the new high-power product Q.PEAK DUO modules to the Canadian Market, attracting thousands of attendees from across the solar industry.

During the event, high-level officials from the energy industry in the United States and Canada were invited as guest speakers at a forum to discuss residential solar power, storage and energy management in the Canadian market. The expo



provided Hanwha Q CELLS a great opportunity to discuss the benefits of solar energy and Hanwha Q CELLS' proprietary Q.ANTUM technology with the public.

# Global Business Culture – South Korea

## Integrity : Virtues for doing business in Korea

Prior to the announcement of his company's new product, Mr. A – who works for the corporate communications team – invited leading Korean media to an interview with the developers. He prepared fine wine as a gift and handed it to a reporter after the interview. However, the reporter was reluctant to accept the gift and said, "I cannot accept it, but I do appreciate it, thank you." He added that it is illegal to give and accept such gifts in his position.

Exchanging expensive gifts was once a custom in Korea, but it is no longer practiced.

This is because of the September 2016 anti-graft 'Kim Young Ran law' which strictly regulates gift-giving for government officials including civil servants and teachers. Civil servants and journalists will face criminal penalties if they receive monetary gifts exceeding one million Korean won, especially when these gifts come from outside their business scope. In business settings, individuals will be penalized if they are treated to a meal that exceeds 30,000 Won, receive gifts valued at over 50,000 Won (100,000 Won for agricultural or fishery products) or receive an amount exceeding 50,000 Won as congratulations or condolences for certain observances.

Such regulations are created to establish a culture of fairness and integrity in Korean business and society. Thus, 'integrity' has become an important virtue in doing businesses in Korea.



### Business in Korea: DOs and DON'Ts

#### DOs



In business meetings, Koreans usually start their conversation by checking to see if their counterpart has eaten recently. This is no more than a simple opening gesture.

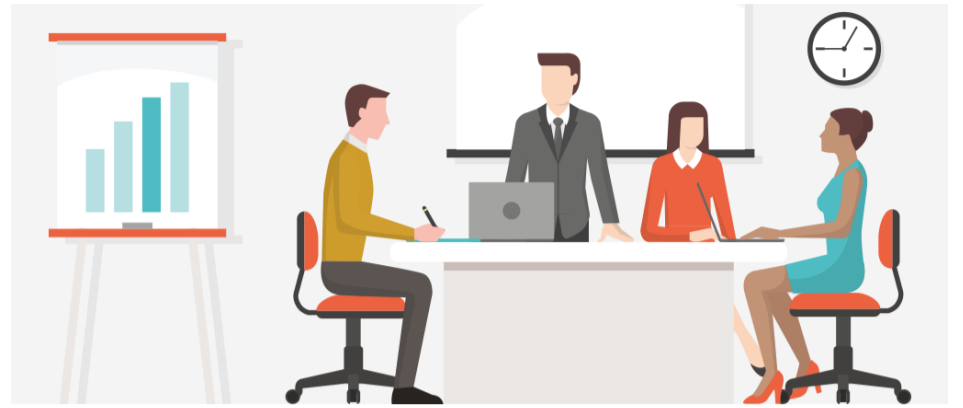


Don't be alarmed by personal questions. In Korea, it is common to be asked personal questions even in business settings. Common topics of conversation include family and hobbies.



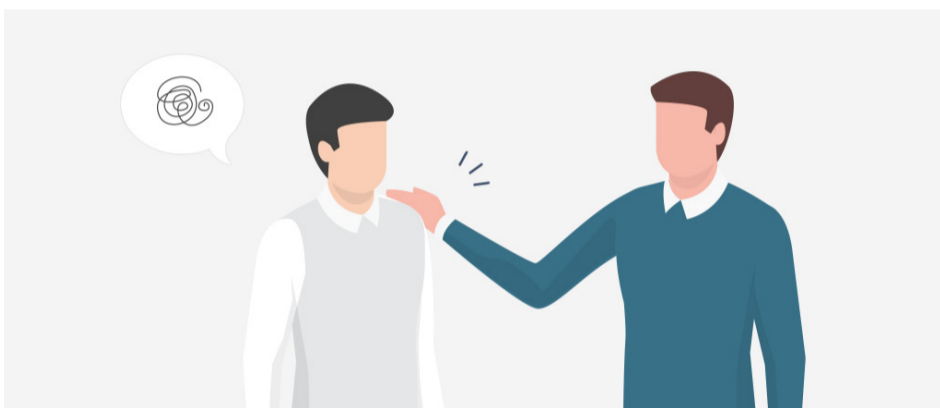


Seniority matters. When entering the room, let the most senior person enter first and be seated. This principle applies to everyday life as Korean culture places an emphasis on age.

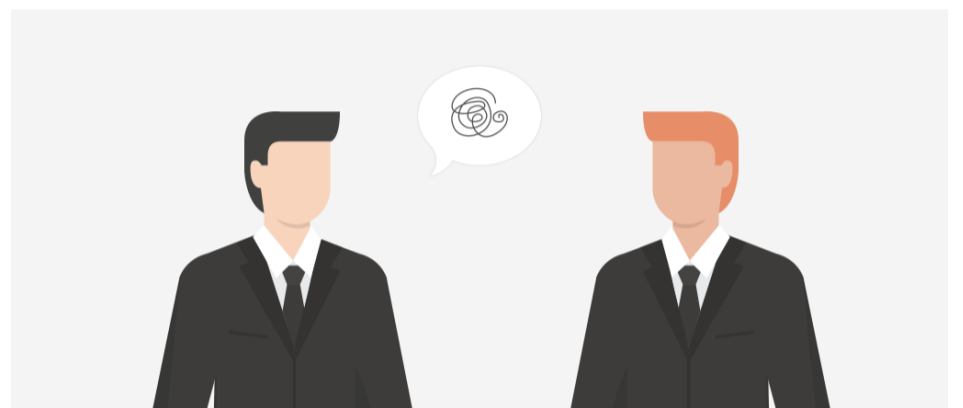


The decision-making process in Korea is performed collectively by adhering to hierarchy. Have patience even if the process takes a long time before final confirmation is made.

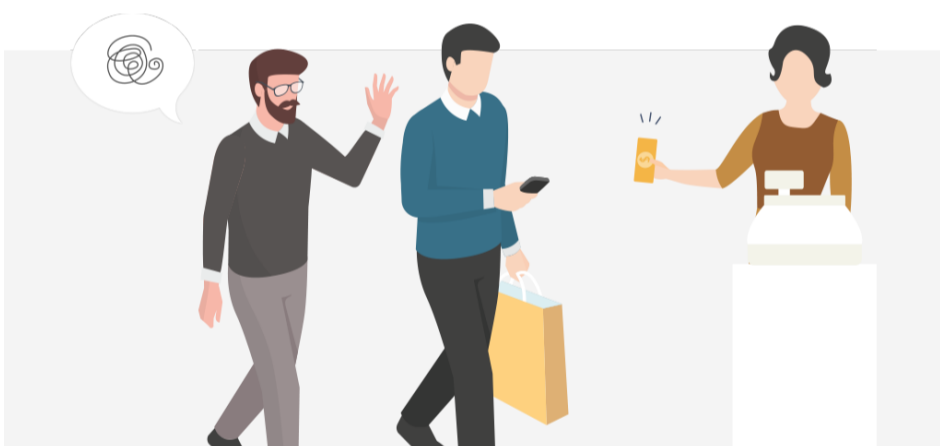
## DON'Ts



Do not touch or pat someone on the shoulder if it's the first time to meet them (especially if they're older than you). This is perceived as rude.



Do not directly stare into the eyes of your counterpart while having a conversation. This is also considered as a hostile gesture in Korea.



Going Dutch in the business world is a taboo in Korea. Enjoy or treat them as you entertain with your business partners.



When drinking with Korean business partners, avoid emptying your glass if you don't want to drink any more. It is considered polite to always fill other people's glasses!

## Hanwha Group in South Korea



Hanwha Group is one of the Top-Ten business enterprises in South Korea. Hanwha ranked No.5 in net income and No.8 in total assets in 2017 among Korean companies. Hanwha does business in multiple sectors including chemicals & materials, aerospace & mechatronics, solar energy, finance, services and leisure for a total of 61 affiliates across the nation. ■

# Hanwha Energy Wins Contract for 48 MW Solar Power Project in Malaysia



24.5 MW Solar power plant in Kitsuki(Japan) financed, constructed and operated by Hanwha Energy

Hanwha Energy won its bid for the 2nd round of the Large Scale Solar project for Malaysia's National Electricity Board, in early December.

Having won the bid, Hanwha Energy will begin construction on a 48 MW solar power generation plant in Perlis, a region in the northwestern part of Peninsular Malaysia bordering Thailand. Construction is set to begin in July of 2019 while commercial production is expected to begin in October 2020. The plant will generate enough electricity to sustain 15,000 households.

The project is under the auspices of Malaysia's state power company TNB (Tenaga Nasional Berhad) as a private sector-led BOO (Build-Own-Operate) power generation project in which the contractor constructs then operates the facility to recoup initial investment costs. Hanwha Energy plans to establish an SPC (Special Purpose Company) with a local Malaysian partner to enter into a power purchasing contract with TNB. Hanwha Energy will directly oversee investment, financing, procurement of primary equipment, plant operations and management. Strong ROI is expected, over the course of operating the facility for the contracted 21 years.

The project marks the first time a Korean company has won a contract for a Malaysian state-led solar power project.

"This opportunity will serve as a model for how we will win new project bids in Malaysia and across the Southeast Asian solar energy market," said Shin Jiho, Executive Director of Hanwha Energy Solar Business Division.

The entire 48 MW high-quality photovoltaic modules will be supplied by Hanwha Q CELLS, demonstrating the synergy between Hanwha Group's solar power-related subsidiaries.

Hanwha Group acquired Germany's Q CELLS GmbH in 2012 along with its solar cell factory located in Cyberjaya near Kuala Lumpur. The factory has since been used by Hanwha Q CELLS as its production center.

At the time of the acquisition, the factory was limited to producing 800 MW of solar power cells. After Hanwha Q CELLS' acquisition, the factory underwent a series of upgrades and can now produce 1.8 GW (enough electricity for approximately 2.5 million households). Hanwha Energy's achievement gained recognition by the State of Selangor (the Malaysian government) by being selected among its list of "The Highest Investment by Foreign Companies" in 2016. ■



# Hanwha TOTAL Petrochemical Readies New Production Line for Advanced Plastics

- New \$331 million investment to add new ADL(Advanced Double Loop) production process to boost annual production of high value-added plastic products
- Shifting focus to manufacture a wider range of advanced products for diverse customer needs



Hanwha Total Petrochemical's Daesan Production Facility, the site of the new 400,000-ton PE expansion plant

Hanwha Total Petrochemical announced its plans for a factory expansion to strengthen the company's synthetic resin business.

On December 11th, Hanwha Total Petrochemical approved \$331 million<sup>1</sup> to build a new production facility in Daesan, S. Korea to increase its polyethylene (PE) production. The project is slated for completion in late 2019. Once complete, Hanwha Total Petrochemical will be able to increase its annual PE production capacity by 400,000 tons from its current 720,000 tons to 1.12 million tons. The increase represents not only an overall change to capacity but also a pivot for the company to manufacture a greater range of high value-added advanced plastic products.

The production facility will adopt a new production method called ADL to manufacture advanced PE products as part of Hanwha Total Petrochemical's plans to reorganize its synthetic resin business to focus on high value-added plastics.

As the name implies, ADL or Advanced Double Loop is a process that uses two catalysts and two successive loop reactors to produce a wide spectrum of high

value-added products with diverse specifications. One example is advanced mPE used in pipes and fuel tanks. Metallocene Polyethylene (mPE) requires metallocene catalysts to produce advanced plastic that possesses greater rigidity and transparency. Another example is HDPE, an advanced plastic used to manufacture a variety of films, plastic containers and other plastic-based products.

The new production line will also enable the catalyst to be switched in less than 24 hours, reducing the time needed to prepare the line to produce different grade of plastic. A single extruder can be used to manufacture products of a wide range of colors in addition to transparent plastics, allowing production to respond nimbly to changing customer needs and demands. ■

<sup>1</sup> Currency is converted into US dollars using an exchange rate of USD  
1 = KRW 1,092