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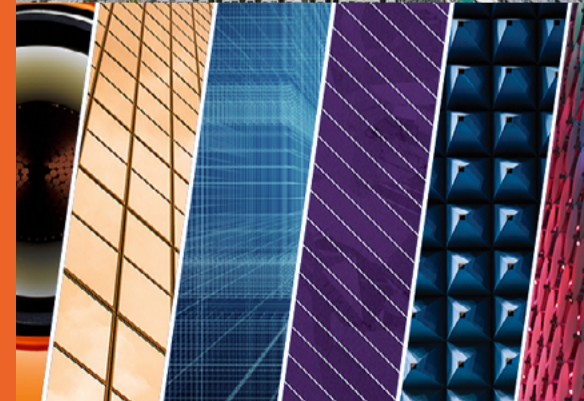
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## Building Sustainable Foundations

# Building Strong Communities in Southeast Asia with Investments in Sustainable Financing



Hanwha is growing its Southeast Asian presence by investing in fintech companies that aim to help low-income consumers achieve financial growth and stability

According to the OECD, there is around USD 228.1 billion in social impact investment around the world as of 2019, with around 56% allocated toward helping emerging markets. Interest in the use of financial technology (fintech) and its blockchain mechanism to make a social impact is surging. Most recently, fintech developers around the world have begun working on solutions aimed at helping developing economies where more diversification in financing is needed to help build strong, sustainable communities.

As a global fintech enabler, Hanwha's financial division is helping to facilitate the change as part of the company's social impact investment strategy to fund companies that can make a positive impact in Southeast Asia (SEA).

In January, Hanwha Investment and Securities staked USD 10 million in Lightnet, a Bangkok-based firm co-founded by a member of the Charoen Pokphand Group, a leading conglomerate in Asia, and Interstellar, a merger of blockchain platform Chain and the for-profit branch of the Stellar Development Foundation. Meanwhile, Hanwha Asset Management endowed USD 5 million in iSTOX, a Singapore-based capital markets platform established and operated by Ichx Tech.



Hanwha is making a social impact by pursuing future growth engines in fintech, particularly blockchain

For Hanwha's financial division, these strategic partnerships help position it as a global fintech enabler on the leading edge of the Fourth Industrial Revolution (4IR), with blockchain being a key mechanism. In brief, fintech uses technology to improve activities in finance that is focused on providing more services

that are accessible to the general public. As a factor of fintech, blockchain is a decentralized, distributed ledger used to record transactions made in cryptocurrency across many computers so that the record cannot be altered without consensus of the network.

### SEA Offers Fertile Conditions for Fintech and Blockchain Applications

Hanwha's investments are both timely and strategic as most SEA countries have developing economies where many low-income people, such as farmers, taxi drivers, couriers or migrant workers, have limited access to funds. It can be difficult for banks to track their credit history. That's where fintech can help. Banks can collaborate with tech companies that have consumer data and analytics to build digital lending platforms for efficient loan analysis and processing.

Growth in fintech and Hanwha's investment in it reflects greater application of blockchain in financial services around the world, including Southeast Asian countries that are working to improve regulatory conditions to provide a suitable, attractive environment for blockchain companies to keep pace with demand.

### Lightnet and iSTOX – Investments for Sustainable Financing



Lightnet is a next-generation financial network that provides easier and safer cross-border remittance services in Southeast Asia

Lightnet was established to promote financial mobility and inclusivity for unbanked and underbanked Asians, such as migrant workers, who rely on outdated, costly and fragmented services in major SEA markets. Lightnet's smart contracts and distributed ledgers offer a fast, scalable and sustainable solution

to replace the decades-old inefficient SWIFT system and unreliable underground banking. The company expects to facilitate over USD 50 billion worth of annual transactions through its partner network within three years.

By investing in Lightnet, Hanwha Investment & Securities expects to harness its digital ledger technology, local market insight, pan-Asia partnership and proprietary ecosystem to accelerate the mass adoption of blockchain and deliver accessible and efficient financial services for the many.



*iSTOX uses blockchain technology to make investment opportunities more accessible*

Meanwhile, iSTOX recently cleared Singapore central bank's fintech regulatory review and is set to be one of the first security token platforms that is licensed as a capital markets services provider, offering issuers more options for capital fundraising and investment.

By investing in iSTOX, Hanwha Asset Management expects to leverage its pioneering support of one-stop issuance and trading of digitized securities, in addition to its use of advanced smart contracts and blockchain to streamline issuance and trading processes.

In addition to these social impact investments, DREAMPLUS' Global Expansion Program (GEP) and newly built global offices worldwide includes a start-up incubator space at Hanwha Life's San Francisco office that shows promise as an important hub for global fintech identification and exploration, especially for Silicon Valley start-ups looking to expand into Asia.

With its social impact investments ongoing, Hanwha is on track to become a global fintech enabler, helping to lay the foundation for strong, sustainable communities in Southeast Asia and beyond. ■

## Building Sustainable Foundations

# Change Starts at Home : Hanwha Building's Environmentally Sustainable Revamp Symbolizes Hanwha's Commitment to Creating a Greener Future



*Hanwha Building's new look is an environmentally sustainable design that makes it stand out from its neighbors*

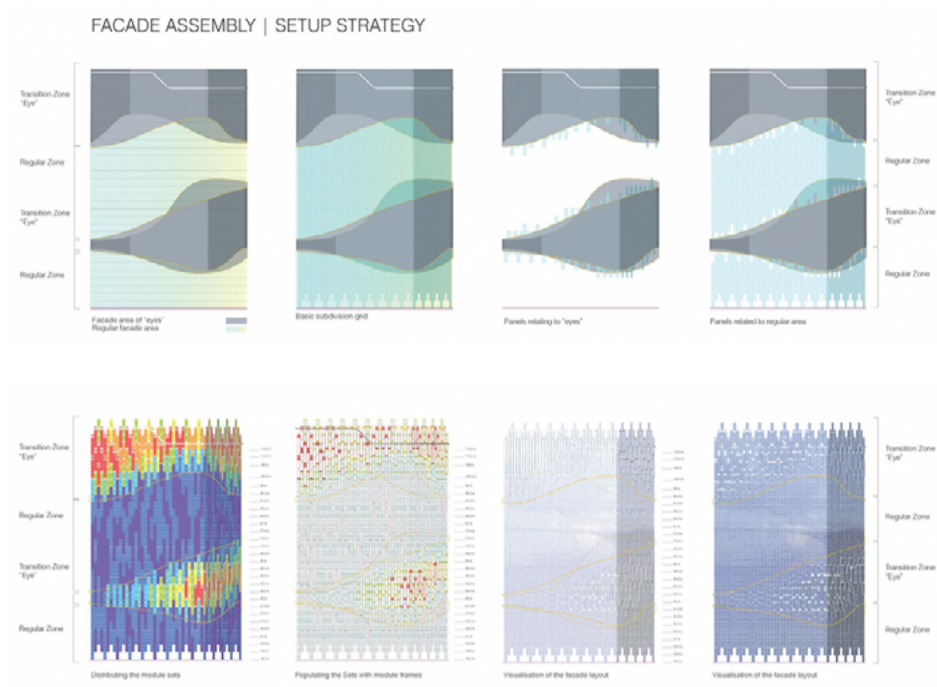
Throughout the 2010s, Hanwha underwent a corporate metamorphosis. With the Fourth Industrial Revolution underway, Hanwha was repositioning itself as a forward-looking company by investing in future growth engines such as solar energy, aircraft engine technology, and fintech. To manifest this symbolic transformation outwardly, Hanwha commissioned UNStudio, an acclaimed Dutch architectural firm, to revamp its global headquarters in Seoul, Korea.

The team from UNStudio, under the direction of Ben van Berkel, was tasked with redesigning Hanwha Building's entire facade from the ground up. In addition to the visual makeover, they were also required to make the building's design more environmentally sustainable. To fulfill both parts of their mandate, the UNStudio team created a "reactive facade" that is visually striking while taking advantage of the sun to reduce the building's electricity usage.



*Hanwha Building was originally a standard 1980s Korean office block. Its renovation resulted in a much more distinct and dynamic look*

“We designed a ‘reactive façade’ based on three key variables: external and internal space allocation, interior temperatures, and environmental consideration,” said van Berkel, when interviewed by [SPACE](#), a Korean architecture website.

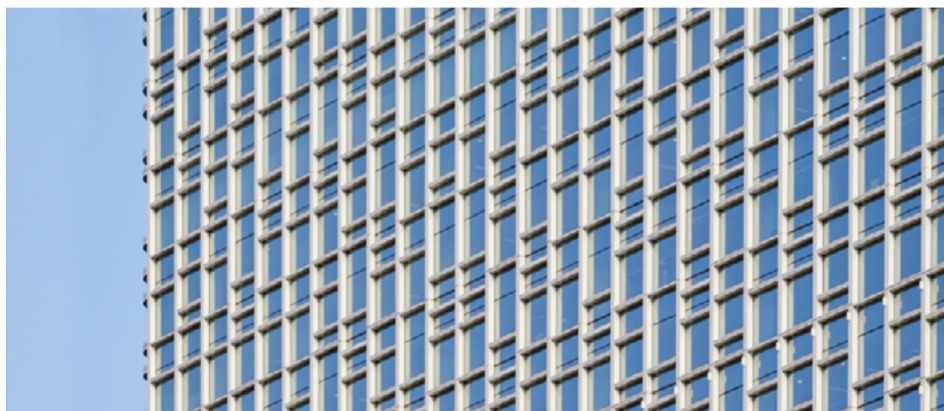


Computer modeling showed UNStudio how much sunlight each section of Hanwha Building's façade receives. The architects created the visual design based on this data

To create the reactive façade, UNStudio used parametric design, wherein form is determined by function. Using computer models, the firm determined which sections of Hanwha Building's façade received the most and least sunlight. They then designed several different aluminum-and-glass window modules and used the data from the computer models to dictate how the modules would be tiled.

Areas that receive more sun have thicker, insulated windows to reduce the building's heat load and cut down the use of air conditioning in the summer. The aluminum framing in these areas is also angled to provide shade to those working inside.

Areas that receive less sun, on the other hand, have flat aluminum framing to let in more natural light, reducing the need for artificial lighting. They also have thinner windows to let in more solar heat, which reduces the need for fossil-fuel-burning heating in the winter.



Hanwha Building's façade transitions from angled framing to flat framing depending on how much sun each section receives

This resulted in Hanwha Building's exterior gaining a more visually dynamic design that features undulating, asymmetric bands of large and small windows. Beyond their practical purpose, the flat aluminum framing on the sections that receive less sun act as “transition zones.” These break up the façade's design and provide areas upon which observers' eyes can settle when they take in Hanwha Building's appearance.

“The parametric design model gives the façade a diverse, atypical sophistication,” said van Berkel in his SPACE interview. “The insulated glass and aluminum framing accentuate views while ensuring comfort inside and reducing energy consumption.”



Some of Hanwha Building's window shades incorporate solar modules to produce electricity while shielding the people inside from sunlight

Solar modules integrated into the façade's aluminum framing further reduce Hanwha Building's energy consumption. Because the building lacks adequate roof space, modules were installed on window shades in areas that receive the most sunlight. In total, Hanwha Building has 275m<sup>2</sup> of Q.PEAK solar modules from Hanwha Q CELLS along its exterior. These can offset Hanwha Building's traditional electricity usage by up to 800kWh/m<sup>2</sup> per year.

Hanwha Building's new façade is a functional and visual symbol of Hanwha's commitment to environmental sustainability. Around the world, Hanwha spearheads a diverse range of projects and campaigns, including those that increase access to energy by donating solar panels, combating pollution with solar power, and replant forests to offset global carbon emissions.

In every location and industry it operates, Hanwha is dedicated to solving environmental problems and ensuring a greener future for younger generations. ■



Click here to visit the page: [www.hanwha.com/en/hanwhaataglance](http://www.hanwha.com/en/hanwhaataglance) ■

## Press Release

# Hanwha Q CELLS secures project development rights from RIC Energy for 940 MW solar portfolio in Spain

· Hanwha Q CELLS completes transaction for development of large-scale solar projects across Spain; one of the largest renewable energy transactions in Spain's history. Development rights for this 940 MWp portfolio were acquired from Spanish global renewable energy developer RIC Energy.



Hanwha Q CELLS and RIC Energy teams following the signing of the agreement

Hanwha Q CELLS, a renowned total energy solutions provider in solar cell and module, energy storage, downstream project business and energy retail, has secured the project development rights for a 940 MWp solar portfolio in Spain, in what is one of the largest renewable energy transactions in Spain's history.

Hanwha Q CELLS' Downstream Business Unit signed on December 31, 2019 an agreement to purchase 940 MWp of new solar capacity in Spain, which is projected to achieve Ready to Build status by the first quarter of 2022. Once completed, these solar installations will generate enough clean electricity to meet the annual power needs of more than half a million Spanish households.

RIC Energy is active in Spain, the USA, India and in parts of Africa. This transaction represents the largest deal that the company has completed in the Spanish market to date. In addition to the sale purchase agreement, RIC Energy confirmed that it will provide development services for all the projects in order to bring them to Ready-to-Build status.

The purchase agreement is a landmark transaction for Hanwha Q CELLS' Downstream Business division, which was officially created at the beginning of the year as successor to the former Hanwha Q CELLS EPC Division.

Hanwha Q CELLS' Downstream Business Unit now owns more than 1 GW of solar projects in Spain, and has a PV portfolio of more than 2 GW in the pipeline, across Iberia, Poland and Italy.

## Gains in Spain

Hanwha Q CELLS' commitment to the Iberian Peninsula has grown in the past year in response to the burgeoning solar development opportunities emerging in both Spain and Portugal. Having enjoyed somewhat of a breakthrough year in 2019 – installing close to 300 MW of new PV capacity and assigning a further 1.15 GW at auction, according to Bloomberg New Energy Finance data – Portugal could well install more than 500 MW of new solar capacity in 2020.

Neighbouring Spain, meanwhile, finally appears to have discovered a thirst for sustainable solar growth, following a few years of boom-and-bust. In 2020, IHS Market forecasts Spain to claim 15% share of all European installations, behind only Germany, in a year in which Europe may exceed 23 GW of new capacity. Driving Spain's solar growth this year will be its utility-scale sector.

Sang Chull Chung, Head of EU Downstream Business Unit for Hanwha Q CELLS, said: "In securing the development rights from RIC Energy for its 940 MWp solar portfolio, Hanwha Q CELLS is sending out a strong statement of belief in the European market. As our Downstream Business Unit seeks to grow, Hanwha Q CELLS is eager to proactively explore the opportunities that exist right across the continent at a time of exciting growth potential for many European countries, particularly on the Iberian Peninsula."

José Luis Moya, CEO of RIC Energy, added: "This transaction represents the largest such deal that RIC Energy has completed in the Spanish market to date. Given the size of our current portfolio, we expect to close operations of similar size during 2020." ■

## Hanwha Worldwide News

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## China

### Hanwha Chemical

## Hanwha Chemical (Ningbo)

### Hanwha Chemical (Ningbo) Provides Encouragement with Mask Donation

With global concern rising over the spread of Covid-19, Hanwha Chemical (Ningbo) took action to help the Ningbo Daxie Development Zone in China. On March 9, 2020, Managing Director Hyun Gyu Lee presented Jin Guo Hwang of the Ningbo Daxie Development Zone Administrative Committee with 30,000 protective masks on behalf of the company.

This donation is the most recent example of Hanwha Chemical (Ningbo)'s ongoing CSR activities as an active member of the Ningbo Daxie Development Zone Administrative Committee. During the donation ceremony, Managing



Director Lee said that he hoped the donated masks would help combat the spread of coronavirus for all those working in the Development Zone.



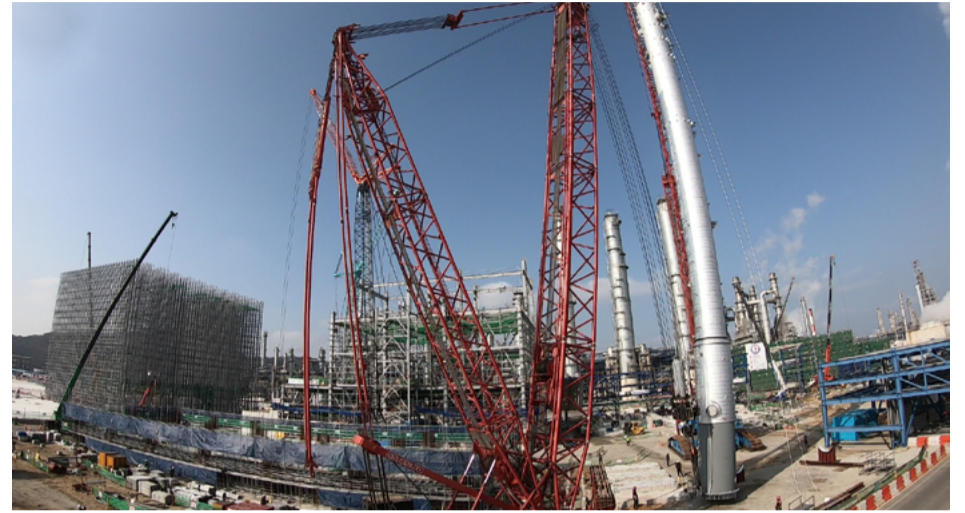
## Korea



### Hanwha TOTAL Petrochemical's PP4 Plant Gets a Few Steps Closer to Completion

With work completed on its new distillation towers, Hanwha Total Petrochemical is now just a few steps away from completing its PP4 plant in Daesan, Korea. The company also installed a new recovery column on January 31, 2020. This helps maximize output by capturing gas discharged during production and reinjecting it into the production process. Installing this recovery column was an enormous job. It weighs 250 metric tons and stands 60 meters in height, making it one of the heaviest and tallest pieces of equipment in the plant.

Hanwha Total Petrochemical also finished installing a 110 metric-ton propylene degassing column that stands 36 m tall. This column ensures the purity of the propylene being produced by separating out gases such as oxygen, ethylene, and methane.



The PP4 plant is currently on track for completion in 2021 with safety management as a top priority during the expansion project.



## Mexico



### Hanwha Advanced Materials Mexico

#### Hanwha Advanced Materials Mexico Pays a Valentine's Day Visit to Pediatric Cancer Patients

On Valentine's Day, 2020, Hanwha Advanced Materials Mexico (HAMX) brought toys and treats to children suffering from pediatric cancer to raise their spirits. The visit was a part of HAMX's support for Alianza Anticancer Infantil, a charity organization that provides medical treatment and education for child cancer patients and their families in Monterrey, Mexico.



Prior to the visit, HAMX held its annual recycling drive to raise money for Alianza Anticancer Infantil. This year, collection boxes for plastic caps were placed next to vending machines. As a result, 10 boxes worth of recyclable caps were collected to raise funds for the charity.



## Vietnam



### Hanwha Life Insurance (Vietnam)

#### Hanwha Life Vietnam Helps Under-Privileged People Gain Access to Healthcare

On March 6, 2020, Hanwha Life Vietnam joined forces with Ho Chi Minh City's Sponsoring Association for Poor Patients (SAPP) to donate health insurance cards to underprivileged people in Ho Chi Minh City and the provinces of Lam Dong, Ninh Thuan, and Ben Tre. Hanwha Life Vietnam plans to provide more than 3,200 health insurance cards, worth VND 974 million, which will allow recipients to receive checkups and treatment. The donations were very appreciated, especially with the spread of Covid-19 around the world.

Hanwha Life Vietnam is committed to helping the people of Vietnam in any way it can and engages in many different CSR activities throughout the year. Over



the past 11 years, the company has donated over 53,000 cards to people who need them. It has also built five health centers that provide free healthcare to people across the country. The company has also donated more than 160 homes, built nurseries and schools, and provided scholarships and bicycles to help the disadvantaged throughout Vietnam. ■