

SHAPING THE FUTURE

With its revolutionary technology and commitment to quality, Arconic Korea is setting the bar for the metal industry

Changmo Sung General Manager **Arconic Korea**



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Dear Readers,

January has already passed but ‘uncertainty’ is still this year’s buzzword in the business community. We’re facing unfavorable external conditions stemming from rising protectionism due to the ‘America First’ strategy of the new U.S. administration, China’s ‘China Inside’ policy and the United Kingdom’s ‘Hard Brexit’. Such unstable social, political and economic conditions are fueling uncertainty.

Amid this rapidly changing environment, I spent a very busy month traveling around the world, looking for answers on how to lead KOTRA and what value we can bring to our clients. During my visits to Hangzhou, Miami and Santo Domingo, I shared ideas on how we can respond to the shifting economic climate with the heads of our overseas trade offices in 43 regions. Back in Korea, I discussed opportunities to tap into markets around the world with business people and relevant government officials at the ‘2017 Forum on Global Market Entry’.

While travelling in and out of Korea, it became clear to me that despite concerns, new and exciting roads are emerging from these changes. Most notably, we can seize markets arising from the transformation of economic fundamentals and industries. There are hidden opportunities in infrastructure building, manufacturing protection, product innovation, the fourth industrial revolution and domestic market expansion.

These opportunities can be found through cooperation between our foreign partners and Korean companies. I firmly believe that we can tide over a rising wave of uncertainties through intimate partnerships. In this phase of the global economy, we at KOTRA will strive to be your link to success by seeking new areas of trade and investment.

Sincerely,

A handwritten signature in black ink, which appears to read '김재홍' (Kim Jaehong).

Jaehong Kim / President & CEO of KOTRA

KOTRA AND KEA HOLD KOREAN PAVILION FOR SMES AT CES 2017

The Korea Trade-Investment Promotion Agency (KOTRA) and the Korea Electronics Association (KEA) jointly opened a Korean Pavilion at the Consumer Electronics Show (CES) 2017 held on January 5, 2017 in Las Vegas.

Many Korean SMEs attracted attention from buyers and visitors with their advanced technologies and creative ideas. In particular, all eyes were on Carnavicom, which displayed its light detection and ranging screen door safety

system. ESV, another Korean company, unveiled its drones, earning favorable reviews for their ingenious and simple functions as well as affordable pricing.

At the event, global leading companies also unveiled their cutting-edge products in areas like smart home, augmented reality, autonomous driving and wearable products. 3,800 companies from 150 countries around the world, along with 65,000 participants, attended the exhibition.

KOTRA HELPS KOREAN COMPANIES ENTER EUROPEAN MOBILE GAME MARKET AT MOBILE GAME FORUM

From January 16 to 18, the Ministry of Trade, Industry and Energy (MOTIE) and KOTRA participated at the Mobile Game Forum, the largest European mobile game expo held in London.

At the event, participating Korean companies signed new supply agreements through pitching events, conferences and networking receptions. They had a chance to discuss the industry's development strategies and global market trends together with big names like Google Game, Unity and Microsoft. A

Korean Pavilion was also in operation to showcase some of Korea's latest technology and VR games.

For Korean companies, the British market is a test-bed market to enter the European market. It is expected that the UK's mobile game market will surpass USD 1.6 billion in 2019. As mobile games are getting more accessible through smart phones and table PCs, pundits predict that the UK will become an ever more attractive market to Korean game developers.

MINISTRY OF STRATEGY AND FINANCE AND KOTRA HOST KNOWLEDGE SHARING PROGRAM WITH IRAN TO BOLSTER TIES

On January 19, KOTRA hosted a seminar on Iran as part of its knowledge sharing program (KSP). To commemorate the first anniversary since the lifting of Iranian economic sanctions, the seminar was attended by 200 companies wishing to enter the Iranian market through foreign investment.

Iran, which seeks to expand foreign investment, has carried out the program since October 2016, in a bid to benchmark Korea. With this program, Korea provided policy advice on developing

supply chains, including tips on how to nurture Iranian corporations and accomplish technology transfer through foreign investment.

"Bilateral economic cooperation focused on trade so far, but we now need to seek strategic alliance in various fields, including development cooperation, mutual investment and technology exchange," said Wonksok Yun, Executive Vice President for Business Information and Trade at KOTRA.

KOTRA HOLDS AGRI-TOURISM FAIR IN CAMBODIA

From January 20 to 22, KOTRA held the Agri-Tourism Fair in Cambodia's Siem Reap Province, and suggested new business models combining agriculture and tourism.

To modernize Cambodia's outdated tourism infrastructure and encourage Korean companies' participation in regional development projects, the third Agri-Tourism Fair was organized in cooperation with Cambodia's Ministry of Tourism, Ministry of Agriculture, the Provincial Government of Siem Reap, relevant government agencies and Korean companies in Cambodia.

Notably, the Cambodian embassy, the

Korean community in Siem Reap, and Cambodia Agriculture Association participated with the hope of improving the two countries' bilateral relations and economic cooperation.

"The Agri-Tourism Fair takes advantage of Cambodia's characteristics as a strong agricultural country and tourism powerhouse, and embodies KOTRA's earnest efforts to contribute to Cambodia's regional development and to identify new business models for Korean companies", said Kyoungmoo Kwon, Director for the Cambodia Phnom Penh Office of KOTRA.

Trade News

KOREA-CHINA-JAPAN HOLD 11TH ROUND OF NEGOTIATIONS ON FTA

The 11th round of negotiations of the Korea-Japan-China Free Trade Agreement (FTA) was held in Beijing, China from January 9 to 11.

Assistant Minister of Trade, Industry and Energy Sang-jin Lee, Chinese Vice Minister of Commerce Wang Shouwen and Japanese Deputy Minister for Foreign Affairs Katakami Keiichi led the respective delegations.

This round of negotiations is the first high-level negotiation among the three countries since the 10th round of negotiations held in Seoul last June.

Following the Korea-China-Japan Commerce Minister's Meeting held on October 29, 2016, the negotiation high-

lighted the importance of the trilateral free trade agreement and reaffirmed the three countries' determination to accelerate the negotiation process.

Most notably, the three parties discussed various measures needed to speed up the trade process for the commodity market, while laying the groundwork for negotiations in the investment and service sector.

They also promised to proceed negotiations on finance, telecommunications, intellectual property rights and e-commerce. Based on the results of this round of negotiations, the parties will also accelerate discussions on the full-scale access to their respective markets.

Government & Policy

KOREA ESTABLISHES KRW 3.5 TRILLION FUND FOR STARTUPS

On January 18, the Ministry of Science, ICT and Future Planning announced that it would partner with the Small and Medium Business Administration to establish a KRW 3.5 trillion (USD 2.9 billion) fund to help job-seekers launch 50,000 new startups.

The fund aims at creating more jobs and promoting investment. It will focus on establishing infrastructure for basic science, new-growth sectors and assisting venture firms.

The ministry will also help 500 startups

expand overseas and continue to operate the 17 creative economy innovation centers as a growth strategy amid rapid industrial, technological transformation.

In addition, the government will help international entrepreneurs from across the world pitch their business ideas in South Korea. Last year, the ministry hosted the accelerator program K-Startup Grand Challenge, the first of its kind, to help foreign startups to begin their businesses here.

KOREA TO RESTRUCTURE INDUSTRIES IN 2017

At a ministerial-level meeting in Seoul chaired by Finance Minister Yoo Il-ho on January 25, the Korean government announced that it would revamp the shipbuilding, steelmaking, shipping and petroleum sectors this year.

Shipyards are expected to cut workforces by 24 percent and reduce combined docks by 43 percent by 2018, while investing KRW 180 billion (USD 154.3 million) into research and development on new shipbuilding technology

and services. The steelmaking and petrochemical industries will also reduce its supply glut to redesign and diversify companies' business portfolios.

The government also restructured the two state-run policy lenders—the Korea Development Bank (KDB) and the Export-Import Bank of Korea (Exim Bank)—to intensify its risk-management efforts and tighten loans to expand its credit assessment system to foreign debtors.

KOREA GRAND SALE TO KICK OFF

From February 20 to 28, South Korea will kick off a nationwide shopping campaign focusing on winter tourism to promote the 2018 Pyeongchang Winter Olympics.

Under the campaign, ski resorts in Pyeongchang and other counties in Gangwon Province will provide up to 50 percent discounts on the use of lifts, gondolas and skiing equipment. Korean Air Lines Co., Asiana Airlines Co. and Jeju

Air will also offer discounts on tickets and accommodation during the period.

Shilla Stay, a budget hotel affiliated with Hotel Shilla Co., will provide a 50 percent discount while foreigners can get a 30 percent discount on entrance tickets to N Seoul Tower. Hundreds of hotels, duty-free shops and retailers will join the campaign.



Having witnessed more than three decades of unprecedented economic development, aptly known as the ‘Miracle on the Han River’, it can be a little perplexing to see Korea facing slow economic growth in recent years. GDP growth rates in the 1980s soared at over 10 percent, but such rates have slowed down with the stagnant growth rate of national income. Export, once the crown jewel of Korean economic growth, has been lackluster for more than 20 consecutive months.

Neither the lack of corporate leadership nor the capability of technocrats should be to blame, as corporations like Samsung and Hyundai Motor Company (HMC) have grown to become globally recognized companies. Many banks in Korea have also transformed into global players. All the people working there are fully equipped to compete against global competitors. Indeed, Korea’s top five conglomerates have shown spectacular performances throughout the last two decades. Their sales, as well as assets, have doubled since 2001. Some of their products have taken top share in the global markets. Despite such strong competent players, however, Korea has more room for growth.

One of the fundamental reasons for the slow growth in Korea can be attributed to the country’s small and medium sized enterprises (SMEs). Although SME employees account for more than 77 percent of the labor force in Korea, the global competitiveness of domestic SMEs has slowed down over the last two decades.

A New Wave of Growth Through Korea’s SMEs

Korea will be able to unlock its full economic potential only when its SMEs are restructured and fully supported by the government

Insufficient capital, outdated equipment, lack of talented human resources and technological training have made it difficult for global markets to perform on the level of Samsung or HMC. Because a majority of the labor market work at SMEs, slow SME growth translates into not enough income for expenditure, which further implies no domestic demand and sustained economic growth.

Therefore, new economic growth can’t be achieved without the revival of SMEs. So how do we spark this growth?

First, the prime focus of government policy should be less on big conglomerates and more on SMEs. Most of government budgets should be allotted to SMEs instead of funneling to big players.

Second, production equipment and systems of SMEs should be replaced with cutting-edge technologies. People working for SMEs should also be constantly and regularly trained so that they can keep up with changes in the technological field.

Third, fundamental restructuring of SMEs should take place in size and scope. Most SMEs in Korea are too small and inadequately capitalized. Most of

them are self-employed and face a number of obstacles. For these “micro” SMEs, technological development or extending its size globally is an unthinkable luxury. It thus seems imperative to transform these micro SMEs into competitive SMEs through restructuring. By restructuring these businesses, Korea’s economic growth will be closer to reaching its full potential.

Finally, in order for these objectives to be achieved, various ministries should work together on spearheading policy initiatives. Thus, the Ministry of Strategy and Finance should work more closely with the Ministry of Trade, Industry and Energy and the Ministry of Science, ICT and Future Planning. By restructuring policies centered on SMEs, Korea’s economic growth will soon be able to see more positive growth.

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Infrastructure, consumer and e-commerce were the keywords at the 2017 Forum on Global Market Entry Strategies. Held on January 10 at COEX InterContinental Hotel in Seoul, the event took place to help Korean SMEs boost their exports amid the recent slump in exports. The meeting, which is in its 18th year, kicked off with an opening speech by Jaehong Kim, CEO and President of KOTRA, followed by a congratulatory remarks by Cheong Man-ki, Vice Minister of Trade, Industry and Energy.

“Korea’s export environment will get better this year compared to last year,” said Kim, who pledged to identify new opportunities in each market, deploy tailored marketing strategies, actively support consumer good and service industries and respond to new ways of trade so that SMEs and corporations of middle stand- ing can boost their exports.

Approximately 500 industry insiders participated at the meeting, which invited director generals from KOTRA’s 10 regional headquarters. The director generals presented on key economic issues and market entry strategies for companies seeking to expand their business on an international scale. As the income for the middle class continues to grow in major markets like the United States, China and India, the demand for consumer goods and subsequently the need for premium goods are also increasing. Thus, utilizing e-commerce technologies, the Korean

Wave and Korea’s comprehensive FTA network will be the key to expanding exports in these markets.

At the forum, Jongchoon Kim, Regional Director General for North America, stated that because America’s highly-educated middle class is growing, tapping into newly rising markets, including on/offline distribution markets and government procurement markets, is vital. “For the distribution market, we need to more closely cooperate with purchasing managers of headquarters and power vendors, among others. We can also indirectly enter the government procurement market by working with preferred government sub-contractors,” said Kim.

Along with the United States, China is another country that is strengthening economic ties with Korea. Thus, the forum stressed that Korea should more efficiently utilize the Korea-China FTA to meet the demand of the Chinese market, which is Korea’s largest export market. Gwangyoung Chung, Regional Director General

for China, stressed the importance of urgently responding to the needs of newly rising Chinese consumers in the premium goods market. He suggested examining new consumption trends in order to read such needs; for instance, utilizing power bloggers and O2O (Online to Offline) services.

Chung also emphasized that Korea can enter the consumer goods market with the help of growing online distribution channels and the Korean Wave in the Southeast Asian markets, where exports and investment are increasing rapidly, as well as the Southwest Asian market, where remarkable economic growth is taking place. The Middle East, Central America, and Africa are also expected to see an increase in domestic demand thanks to the growing middle class, newly rising consumer groups and changing trends.

The presenters noted the rise of the e-commerce industry and its impact on the global market. The market size of the e-

2017 Forum on Global Market Entry Strategies Pave the Way for Domestic Growth

commerce industry is fast increasing in Europe, Japan, India, China, Southeast Asia and Central America. According to e-Marketer, the global e-commerce market recorded USD 1.3 trillion in 2014, and it is expected to reach USD 3.4 trillion by 2019.

Furthermore, participants commented on the importance of strengthened infrastructure. “The political situation in the Middle East is becoming more stable. We thus need to diversify our export channels for infrastructure projects and relevant materials,” says Yongsuk Kwon, Regional Director General for the Middle East. “We should increase our investment in small and medium-sized plant construction projects in response to industry diversification policies of Middle Eastern countries, while focusing on mega projects such as the 2020 Dubai Expo.”

Other countries are also set to invest in infrastructure development this year. The United States will assign USD 1 trillion to infrastructure development, whereas countries in Eastern Europe will carry out various infrastructure projects with EU Funds. Africa is a promising export market for Korea when it comes to small and medium-sized plant construction projects, as well as manufacturing equipment.

In addition, participants called for Korea to proactively engage in cooperation with international policies. For instance, as the Indian government is pursuing the “Make in India” policy with an aim to nurture the country’s manufacturing industry, Korea can increase its exports to India in the parts and machine industries. At the same time, the two countries can cooperate to build smart cities. Korea must also prepare for a change in China, as it is expected to improve the competitiveness of its manufacturing industry with China Manufacturing 2025.

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Promising Overseas Industries in 2017	
North America	<ul style="list-style-type: none"> - Tap into increasing demand for consumption goods with the rise of millennials and silver boomers - Tap into demand for materials, finished goods, and equipment that will be used for the incoming government’s infrastructure projects
China	<ul style="list-style-type: none"> - Tap into rising demand for premium consumption goods with the emergence of new middle class - Explore new opportunities arising from “China Manufacturing 2025” and “AIIB Project”
Europe	<ul style="list-style-type: none"> - Differentiate products not just through affordable prices but through design and quality - Increase competitiveness through localization - Secure market share at an early date by participating in projects pursued with EU Funds
Japan	<ul style="list-style-type: none"> - Enter new growth engine industries of the Abe administration such as auto parts, energy, medical, and IT industries - Expand entry into online market by cooperating with Japanese partners
Southeast Asia/Oceania	<ul style="list-style-type: none"> - Participate in infrastructure development projects of incoming administrations in countries like Thailand, Myanmar, Indonesia, and the Philippines - Increase supply for parts and components by becoming part of local supply chains
Southwest Asia	<ul style="list-style-type: none"> - Enter the consumer goods market through online distribution channels - Jointly enter local markets with large corporations making investment
Middle East	<ul style="list-style-type: none"> - Enter distribution market with the help of the Korean Wave - Utilize the region’s industry diversification policy, and participate in the region’s investment projects in small and medium-sized plants
CIS	<ul style="list-style-type: none"> - Secure market share in promising industries (machine equipment, medical industry, and agriculture and livestock industry) - Advance marketing strategies for selecting distribution channels and products, and utilize the Eurasia Economic Union
Central America	<ul style="list-style-type: none"> - Secure price competitiveness by expanding partnership with local companies - Appeal to middle income class through K-beauty and the Korean Wave
Africa	<ul style="list-style-type: none"> - Enter the world’s largest ODA market through public procurement projects - Enter the export market for manufacturing equipment, agricultural machines and small and medium-sized plants

Source: KOTRA

Prospects for Korea's Engineering Plastics industry

Like metal and ceramic, plastic has become an indispensable part of people's lives. Because it is lightweight and can be easily molded, it is suitable for producing parts in mass quantities. For this reason, plastic is widely used in high-tech industries, including electric appliances, transportation equipment, aerospace, 3D printing and household goods. In general, plastics can be classified into three kinds—commodity plastics, engineering plastics and super engineering plastics—based on their continuous use temperature. Polyethylene and polypropylene (continuous use temperature: below 100°C) belong to general-purpose plastics. On the other hand, materials such as polycarbonate (continuous use temperature: between 100°C to 150°C) are classified as engineering plastics. Those that can endure above 150°C are classified as super engineering plastics. General-purpose plastics and engineering plastics, widely used in household goods, are usually produced and consumed in large quantities, which bring in large-scale investment. Special-purpose engineering plastics and super engineering plastics, however, are limited in their application and are used for industries like aerospace.

Globally, the engineering and super engineering plastic material market is expected to grow at a compound annual growth rate (CAGR) of 3.5 percent from 8.86 million tons (KRW 44 trillion) in 2014 to 10.8 million tons (KRW 53 trillion) in 2020. General-purpose plastics such as polycarbonate, polyamide and polyoxymethylene occupy 93.5 percent of the total market share, while the remaining 6.5 percent is taken up by super engineering plastics. This means that most engineering plastics are used for general purposes, whereas super engineering plastics are limited for special purposes. When it comes to industry growth rate, the general purpose engineering plastic sector is expected to grow 3.5 percent and the super engineering plastic industry 4.1 percent annually.

Korea is a chemical industry powerhouse which boasts a production scale of approximately USD 177 billion as of 2013. This is the fifth largest production scale in the world, close to that of other advanced countries like Japan and Germany. Korea's chemical industry is also well-structured both upstream and downstream. Since the 1970s when the government started fostering the heavy and chemical industry, Korea developed both the upstream petrochemical industry that produces ethylene from crude oil as well as downstream industries based on the technologies of the upstream industry. The plastic industry takes up approximately 17 percent of the total petrochemical industry based on shipment value. Most of the shipment is for general-purpose plastic. However, engineering plastic is increasingly taking up a bigger share. For instance, the proportion of nylon and polyethylene terephthalate (PET) increased in the 1990s, as well as polycarbonate and polyimide film in the 2000s.

Recently, the demand for light and eco-friendly materials is increasing. Electric/electronic devices such as wearable devices are quickly being developed and the era of eco-friendly vehicles is well on its way. This is the reason why engineering plastic is becoming a new growth engine in many advanced countries. A brief summary of the growth engines of the engineering plastics industries is as follows.

Growth factors

• Lightweight

Lightweight cars are being developed to match the international community's efforts to cut greenhouse gas emissions and to meet stricter regulations regarding fuel efficiency. For example, reducing the weight of a 1.5-ton vehicle by just 10 percent can lead to 3.8 percent higher fuel efficiency, 4.5 percent less carbon dioxide emissions and 1.7 times greater durability of the car body. In addition, Korea, the United States and the EU have already announced that they would impose stricter regulations regarding fuel efficiency. As a result, automobile companies around the world are investing a large amount in the research of making car materials lighter. Under such circumstances, engineering plastic is quickly becoming more valuable. Super engineering plastic has strong enough heat resistance to replace metal materials. Also, since the weight is less than half that of metal, it is one of the most suitable materials for lightweight automobiles.

• Environmentally friendly

People often think that plastic, as a petrochemical product, is not eco-friendly, regardless of its actual effects to the environment. Therefore, it is necessary to make engineering plastics more eco-friendly so that it can be continuously used in the industry. Eco-friendliness can be achieved in three ways. First, it can be achieved by introducing an eco-friendly manufacturing process, such as volatile organic compounds (VOC) to reducing toxic substances. The second way is to utilize more bioplastics, which are made from eco-friendly raw materials such as biomass. Third, it can be achieved through biodegradable plastic that can decompose in a natural way. For the most part, eco-friendly engineering plastic materials can be used for household goods, transport equipment and electrical and electronic industries.

• Highly functional

What if plastics can radiate heat or have a metal-like luster? Such questions are closely related to the functionalization of engineering plastics, which creates added value in finished goods. Functionalization is especially important for wearable

devices such as mobile phones. Given that Korea is a powerhouse for wearable appliances, the functionalization of engineering plastics will greatly impact the development of other relevant fields. In the future, the engineering plastic industry will continue to grow not only in Korea but also in the world if it can make engineering plastic lighter, more environmentally friendly and highly functional.

Future prospects

● Research and investment

From a technological standpoint, it is very important to continuously develop engineering plastic materials. Close industry-academia cooperation is the pre-requisite to achieving this goal. First, universities should develop basic technologies and nurture human resources specializing in engineering plastics. Second, national and public research institutes should develop optimized material properties and fusion technologies. Lastly, companies should conduct business and economic feasibility tests in order to select technologies to commercialize for the global market. These technologies developed by industry-academia cooperation can be applied in various ways.

As previously mentioned, the foundation of Korea's engineering plastic industry is relatively weak. However, we can make a breakthrough by actively attracting foreign capital. In attracting foreign capital, there are two important factors, which are location-related incentives and manpower. The first factor includes access to industrial sites and tax incentives, while the second factor of manpower is comprised of bright talents who can effectively operate production facilities. In this regard, despite Korea's lack of capital, advanced basic technologies and manpower can go a long way securing foreign capital. Japan's Toray and Germany's BASF establishing polyphenylene sulfide and polyether sulfone factories in Korea are examples of such direct investment.

● Changing trade environment

Korea has officially entered the FTA with China as of December 2015. In this agreement, Korea's degree of openness in the materials industry is higher than that of China. Considering that many global chemical companies are already operating in China, there is concern that the Korean market might be taken up by products produced by these Chinese companies. Fortunately, there are still far more corporations wishing to enter the Chinese market, but difficulties in managing manpower, the unstable financial system and income disparity are serving as stumbling blocks to making investments there.

In this regard, Korea has a competitive edge against China in terms of manpower, technological capability and national branding. By taking advantage of these strengths, Korea should make sure that the Korea-China FTA creates positive effects on attracting foreign direct investment. For example, if we succeed in bringing a global materials company to Korea, that company can help domestic engineering plastic companies enter the Chinese market. A tell-tale example of this is Japan's Toray, which set up a factory in Gunsan, Korea.

While the Obama administration actively pursued TPP negotiations, Donald Trump has been less passionate about the agreement thus far. Because the TPP has a similar effect of signing an FTA with Japan (although technically speaking, it is a deal with Pacific Rim countries), the delayed TPP negotiations can be a good opportunity for the engineering plastic materials industry. That is because Japan is a powerhouse for plastic materials used for electronic products, and it will be difficult for Korea's high value-added plastic industry to survive if the TPP enters into force right now. Therefore, Korea should take this period as an opportunity to develop relevant technologies.

● Industrial paradigm shift

The fourth industrial revolution is all the rage, as evidenced by keywords like big data, shared economy, autonomous vehicles, Internet of Things and 3D printing. With the fourth industrial revolution, the existing industrial structure is being torn down, giving way to new industries. This revolution might focus on the software aspect of things, but physical materials are also becoming important. For example, one of the issues regarding autonomous vehicles is how to make lightweight cars. In the Internet of Things sector, sensors featuring special plastics are becoming more necessary, while engineering plastic materials are with no doubt important in 3D printing technology.

When a new industry emerges, start-ups can enjoy a variety of opportunities. As previously stated, super engineering plastics are produced in small quantities. That is why it is an optimal sector suitable for the fourth industrial revolution. The merit of super engineering plastics is that people can start a small-sized business based on high-quality technology without heavily investing in a large industrial sites. Moreover, burgeoning start-ups can be a bridgehead for foreign companies seeking to enter Korea through foreign direct investments or M&As. On this note, corporations and the government should recognize the importance of plastic materials in the era of the fourth industrial revolution, and actively pursue R&D efforts in this field.

Conclusion

Korea's history of technology development and production in the engineering plastic field is very short compared to that of other advanced countries. However, it is estimated that the engineering plastic industry will continue to grow with increasing demand for lightweight, eco-friendly and highly-functional plastics. Therefore, Korea needs to actively promote foreign investment based on advanced technologies and skilled manpower. Despite industrial paradigm shifts, such as the changing trade environment caused by the FTA and TPP and the fourth industrial revolution, the engineering plastic industry will continue to grow together with Korea's main industries such as automobiles and electronic/electrical devices.

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ARCONIC

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General Manager **Arconic Korea**



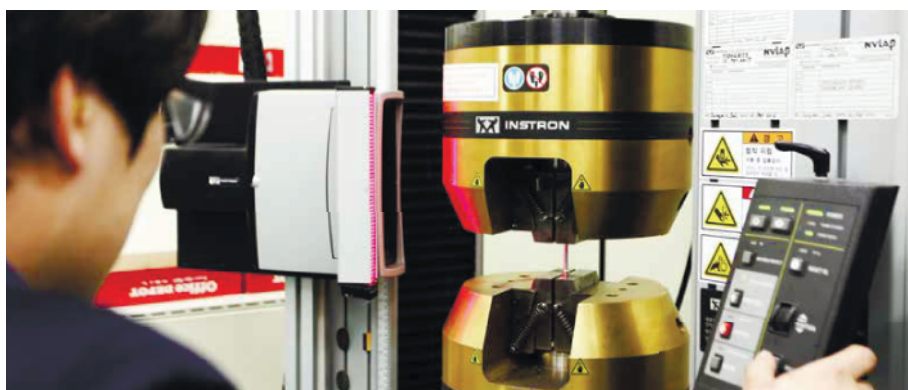
Nestled in Changwon's quiet countryside, Arconic Korea looks like an ordinary company at first glance. But what the company produces is far from ordinary. For more than a century, Arconic has helped create and transform entire industries around the globe. The US-headquartered company made headlines last year with its live-action reimagination of the world of "The Jetsons", the famous American sci-fi cartoon series set in a futuristic utopia. In the short film, flying cars and spaceships made from Arconic technology whiz by mile-high skyscrapers. The 60-second spot was a clear illustration of what Arconic is capable of, and the company's Korean branch hopes to be a part of this forward-thinking narrative.

Founded in 2002 after acquiring Dooray Air Metal Company, Arconic Korea has served as a leading manufacturer and supplier of extruded and forged aluminum products for aerospace, defense, automotive and industrial applications. Its commitment to quality and service has long been recognized by major domestic and overseas aircraft makers, including Korean Air, Lockheed Martin and Boeing McDonnell Douglas. By combining its local presence with Arconic's global resources, the company provides customers with leading-edge technology, expertise and integrated solutions for a wide range of products.

At the helm of the company's success is Changmo Sung, General Manager of

Shaping the Future

With its revolutionary technology and commitment to quality, Arconic Korea is setting the bar for the metal industry



Arconic Korea. "Arconic Korea is able to supply high-quality products because we're involved in every single stage of production," he says. "Whether that's product design, extrusion or packaging, we do everything in-house. We want to provide the best service to our clients so that both Arconic and our customers can grow together."

So what attracted one of the world's largest metal companies to Korea? "The country's talented workforce, strong infrastructure and strategic location to emerging markets were key reasons why the company opened up a branch here",

says Sung. As Asia's economic and technological hub, Korea provided the manufacturer with an optimum business environment to target growing demands from the region. As a result, Arconic Korea recorded KRW 58.1 billion (USD 49.3 million) in sales even amid the global economic slowdown.

Thanks to Korea's high-tech environment, the company is throwing its weight behind research and development. Arconic Korea has its own product development team, which seeks to optimize the combination of alloy and temper and provide structural solutions at minimum



installation costs. The team also focuses on the development of new alloys to produce products tailored for its customers. With its eyes set on the future, the metal supplier aims to hit KRW 100 billion (USD 84.8 million) in sales by 2020.

But like most companies setting up shop in another country, Arconic Korea faced its fair share of challenges in the beginning. “We experienced some difficulty in the first few years because we had limited information on Korean market trends,” says Sung. “There were also some cultural issues because Arconic had acquired Dooray Air Metal Company,

which was a Korean company.”

Another challenge was trying to change the perception that Koreans had towards international companies. “There’s this misconception that all foreign companies care about is making money for themselves, but that’s not true,” says Sung. “Foreign companies aren’t merely focused on making a profit; they want to create jobs and help Korean businesses grow.” He adds that Arconic has close business partnerships with a number of small and medium enterprises in Korea and thanks to such close networks, both the company and its clients have pros-

pered.

When asked how Korea can become a more ideal environment for investment, Sung believes that labor union laws should be amended so that foreign companies can feel safer when doing business here. In addition, he noted that laws fostering stronger infrastructure should be implemented.

Despite the sagging world economy, Arconic Korea shows no signs of slowing down. The company has been transforming impossible ideas into commercial success, emerging as the sole aluminum extrusion company in not only Korea, but all of Asia. “Our vision is to become the hidden champion of the metal industry,” says Sung. As the company continues to transform the way that people fly, drive and build, it seems that Arconic Korea is well on its way of achieving this goal.

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Upcoming KOTRA Events

Global Bio & Medical Plaza 2017

On March 16-17, KOTRA will hold the 10th Global Bio & Medical Plaza (GBMP) at COEX in Seoul, Korea. The event will serve as a global platform to facilitate cooperation and trade of the medical industry between Korean and overseas companies. Held every year since 2008, the event is designed to develop a concrete business relationship and pursue potential contracts between overseas buyers and Korean companies. It will also offer the latest information on premium products and services of Korea through one-on-one meetings and presentations on Korea's medical indus-

try. The presentations, most notably, will take a closer look at revolutionary medical devices, smart healthcare and major hospital projects taking place throughout the country..

Innovation & Technology Business Partnering

To introduce Korea's innovation and technology-related businesses to global corporations, KOTRA will hold Innovation & Technology Business Partnering on March 30 at the Lotte Hotel in Seoul. The event seeks to support the export of Korea's most innovative and technologically advanced prod-

ucts, especially those in the fields of power generation, automobiles, mobile phones and aviation. By strengthening partnerships, this event hopes to meet the demands of major countries like China and the United States, especially as they are shifting the focus of their own industrial policies. Approximately 400 domestic companies, including start-ups, and 180 foreign buyers are set to participate. Aside from business partnering meetings, various seminars and showcases promoting Korea's high-tech products will take place.

Korea's Foreign Investment Ombudsman Promotes World-Renowned Ombudsman System in Spain



On Nov. 29, 2016, I was invited to give a keynote speech on Korea's FDI Policy and the Ombudsman System at the Spain-Korea Renewable Energy Investment Forum held in Madrid, Spain. The Forum was co-organized by the Spanish Wind Energy Association (AEE) and the Korea Trade-Investment Promotion Agency (KOTRA) in Spain.

Spain is a strong leader in the renewable energy sector thanks to the efforts led by the AEE and the Instituto Espanol de Comercio Exterior (ICEX), the country's investment promotion government agency. In particular, Spain is the fourth largest exporter of wind turbines in the world. Exports in the last four years added up to USD 11 billion. Spanish factories exported 100 percent of their production in the face of the domestic market difficulties. 96,431 wind energy related jobs have also been created by Spanish companies. But the industry has recently been facing a number of challenges. According to a report released by the AEE, Spain's wind energy sector during 2012 through 2015 was hit by energy reform and the slowdown of the domestic market. Average revenues in the first two years of implementation fell 23 percent, 4,651 wind jobs were destroyed in the

last four years and its contribution to the GDP decreased by EUR 2.4 billion in four years. Despite challenges in the domestic market and the unpredictable energy reform, the wind energy sector has been able to revamp itself. Now, Spain publicly acknowledges the importance of FDI in promoting exports and GDP growth in this field.

Against this backdrop, potential foreign investors are eager to explore investment opportunities in the renewable energy industry of Korea and learn about the world's highly revered Ombudsman system. As the Foreign Investment Ombudsman of Korea, I had the opportunity to present to the member companies of the AEE about Korea's various investor support services and promotion policies. Specifically, as an independent troubleshooting legal entity, the Office of the Foreign Investment Ombudsman provides various Ombudsman's services including grievance resolution process, one-stop consulting services for foreign investor and an online regulatory information portal service where foreign investors can submit suggestions for regulatory improvements. As a result, such Ombudsman's services have contributed to enhanced transparency and predictability of regulations in Korea.

At the forum were potential foreign investors, the member companies of the AEE and government officials. This event received positive responses from Spanish companies involved as they have come to better understand and realize the importance of investment and regulatory reforms. In this light, a large number of potential foreign investors applauded the Ombudsman's regulatory information service. They also praised Korea and KOTRA's efforts to attract significant FDI into the country.

The forum was especially helpful for potential investors as they sought to invest in the Korean market. For example, potential investors like Iberdrola, GPC, Enerside and Arborea Intellbird SL-Aracnocoptero, expressed their keen interest in investment in the renewable energy sector in Korea and requested further information about investment incentives.

I believe this forum has provided the ideal platform for the members of the AEE and potential foreign investors to uncover the various investment opportunities in Korea. Exports in the Spain wind energy sector have strengthened thanks to growing global demand for wind turbines and its components. I hope that Spain's trade and investment in the renewable energy industry will continue to increase and the economic ties between the two countries will be stronger. All in all, appropriate investment incentives and regulatory reforms are absolutely needed for attraction of FDI.

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Korea's Petrochemical Complexes Record Impressive Performance Levels Amid Global Recession

Korea's fine chemical industry is among the world's largest and four Korean companies—LG Chem, Lotte Chemical, SK Innovation and Hanhwa Chemical—ranked among the world's top 50 chemical companies. And thanks to the country's optimum investment environment in this field, the country received the most foreign direct investment in the chemicals sector.

The outlook for the industry is especially promising due to the increased demand for hightech chemical materials utilized in batteries, TV displays and handsets. As a result, Korea's electronic companies, including Samsung Electronics, LG Electronics and SK Hynix are leading the global semiconductor and handset markets.

Even amid the global recession, Korean chemical companies recorded impressive performance levels. Four areas that are spurring the growth of this particular industry are the Ulsan-Mipo National Industrial Complex, Yeosu National Industrial Complex, Daesan Refining and Petrochemical Complex and Jeonbuk Carbon Valley.

Ulsan-Mipo National Industrial Complex

The undisputed powerhouse of the industry, Ulsan is home to 253 machinery companies, 155 petrochemical companies and 151 transportation equipment companies. The seventh largest metropolitan city in Korea is part of the Southeast Coastal Industrial Belt, along with Busan and Pohang. It is also home to the largest automobile assembly plant in the world and the second-largest oil refinery in the world. The city is connected by the Gyeongbu Expressway, Korea's high speed rail system (KTX) and the Ulsan Airport. The Ulsan-Mipo National Industrial Complex was established in order to foster large-scale oil refineries, as well as the petrochemical, automobile and shipbuilding industries.



Yeosu National Industrial Complex

Located in the southern coast of South Jeolla Province, Yeosu is a port city with a population of 297,000. Although reputed for its tourism industry, Yeosu is also transforming into a hub for the petrochemical industry, thanks to the development of the Gwangyang National Industrial Complex. The complex was established to develop a comprehensive petrochemical industrial region by utilizing the advantages of its seaside location. 14 piers including the Nakpo Pier (for fertilizer and raw materials), the Jungheung Pier (for petrochemical products) and crude oil pier provide the city with 31 births for 20,000 to 300,000 level vessels and a cargo stevedoring capacity of 146,660,000 tons/year.

Daesan Refining and Petrochemical Complex

Three of the largest petrochemical companies in Korea—Hyundai Oilbank, S-Oil and LG Chem—are all located in Daesan, South Chungcheong Province. As one of the major centers of the petroleum refining industry along with Ulsan and Yeosu, MOTIE is currently looking to establish Daesan as an area specializing in advanced chemicals. The city is accessible via the Seohaean Expressway and Gimpo Airport.

Currently, LG Chem is looking to invest KRW 287 billion (USD 253 million) in the area by 2019 to build more naphtha cracking centers. Hyundai

Korea's Petrochemical Complexes



Chemical Co. also invested KRW 1.2 trillion (USD 1 billion) for mass production of mixed xylene. In addition, Samsung Total, Lotte Chemical and KCC also located in Daesan. The complex also allows full exemption from acquisition tax, 50 percent reduction of property tax for five years and financial support for SMEs.

Jeonbuk Carbon Valley (Jeonju)

Jeonju, North Jeolla Province has been at the center for the development of carbon fiber in Korea. Designated as the center for carbon development, the city even hosts the International Carbon Festival.

The Jeonbuk Carbon Valley covers all stages of carbon fiber development and is designated as one of the Creative Economy Innovation Centers in the country. The Korea Institute of Carbon Convergence Technology, the only research institute in Korea specializing in carbon technology, is located in Jeonju and aims to become a global research for the composites industry.

Did you know?

Invest KOREA is
your global link to success!



Invest KOREA (IK), Korea's national investment promotion agency, was established as part of the Korea Trade-Investment Promotion Agency (KOTRA) to support the entry and establishment of foreign businesses in Korea. We're comprised of IK, the Investment Consulting Center (ICC) and the Office of the Foreign Investment Ombudsman (OFIO).

We provide free comprehensive services for foreign businesses, providing everything you from the pre-investment to post-investment stage. At the pre-investment stage, we give potential investors information on things like FDI incentives and Korea's promising industries. Experts at the ICC provide one-on-one consultations on taxation, accounting and law, among others. IK also works closely with its network of 36 overseas investment-focused offices to help

investors and companies come to Korea.

At the investment stage, IK helps investors select business sites, find business partners and provide administrative support to help them get started. And to make sure that investors are doing well in Korea, the OFIO resolves any grievances facing foreign companies by working closely with the government. Thanks to efforts of the OFIO, many investors have been able to call Korea their new home.

If you're looking to do business in one of the most dynamic countries in the world, contact any one of our overseas offices. We'll be there to support you every step of the way.

***For more information,
check out www.investkorea.org***

Each month, KOTRA Express introduces one Korean SME that seeks to expand its network by working with foreign investors. In the February issue, we take a look at one of Korea's most promising manufacturing companies.



Since its establishment in 1965, Seshin Buffalo has been manufacturing high-quality hand tools in Korea. The company is heavily involved in the developing, designing and manufacturing of household, industrial and professional tools. Most notably, it produces pliers, wrenches, spanners, sockets and attachments.

For decades, Seshin Buffalo has been focusing on the research and development (R&D) of new products to meet growing demands of customers. Thanks to its top-quality products, Seshin Buffalo has successfully expanded its business scope to forging parts and computer numeric control (CNC) plasma cutters. It is also cooperating with Kyoto Tool, Japan's no.1 tool manufacturer, to produce automotive tools and parts.

The company was formerly known as MK Buffalo and changed its name to Seshin Buffalo in November 2005. In 2012, Seshin Buffalo moved its headquarters and factory to Haman-gun in South Gyeongsang Province.



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Economic Indicators

GDP	2011	2012	2013	2014	2015
Nominal (USD million)	1,202,700	1,222,400	1,305,400	1,411,000	1,377,500
PPP (USD million)	1,559,447	1,611,273	1,648,017	1,707,183	1,753,733
GDP Growth Rate (Y-o-Y) (%)	3.7	2.3	2.9	3.3	2.6

Source: The Bank of Korea, January 2017

GDP Per Capita	2013	2014	2015	2016
Nominal	25,998	27,989	27,222	27,633
PPP	33,824	35,436	36,612	37,948

(Unit: USD)

Source: International Monetary Fund, January 2017

Foreign Trade	2011	2012	2013	2014	2015	Jan.-Nov. 2016
Exports	555,214	547,870	559,632	572,665	526,757	495,466
Imports	524,413	519,584	515,586	525,515	436,499	406,060
Trade Balance	30,801	28,285	44,047	47,150	90,258	89,406

(Unit: USD million)

Source: Korea International Trade Association, January 2017

KRW-USD Foreign Exchange Rate	2010	2011	2012	2013	2014	December 2016
	1,156.3	1,108.1	1,126.9	1,095.0	1,053.2	1,182.3

(Unit: KRW)

Source: The Bank of Korea, January 2017

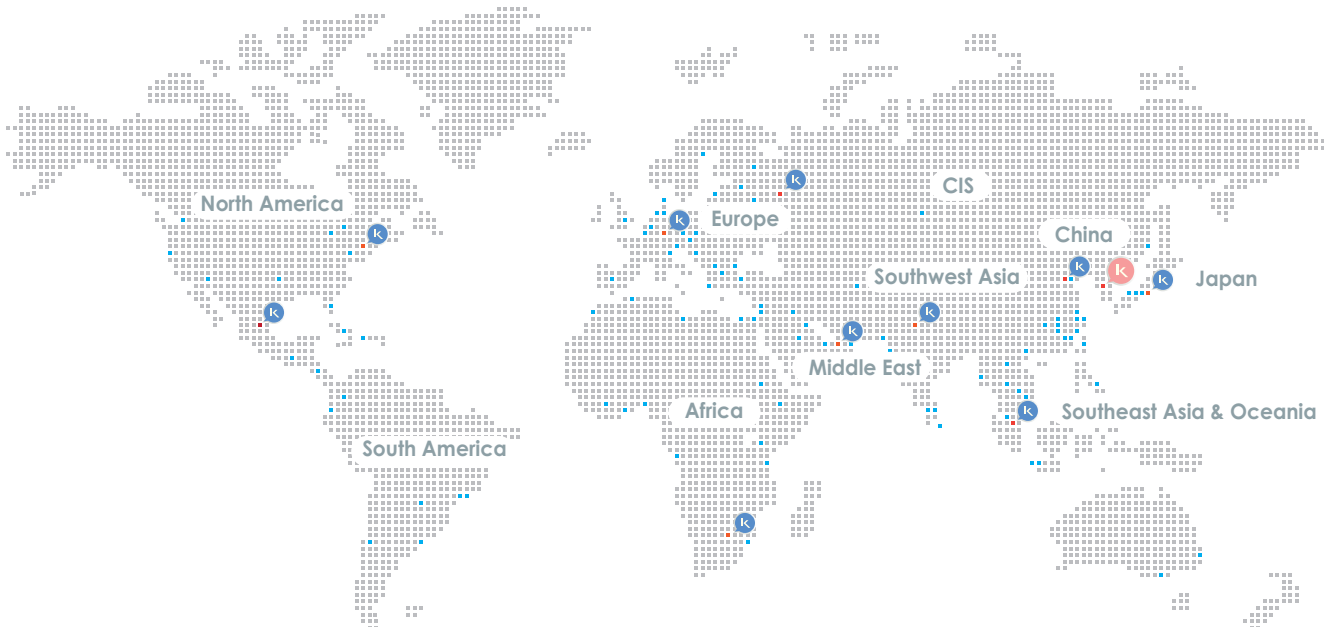
Balance of Current Account	2011	2012	2013	2014	2015	Jan.-Nov. 2016
	18,655.8	50,835.0	81,148.2	84,373.0	105,939.6	90,905.2

(Unit: USD million)

Source: The Bank of Korea, January 2017

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-KOTRA has 126 overseas offices and 10 headquarters worldwide



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