

# Invest Korea

November 2021



**kotra**  
Korea Trade-Investment  
Promotion Agency

## Josep Piqué

Honorary Ambassador of  
Foreign Investment Promotion  
for Korea

# Endless Opportunities for Collaboration

Korea, a Great Place to Live  
Key Driving Force of the Korean New Deal, Secondary Battery  
Ochang Scientific Industrial Complex



# UN Investment Promotion Awards

Excellence in Promoting Investment in Healthcare

## Invest KOREA

Korea is well-equipped with its robust healthcare business ecosystem, led by anchor enterprises such as Samsung Biologics and Celltrion. Thanks to the government's untiring efforts to promote the healthcare industries, Korea has seen a steady inflow of foreign direct investment.

Despite the prolonged pandemic, Invest KOREA has put in our utmost efforts to attract investment in the healthcare sector for the sustainable development of Korea. With this award, Invest KOREA will strive to contribute to sustainable development not only for Korea but also around the world.

# Secondary Battery

<b>Business News</b>	04-05	<b>Special Report</b>	23-25
News highlights on FDI, trade & commerce, industry, gov't & policy		"Foreign Investor Guidelines to Establishing a Presence in Korea"	
<b>Why Korea?</b>	06-07	<b>Living in Korea</b>	26-27
"Korea, a Great Place to Live"		"Korea 101: Telecommunications"	
<b>Cover Story Interview</b>	08-11	<b>FAQ from Investors</b>	28-29
"Endless Opportunities for Collaboration"			
<b>Industry Focus</b>	12-14	<b>Experience Korea</b>	30-33
"Key Driving Force of the Korean New Deal, Secondary Battery"		"Innovative Capital"	
<b>Future Unicorns</b>	15-17	<b>Economic Opinion</b>	34
"TS60s, Lithium-ion Battery Solution Leader"		"Pessimism with Little Ground"	
<b>Invest KOREA Market Place</b>	18-19	<b>Economic Indicators</b>	35
Korean companies to invest in			
<b>Location Report</b>	20-22		
"Ochang Scientific Industrial Complex"			

## S. Korea receives U.N. investment promotion award

S. Korea's trade investment promotion agency has received an award from a United Nations body in recognition of best practices in promoting investment in healthcare sectors amid the COVID-19 pandemic, officials said on Oct. 20.

Invest Korea, the country's investment promotion unit under the Korea Trade-Investment Promotion Agency (KOTRA), was chosen as the winner of the 2021 Investment Promotion Awards by the United Nations Conference on Trade and Development (UNCTAD), along with Costa Rica and the Netherlands, among 188 trade-related agencies across the globe.

"Invest Korea was recognized for the

wide-ranging coverage of the health sector on its virtual outreach channels, including online tools, sector guides and reports, information about investment opportunities, and incentives and databases on potential partners," UNCTAD said in a press release.

The agency attracted foreign investment worth USD 18.21 billion in healthcare and other sectors during the first nine months of this year in the midst of the COVID-19 pandemic by proactively launching promotion campaigns online, the KOTRA officials said. It is the first time since 2007 that the KOTRA or its affiliated agencies received the U.N. award.

## German tech firm Merck to invest USD 693 mln in S. Korea by 2025

Germany-based technology firm Merck Group said on Oct. 8 that it plans to invest around USD 693 million in S. Korea through 2025 in the electronics sector, including semiconductor solutions.

The investment by Merck is expected to lend hands to S. Korea's so-called K-semiconductor blueprint, and help the country secure a stable supply chain of related materials, according to the Ministry of Trade, Industry and

Energy.

The company entered the S. Korean market in 1989 and currently operates 11 research and production facilities across the country, with some 1,400 employees.

"The investment from Merck will allow S. Korea to secure a stable supply chain (of semiconductor materials), and secure advanced technologies and workforces," Industry Minister Moon Sung-wook said in a statement.

## FDI pledges to S. Korea up 41.3 pct through Sept.

Foreign direct investment (FDI) pledges made to S. Korea jumped a whopping 41.3 percent on-year in the first nine months of 2021 despite the COVID-19 pandemic, data showed on Oct. 7.

Foreigners pledged to make investments of USD 18.2 billion during the January-September period here, compared with USD 12.8 billion a year earlier, according to the Ministry of Trade, Industry and Energy. "The sharp growth came as global investors became more confident over S. Korea's stable business environment amid the COVID-19 pandemic," the ministry said in a statement.

Notably, the service sector saw its FDI

pledges move up 60.8 percent over the period to reach USD 14.3 billion.

By country, FDI pledges from the United States moved up 8.6 percent to hit USD 3.3 billion, led mostly by the service sector. Investment from the European Union and Britain came to USD 7.3 billion in the January-September period, more than doubling from the previous year amid aggressive merger and acquisition activities. From Japan, S. Korea won investment pledges of USD 730 million, up 33.8 percent from the previous year. The combined FDI pledges from China, Hong Kong, Singapore, Taiwan and Malaysia rose 25.7 percent to USD 5 billion, the data also showed.

## Chips boost ICT exports to new high in Aug.

S. Korea's exports of information and communication technology (ICT) products reached a record high last month, data showed on Sept. 14, on the back of continued robust global demand for chips and displays.

Outbound shipments of ICT products stood at USD 20.3 billion last month, up 33.2 percent from a year earlier, according to the

data from the Ministry of Science and ICT.

S. Korea's ICT exports were buoyed by strong demand for semiconductors, with chip shipments jumping 42.2 percent on-year to USD 11.8 billion.

S. Korea's outbound shipments in August grew 35 percent on-year to USD 53.2 billion, underpinning recovery momentum in Asia's fourth-largest economy.

## Trade & Commerce

### S. Korea's yearly trade volume tops USD 1 tln at fastest pace ever

S. Korea's trade volume for this year surpassed the USD 1 trillion mark on Oct. 26 on the back of solid export growth amid the global recovery from the pandemic, reaching the milestone at the fastest pace ever, the trade ministry said.

S. Korea made the achievement within the shortest period of time since 1956 when the country began compiling data on trade. It

came 21 days earlier than the previous record, which was set on Nov. 16, 2018.

Industry Minister Moon Seung-wook vowed to extend support for exporters, saying S. Korea "made the achievement despite the global shipping slowdown, the protracted COVID-19 pandemic, supply channel disruptions."

As of July, S. Korea was the world's eighth largest trading nation.

## Industry

### Consumer sentiment rises to 4-month high in Oct. amid expanded vaccination

S. Korea's consumer sentiment rose to the highest level in four months in October as an accelerated pace of COVID-19 vaccination raised hope for a return to normal life, central bank data showed on Oct. 27.

The composite consumer sentiment index (CCSI) came in at 106.8 in October, up 3 points from the previous month, according to the data from the Bank of Korea. The reading is the highest since the index rose to 110.3 in

June. A reading above 100 means optimists outnumber pessimists.

The government is to introduce a new scheme, dubbed "Living with COVID-19," next month, under which most of long-enforced restrictions on gatherings and business operation will be eased as the country has fully vaccinated over 70 percent of its 52 million population.

## Government & Policy

### S. Korea sees tenfold rise in hydrogen fuel use by 2030

S. Korea will sharply increase the adoption of hydrogen as a fuel of transportation, industrial plants and power generators to become the world's leading hydrogen economy, President Moon Jae-in said on Oct. 7.

The government will provide all-around support, including debt payment guarantees and tax deductions, to hydrogen-related companies and their overseas hydrogen projects with an aim to create 30 leading hydrogen companies by 2030. By then, the government plans to boost domestic hydrogen consumption over tenfold to 3.9 million tons from this year's estimated 220,000 tons, according to Minister of Trade, Industry and Energy Moon Sung-wook.

The minister unveiled the plan, entitled "The benefit of the hydrogen economy and the government's vision as a leading hydrogen economy," in a briefing to President Moon and the country's leading business leaders on the

sidelines of the groundbreaking ceremony for Hyundai Mobis' hydrogen fuel cell plants in Incheon, west of Seoul.

During the event, President Moon said the government will push forward the plan to make clean hydrogen the country's future growth driver.

The 2030 consumption target of hydrogen is twice as much as the government's previously stated number of 1.94 million tons by 2030, disclosed in January 2019 as part of its road map toward a hydrogen economy.

By 2050, S. Korea plans to increase domestic hydrogen consumption over tenfold to 27 million tons, compared to 2030. Clean hydrogen, which emits zero carbon dioxide (CO<sub>2</sub>) during the production process, will account for half of the country's hydrogen consumption by 2030 and then 100% by 2050, by when the country aims to achieve carbon neutrality.



# Korea, a Great Place to Live

The living environment that determines the quality of life of expatriates is an important determinant of corporate investment. Not only does Korea have an excellent business environment, but also an excellent living environment, and is a country with high satisfaction of foreign residents. Let's take a look at the living environment in Korea in terms of safety and cost.

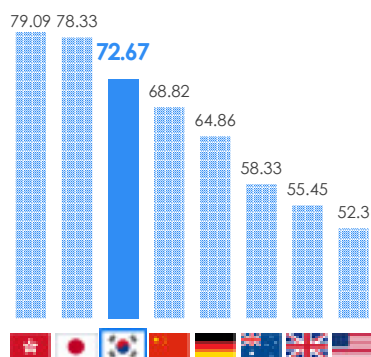
Korea at a Glance	
Population	5,1821,669 (2021)
GDP	USD 1.63 T (2020)
Per capita GDP	USD 31,495 (2020)
Trade Volume	USD 980.1 B (2020)
FDI Inflows	USD 20.7 B (2020)
Credit Rating	Aa2 (2021)

\* Sources: Statistics Korea, Ministry of Trade, Industry and Energy, Moody's

## Korea, a safe country

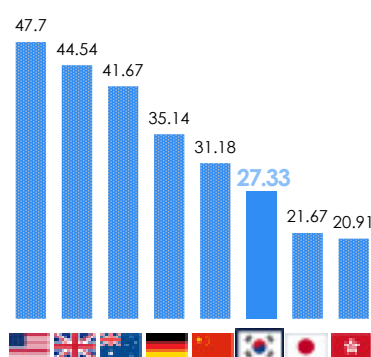
After the spread of COVID-19, the importance of safety has increased more than ever before. Korea previously had a reputation as a safe country with low crime rates, and now, during the pandemic, it is garnering attention as a safe country in terms of healthcare. Although many developed countries have experienced a lockdown due to pandemic, Korea has maintained a relatively normal life without a lockdown.

Safety Index by Country



\*Source: Numbeo

Crime Index by Country



\*Source: Numbeo

Safest Countries for COVID-19



\*Source: Forbes

## Excellent quality of life with relatively low cost

Social Progress Imperative, a non-profit organization in the United States, annually analyzes factors that determine the level of social development such as food, clothing, shelter, and welfare in each country and publishes the social progress index. On the 2020 Social Progress Index, Korea scored 89.06 points, ranking 17th out of 163 countries surveyed. This means that Korea has the world's highest levels of social development.

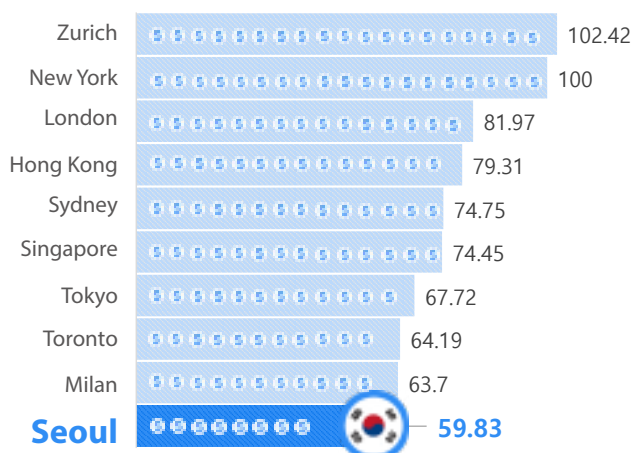
Nevertheless, living costs in Korea are relatively low. The capital city, Seoul, recorded 59.83 on the Cost of Living Plus Rent Index released by statistics firm Numbeo, indicating that living costs are 40 percent lower than New York City (100).

Social Progress Index



\*Source: Social Progress Imperative

Cost of Living Plus Rent Index



\*Source: Numbeo

# One-on-One with Josep Piqué

*Honorary Ambassador of Foreign Investment Promotion for Korea*

# Endless Opportunities for Collaboration

*Invest Korea talks to Josep Piqué, Honorary Ambassador of Foreign Investment Promotion for Korea, to hear more about his career experience, his aspirations for his time as honorary ambassador, and the advantages of doing business in Korea.*

**E**arlier this year, Josep Piqué was appointed Honorary Ambassador of Foreign Investment Promotion for Korea by the Ministry of Trade, Industry and Energy of the Republic of Korea based on his extensive career experience and expertise in the public and business sectors.

Piqué hails from Spain, where he holds a Ph.D. in Economic and Business Sciences and a Bachelor's Degree in Law from the University of Barcelona, at which he is currently Head Professor of Economic Theory. He has also been a Senior Economist in the Academic Studies Service of La Caixa—known today as Caixabank.

In the public domain, he was General Director of Industry of the Regional Government of Catalonia (1984-1986) and later became Minister of the Government of Spain (1996-2003), where he managed the Industry and Energy, Foreign Affairs and Science and Technology portfolios. He was also a spokesperson for the Government (1998-2000), deputy senator in the Spanish Parliament

(2000-2007) and deputy in the Parliament of Catalonia (2003-2007).

In the private sector, he describes the first stage (1986-1996) of his time with Spanish chemical group ERCROS, of which he was President and CEO from 1992 to 1996. In the second stage, spanning 2007 onwards, he occupied various positions of responsibility. Furthermore, he was President of Vueling and the Vice President and CEO of OHL Group. Piqué is currently the chair of ITPAero, and the Director of Amadeus, SEAT, VW Navarra and Atrys Health. In the non-business sphere, he serves as President of Círculo de Economía and Vice President of Círculo de Empresarios. Today, he presides over the Ibero-American Business Foundation and the Toledo International Center for Peace.

Read on to learn more about Piqué's career experience, his aspirations for his time as honorary ambassador, and the advantages of doing business in Korea.

## How did you become interested in Korea, and what are the historical, economic, or cultural qualities of Korea that appeal to you the most?

Korea has always interested me for various reasons. It is an admirable country for its resilience to historical vicissitudes, its ability to overcome all challenges and the enormous quality of its human capital.

Korea and Spain share a similar path in their recent historical, political and economic trajectory. However, Spain admires Korea's technological capabilities and the excellence of its educational system.

## Can you tell us about why you founded the Chamber of Commerce Spain-Korea? What are the major functions of the Chamber?

It was a joint initiative with the then-Ambassador Oh Dae-sung, emerged by the need for discovering new areas which would foster, from the civil society, the excellent bilateral relationships between both countries.

The Chamber's objectives are to promote this relationship in the commercial, business, technological and investment domains in coordination with the public bodies of both governments.

## Based on your participation in the Korea-Spain Green-Digital Business Forum and MWC 2021, what do you think are the advantages of doing business in Korea?

Korea is a country with total legal security, a very high technological level, and an excellent human capital.

It is an open-minded country committed to free



trade and multilateralism. Its wide presence in all markets, particularly in Asia, makes it a very attractive platform to invest in.

Furthermore, its interest in South America can be paired with the historical Spanish presence in that region.

## We are currently witnessing a restructuring of the global value chain (GVC). In light of this, how do Spanish companies view Korean companies (as partners) and Korea's business environment?

Events such as the COVID-19 pandemic or the increasing "decoupling" between the USA and China underscore the need for diversified and secure supplies so as to ensure the smooth functioning of the global chains of value. This should be done between allied nations who share the same values, as in the case of Korea and Spain.

## The theme for this month's issue of IK magazine is Korea's secondary battery industry. What kinds of opportunities do you think are available for companies in your country in this industry or other related fields?

Korea has remarkable power in this industry. On the other hand, Spain is committed to a very ambitious agenda in terms of the digitalization of our economy within the European framework.

Thus, the possibilities of collaboration are quite extensive and can be very beneficial for companies in both countries. Joint ventures, partnerships, cross investments, or technology transfer agreements are good examples of what can be done in this regard.

It is important to be on the lookout for opportunities,

and, in the case of Spain, not to lose track of what Korean companies are doing.

**Last year, the Korean government announced a multi-billion dollar stimulus package dubbed the Korean New Deal with ambitious plans to foster the digital and green industries. In line with this, do Korea's new policies related to the Green New Deal and Digital New Deal provide business opportunities for Spanish companies both in Korea and in Spain?**

Absolutely. Spain is committed to both objectives, which are those of the European Union.

The Next Generation EU funds will be mainly used for digitalization and the ecological/environmental transition. The shift to a greener economy will open up endless opportunities for collaboration between companies of both countries.

**On the back of your remarkable career experience as CEO of various companies and in high-ranking governmental posts, what are some of your ideas for revitalizing the business and investment relations between Korea and Spain as Honorary Ambassador of Foreign Investment Promotion for Korea?**

Bilateral relations have significantly improved but not nearly enough. We have to take advantage of the new trade frameworks derived from the Free Trade and Investment Agreements, increase mutual awareness and turn to public mechanisms such as KOTRA, who do an extraordinary job in terms of economic revitalization between both countries. The job done by the Chambers of Commerce or ICEX, on the Spanish side, is also quite remarkable.

As Honorary Ambassador of the Republic of Korea, I hope I can bring my experience, my knowledge of both the business sector and the functioning of the public administration. My admiration and affection for the Korean people make this task particularly pleasant and heartwarming.

*By Grace Park*

*Executive Consultant*

*Investment Public Relations Team*

*Korea Trade-Investment Promotion Agency (KOTRA)*





# Key Driving Force of the Korean New Deal, Secondary Battery

**K**orea has acquired global competitiveness in the secondary battery field by producing small lithium-ion battery, mainly used for mobile products since the 2000s. The quality of its products has been recognized in the global market, with the longest experience in the production of secondary battery, only behind Japan. Korea has production technologies for various types including cylindrical, prismatic, and pouch type secondary batteries. In addition, the country is leading the technologies for high-nickel lithium ion secondary batteries, such as NCM and NCA, which are mainly used for electric vehicles. Also, it has competitive edge in packaging and formation equipment sector, actively exporting to China and Europe, among others.

With the global trend of digital transformation and increasing investment in environment-friendly sectors, the secondary battery industry is at the stage of lift-off. As the markets for IT devices and electric vehicles, which are main consumers of secondary battery, continue to expand, and as countries around the world implement energy transition for carbon neutral 2050, demand for ESS is expected to grow rapidly. As a result, the global secondary battery market is likely to grow 7.6 times from USD 46.1 billion in 2020 to USD 351.7 billion in 2030. In response, Korea continues to make investments and develop next-generation batteries to maintain global competitiveness in the fields of production and materials of secondary battery.

### Next-generation growth engine of Korean economy

The domestic production of Korea's secondary battery industry reached KRW 22.3 trillion in 2019, up 1.7 times from 2017. During the same period, domestic secondary battery companies actively made investments to expand facilities at home and abroad. Also, an increasing number of companies entered the materials, parts, and equipment sector of secondary battery, driving the growth of the secondary battery industry. Exports have also grown consistently, recording USD 7.5 billion in 2020, 1.3 times up from a year earlier despite the impact of COVID-19, demonstrating the power of Korea's secondary battery industry.

The strength of Korea's secondary battery industry lies in the fact that it has a stable industrial ecosystem

based on long-established experience in production. In the manufacturing field, three big companies including LG Energy Solution, Samsung SDI, and SK Innovation have secured global competitiveness. In the materials field, EcpPro BM, POSCO Chemical, L&F and others possess R&D capabilities and production facilities. Also, there are numerous equipment companies with global competitiveness, such as WONIK PNE and CIS. Building on such strengths, Korea's secondary battery industry is well positioned to lead the global market and establish itself as the growth engine for the next-generation economy.

### No.1 Korea in 2030 next-generation secondary battery

The Korean government announced the '2030 K-Battery Development Strategy' in July 2021, confirming support measures for the domestic secondary battery industry, which is starting up the global competition. Main strategies include: large-scale R&D in private-public partnership; establishing a global leading base; and creating the public/private consumption market. In detail, the government plans to invest more than KRW 40.6 trillion by 2030 through public-private cooperation, in order to secure technological competitiveness in the current and next-generation secondary battery fields, build a stable supply chain, and support the creation of new markets. Besides, it also plans to set up a KRW 80 billion R&D innovation fund in private-public partnership with the aim to spur R&D by SMEs and startups to pursue continued growth of the domestic secondary battery industrial ecosystem.

**By Minji Kim**

*Korea Institute for Industrial Economics & Trade (KIET)  
minz856@kiet.re.kr*

*\* The opinions expressed in this article are the author's own and do not reflect the views of KOTRA.*

## Main Contents of the '2030 K-Battery Development Strategy'

Strategy	Detailed Tasks	Major Contents	Note
Large-scale R&D through private-public partnership	Secure next-generation secondary battery technologies early on	Large-scale R&D to secure super-gap technological prowess	(2030) KRW 40.6 trillion private investment, Expand support to preoccupy technologies through large-scale government R&D preliminary feasibility study, etc.
	Secure parts, materials, equipment element technologies for next-generation secondary battery	Advance development of next-generation parts, materials, and equipment technologies, Develop next 'next generation' original technologies, Establish 'next-generation battery park'	
	Secure super-gap technological competitiveness in lithium ion battery	Advance performance, stability, and production of current lithium-ion secondary battery	
Build a global leading base	Build a stable secondary battery supply chain	Secure raw materials and bolster materials production capacity Bolster a system to secure recycled materials and develop technologies/processes	Support private companies to participate in mine development projects, Explore joint R&D in raw materials, basic materials technologies
	Foster key companies in materials, parts, and equipment	Create materials, parts, equipment specialized complex as a key growth base, Expand tax benefits by designating as national strategic technology, Enhance financial support, i.e., creating K-battery preferential support program	Support R&D of SMEs and startups by setting up joint R&D innovation fund worth KRW 80 billion in private-public partnership
	Foster specialized talents in secondary battery	Foster talent customized to demand of the industry Build a platform to foster workforce (2023~)	Foster 1,100 + α talents annually
	Prepare institutional foundation in response to global trends	Bolster institutional basis, such as efficient management of national key technologies, expansion of secondary battery specifications, preparation of standards for life-cycle carbon emissions, Establish the statistical system for the secondary battery industry	
Create public/private demand market	Revitalize the after-use secondary battery market	Prepare an extracting system, Support commercialization	Establish bases for extraction center in 4 areas across the country (Siheung, Daegu, Jeongeup, Hongseong) Set up the after-use secondary battery industrialization center (Jeju, Naju, Ulsan, Pohang)
	Expand demand base for secondary battery	Expand demand base utilizing the public market, e.g., public ESS, public ships, Support expansion of the markets to which secondary battery can be applied, such as airlines, ships, machines, and trains	(2021-2025) Create public ESS market in scale of 2.2GWh (~2030) Public ships (in total 388 ships) conversion to eco-friendly ships such as electric or hybrid ships Support KRW 12-20 million subsidy per electric digger
	Create environment for secondary battery new services	Discover and foster secondary battery-related service industries, e.g., a new industry utilizing secondary battery data, a secondary battery renting and exchanging service	Establish 'EV parts data platform' Go ahead with a secondary battery renting pilot project (~2022)

\*Source: Jointly by ministries concerned (July 2021), '2030 K-Battery Development Strategy'



# TS60s, Lithium-ion Battery Solution Leader

## About the company

Founded in 2008, TS60s has been offering a wide range of lithium-ion battery solutions used in base transceiver stations, railway vehicles, mini EVs, golf carts, indoor floor scrubbers, energy storage systems (ESS) based on its proprietary battery management system (BMS).

With its unique capability in all areas of development including the hardware, software, and mechanism, TS60s provides optimally-designed battery solutions that meet customer requirements.

## Background

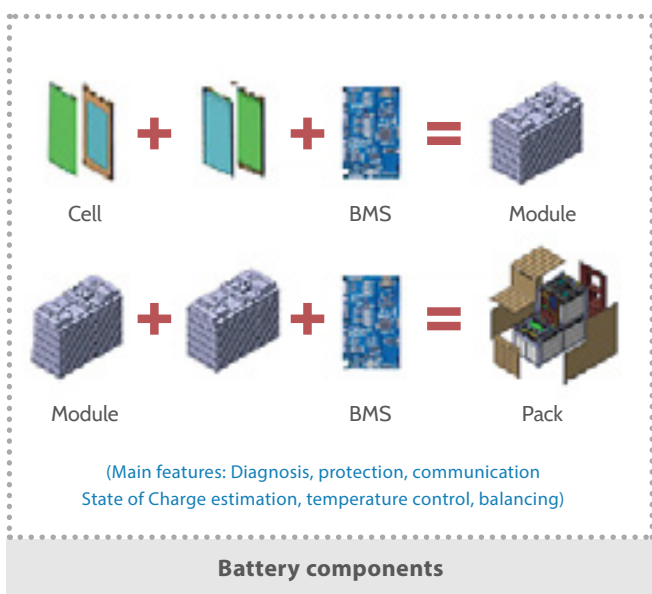
Lithium-ion batteries are used not just in EVs but in various new products in line with the growing demand for unmanned, electrified and environmentally-friendly product. The lithium-ion battery market is expected to continue growing by replacing the existing markets for lead-acid batteries and nickel-cadmium batteries.

For more than a decade, TS60s has developed, verified, and supplied stable and efficient lithium-ion battery solution technologies to keep up with the exponentially-growing market demand.

## About the product and/or technology

### • Development of the Battery Management System (BMS)

IT device that controls chemical batteries to ensure maximum performance and safe use



### • Procurement of original design technology

- Packaging design
  - Heat-proof/Water-proof/Dust-proof design
- Meeting the conditions for an effective operation
  - Cell Balancing/Swapping
- Application of an SoC estimation algorithm
  - State of Charge (SoC), State of Health (SoH)

### • A supplier of EV battery packs

- Battery packs for mini EVs (7kWh-40kWh)
- Battery packs for backbone networks, i.e., railway vehicles and communication systems
- Battery packs for golf carts (48V/72V)  
(Share in Korean market: 30%)

### • A supplier of battery packs for various utilities

- AGVs (Auto Guided Vehicles)
- AMRs (Autonomous Mobile Robots)
- Forklifts, indoor floor scrubbers, meal delivery carts, etc.

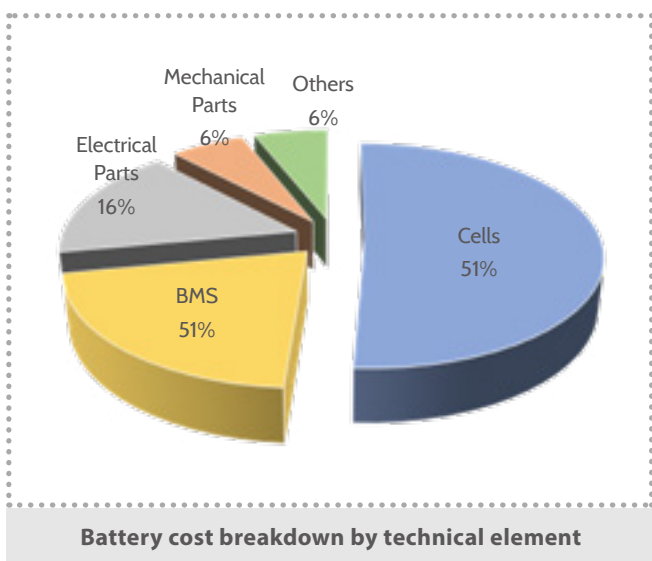
### • A supplier of diverse Energy Storage System (ESS) / Uninterruptible Power Supply (UPS)

- From portable ESSs to MWh-class system

## Competitive edge and business strategy

### [ Competitive edge ]

- Capable of all-round convergence development based on the in-house technological capability
- Possesses the record of having fielded 7,000 vehicles (accumulated) for the past five years
- Passes the battery pack vendor validation of numerous global battery cell manufacturers
- Verified the entire process from product designing to manufacturing as well as the follow-up tracking and management system after roll-out
- Holds the first and most EV battery pack-related certifications



- ISO9001, ISO14001, and IATF16949 certifications as well as FMECA and RAMS
- Working towards obtaining the ISO26262 certification in ASIL FSR, TSR, etc.
- Key members hold more than fifteen years of experience in the lithium-ion battery field. Strong team work and high employee retention rate.

#### [Business strategy]

- (Domestic strategy) Lead the lithium-ion battery market (batteries for mini EVs, utility vehicles, railway and communication)
- (Global strategy) Promote references gathered in Korea (Korea is the global leading market of lithium-ion batteries)
- : References bring a huge competitive edge thanks to the standardization of electrical specifications
- : Strengthen collaboration with battery cell manufacturers including SDI, SKI and LGES currently operating in overseas

#### Future plans

- Resume the export of battery packs for UPS that had been exported to Japan in 2019
- Stably supply battery packs for electric tricycles to Cambodia (1st batch rolled out in Nov. 2021) and explore localization options
- Introduce the diverse references accumulated in Korea and seek partners

*By Sung Seok, Kang*

CEO

TS60s INC.

kang@ts60s.com

*\* The opinions expressed in this article are the author's own and do not reflect the views of KOTRA.*



# Invest KOREA Market Place

Invest Korea Market Place (IKMP) is an online business matching platform available on Invest KOREA's website with information on approximately 300 Korean companies seeking to partner with foreign investors. This month, Invest Korea introduces some outstanding companies in Korea's secondary battery industry.

## COMPANY A



*Silicon metal powder*



*Fine silicon metal powder*



*si + C powder*

### Investment Requirement

#### Amount

USD 3.2 million

#### Investment Structure

Minority, M&A

### Company Profile

#### Patents and Certificates

Method to manufacture silicon-combined materials and a method and device to manufacture silicon powder (11 patents)

#### Financial Performance

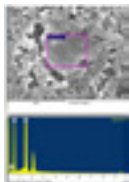
(Sales in 2018) USD 1.55 million

### Investment Highlights

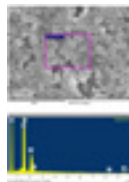
- **Nano silicon powder:** Nano silicon powder is a substitute that can overcome the limited capacity of carbonaceous anode materials of the lithium-ion battery. The applications of the rechargeable battery vary ranging from small-sized products, such as smartphones, tablet PCs, laptop computers, wearable devices, and drones, to medium- and large-sized products such as electric vehicles, hybrid vehicles, and energy storage systems.
- **Lithium-ion battery (for electric vehicles) market:** The increasing interest in eco-friendly vehicles, along with the rapid development of related technologies and the size of the global lithium-ion battery (electric vehicles) market, is expected to reach 54.3GWh in 2020 from 15.7 GWh in 2016, with an average annual growth rate of 36.4%.

## COMPANY B

**Competitor**  
Binder-boehmite melting



**Our company**  
Uniform binder-boehmite mixture

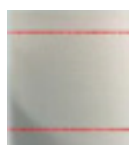


*Technology for uniform coatings*

**Competitor**  
Nonuniform coating thickness can increase the percent defective.



**Our company**  
Uniform coating thickness of  $\pm 1.5 \mu\text{m}$  reduces the percent defective.



*Comparison of the quality of wrinkles in coatings*

### Investment Requirement

#### Amount

USD 3 million

#### Investment Structure

Minority, Joint Venture, M&A

### Company Profile

#### Patents and Certificates

- Certificate of R&D Center and Venture Business
- Applied for 2 patents for coated separators for mid-/large-sized EV and ESS secondary batteries and a manufacturing method

#### Financial Performance

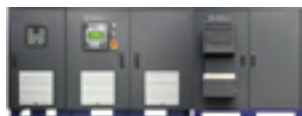
(Sales in 2018) USD 0.16 million

### Investment Highlights

- **Growing high-capacity battery market along with the increasing demand for a coated separator:** The size of the demand for a coated separator for secondary batteries is expected to increase to 4,776 Mm<sup>2</sup> in 2020 from 1,022 Mm<sup>2</sup> in 2015, with an average annual growth rate of 36.1%. Particularly, the value of the EV market is projected to grow to KRW 35 trillion in 2020, with the value of the ESS market to KRW 28 trillion.
- **Premium separator technology with a long life span and high safety:** The company has a patent for a key battery separator and can independently manufacture a slurry, crucial mixture in a separator coating process. In addition, it can directly design important processes of separator coating facilities and manufacture a variety of premium-coated separators.

COMPANY

C



EGO-EP-100K EGO-P-100K (Outdoor PCS system) EGO-125K (Outdoor Battery system)

*Outdoor all-in-one ESS*



*Home ESS*

Investment Requirement		Company Profile	
Amount	USD 4.5 million	Patents and Certificates	5 patents under registration including a patent for a battery management system
Investment Structure	Minority	Financial Performance	(Sales in 2018) USD 0.86 million

#### Investment Highlights

- **Marketability of the energy industry:** At present, the energy storage system (ESS) is an effective means of establishing a stable and efficient energy supply/demand system, and is attracting global attention as a new growth engine with high market potential. Today, secondary battery based electricity storage methods are drawing attention, and the market environment is being created in earnest, especially focusing on lithium ion batteries that feature high energy density and high efficiency. Recently, as lithium ion battery applied ESSs have been intensively installed in Korea and around the world, the demand for lithium ion batteries among global ESSs is expected to grow at an annual average of 97.2% increasing to 11,420 MWh by 2020.
- **Strengths of the energy storage systems (ESS) market :** As solar power or wind power cannot continue to generate energy, it is important to store the generated electricity before using it as needed. Thus, the ESS market is expected to rapidly grow in conjunction with the expansion of new and renewable energy. The rapid growth of the Korean market is attributable to the government's policy intended to increase the dissemination of new and renewable energy and ESSs since 2016. Technological infrastructure for ESS batteries is superior in terms of selling prices and profitability.

COMPANY

D



*All-solid-state electrolyte*



*Token cell for all-solid-state batteries*



*All-solid-state batteries*

Investment Requirement		Company Profile	
Amount	USD 2.5-4.2 million	Patents and Certificates	Registration (or application) of 11 domestic patents and a technology transfer/patent, along with one Patent Cooperation Treaty (PCT) application
Investment Structure	Minority	Financial Performance	(Sales in 2019) USD 9.39 million

#### Investment Highlights

- **All-solid-state lithium-ion secondary battery:** Our company has successfully developed a garnet-type oxide-based solid electrolyte material, which is the key technology for all-solid-state lithium-ion secondary batteries. Because the solid-state electrolyte material has been proven safe for medium-to-large-capacity battery technology, it ensures excellent technological competitiveness. The technology transfer from the Korea Institute of Industrial Technology (KITECH) and our garnet-type oxide-based solid electrolyte material have improved the ionic conductivity of the existing liquid-state electrolyte and expressed a high voltage through a wider potential window.
- **All-solid-state lithium-ion secondary battery market:** According to SNE Research, the lithium-ion secondary battery market is projected to reach USD 250 billion by 2030 from USD 24 billion in 2018, with a compound annual growth rate (CAGR) of 21% during the forecast period. The stability issue of lithium-ion secondary batteries with liquid electrolytes has resulted in active and rigorous studies on solid electrolytes for lithium-ion secondary batteries locally and abroad. Because of the spread of electric vehicles and the rapid growth of the energy storage system (ESS) market, Hyundai Motor Company, Samsung SDI, and LG Chem are focusing on the commercialization of all-solid-state lithium-ion secondary batteries, which will increase the value of the all-solid-state battery market.

# Ochang Scientific Industrial Complex:

## Emerging as a Specialized Complex for the Materials, Components and Equipment of Secondary Cells

Chungcheongbuk-do is emerging as the world's hub of secondary cells and related materials, components and equipment (MCE), which are key to sustainable growth.

Chungcheongbuk-do has put forth the vision of building the world's leading industrial complex for MCE used in the next-generation secondary cell industry based on the Ochang Scientific Industrial Complex, Ochang Industrial Complex 2, and Cheongju Ochang Technopolis. Once the specialized complex is up and running, Chungcheongbuk-do will offer the ecosystem for the MCE industry and rise as the nation's center for secondary cell MCE and an export hub.

The Ministry of Trade, Industry and Energy is sparing no effort in supporting the industry alongside local governments by designating the nation's five MCE specialized complexes, including the one in Cheongju, Chungcheongbuk-do, in January 2021.

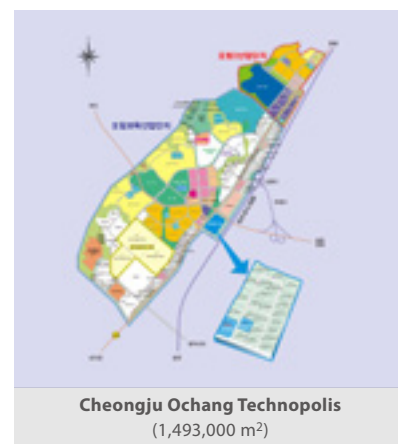
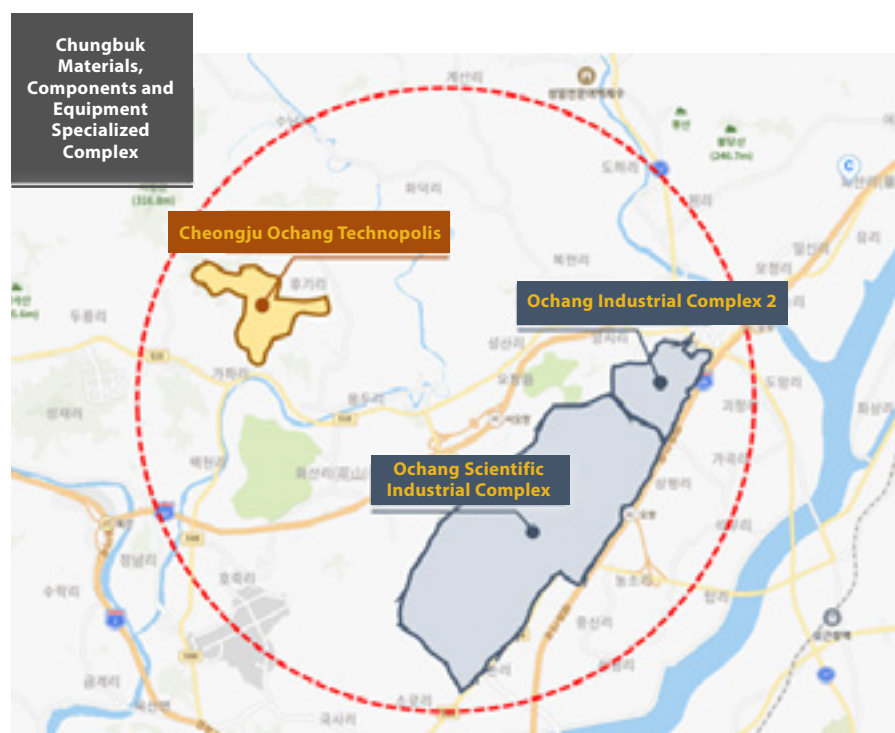
\* Five MCE specialized complexes: Jeonju, Jeonbuk (carbon materials), Changwon, Gyeongnam (precision machinery), Yongin, Gyeonggi (semiconductor), Cheongju, Chungbuk (secondary cells), and Cheonan, Chungnam (display)



## About the Specialized Complex

- The Ochang Scientific Industrial Complex and the Ochang Industrial Complex 2: The foundation for developing the secondary cell industry is being established with secondary cell producers including LG Chem and agencies leading innovation including the Techno Park.
- Cheongju Ochang Technopolis: The newly-established industrial complex (completed in Nov. 2021) will house a synchrotron radiation accelerator for R&D and offer sites to leaders in MCE.
- Area: approx. 12,330,000 m<sup>2</sup>

\* Contact: Energy Division, Chungcheongbuk-do Office (043-220-3282, gogn8@korea.kr)



## About the location

The area has 25 universities including Chungbuk National University and Cheongju University capable of working with industries. It is also connected to Gyeongbu Expressway linking the nation from the southern to northern regions, Jungbu Expressway and KTX railway (Cheongju Station, Jochiwon Station, and Osong Station), and Cheongju International Airport is also in the area. The area is known for its excellent transport infrastructure including Pyeongtaek Port, the nation's hub of marine logistics, located 50 minutes away.

- The ecosystem for the secondary cell industry established surrounding the Ochang Scientific Industrial Complex
- Expected economic spillover effect of the secondary cell specialized complex
  - Expected to generate more than 6,800 jobs by 2025
  - Added production of KRW 6 trillion and additional export of USD 3.7 billion

## Offered benefits

In accordance with Article 48 of the Act on Special Measures for Strengthening the Competitiveness of the Materials, Components and Equipment Industry, the authorities are establishing sites for businesses and research centers, offering rent discount, procuring the budget for building medical, education and housing facilities and strengthening the basis for R&D, technology transfer and demonstration.

## Key highlights

- Responding to the global realignment of supply chains with the designation of the secondary cell specialized complex
  - Closely coordinating suppliers and buyers
  - Adding production facilities to enhance the stability of the domestic supply network
- Strengthening the industrial competitiveness of Chungcheongbuk-do's secondary cell industry
  - No. 1 in Korea in terms of production, No. 2 in the number of employees, No. 3 in generated added values, and No. 5 in the number of businesses
  - The center of the four major economic leaders of the central region (Cheonan Sejong, Cheongju, and Chungbuk Innovation City)



Source: Ochang Scientific Industrial Complex Management Corporation, [www.ochangcmc.or.kr](http://www.ochangcmc.or.kr)

# Foreign Investor Guidelines to Establishing a Presence in Korea

## I. Basic Types of Foreign Investors

As a foreign investor, one of the first steps to start your business and operations in Korea is to select and establish an appropriate entity—*i.e.*, a liaison office, branch office or subsidiary, considering three factors: (i) the scope of activities to be conducted in Korea; (ii) limited liability; and (iii) tax implications.

### Liaison Office and Branch Office

In terms of the activities to be conducted in Korea, a liaison office is the most restrictive, since it may only conduct non-taxable activities<sup>1</sup> only for its overseas head office. Accordingly, a liaison office may not engage in taxable activities in Korea (e.g., sales, business supporting service, etc.). In addition, since a liaison office is not considered independently from its overseas head office, the overseas head office may be fully responsible for Korean liaison office's liability.

For the same reason, a branch office also may not provide liability protection. On the other hand, a branch office may engage in taxable activities. As a taxable entity in Korea, the branch office's taxable activities and income therefrom will be subject to Korean corporate income tax and VAT.

### Subsidiary

In general, the purpose of establishing an entity in Korea would be to actively engage in sales in Korea through such entity. Unlike a liaison or branch office, a subsidiary provides limited liability protection, since it is treated as a separate legal entity from its parent company. However, in addition to being subject to Korean corporate income tax at the same rates as a branch office, foreign investors are generally subject to withholding of tax on dividend income from a Korean subsidiary at the rate of 22% (including the local income surtax), except where an applicable tax treaty provides otherwise.

There are three typical types of corporate forms that are usually utilized by a foreign investor: (i) a joint stock company ("*Jusik Hoesa*" in Korean); (ii) a limited company ("*Yuhan Hoesa*" in Korean); and (iii) a limited liability company ("*Yuhan Chaegim Hoesa*" in Korean).

<sup>1</sup> Non-taxable activities include: (i) advertising and public relations, (ii) collection and supply of public information on the Korean market, and (iii) other similar activities of a preliminary or auxiliary nature.

## II. Types of Corporations in Korea

### 1. Joint Stock Company ("*Jusik Hoesa*" in Korean)

The equity capital of a joint stock company is funded by the issuance of "shares," which are, in principle, securitized and freely transferable. A joint stock company meeting certain requirements may be listed on a stock exchange. In addition, a joint stock company is an appropriate company to raise funds from external investors as it may raise capital from third parties by issuing bonds. Shareholders are liable for the company's liabilities to the extent of their own contributions, but are not held liable to the company's creditors. Moreover, shareholders may exercise their voting rights at a general meeting of shareholders based on the number of shares they hold. A joint stock company with the capital of KRW 1 billion or more must establish the board of directors and appoint a statutory auditor.

### 2. Limited Company ("*Yuhan Hoesa*" in Korean)

Members of a limited company assume limited liability to the company and may exercise their voting rights at a general meeting of members based on the number of units of contribution they subscribed for. In this light, they are similar to shareholders of a joint stock company. However, transfer of equity interests may be restricted by the company's articles of incorporation. Furthermore, a limited company may not securitize or list its equity interests on a stock exchange or issue bonds. In addition, important decisions of the company are made at a general meeting of members. A limited company is required to have one or more directors only, and does not have to establish a board of directors or appoint a statutory auditor. Therefore, the company may be operated by a small number of equity holders and officers.

### 3. Limited Liability Company ("*Yuhan Chaegim Hoesa*" in Korean)

Compared to the two types of companies explained above, a limited liability company has more autonomy in operation and management. In principle, a member of a limited liability company must obtain consent from other members to transfer of its equity interests in the company, unless otherwise stipulated in its articles of incorporation. For the purposes of management and operation, a limited liability company is only required to appoint a managing member, unlike Joint Stock Company or Limited Company. Moreover, a limited liability company's equity interests cannot be securitized or listed on an exchange, and it is generally understood that issuance of bonds by a limited liability company is not permitted in practice. Compared to the incorporation of joint stock companies and limited companies, the incorporation of a limited liability company is thus relatively rare, and some of the relevant legal principles are yet to be fully developed, since it is introduced by a recent amendment to the Korean Commercial Act.

	Joint Stock Company	Limited Company	Limited Liability Company
Equity Transfer	O (May require board approval under the company's articles of incorporation)	O (May be restricted by the company's articles of incorporation)	(Requires consent of other members in principle, but may be stipulated otherwise in the company's articles of incorporation)
Issuance of Share Certificate	O	X	X
Listing Status	O	X	X
Issuance of Bond	O	X	X
Organization	General meeting of shareholders and directors (If a joint stock company's paid-in capital is KRW 1 billion or more, it must have a board of directors and a statutory auditor.)	General meeting of members and director(s) (A limited company may establish a board of directors and appoint a statutory auditor.)	Managing member (who may be a member or a third party)

By *Ji-Pyoung Kim (Attorney)*  
*Chang-Hee Shin (Foreign Legal Consultant)*  
*Seung-Hwan Cheong (Attorney)*  
*Jun-Shik Yoon (Attorney)*  
**Kim & Chang Law Firm**



# Korea 101: Telecommunications

*Living in Korea*, published by the Investment Consulting Center, provides necessary information and helpful tips for day-to-day life in Korea. Here's what's featured this month.

## ▪ Phone and the Internet

### · Landline and the Internet

Most Korean telecommunications companies offer landline, Internet and mobile telephone services on top of Internet service and pay-TV service. The country's biggest telecommunications companies include KT Olleh, SK Broadband and LGU+. You can apply for their service by phone or at their websites. Once your application is made, they send you an installation technician for immediate connection.

You are required to pay the subscription fee, the basic monthly fee and the device (modem) rental fee, so be sure to compare the telecom carriers' fees and benefit packages and their services in advance. Usually subscribers get discounts in exchange for commitment for one, two or three years, but early termination fees are charged should you unsubscribe early. The carriers offer details of their services on their website. It is also a good idea to check the discounts they offer for the subscription of a bundled packages (combination of Internet, landline phone, mobile phone services, etc.) before making commitments.




*\* To subscribe, a foreigner is required to present his/her passport and alien registration card.*

Carrier	Website and Phone Number
	Website: <a href="http://www.kt.com">http://www.kt.com</a> Language: Korean Inquiry: 82-100 Foreign Language Service: 82-1588-8448
	Website: <a href="http://www.skbbroadband.com">http://www.skbbroadband.com</a> Language: Korean, English, Chinese, Japanese Inquiry: 82-106 Foreign Language Service: 82-80-8282-1063
	Website: <a href="http://www.uplus.co.kr">http://www.uplus.co.kr</a> Language: Korean Inquiry: 82-101

## • Mobile Phone

Major telecom carriers such as SKT, KT and LGT offer counseling in foreign languages including English, Chinese and Japanese for foreigners living in Korea. Use the service to subscribe to a mobile service or choose a payment plan that suits you best. Foreigners can choose to use a prepaid cell phone service in Korea or pay later according to their actual usage. With the prepaid service, you end up paying a higher rate, but you don't have to commit to a fixed period of two or three years. So it is good for those planning to stay in the country not for long. For the prepaid service, you are required to present your passport for immediate connection. For one of the monthly payment plans, you have to go through the same subscription procedures as locals do, although the type of your sojourn status makes difference in details such as the number of mobile phones you can subscribe to, the eligibility for monthly installment benefits, and the exemption of a deposit. Be sure to check all the details before signing the papers.

\* To subscribe to a cell phone plan, foreigners should bring their alien registration card or domestic residence card. To pay for the service, you need either a bank account or a credit card.

Carrier	Website and Phone Number
	<p>No deposit required. A prepaid plan available.  A local credit card or a bank account required.  Counseling available in English, Chinese or Japanese  Inquiry: 82-114, 82-1583 (cell), 82-2-2190-1180 (landline)  Website: <a href="http://www.kt.com">http://www.kt.com</a></p>
	<p>A deposit required for subscription.  Inquiry: 82-114, 82-80-011-6000 (free), 82-1599-0011 (paid)  Website: <a href="http://www.tworld.co">http://www.tworld.co</a></p>
	<p>Same as locals, bank account required  Inquiry: 82-114, 82-1544-0010 (paid)  Website: <a href="http://www.uplus.co.kr">http://www.uplus.co.kr</a></p>

*If you have further questions please contact*



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*or visit*



**[www.investkorea.org](http://www.investkorea.org)**

## When a subsidiary established in the US by a domestic corporation invests in Korea, can this be registered as a foreign-invested company under the Foreign Investment Promotion Act?

*Invest Korea provides a summary of the government's authoritative interpretation on how foreign investment-related laws and regulations should be actually applied. The interpretations are the advice of the Ministry of Government Legislation on questions or conflicts regarding the meaning and interpretation of such laws and regulations.*

Q.

**When a subsidiary established in the US by a domestic corporation (holding 100 percent of its voting stocks) invests in Korea, can this be registered as a foreign-invested company under the Foreign Investment Promotion Act?**

A.

Where a subsidiary established by a domestic corporation in a foreign country invests back in Korea, it is referred to as a round trip investment. A round trip investment itself is not prohibited under the Foreign Investment Promotion Act because a foreign corporation established under applicable foreign laws is deemed a "foreign investor" under the Foreign Investment Promotion Act, regardless of the owner of such corporation.



## Reasons



- However, it should be noted that such investment is not recognized as foreign investment in the following circumstances where special benefits are granted to those registered as a foreign-invested company:
  - Tax reductions or exemptions for foreign investment (Article 121-2(11) of the Restriction of Special Taxation Act and Articles 116-2(11) and 116-2(12) of the Enforcement Decree of the Act)
  - Lease and sale of State or public property to foreign-invested companies by a negotiated contract (Article 19(1) of the Enforcement Decree of the Foreign Investment Promotion Act)
  - Reduction or exemption of rent for foreign investment zones (Subparagraph 6 of Article 1 of the Guidelines for Operation of Foreign Investment Zones)

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# Innovative Capital

## Sejong



*Sejong Special Self-Governing City was founded in 2007 but major government agencies began moving there five years later. Nestled smack in the middle of the Korean Peninsula, the national administrative capital has achieved rapid urban development in taking pressure off the Seoul metropolitan region, which is home to half the national population. In doing so, Sejong has turned into a city with a relatively young population, innovative architecture and an emphasis on urban-natural balance.*



*More than just a national administrative capital and a means of decentralization, Sejong has emerged as a prime venue and testing ground for the harmonious cohabitation of humanity and nature.*

## Rich Historical Background

Climbing Unjusan Mountain, the highest point in Sejong at 460 m, begins at the Buddhist temple of Gosansa, which honors the spirit of King Euija, the last monarch of the Baekje Kingdom (18 B.C.-A.D. 475) and his army who sacrificed their lives fighting for their empire. Strolling around the temple compound leads to Unjusanseong Fortress. The fortress is said to have originally consisted of an inner fortress 543 m long within a 3-km outer fortress, but only the outer structure remains through partial restoration. The inner compound houses buildings, earthenware from the Baekje and Silla (57 B.C.-A.D. 935) kingdoms, and giwa (roofing material) scraps from the Goryeo (935-1392) and Joseon (1392-1910) dynasties.

Positioned between the provinces of Chungcheongnam-do and Chungcheongbuk-do, Sejong is located atop the nation's No. 5 metropolis Daejeon. Named after the most revered monarch in Korean history, Sejong the Great, the city uses Korean names for many of its topographic sites. All administrative regions, roads and apartment complex names are in Korean to honor Sejong's invention of Hangeul, the Korean alphabet.

On the way to Sejong, stopping by the village of Geumsa-ri is recommended. Cited for its high-quality

buncheong (traditional stoneware) and porcelain production, the site is packed with kilns and thus Geumsa-ri is dubbed a ceramics village. The site is now home to Sejong Folk Museum, where the history of regional and topographic development is displayed through cultural assets, folk relics and other memorabilia. The museum was opened in 2012 in a former elementary school.

## Youthful Energy

Because Sejong is a relatively new city built in 2007, the average age of a resident was 36.7 as of last year, with the population rising 8.4% annually. These stats led to the projection that even in 2050, Sejong will remain the nation's youngest city, and perhaps for that reason, the liveliest. The major residential divisions are distinguished by function, with Living Area 1 for government administration and the others for R&D, smart city, culture, textiles and clothing, and industrial innovation.

If Unjusan Mountain is steeped in ancient history, Jeonwolsan Mountain reflects living history. With a peak of a mere 260 m that requires an hour-long climb, Jeonwolsan caters to those yearning for a quick and easy trip to nature with a panoramic vista of Sejong that includes the Geumgang River, Government Complex Sejong and Central Open Space. This is why photographers na-



tionwide flock to snap at this scenic spot.

Milmaru Observatory, located in the heart of the city, is now surrounded by tall apartment structures but still boasts a great view. Opened in 2009, the observatory has free admission.

## Balanced by Nature

One of Sejong's greatest charms is its eco-friendliness. Since cars powered by either hydrogen fuel cells or electricity are common there, most parking lots have vehicle charging stations. Public transportation also boasts stellar infrastructure designed for maximum convenience and easy mobility. Solar power-generating facilities are installed throughout the city. Altogether, Sejong operates 13 corporate photovoltaic stations that effectively lessen CO2 emissions by 20,200 tons.

Opened on Oct. 18, Sejong National Arboretum, the country's first urban national arboretum and largest exhibition glasshouse, is another manifestation of the future urban planners envisioned for the city. As big as 90 soccer fields, this facility is decked out with 2,400 species of flora from the world over, with over 1.1 million plants. Traditional gardens offer exotic sights including bonsai collections available year-round.

Under a drive to build a more esthetically pleasing city, Government Complex Sejong ditched the mundane aura of public agencies through innovative architectural and spatial design and arrangement. The topmost garden of the complex is the world's largest of its kind, listed on the Guinness Book of Records at 3.6 km long. An estimated 1.08 million plants have been on display since 2014, though visitation is limited due to COVID-19.

## Leisure and Relaxation

Sejong Lake Park has the nation's largest artificial lake and is frequented by picnickers day and night. The glistening night view of the lake at sundown attracts hordes of visitors. By sundown, the glistening night views of the lake are so gorgeous that it has been handpicked by the 5th Korea International Tourism Show for recognition of its scenic twilight. Five islands dubbed Water Bloom, Marsh, Festival, Stage and Water Leisure offer eclectic scenery, while Eunbit (Silverlight) Beach offers a plethora of summer activities. Rubber boats, water bicycles and kayaks make the area a prime leisure resort.



Near this park are major municipal facilities like the government complex, where the National Library of Korea, Sejong, the first national library to be operated by a provincial area, can be found with a remarkable exterior. Its shape is known to represent a bowl or quasi-metaphorical 'plate of wisdom.'

Since opening in 2013, the facility has attracted more visitors especially families as a city landmark for cultural enrichment. Because of COVID-19, reservations are needed to visit, and reader-oriented activities like book talks and seminars have also gone online.

The cable-stayed and road Handuri Bridge is the final destination of the Sejong tour. Shaped like a sailboat racing across the Geumgang River, the bridge often sees leisure cyclists crossing.

# Pessimism with Little Ground

A bloody cold winter weather ahead, there has sounded a series of alarms of an upcoming perfect storm in the financial markets. Many stock market analysts, economists and some of the high ranking bureaucrats alike have warned of the potential calamitous event in the Korean financial markets in the near future.

Carefully investigating their analyses, the apocalyptic views unmistakably anchored on the fact the household debts in Korea have been so extravagantly huge as to make its financial collapse inevitable. Being about the size of GDP, it is argued that such an enormous amount of household debts had driven up both the stock markets and the housing prices for the last several years, but now, they would have to sooner or later face the challenges of higher interest rates and squeezing loans following the global tapering.

Indeed, the Bank of Korea has already raised its policy rate from 0.5 percent to 0.75 percent last August, and publicly implicated another hike this year. On top of this rate hike, the chairman of the Financial Service Commission has strongly urged all the financial institutions to maintain the household loan growth rate within 6 percent. These two policy actions have wreaked havoc on the market floor as tens of thousands un-informed borrowers were either negated or cancelled the previous loan contracts. This loan market mayhem somewhat subsided as the commissioner finally gave in last October to allow the loans for rent to be excluded from the lending constriction, and the fear of a sudden loan shut-down lingers around as the 6 percent loan growth curtain is still in effect.

Despite this rather common and popular prospect of a doom, a serious question has to be raised about the legitimacy of the 6 percent target rate of debt growth. Although household debts have been increasing at an alarming rate for most of the last decade, there is neither scientific nor practical rationale why it has to be under 6 percent. In fact, the rate of household debt growth has

mostly been higher than 6 percent for the last 15 years since 2005 except for 2018 and 2019, in which years it was 5.6 percent and 4.0 percent, respectively. Of course, there have been warnings and alarms about the debt surge almost every year, but debt growth higher than 6 percent for a decade has not caused serious actual and tangible threats to the integrity of the financial markets.

Mostly vain and antiquated household debt warnings put aside, there lurks another potential risk of supply chain bottlenecks that had driven up prices and inflation all over the world. But this supply side irritation should be temporary in its nature and should not last longer than a few quarters, at best. It is not argued here that global inflation would disappear soon. It might linger on a few quarters and possibly a year or two, but it could not drive up to, let's say, 4 percent or 5 percent, indefinitely. In such cases, the global interest rates would go up by 1 percent point, at the most, and this should not pose a grave concern for a global perfect storm.



*By Professor Se Don Shin*

*Dean, Sookmyung Women's University  
seshin@sm.ac.kr*

*\* The opinions expressed in this article are the author's own and do not reflect the views of KOTRA.*

# Economic Indicators

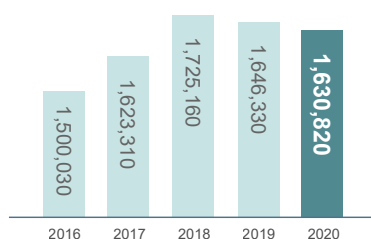
Here's a look at Korea's major economic indicators that provide an overview of the country's recent economic developments.

## Source:

International Monetary Fund (IMF), Bank of Korea (BOK), Korea International Trade Association (KITA), Ministry of Trade, Industry and Energy (MOTIE)

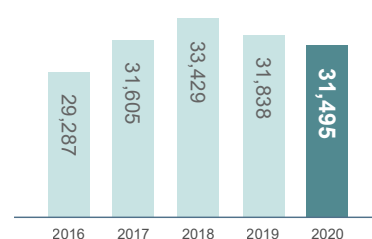
## GDP

(Unit: USD million)



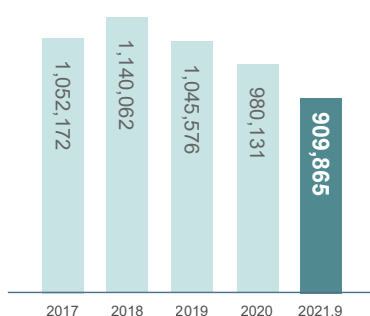
## Per capita GDP

(Unit: USD)



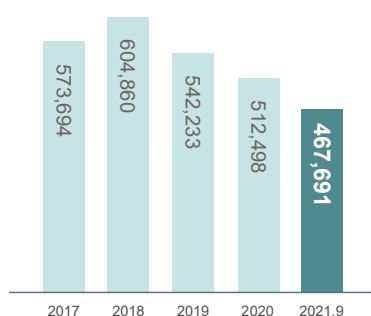
## Trade volume

(Unit: USD million)



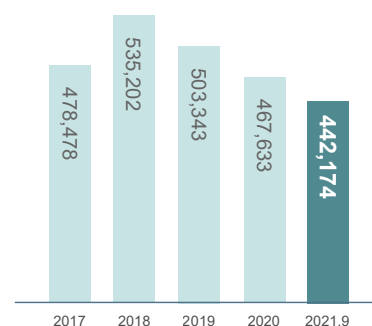
## Exports

(Unit: USD million)



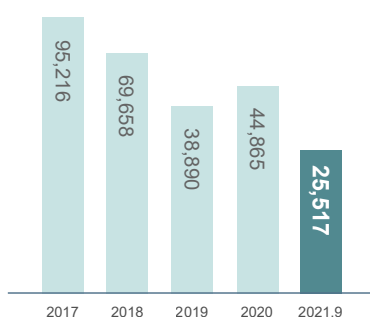
## Imports

(Unit: USD million)



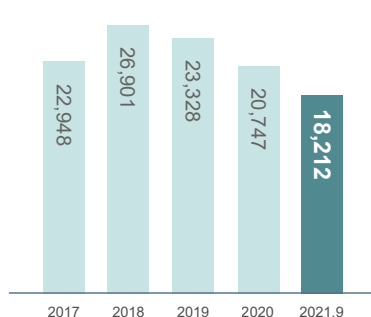
## Trade balance

(Unit: USD million)



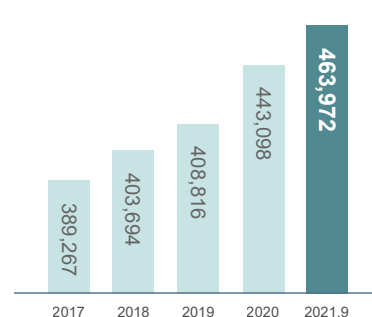
## FDI

(Unit: USD million)



## Foreign exchange reserves

(Unit: USD million)



## KOTRA's Global Network

KOTRA has 127 overseas offices and 10 headquarters worldwide

### Southwest Asia

Tel: (91-11)4230-6300  
E-mail: [ktcdelhi@ktcdelhi.net](mailto:ktcdelhi@ktcdelhi.net)

Ahmedabad, Bengaluru, Chennai, Colombo, Dhaka, Karachi, Kolkata, Mumbai, New Delhi

### Southeast Asia & Oceania

Tel: (84-24)3946-0511  
E-mail: [kotrahanoikbc@gmail.com](mailto:kotrahanoikbc@gmail.com)

Auckland, Bangkok, Danang, Hanoi, Ho Chi Minh, Jakarta, Kuala Lumpur, Manila, Melbourne, Phnom Penh, Singapore, Surabaya, Sydney, Vientiane, Yangon

### Japan

Tel: (81-3)3214-6951  
E-mail: [kotratky@kotra.or.jp](mailto:kotratky@kotra.or.jp)  
Fukuoka, Nagoya, Osaka, Tokyo

### China

Tel: (86-10)6410-6162  
E-mail: [pekktc@kotra.or.kr](mailto:pekktc@kotra.or.kr)

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**Head Office.** 13, Heolleungno, Seocho-gu, Seoul, Republic of Korea  
**Tel.** (82-2) 3460-7838 | **Fax.** (82-2) 3460-7920 | **E-mail.** [ikonline@kotra.or.kr](mailto:ikonline@kotra.or.kr)  
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