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Theme

Emerging Industries for Local Governments
& Local Diplomacy

Korea's Metropolitan & Provincial Government Diplomacy | Incheon, Gyeonggi-do, Chungcheongbuk-do, Chungcheongnam-do, Gyeongsangbuk-do
Local Government Diplomacy in Other Countries | GAROK Japan, GAROK China, GAROK Australia
Partners in Local Diplomacy | Korea Institute for International Economic Policy, Korea Institute for Industrial Economics & Trade
Local Diplomacy News | Embassy Meeting for the Hosting of 2025 APEC Incheon, Jeollanam-do - China Economic and Tourism Day

**GOVERNORS ASSOCIATION OF
THE REPUBLIC OF KOREA**

GOVERNORS ASSOCIATION OF
THE REPUBLIC OF KOREA

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Incheon's Local Diplomacy



• Seeking to grow into a leading city in Northeast Asia

Incheon is making great strides to become a leader in Northeast Asia under the slogan “all ways Incheon.” To such ends, Incheon is strengthening its status as a global city by appealing to the Overseas Koreans Agency in cooperation with

overseas Korean networks and holding international events, such as the 56th annual meeting of the Asian Development Bank. At the same time, the city is aiming to promote solidarity with the international community through close cooperation

with global organizations and actively reinforce its position as a leader in Northeast Asia through practical urban diplomacy. Not only that, but Incheon is also seeking to host the 2025 APEC meeting and expand international exchange by pushing for a Korea–China–Japan governors and provincial leaders’ meeting. It is also working to expand its number of sister cities, taking further steps toward developing itself into a world-class city through active local diplomacy as a member of the international community.

With the inauguration of the Overseas Koreans Agency on June 5, Incheon acquired “megacity” status by achieving a population of over 10 million through the combination of local Incheon citizens and overseas Koreans. Incheon supports Koreans living abroad as well as Incheon citizens and feels the need for overseas bases and welcome centers so that they can carry out various business activities while visiting Incheon and traveling. Just such overseas bases and welcome centers are now under construction.

The city has been promoting international exchange



▲ Meeting Josh Green, the governor of Hawaii

and collaboration through the establishment of sisterhood relationships with 38 cities in 18 countries. In addition, as a city where 15 international organizations are centered—including the Green Climate Fund (GCF)—Incheon is fulfilling its role as an international city by spotlighting global issues and seeking alternatives through international events in

close cooperation with such international agencies as the United Nations. In May, for example, Incheon held the annual meeting of the Asian Development Bank, attended by 5,000 people from 66 member countries from around the world, and took part in major international conferences such as the Asia-Pacific Ministerial Conference on Disaster Risk Reduction and the Summer Davos Forum. These events acted as opportunities for Incheon to publicize its development and future vision in which disaster resilience, eco-friendliness, and cutting-edge smart technologies take center stage. Through such efforts, Incheon has been able to make it known around the world that it is taking a new leap forward as an international city that plays an active role as a member of the international community.

To successfully create new growth engines through



▲ Greeting Rebecca Fatima Sta Maria Executive Director, APEC Secretariat

innovative urban development such as the “New Hong Kong Metropolis Plan” and the “Jemulpo

Renaissance Project,” Incheon is turning its eyes beyond its home of South Korea to share information on exemplary cases, systems, and policies abroad as well as benchmark innovative ideas and global standards. The city is determined to realize its dream of becoming a first-class global city by leading economic development in Northeast Asia through the promotion of new industries such as biotech, maintenance, repair and overhaul (MRO) services, and urban air mobility (UAM) in addition to logistics, education, and high-tech industries.



▲ A scene captured at the Summer Davos Forum

• UAM expedites traffic convenience in metropolitan and island areas

Equipped with both an airport and a seaport, Incheon is essentially the gateway to the Republic of Korea. Its eighth local administration elected by popular vote, headed by Mayor Yoo Jeong-bok, is actively promoting the UAM industry with the goal of establishing the “popular use of UAM in 2025” as part of the 110 national tasks of the Yoon Suk-yeol administration. Incheon is seeking to invigorate the passenger, cargo, and tourism systems by creating a 30-minute transportation system in the metropolitan area and including its 168 treasured

islands in the one-day living zone through the use of the UAM system, with the airport and seaport serving as starting points.

As a step toward becoming a first-class city that prioritizes the happiness of its citizens, Incheon enacted the “Ordinance on the Establishment of an Urban Air Mobility System” for the first time. This ordinance aims to create an environment and infrastructure for the demonstration and popular use of the UAM system, based primarily on the city’s strengths: its airport, seaport and industrial complexes. As part of its efforts to preemptively introduce a safe and efficient UAM system, Incheon City is closely cooperating with the Institute for Aerospace Industry-Academia Collaboration (formerly Incheon Industry Academy Collaboration Institute), which was established through the Ministry of Trade, Industry and Energy’s “industry-academia convergence district creation project.”

Incheon and the Institute for Aerospace Industry-Academia Collaboration are building digital twins, using data held by the city, and plan to graft the UAM application technology onto them to create an “urban air mobility demonstration platform.” The platform will be used as a monitoring system for the Ministry of Land, Infrastructure and Transport’s Grand Challenge 2 demonstration project. Ultimately, it will be used as a traffic monitoring system in the stages of popular use through further sophistication. Incheon is also pushing for promotional programs such as technical cooperation and supply chain development between domestic and foreign organizations and companies while discovering UAM-related companies under its jurisdiction.

With respect to its independent push for the UAM system, Incheon saw the need to make its own platform more reliable and practical through exchange and cooperation with global cities. As

such, the city established partner cities to work with and pushed for the creation of a practical and pragmatic cooperation system. Incheon thus made connections with global cities in the U.S. and Europe that have a wide variety of environments that are pursuing demonstration and R&D projects to build the UAM system. Through these connections, Incheon introduced its UAM project to various cities and proposed a range of collaborations. One such city is Los Angeles, where cooperation on UAM with Incheon began in 2021. With this unified foundation, Incheon served as a chairman city in 2022, resulting in the signing of an MOU to launch the Global UAM Regional Summit (GURS): a hierarchical cooperative body including cities, airports, universities, and research institutes from Los Angeles, Ill-de-France, and Munich.



▲ The signing of an MOU to launch GURS

Designed to carry out joint international research on policies, operations, and manpower training to galvanize UAM system development, GURS serves as a body to promote joint cooperation for the emergence of leading cities on every continent. At the GURS general conference in the first half of 2023, Odense of Denmark, Irvine of America, Cranfield University of Britain, and Hong Kong University of Science and Technology agreed to join GURS, further setting the stage for practical and pragmatic cooperation in a wider variety of fields. Meanwhile, Incheon became the first Asian

city to join the Advanced Air Mobility (AAM) coalition of the World Economic Forum in May 2022. Incheon, Massachusetts (chairman), Los Angeles, Amsterdam, and NEOM are engaged in intensive discussions about the cities’ and citizens’ increased acceptance of the UAM. This has led to the mutual sharing of each city’s preparations and ideas on the urban environment of demonstration and popular use, as well as policy preparations in accordance with the technical development of the UAM. Incheon Mayor Yoo Jeong-bok and World Economic Forum President Borge Brende met at the 2023 Summer Davos Forum held in China, where the former asked the latter to attend the third K-UAM Confex—a global event that specializes in urban air mobility—to be held in November.



▲ Greeting Borge Brende President, World Economic Forum

Incheon is preparing for its era as a first-class global city by improving citizens’ residential conditions and creating jobs through the introduction of the UAM, a new future industry, based on its globalized local diplomacy such as the K-UAM Confex and GURS.

Gyeonggi-do's Local Diplomacy



미국	세계1위 반도체 · 디스플레이 장비기업 AMAT	연구개발센터 유치
미국	세계 1위 전력반도체 기업 온세미	1조 4,000억원
미국	세계 1위 반도체 노광장비 기업 ASML	2400억원
한국	세계 최대 시스템 반도체 클러스터 구축 삼성전자	300조원
미국	세계 1위 산업용가스 기업 린데	6,500억원
한국	이차전지 산소제거업 (에그리나지 K-메타리 컴퍼니)	1,000억원
한국	ESR전달스캐어(주) 탄소저장 친환경 복합물류센터	3조원

Gyeonggi-do, the “capital of opportunity”, is greatly expanding its economic power, focusing on such future growth industries as semiconductors, biotech, and artificial intelligence (AI) to cultivate a more dynamic economy and create more opportunities.

The province is making this happen by strengthening economic exchange and partnerships with major countries, using its

global networks as a basis for such collaboration while actively attracting investments both at home and abroad.

• "Gyeonggi-do inbound": Setting its sights on attracting 100 trillion won in investments for future growth industries

Gyeonggi-do held a “strategy meeting to attract 100 trillion won plus in investments” at the Center for Creative Economy and Innovation in Pangyo on June 21. At this meeting, the province made the decision to raise the investment target for its eighth elected administration to 125 trillion won from 100 trillion won.

Entrepreneurs of investment companies in the



▲ A strategy meeting to attract 100 trillion won plus in investments

province and experts in the growth industries of the future—including semiconductors, biotech, AI, and robotics—who attended the meeting voiced their confidence in the potential of Gyeonggi-do with regard to the increased investment target. They also pledged to provide comprehensive support throughout the entire process: from planning to the promotion of innovative industries. The end goal will be to help attract investments from domestic and foreign companies across the board.

In recent news, Gyeonggi-do has been devotedly laying the groundwork for its “semiconductor mega belt”.

Leading global companies such as Onsemi and Linde as well as the technology think tanks from the world’s top four semiconductor equipment companies—Applied Materials, ASML, Lam Research, and Tokyo Electron—have been enticed to the province in hopes of securing stable semiconductor supply chains.

Efforts also have been made to create an ecosystem for high-tech industries, including semiconductors.

April’s business trips to the United States and Japan, in particular, prompted the establishment of production facilities and research centers by industry giants, resulting in an investment of 4.4 trillion won. The companies included Air Products,



▲ ASML Hwaseong Campus groundbreaking ceremony

the world’s third-largest industrial gas supplier; ULVAC, the world’s top semiconductor vacuum technology company; and Tokyo Ohka Kogyo, the world’s largest maker of photoresists (the core material for semiconductors).

• "Gyeonggi-do outbound" Gyeonggi-do helps provincial companies' global growth by supporting their forays around the world

Gyeonggi-do paved the way for provincial companies to expand overseas and grow their exports by sending a delegation to India and Thailand in July following its previous business trips to the U.S. and Japan.

The delegation visited the construction site of the India International Convention & Expo Center (IICC) in New Delhi, India, to learn about its opening preparations, and to meet with Indian ministers and leaders of economic organizations to discuss strategies for future cooperation.

More specifically, the delegates met with Ashwini Vaishnaw, the Indian Minister of Electronics and Information technology, to discuss methods for cooperation and the formation of a consultative body for high-tech industries involved with

products such as semiconductors and AI. They also met with leaders of India's major economic organizations, including the head of the Indian Exhibition Industry Association, and have decided to make efforts to strengthen economic cooperation between Gyeonggi-do and India.

In a meeting with India Minister of Commerce and Industry Piyush Goyal, there were discussions about enhancing a practical trade cooperation that would include goals such as the opening of a Gyeonggi-do business center(GBC) in India, and the minister promised to fully support the IICC.

It is projected that this series of meetings will create greater synergy by combining Gyeonggi-do's high-tech industries and India's abundant future resources.

※ IICC

IICC is slated to be completed as Asia's fifth-largest exhibition center as part of the Indian government's "smart city" project. Kintex, the province's exhibition operator, won over global operators in France, Singapore, and Hong Kong and was awarded the 20-year operating rights for the IICC. It was the first case of overseas expansion by a domestic exhibition operator and is expected to add vitality to economic relationships between Korea and India.

The Gyeonggi-do mission also greeted the Deputy Prime Minister for Economic Affairs and the Mayor of Bangkok in Thailand, creating a launchpad for Gyeonggi provincial companies to enter Southeast and Southwest Asia.

At the 2023 G-Fair ASEAN+ event (Korea's Excellent Products Exhibition), 227 companies engaged in negotiations for 1,619 contracts, with agreements worth a total of 14.22 billion won being signed. Bangkok Governor Chadchart Sittipunt, in particular, promised to form a working-



▲ An onsite inspection of the construction site for the India International Convention & Expo Center (IICC)



▲ Visit to the 2023 G-Fair ASEAN+ with Thai Deputy Prime Minister and Minister of Commerce

level consultative body for economic cooperation between the two regions.

• Gyeonggi-do's evolving global networks

Gyeonggi-do is actively continuing its local diplomacy by meeting foreign guests from around the world and discussing various ways to promote cooperation.

The province is dedicated to working closely with diplomats from countries that play a major role, including the United States, China, the United Kingdom, and Germany, to address global issues such as the climate crisis and digital transformation. This commitment extends to discussions on economic cooperation and cultural exchanges.

In the past year, Gyeonggi-do has welcomed 46 foreign dignitaries from 24 countries.

Among them, meetings were held with the U.S. Ambassador three times to discuss further cooperation. In particular, one meeting with the Commander of U.S. Forces Korea at Camp Humphreys further reinforced the robust South Korea-U.S. alliance.

Gyeonggi-do is actively addressing a number of global issues, including climate change. Notably, a conversation took place with the world-renowned scholar, Nobel Peace Prize laureate, and former Vice President Al Gore, where Gyeonggi-do introduced its strategies for addressing the climate crisis.

Furthermore, Gyeonggi-do met with energy and climate policy expert Professor John Byrne to discuss the promotion of renewable energy. They also found common ground with Nigel Topping, the U.N. High-Level Climate Action Champion for COP26, on carbon reduction goals, pledging to continue collaborative efforts to explore practical solutions.

In addition, global leaders such as Canadian Prime

Minister Justin Trudeau and Florida Governor Ron DeSantis visited Gyeonggi-do in a series of consecutive visits, enriching the province's global networking.

Based on its previous international cooperation efforts and established global networks, Gyeonggi-do aims to create more opportunities for local businesses to expand into foreign markets and provide greater prospects for young people in the province.



▲ A meeting with former US Vice President Al Gore



▲ A meeting with Florida Governor Ron DeSantis



▲ Visiting to the Battle of Gapyeong memorial with Canadian Prime Minister Justin Trudeau



Chungcheongbuk-do, The Center of the Republic of Korea



• Chungbuk heading toward the center of the global battery industry beyond Korea

In celebration of the eighth administration to be elected by popular vote, Chungcheongbuk-do (Chungbuk) has finalized its new brand slogan as "Taking Center Stage" and has been making serious changes while pushing for diverse policies to go beyond the borders of the Republic of Korea, all with the intent of taking a leap forward as a central figure in the world.

In particular, the province is endeavoring to promote exchanges with new regions in a move aimed at expanding the scope of its local diplomacy. This has increasingly become a priority as the responsibilities and roles of local governments grow in the international community.



Geographically located in the center of the Korean Peninsula and therefore lacking in access to the sea, Chungbuk proposed a sisterhood relationship with Palau—often called the garden of the Gods—and is looking for ways to expand a broad range of exchanges. With the goal of attaining 100% renewable energy usage, Palau is seeking a partnership with Chungbuk with regard to secondary batteries.

• Chungcheongbuk-do, The Center of the K-battery Industry



Chungbuk is truly the center of Korea's secondary battery industry. According to the Bank of Korea Chungbuk–Daejeon–Chungnam Headquarters, production of secondary batteries in the Chungcheong region amounted to 15.7 trillion won in 2019 and their exports reached \$3.44 billion in 2020. Chungbuk's production and exports of secondary batteries amounted to 10.7 trillion won and \$2.19 billion, respectively, accounting for 48% and 29.1% of the total—the highest nationwide. 128 businesses in Chungbuk form a complete value chain, from materials and cells to modules and applied products, centering around Ochang in Cheongju. These companies include LG Energy Solution, Korea's No. 1 electric vehicle battery manufacturer; ECOPRO BM, the country's leading cathode materials company; and parts, materials, and equipment makers, as well as other application product companies.

• Chungbuk's Efforts To Develop the Secondary Battery Industry

Having been designated as a specialized complex for secondary battery materials, parts, and equipment in 2021, Chungbuk is building the world's finest secondary battery production, test evaluation, and analysis cluster.



To begin with, the Test and Evaluation Center for Medium and Large Secondary Battery Materials and Components is slated for completion in October of this year and will be equipped with 43 kinds of test and evaluation equipment across of five different types, including electrode manufacturing devices. Once completed, the center will be used to analyze key materials and components of secondary battery developed by small and medium-sized companies, and to conduct performance evaluations by manufacturing medium and large battery cells used in electric vehicles. The center is also expected to cut the performance evaluation cost and time by installing 50 Ah secondary battery cell lines and a test and evaluation mechanism—a worldwide first.

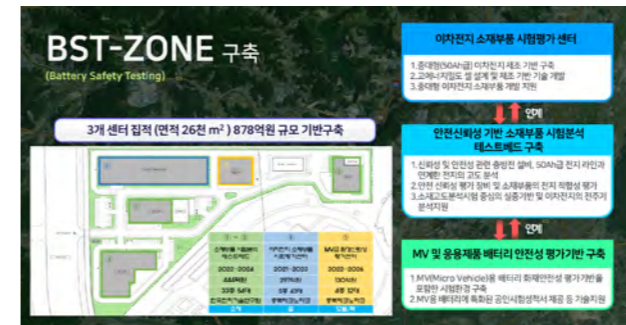
The "safety reliability-based materials and parts test analysis test bed creation project" is designed to build 54 pieces of equipment of 33 different types, including high-precision, high-resolution chargers and dischargers, as well as module chargers and dischargers, at a cost of 44.4 billion won. The project will be completed in 2024

and will sharpen the technological competitiveness of the K-battery industry by supporting the development of materials and parts in addition to the evaluation of safety reliability in a variety of environments for finished medium and large secondary batteries.

Another project is also under way to establish a base for evaluating the battery safety of micro vehicles (MVs) and other applied products. MV is a general term to describe the rapidly expanding market of practical products such as electric bicycles, electric boards, micro electric vehicles, golf carts, and drones equipped with 0.5 kWh to 10 kWh battery capacity. Chungbuk plans to build the MV battery safety reliability evaluation facility in Cheongju and the fire safety test evaluation facility in Eumseong as a means of supporting evaluation tests for MV battery performance and fire safety, prototype production, and technical standardization.

If these three test bed projects are completed at the same site in Ochang in 2026, the synergy between infrastructures will be maximized and the whole cycle of the secondary battery value chain that leads to materials

and parts, cells, modules and packs, and applied products will be available as a one-stop solution.



Chungbuk also had a moment to shine in July of this year when the over 14.6 million square meter tract where the four districts in the Ochang Scientific Industrial Complex call home was designated as the national high tech strategic industrial complex for secondary batteries. This made Chungbuk the sole province in the country to be designated simultaneously as a specialized complex for secondary batteries as well as their materials, parts, and equipment.

Now Chungbuk is able to promote their ongoing industrial agenda. This includes three strategies, nine key tasks, and 40 detailed projects suggested as a strategic vision for secondary batteries, all aiming to realize the province's dream of making Korea the world's strongest producer of lithium secondary batteries by 2030. Chungbuk is more than ready to map out detailed action plans in consultation with the central government.

The key projects include establishing a research base for K-battery big data, creating a fire safety test and evaluation infrastructure for medium-sized electric vehicle batteries, and opening a manpower training center specialized in secondary batteries.

Using these projects as a foundation, the proposed specialized complexes will be promoted as a global high-tech hub for cutting-edge battery development and production, a high-tech new value chain cluster, a startup and venture nurturing valley armed with distinct technical prowess and business models, and a global base where industry, academia, researchers, and

government cooperate to enhance next-generation battery capabilities.

• Chungbuk Works Hand in Hand with the Global Community to Promote Industrial Competitiveness for Secondary Batteries

In the secondary battery industry, stable procurement management is essential because materials and parts account for more than 70 percent of the production cost and major raw materials are concentrated in specific countries.

For the first time as a local government, Chungbuk decided to work with Indonesia's central island of Java to establish a stable supply of nickel—a key material for secondary battery cathode materials.

Indonesia is the world's No. 1 producer of nickel, accounting for 23% of global nickel reserves with 21 million tons and 48% of global production with 1.6 million tons. Chungcheongbuk-do Governor Kim Young-hwan recently visited Indonesia in July and discussed the swift approval of regulatory matters related to the entry of LG Energy Solution, a leading secondary battery company in Chungbuk, into Indonesia. Discussions also focused on the active resolution of difficulties in business and joint efforts for the stable supply of nickel to companies in the province.

"Pushing for the supply chain stabilization agreement for the first time at a local government level is also meaningful in that local governments can contribute to major national issues," Governor Kim said, adding, "I'll continue to build a cooperative system with the international community to help strengthen the competitiveness of secondary batteries, Chungbuk's strategic and the country's future industry."

Chungbuk makes every effort to help the secondary battery industry go beyond Korea's borders and take a central place in the world.



Chungcheongnam-do, The Center of the Republic of Korea



• Chungnam: taking leaps as a center of high-tech industry

High-tech industries such as those related to semiconductors, displays, and batteries are Korea's key growth engines. The Republic of Korea has consistently occupied the top first or second position in terms of market share in such high-tech industries since 2000 thanks to considerable efforts and is now facing rivalry with major countries that have prepared massive subsidies and tax benefits to compete. In particular, China is competing with Korea for super-gap technology, Japan is trying to return to their glory days of high-tech industrial achievement, and the United States continues to boast a market unmatched in terms of scale.



▲ Chungcheongnam-do Governor Kim Tae-heum, left, poses after signing an investment agreement with Edwards, a British semiconductor equipment company.

Against this backdrop of intense competition, Chungcheongnam-do, a central area where all of Korea's high-tech manufacturing facilities are located, is emerging as a region responsible for Korea's future

• First overseas business trip produces positive results

Governor Kim Tae-heum embarked on his first business trip to Europe to attract investments in October 2022 after the inauguration of the eighth local government elected by popular vote. He signed investment agreements with five high-tech manufacturers, including those in semiconductor equipment and vehicle battery systems in Britain, France, Luxembourg, and Germany. The total investments amounted to \$215 million (approximately 290 billion won), and this is expected to help domestic companies with unstable supply chains secure stable supply sources and enhance their global competitiveness as it will

be possible to use high-tech materials, parts, and equipment in those countries as strategic assets.



▲ A signing ceremony for new investment and a win-win cooperation agreement aimed at strengthening the competitiveness of the display industry

• World's first 8.6-generation OLED production line

Semiconductors and displays are the technologies of the future in Korea, and Chungnam is the center of these key industries. The 4.1 trillion won investment agreement to build the world's first



▲ Governor Kim Tae-heum, center, attending the Western China International Fair to support export companies in Chungcheongnam-do.

8.6-generation OLED production line between Chungnam and Samsung Display signals that it is time for the province to be reborn as a global mecca of display technology.

On April 4, 2023, the Asan Campus of Samsung Display was home to an investment and win-win cooperation agreement ceremony for next-generation large displays. President Yoon Suk-yeol and Samsung Electronics Chairman Lee Jae-yong attended the ceremony to demonstrate their intention to strengthen the display industry. This reflects the projection that Korea's national plan to occupy the premium market will be realized in Chungnam through the establishment of production lines in order to maintain the super-gap with China; an area in which Korea is fiercely competing in the OLED market. By using this agreement as a primer, Samsung announced plans to invest an additional 52 trillion won in Chungnam in the future for display, battery, and semiconductor post-processing packages. The investment, if carried out as planned, is expected to trigger a sales

effect of 1.7 trillion won and create 26,000 jobs for domestic installation companies, as well as help strengthen the ecosystem of these domestic high-tech industries, localize key materials, parts, and equipment, and stabilize supply chains.

• High tech-centric exports exceed \$100 billion for two consecutive years

Chungnam's exports in 2022 amounted to \$107.4 billion, up 3.2% from \$104.1 billion in 2021, breaking the all-time export record in one year and reaching a milestone of exceeding \$100 billion in exports two years in a row. This accounted for 15.7% of Korea's \$683.7 billion in total exports. The province's export drive was led by such high-tech industries as semiconductors and flat-panel displays. In 2022, integrated circuit semiconductor exports amounted to \$49.944 billion, accounting for 41.8% of total exports. Semiconductor exports were followed by flat-panel displays at \$13.011

billion and computer recording media at \$10.551, making high-tech goods the No. 1 export item despite concerns about the global economic downturn and export slowdown

• Chungnam's efforts to build an innovative ecosystem for high-tech industries

Ever energetic, Chungnam will continue its efforts to find growth engines by pushing for a specialized national display complex, establishing a Chungnam-type growth strategy based on carbon neutrality, seeking export consultation meetings led by its overseas offices, and developing new sales channels by encouraging exceptional small and medium-sized firms to export more actively.



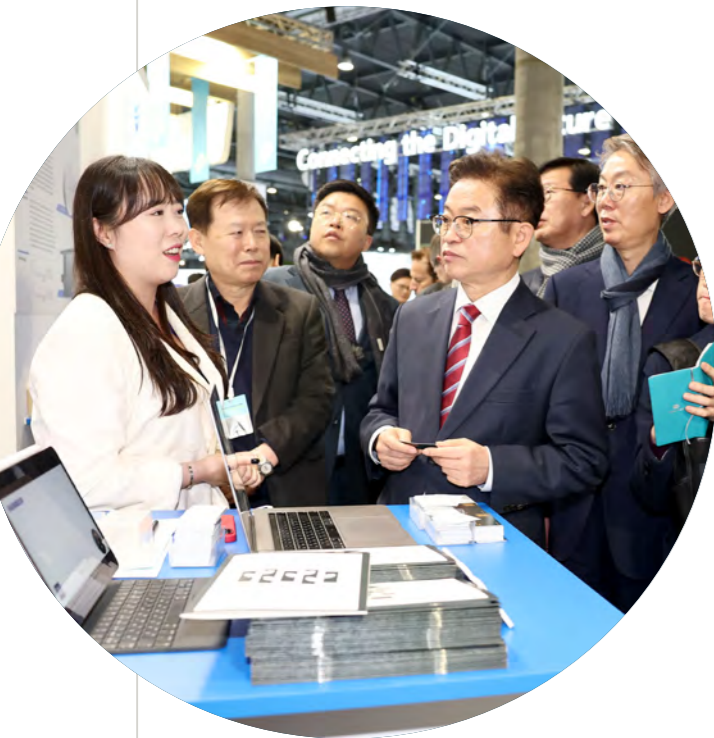
▲ Governor Kim Tae-heum declares Chungcheongnam-do a carbon-neutral province.

Gyeongsangbuk-do, The Center of the Republic of Korea



• Gyeongbuk's secondary battery leading industrial innovation

Gyeongsangbuk-do (Gyeongbuk) will become a strategic location for Korea's high-tech industry. With the designation of Pohang's secondary battery industry as a specialized national high-tech industrial complex on July 20, Gyeongbuk will be able to lead the global super-gap in the secondary battery industry. The materials industry for secondary batteries has risen to the top of all export items, surpassing major industries such as steel and electronics. Recently, there have been investments totaling 5.7 trillion won in Pohang, and an additional 14 trillion won is projected to be invested by 2027, boosted by the continued influx of visiting entrepreneurs. This article examines the



background behind the growth and challenges of the secondary battery industry that will reshape the economic and industrial map of Gyeongbuk into the future.

• Those who rule over batteries will rule the world

All of this began with the designation of the regulation-free special zone for battery recycling. It was in 2019 that carbon reduction efforts spurred on by the climate crisis were institutionalized around the world and Tesla took note of the battery market, sparking a craze for electric vehicles. The government created the regulation-free special zone and the battery industry, intended to diversify Pohang's industrial structure and relieve its disproportionate dependency on steel, which extended out to Gumi, Sangju, and Yeongju in the form of a secondary battery industrial belt, with

Daegu and Gyeongbuk accounting for more than half (53%) of cathode material exports.

As the importance of the reuse industry has emerged alongside the increase in battery production resulting from the expansion of the electric vehicle supply, the regulation-free special zone in Pohang created standards, systems, and laws for the use of disposed batteries and joined forces with the general management center for secondary batteries to cope with difficulties in battery-related technical development and industrialization.

EcoPro, one of the leading companies that took part in the special zone, performed remarkably with its stock price surging from 20,000 won before joining the special zone to 1.5 million won this year. The company now ranks second on the Kosdaq with a market capitalization of 30 trillion won.

These achievements can be attributed to the synergy created by Gyeongbuk's G-battery



development strategy announced in August 2021 that brought together the province's corporate and industrial capabilities in line with the central government's K-battery development strategy unveiled one month ago.

G-battery development strategy (August, 2021)

- **Vision:** Beyond the local and into the world: Secure leadership of the global battery industry
- **4 major goals:** ①Nurturing post-battery special zones ②Energy conversion for reuse/recycling ③Support for innovative companies and fostering a professional workforce ④Enterprise-centered private-public cooperation

- **EcoPro creates "cycle of vertical integration and production of cathode materials"**
POSCO penetrates supply chain of "white oil" lithium
Competitive companies converge in Gyeongbuk

Countries around the world are competing fiercely to claim dominance over the global market for secondary batteries, a strategic high-tech industry. Such risks as supply chain disruptions and intensifying technology competition, in particular, are growing as protectionist trade measures such as America's Inflation Reduction Act (IRA) and the EU's Critical Raw Materials Act (CRMA) have been reinforced to foster domestic production bases. To tackle this problem, the central government also announced its joint private-public innovation strategy for the secondary battery industry in November 2022, focusing on the creation of a sound ecosystem with the goal of becoming the world's strongest secondary battery country by 2030. Specifically, while presiding over a national strategy meeting for secondary batteries in April, President Yoon Suk-yeol said, "Secondary batteries are at the center of today's global competition for technological hegemony and represent the driving force of electric vehicles in the carbon-neutral era

and a main key to digital transformation."

The EcoPro is building the Eco-battery Pohang Campus that integrates such processes as cathode materials, lithium, and precursors in the Yeongil Bay Industrial Complex. The campus is designed to raise production efficiency and price competitiveness by connecting all processes necessary for cathode material production into one cycle.

POSCO is undeniably a front-runner in Korea's battery industry value chain. As the value-added from the secondary battery industry rises, competition between countries to obtain key minerals is intensifying. POSCO's move to focus on overseas resource development early is highly regarded as essential in that it is directly related to improving national competitiveness. In March of last year, POSCO Group embarked on a project to build a commercialization plant for salt lake lithium in Argentina. Despite trying circumstances, POSCO didn't give up on developing "white oil" lithium and secured resources that will power the future industry.

• Super-gap technology drives Gyeongbuk The time to spur original technology development

The development direction of Gyeongbuk's secondary battery industry can be broadly divided into three parts: ❶ the internalization of secondary battery materials and raw materials ❷ the advancement of the recycling industry ❸ the promotion of the used battery remanufacturing/reuse industry.

First, with respect to the internalization of secondary battery materials and raw materials, internalizing the supply and demand of raw

materials is paramount now more than ever when dependence on China for secondary battery raw materials is so high. It will be possible to overcome the trade barriers of major industrialized countries such as the U.S. and the EU by reducing import dependence through the domestic production of key raw materials for secondary batteries such as lithium hydroxide, nickel sulfate, and precursors, mainly led by Pohang. In addition, since the recently announced detailed guidelines of the U.S. Inflation Reduction Act included cathode materials as a target for tax credits, companies of secondary battery materials, including POSCO Future M and EcoPro, are expected to expand their investments. Responding to this trend, Gyeongbuk will do its utmost to create the best environment for business by building a Gyeongbuk-type secondary battery special zone for opportunity development to increase the effectiveness of attracting related companies.

Advancement of the recycling industry

Gyeongbuk imports the majority of its key raw materials for secondary batteries, largely due to the fact that mineral reserves necessary for secondary battery production are nonexistent domestically. Korea is mostly dependent on a few specific regions such as China and South America. The deepening of dependence on a few select countries for minerals could shake the country in tumultuous times or during major shifts in the international situation, as exemplified by the rare earth crisis and the urea water crisis. It's necessary to establish a stable mineral supply system as a means of addressing such issues preemptively. However, because it is a lengthy process to secure an overseas supply chain, strengthening the recycling industry for used batteries via a process of urban mining is of the utmost importance.

The battery recycling industry boils down to the extraction of core materials for secondary batteries such as lithium, cobalt, and manganese from disposed batteries in order to return these raw materials into the production process of secondary batteries. If used batteries start pouring out after 2027, it will be possible to secure core resources for secondary batteries in Korea through the revitalization of the recycling industry when coupled together with eco-friendly practices.

The EU, which passed legislation to make batteries more sustainable this year, is pushing for the mandatory recycling of key raw materials for secondary batteries such as lithium and cobalt from 2031. As such, batteries to be sold in the EU market must use recycled minerals at certain rates—16% for cobalt, 85% for lead, 6% for lithium, and 6% for nickel. The core of this law is to expand battery production in the EU, but it is becoming unstoppable along with global eco-friendly trends such as resource recycling and carbon neutrality.

It's for such reasons that companies need to strengthen their battery recycling capabilities in line with global trends. Specifically in Pohang, the Ministry of Environment is pushing for a used battery recycling cluster project with ground set to be broken in 2023. The recycling center is an integrated control tower for national battery resource circulation, aimed at conducting research and development for managing the entire life cycle of electric vehicle batteries. It will also foster the battery recycling market through the establishment of functions for demonstration projects and boosting the safety handling and forward and backward linkage of electric vehicle batteries. According to the First Basic Plan for Green Convergence Clusters (2023–2027) of the Ministry of Environment, the used battery cluster will be designated as a green convergence cluster

after projected completion in 2025. It will then take the lead in strengthening the battery recycling capabilities of companies in the region and implementing carbon neutrality as well as a circular economy.

Lastly is the plan to nurture the used battery remanufacturing and recycling industry.

Gyeongbuk boasts its dominant position by occupying the used battery reuse/recycling industry after having built the battery regulation-free special zone in 2019 and being designated as an excellent special zone in the Ministry of SMEs and Startups' operation performance evaluation for three consecutive years (2020–22). Based on the results produced in the battery special zone with regard to system improvement and standard establishment, the province is determined to achieve domination of the global used battery evaluation, reuse, and recycling market.

Currently, international standards for used batteries have not been uniformly established yet, and domestic companies find it difficult to go abroad because such standards vary from country to country. Therefore, based on Gyeongbuk's excellent infrastructure and empirical experience, it's necessary to develop domestic small and medium-sized companies and create an environment in which they can actively export to the global market by establishing international standards for battery reuse and recycling.

To such ends, Gyeongbuk plans to apply for the global innovation special zone contest in the field of used batteries, a focal project of the Ministry of SMEs and Startups in 2023. As the groundwork for establishing global international standards, the province held a meeting on the establishment of a secondary battery international cooperation system and the technology exchange in Germany in June. Gyeongbuk also attended InterBattery Europe

2023 and sponsored the signing of an MOU for international cooperation involving VDE, Germany's certification agency, Gyeongbuk Techno Park (TP), and Korea Testing Laboratory (KTL) in its efforts to expand the global network in the certification and standard fields.

In late June, Gyeongbuk hosted a booth for the Gyeongbuk battery regulation-free zone at the Battery & Charging Infra Expo in Kintex to publicize the outcome of the special zone and underscore the need to nurture the industry for global advancement. The province is also pushing for an MOU involving five domestic secondary battery-related test and evaluation agencies along with Gyeongbuk TP to establish solid secondary battery standards. In addition, the province is preparing for an international secondary battery forum in October of this year to secure a global super-gap in secondary batteries.

The secondary battery industry has already been recognized as a major national industry, and its status has risen to the point where it could be compared to semiconductors—an industry that has long bolstered the Korean economy. Given that the value chain of secondary batteries in Korea is well established across the board, the most important growth factor now is the accumulation of technologies. Gyeongbuk will contribute a great deal to Korea spearheading its global super-gap in secondary batteries in 2030 by focusing on secondary battery materials and raw materials, as well as the recycling segments based on its strengths and opportunities.

• Gyeongbuk's local diplomacy for technical alliance in secondary batteries

When faced with a diplomatic dilemma at the national level, there will be opportunities to realize actual benefits through diplomacy performed by local governments and local businesses in tandem. The reality is that high-tech industries such as secondary batteries and semiconductors are causing anxiety and uncertainty in the global economy due to the competition for the technological dominance between the U.S. and China and the reorganization of the global supply chain. This has forced Korea into a difficult position in which it must choose between the two amid the U.S.–China conflict. This is because technologies related to high-tech industries are now dealt with and considered from the perspective of national security. Korea, a technology-oriented and resource-dependent economy that relies on overseas sources for more than 95% of battery materials, is in an especially serious dilemma. The central government and diplomatic and trade authorities are in a situation where there is an absolute lack of space to choose in increasing national interests through diplomacy that doesn't stimulate any one country.

Consequently, small diplomacy is urgently needed at the local government level. If the supply chain of the secondary battery industry is reinforced by securing resources abroad through quiet exchanges and cooperation by local governments and private companies, and the private sector cooperates with local governments to practice policies that can help expand R&D and production capacity—as seen in the latest designation of the special zone for high-tech industries—it will be possible to find an optimal way to survive amid the competition for global technological supremacy.

Japan's Fukui Prefecture: Evolving Home to High-Tech Small & Medium Companies

By Jung Young-hyo, Tokyo correspondent of The Korea Economic Daily



“Shitamachi Rocket,” also known as “Downtown Rocket,” was a Japanese hit TV drama that was broadcast for seven years until its fourth and final season concluded in 2018. The drama enjoyed such popularity that it ranked number one in viewer ratings almost every year while it was on air. The TV show was centered around the story of Tsukuda Industries, a small struggling factory which had nothing but technology to use for survival in the tough business world. Many people in Japan became enthusiastic about the drama as they seemed to treat Tsukuda’s survival story as if it were their own.

There are 3.86 million businesses in Japan as of the end of 2022. Of these, 99.7% are small and medium-sized enterprises (SMEs), and 69% of Japanese employees work for SMEs. It was against this backdrop that Japanese viewers came to sympathize with Tsukuda Industries as it brought a big business to its knees.

The narrative was actually not a work of fiction, but in fact a true story: it was based on the story of Fukui Tateami Co. in Sabae-shi, Fukui Prefecture. Tateami

(経編), one part of the company name, refers to a method of making sweater knit fabrics. Fukui Tateami was originally established as a textile company in 1944, but has now transformed itself into a business which boasts the world’s greatest technology in the biotech and healthcare fields, including products such as artificial hearts and artificial blood vessels.

Over the past 10 years, not only Fukui Tateami, but also many other SMEs in the Fukui region have been rushing to grow beyond being just “small but strong” enterprises and evolve into “high-tech” ones.

Most textile makers have turned toward specializing in other industries such as the medical and healthcare fields, as well as aerospace. For instance, in the Hokuriku region that encompasses the three prefectures of Toyama, Ishikawa, and Fukui, Seiren Co. is the largest textile firm and it has expanded its business into the healthcare, aerospace, and sports fields.

The transformation of the glasses industry, one of the main industries in Fukui Prefecture, is also worth noting. Charmant, Japan’s largest eyeglass frames maker, and Wakayoshi Co., an eyeglass parts manufacturer, are looking for new sources of growth in the medical and healthcare industries.

• Sabae-shi: accounting for 90% of eyeglass frame production in Japan

Fukui Prefecture is a large local autonomous entity located on the east coast of central Japan. It has a population of 766,863 as of 2020, making it the 43rd largest of 47 prefectures in Japan by population. The population of Sabae-shi, where Fukui Tateami Co. is located, stands at 68,363.

However, Sabae-shi’s presence in the fashion industry grew far greater than anyone could have imagined. More than 90% of Japanese-made eyeglass frames are currently produced in Sabae-shi. Making eyeglass frames, which originally started in 1905 as a supplemental revenue source during the winter months when farming wasn’t possible, has now become the city’s central industry and it dominates the Japanese market. The city’s surrounding area, called Echizen, has also long been one of Japan’s leading textile production hubs.

With more than 100 years of history, Fukui’s eyeglass and textile industries have faithfully followed Japan’s manufacturing tradition of monozukuri (ものづくり). Monozukuri is a combination of two Japanese words—mono (thing) and zukuri (making)—which literally means “making things” and ultimately represents the Japanese spirit of craftsmanship. Japanese craftsmen are widely known for constantly refining skills inherited from their ancestors to master them little by little, always improving on yesterday for a better today.

As a result, small and medium-sized companies with such craftsmen have developed a typical success model despite being relatively smaller in size. Due to their unparalleled technical skills, such Japanese companies have emerged as “super-subcontractors” and in some cases have even humbled large companies, the prime contractors.

This success can also serve as a model for “small but strong” businesses in Korea that are looking for a path forward.

Following the burst of economic bubbles in Japan in the 1990s, companies in the Fukui region came to the realization that their survival is uncertain as long as they settle for just being “small but strong” businesses. This is because they could no longer rely on technology alone to compete with the cheaper products from China and Southeast Asian countries that were flooding the market due to their more competitive pricing. With the advent of new technologies such as the internet, artificial intelligence (AI), and electric vehicles, the industrial structure has also changed much more rapidly than had been anticipated.

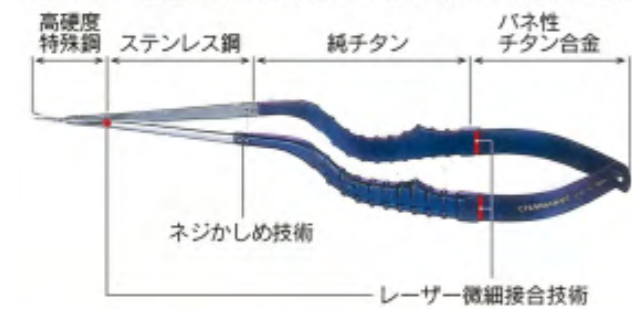
The Fukui region saw its textile shipments, which reached 499.6 billion yen (about 4.52 trillion won) in 1992, fall by more than half in recent years. There were previously more than 2,000 spinning and weaving machines in the three prefectures of the Hokuriku region in 1998, but this number plunged to less than 1,000 by 2018. According to Sabae-shi, sales of eyewear products also halved from 114.4 billion yen in 1992 to 53.9 billion yen in 2011. The number of related companies in the city also decreased from around 900 to 500 during the same period.

This is why small and medium-sized enterprises in the Fukui area share a sense of crisis that they may collapse if they do not go beyond being a “small but strong” company that maintains “number one” status in their original fields. It is becoming more necessary than ever to become a “high-tech” company with global competitiveness in the next-generation of industry.

• Technological prowess and survival strategy in healthcare and aerospace industries

Small and medium-sized companies in Fukui Prefecture had confidence in their technology just as Tsukuda Industries did in “Shitamachi Rocket.” They must have believed that no matter how rapidly the industrial structure changes, the technological prowess that has been honed from generation to generation would persist.

シャルマンの脳外科手術用器具に使われている素材と技術



Eyeglass production is an industry that integrates different design capabilities to roll out products that are comfortable to wear while also utilizing technology to process the titanium that makes the products light and strong. This design and technology is a perfect combination for the manufacturing of medical devices. This is why eyewear companies in Fukui Prefecture have turned to the medical, healthcare, and aerospace industries as a survival strategy. At the same time, the textile industry's process of spinning,

weaving, heating, and dyeing is an amalgamation of different manufacturing technologies. This has made it possible for textile makers to convert their businesses into companies specializing in medical & healthcare equipment in addition to aerospace-related products despite the textile industry being seemingly unrelated to such cutting-edge technology.

There are several real life example that can underscore the success of such strategies, such as Japan's largest glasses frame maker, Charmant. Charmant entered the field of surgical devices in 2012. At the time, most existing surgical instruments were integrated types made by cutting metal plates. Because even some handles were made of the same metal material as the blade, surgeons used to suffer from fatigue from the use of such devices. The surgical scissors developed by Charmant used high-strength special steel for the blade, stainless steel for the body, pure titanium for the handle, and titanium alloy for the joint. By using four materials to hybridize the device, the company was able to make scissors that cut sharply and fit perfectly in the hand. It would have been impossible for Charmant to make such a medical device if it had not been for the glasses frame manufacturing technology that combines different metal materials.

• The Fukui Prefectural Government looking 30 years ahead

Small and medium-sized businesses in the region were able to transform themselves into high-tech corporations thanks to the Fukui Prefectural Government's support programs. The local authorities started research on carbon fiber composite materials through the Industrial Technology Center of Fukui Prefecture in 1987 when the onslaught of low-priced textile products

from China and Southeast Asian countries was intensifying. It did not miss the opportunity to keep up with the high demand for those composite materials in the aerospace industry.

All the while, there existed processing technologies for weaving or knitting carbon fiber. However, the problem was that the fiber (thread) was difficult to handle. The Industrial Technology Center of Fukui Prefecture managed to develop a technology called “kaisen” (開織) that enabled weaving machines common in the region to process carbon fiber. An official at the center said, “It was possible to develop the technology because the Fukui region was well-versed in thread processing.”

The technology center started applying for a basic patent for the “kaisen” technology in 1996 and later obtained an international patent. It has acquired more patents for manufacturing methods and production equipment related to the technology. Fukui Prefecture has set exceptionally low patent royalties on the use of the technology for companies in the region. Any businesses in other regions seeking to use the technology are encouraged to carry out joint projects with firms in the prefecture so that they can share the results of technology development and commercialization.

Fukui Prefecture, corporations, and universities in the region jointly established the Fukui Open Innovation Promotion Agency in June 2015 in order to help the eyewear industry evolve into a medical device industry. Fukui Prefecture and Sabae-shi are also implementing policies to attract IT companies as the combination of information technology and technologies related to the medical, healthcare, aerospace fields becomes more important than ever before. Since 2014, the local government has provided a program to subsidize land and building rent and office equipment purchases to encourage IT firms to collaborate with companies in the region.

Implications of China's Balanced Regional Development and Promotion of Innovation Clusters

By Kim Sang-gwang, head of the China office of the Governors Association of the Republic of Korea



• 1. China's Push for Balanced Regional Development

China has faced regional disparities, urban-rural disparities, and gaps between classes due to Deng Xiaoping's strategy of prioritizing the development of eastern regions, which were opened up to foreign investment and international interaction. This strategy has also brought about an increase in environmental pollution, preferential support, self-centered regionalism, and a local government debt problem—all of which have yet to be addressed.

China had pushed for balanced regional development until Deng introduced the reform and opening-up policy in 1978. Since then, the country was focused on the eastern coastal areas that took the lead in “unbalanced” development. Rapid development in the eastern areas contributed to the country's economic growth for about 20 years, but in turn led to regional development disparities in central and western China. In the 2000s, China adopted a policy of promoting balanced regional development, including the Great

Western Development Strategy. Since 2013, China has pressed ahead with a new strategy to build innovative clusters in order to use them as major growth engines of economic development. The clusters include the Yangtze River Delta (Shanghai, Jiangsu Province, Zhejiang Province, and Anhui Province), the Pearl River Delta (Guangdong Province, Hong Kong, and Macao), the Jingjinji Metropolitan Region (Beijing-Tianjin-Hebei Cluster), and the Cheng-Yu (Chengdu-Chongqing) Cluster.

The core tasks of China's balanced regional development have so far been as follows:

- (1) to optimize the territorial and spatial structure based on major functional areas
- (2) to coordinate regional development strategies for cities, provinces, and the nation as a whole
- (3) to lead development by building city clusters and megalopolises
- (4) to integrate regional economies by breaking down administrative barriers and dividing markets
- (5) to support the development of underdeveloped regions in a multidimensional way

China's regional development can be generally divided into four stages. The first stage (1949–1977) focused on balanced regional development through investment in major projects. The second

(1978–1998) was a stage of phased opening up and prioritizing the development of the eastern region. In the third stage (1999–2011), the development of inland regions was accelerated through various policy measures. Finally, the fourth stage (2012–present) has centered on promoting high-quality coordinated development under a new development ideology.

To begin with is how China has implemented its regional development strategy since the 2000s. First, in 2000 the State Council announced guidelines on policy measures for the Great Western Development Strategy, a long-term development roadmap spanning 2001–2050. It then announced the 11th Five-Year Plan for the development of the western region in 2007. Since then, China has continued to invest in energy resource exploration, industrial exchange from the east to the west, and the construction of industrial clusters. It has also strengthened relations with the Association of Southeast Asian Nations (ASEAN) and Central Asia by linking the Great Western Development Strategy to the Belt and Road Initiative (BRI). Furthermore, China has fostered key emerging industries such as environmental protection, big data, and artificial intelligence (AI), and has pushed for the integration of education, healthcare, tourism, and logistics. China has also promoted ecological and environmental projects, built regional innovation clusters, established a modernized industrial system, further developed urban-rural convergence, accelerated the construction of basic infrastructure, and established international hub cities in Chongqing and Chengdu. China announced the Rise of Central China Plan for the first time during the 4th Plenary Session of the 16th Central Committee of the Communist Party of China (CPC) in 2004. The six provinces in the central region—Shanxi, Anhui, Jiangxi,

Henan, Hubei, and Hunan—have served as not only an agricultural and energy base, but also the central axis of the national transportation network. After China's reform and opening up, the development of the central region was delayed due to the outflow of production to the eastern areas. However, the average per capita GDP in the central region was estimated to be 1.2 times that of three northeastern provinces in 2020, boosted by the Rise of Central China. In 2000, the per capita GDP was only 62% of the provinces.

Meanwhile, China's northeastern region lagged behind the eastern coastal areas since their competitive advantage became weakened following the country's reform and opening-up. This region made slow progress in market-oriented reform due to the legacy of the planned economy and the large number of state-owned enterprises. However, the region, which is rich in energy and agricultural resources, has grown into a major industrial base since the country announced “Certain Opinions Regarding Implementing the Strategies of Reviving the Old Industrial Bases Including the Northeast” as drafted by the Central Committee of the CPC and the State Council in 2003. China then officially approved the Northeast Area Revitalization Plan in 2007. Since 2021, the northeast region has made major strides in revitalization under the 14th Five-Year Plan.

Lastly, the eastern coastal region, which spearheaded both the reform and opening-up, has accelerated its modernization by approving the Pudong New Area in Shanghai as a national comprehensive supporting reform pilot area in 2005. This resulted in designating the Tianjin Binhai New Area as a comprehensive reform pilot area in 2006, and the launching of the 14th Five-Year Plan in 2021.

〈Table〉 China’s GDP by Region: 2019–2022

	Regions	GDP (trillion yuan, %)	
		2019 99.0865	2022 121.0207
East	7 provinces and 3 cities (Beijing, Tianjin, Hebei, Shandong, Jiangsu, Shanghai, Zhejiang, Fujian, Guangdong, Hainan)	51.1 (51.9%)	62.2 (51.7%)
West	6 provinces, 1 city, 5 autonomous regions (Inner Mongolia, Ningxia, Shaanxi, Gansu, Qinghai, Xinjiang, Guangxi, Yunnan, Guizhou, Sichuan, Chongqing, Tibet)	20.5 (20.8%)	26.7 (22.2%)
Central	6 provinces (Henan, Shanxi, Hubei, Hunan, Jiangxi, Anhui)	21.9 (22.2%)	25.7 (21.3%)
Northeast	3 provinces (Heilongjiang, Jilin, Liaoning)	5.0 (5.1%)	5.8 (4.8%)

Source: National Bureau of Statistics of China

••2. Promotion of Innovation Clusters (Megalopolises) by Region

There are four major city clusters in China: the Yangtze River Delta, the Jingjinji (Beijing–Tianjin–Hebei) metropolitan region, the Guangdong–Hong Kong–Macao Greater Bay Area, and the Cheng–Yu Cluster that linksing Chengdu and Chongqing. These metropolitan areas are firmly established as China’s four key innovation clusters. They are located in the north, south, east, and west parts of China. The four major innovation clusters comprise 19 megalopolises, which accounts for 25% of China’s entire landmass, 75% of the total population, and 88% of the nation’s gross domestic product(GDP). Firstly, the Yangtze River Delta, which located on the eastern coastal region, is cited as the city cluster with the strongest innovation capacity potential in China. It consists of one metropolitan city and three provinces: Shanghai and Jiangsu, Zhejiang, and Anhui provinces which therein include

a total of 26 cities. The delta cluster covers an area of 211,700 square kilometers, has a population of 150 million, and accounts for one–fifth of China’s total GDP. Second is, the Guangdong–Hong Kong–Macao Greater Bay Area on the eastern coast. It is currently China’s most urban region including mega cities in the Guangdong Provinces. The megalopolis cluster surrounding the Pearl River Delta is composed of 11 cities including Hong Kong, Macao, Guangzhou, Shenzhen, Foshan, and Dongguan. It covers an area of 56,000 square kilometers with a population of around 70 million. Third, the Jingjinji (Beijing–Tianjin–Hebei) metropolitan region is the third most important cluster in the Chinese economy. It is part of the capital city’s economic circle, and its level of development is comparable to that of the Yangtze River Delta and the Guangdong–Hong Kong–Macao Greater Bay Area. The Jingjinji mega city cluster includes the two municipalities of Beijing and Tianjin as well as Shijiazhuang, Baoding, and Tangshan in the Hebei Province. The metropolitan region has enjoyed a number of advantages in terms of policy and higher education, and boasts great potential as China’s traditional industrial base. FourthLast is , the Cheng–Yu Cluster in the western region. This cluster centers around Chongqing and Chengdu, and it encompasses 15 cities in the Sichuan Province, including Luzhou, Deyang, Mianyang, and Yibin. The total area spans 185,000 square kilometers, and the population exceeds 90 million. The megalopolis cluster is a strong pillar of China’s economic development with outstanding strategic significance, serving as an important platform for the development of the western region. It is also a core part of the Yangtze River Economic Belt.

••3. Implications

One of the characteristics of balanced regional development is that the development gap has widened in relatively underdeveloped regions as government–led investment has been concentrated on specific cities and clusters. In the western region, emerging industrial clusters such as those related to artificial intelligence and semiconductors have been put into operation in large cities such as Chengdu, Chongqing, and Xi'an. The result has been an increase in providing outstanding jobs, education, healthcare, and living standards. However, residents in nearby marginalized areas have shown a high degree of social discontent. In addition, economic growth in the northeast region, where private investment is difficult due to bureaucracy and the expansion of state–owned enterprises, has been steadily declining since 2010. Against this backdrop, the three northeastern provinces have recently been making efforts to revitalize the economy through various strategies, including the expansion of policies to open up to the outside world by building a northeast sea–land grand passage, as well as the promotion of a digital economy and a project to upgrade energy efficiency. Additionally, China's major clusters have been created with the government’s preferential measures based on

national strategies, foreign capital, and technology, resulting in a low ceiling for private company potential. Due to the household registration (hukou) system introduced in 1958 to prevent the rapid influx of the rural population into cities, migrant workers (estimated at approx. 290 million) are often alienated from social welfare benefits such as healthcare, education, and housing, while also continuing to face an income gap. To alleviate this situation, Chinese authorities have allowed 140 million rural people to convert their rural hukou into urban hukou over the past 10 years. Restrictions on rural–to–urban hukou conversion were also abolished in cities with populations under 3 million residents. Despite such measures, the rural population, which accounts for 36% of China’s total population, still faces serious disparities with regard to education and healthcare. To make matters worse, the proportion of the economy that the real estate sector occupies in China has increased in the process of quantitative expansion, reaching 28.8% of the country’s total GDP in 2021. Throughout this growth, leading Chinese real estate developers significant debt issues. One such developer is Evergrande Group, whose declaration of default in 2021 triggered a property market crisis. Wanda Group, another property developer, deepened the

〈Table〉 China’s GDP by Region: 2019–2022

Clusters	Regions	Portion of national landmass occupied	Population (in 10,000’s of people)	Percentage of total national population	GDP (100 million yuan)	Proportion of total national GDP
Guangdong–Hong Kong–Macao Greater Bay Area	East coast	0.58%	11,346.00	8.13%	97,277.77	10.80%
Yangtze River Delta Cluster	East coast	2.2%	17,020.18	12.20%	189,295.32	21.03%
Jingjinji (Beijing–Tianjin–Hebei) Cluster	East	2.3%	11,270.10	8.08%	85,139.89	9.46%
Cheng–Yu (Chengdu–Chongqing) Cluster	West	1.9%	11,442.79	8.20%	61,041.32	6.78%

crisis in 2023 due to its massive debt.

What has been most noticeable about the relationship between China's central government and local authorities during the period of reform and opening-up is that provincial and municipal governments were granted a great deal of autonomy and authority through decentralization. Since the 2000s, however, power and responsibility has been concentrated in the central government, leading to an emphasis on local governments' responsible administration and the transformation of their economic growth structures in an effort to prevent overinvestment, overcome self-centered regionalism, address local debt problems, and reduce bureaucracy. Local governments have contributed greatly to economic growth since China launched the reform and opening-up strategy. There has been, however, much competition and conflict rather than cooperation and coordination between regions. For example, Jiangxi Province's construction of east-west and north-south passages overlaps with that of the Sichuan Province and Chongqing City. Heilongjiang Province's plan to construct a road aimed at promoting its opening-up also clashes with similar projects in the Jilin Province and Liaoning Province.

Chinese President Xi Jinping has recently recognized the widening income inequality between regions, rural and urban areas, and classes as an urgent problem that must be solved without fail as it could threaten the stability of the socialist system. He is calling for "common prosperity" as a key feature of Chinese-style modernization. The common prosperity policy recognizes differences in living standards among individuals, avoids completely uniform egalitarianism, and ultimately aims to build a society where class mobility and wealth creation are possible through equal opportunities. It presents a plan to improve income

distribution across three stages: income growth, expansion of the middle class, and improved redistribution. The policy also seeks to push for the redistribution of income through socioeconomic reform and tax reform to give better treatment and social welfare benefits to migrant workers. At the same time, this will also, ensure high-quality growth based on domestic demand through balanced regional development in China's eastern, central, and western regions.

Next are the policy implications of China's development strategies on South Korea specifically. First, as seen in the case of regional development in China's eastern, western, central, and eastern coastal areas, development centered on metropolitan areas should be carried out in tandem with the development of multi-nucleus base cities in broader regions. A proposed project for building "platform-type" ultra-metropolitan areas has recently become a hot topic in South Korea. This project is still meaningful as it envisages the development of megacities in the southeastern part of Korea (Busan, Ulsan, and Gyeongsangnam-do), the Daegu and Gyeongsangbuk-do region, the Gwangju and Honam (Cheolla provinces) area, and the Daejeon and Chungcheong region. To put the proposal into action, it is necessary to work out various measures to enhance cooperation in building infrastructure for supra-metropolitan partnership, strengthen the key functions of base megacities, and form industrial, economic, educational, and cultural belts in the to-be-built megalopolises. Other necessities include strengthening the role of special municipalities, expanding financial support through central government and joint investment by local governments, setting up a system to resolve disputes and conflicts between local authorities, creating an integrated support system, fostering

local talent, and increasing employment support.

Secondly, if a leading project produces positive results in one area, it is essential that this success model is propagated to other regions. The Communist Party of China and related ministries emphasized the importance of cooperation with local governments when working out the 14th Five-Year Plan and regional projects. They tended to disseminate a success models derived from leading pilot projects to other regions throughout the country. This would happen after investing extensively in select regions that were excellent candidates and were poised to cooperate in expanding infrastructure and building up industrial bases, rather than indiscriminately providing support for the regions as a whole.

South Korea is also providing pan-ministerial integrated package support for fostering specialized regional industries, improving residential conditions, and facilitating deregulation. This will also focus on creating better living conditions and making jobs, housing, healthcare, and education available based on region-specific strategies customized for each area. For example, in January 2023, five government ministries decided to support the revitalization of 89 cities, counties, and towns that are on the verge of disappearing due to rapid population decline. The five are the Ministry of the Interior and Safety; the Ministry of Land, Infrastructure and Transport; the Ministry of Culture, Sports and Tourism; the Ministry of Health and Welfare; and the Ministry of SMEs and Startups.

South Korea needs to map out a strategy for advancement into overseas markets according to Korean-style, balanced regional development models, including a plan to create a high-quality smart city model for small areas connected to the development of a megalopolis and export such a model to China. As such, the government must

continue to promote various SOC infrastructures such as smart cities, intelligent cities, volunteer work models, and data-integrated cities in major city clusters and metropolitan areas across the country. It also needs to prepare a customized China market entry strategy tailored to each region's strength. As China is expected to only continue to accelerate urbanization, infrastructure investment, and digital innovation for common prosperity and domestic demand-led growth. Consequently, it is crucial that South Korea develop concrete measures for local governments and small- and medium-sized companies to enter the Chinese market in conjunction with new infrastructure, new urbanization, and new consumption policies that will ensure high-quality growth.

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Korea's Smart Farming Technology Can Help Australian Local Governments Improve the International Competitiveness of Agriculture

Kyung Joon-hyung, Head of the Global Business Team at the Korea Agriculture Technology Promotion Agency



Interest in food security continues to grow alongside concerns for food crisis in countries all around the world. This is largely due to the increase in global population and the inevitable tendency of the international prices of agricultural products to fluctuate more volatily than ever before in the face of intensifying climate change. People across the globe are increasingly concerned about global food insecurity and are paying a great deal of attention to future trends as international grain prices surge. Underscoring this trend are the recent limitations on Ukraine to smoothly export grains due to the ongoing Russian-Ukraine war that broke out in February 2022. For such reasons, future agricultural technologies and sustainable technology innovations have been thrust into the spotlight. One such innovation that is gaining traction is smart farming. The global smart agriculture market was valued at \$13.8 billion in 2020 and is expected to grow at an average annual rate of 9.8%. The South Korean smart farming market was estimated to total \$240 million in

2020 and is predicted to grow faster than the world market at an average annual rate of 15.5%. The faster growth of smart farming in Korea is attributed by some to the country's adverse farming conditions. South Korea has a relatively small landmass, and 70% of it is forested land, meaning that there is very little land available for farming. In addition, the four distinct seasons in Korea make it difficult to produce more than one or two harvests a year. In order to address these problems, much effort has been made to create policies for R&D and the distribution of agriculture technologies and methods to farms, focusing on maximizing agricultural productivity. To overcome food shortages in the 1960s, South Korea concentrated on increasing agricultural output significantly by applying new techniques such as enhancing crop variety, developing water supply facilities, and supplying fertilizers and pesticides. This period is referred to as the "First Green Revolution" of Korean agriculture. The next stage in agricultural development is often called the "White Revolution". It began in the 1970s and focused on growing vegetables and fruits even in winter as well as speeding up crop growth by using farming facilities such as greenhouses. As precision agriculture

was developed later in the 1990s, information and communication technology (ICT) was used to collect data throughout the crop-growing process in order to minimize resource waste, maximize production, and ultimately realize highly sustainable agriculture practices. These agricultural technologies and methods have converged over time, evolving into smart agriculture today.

Smart agriculture is the implementation of automation and intelligence on farms by applying technologies such as ICT, the internet of things (IoT), big data, automated systems, artificial intelligence (AI), and robots throughout the entire agricultural value chain. The term "smart farm" is the most representative applied form of agriculture pursued in Korea. However, not all countries use "smart farm" (or smart farming). In many countries, including Australia, the term "high-tech greenhouse" may be more commonplace than "smart farm", for example. Yet "smart farm" has recently become more well-known overseas thanks to the South Korean government's active policy support and domestic corporations' efforts to advance into global markets.

Although the standard for assessing the technological level of smart agriculture varies, the Netherlands is widely recognized as the strongest smart farming country in the greenhouse horticulture industry. The Netherlands has spread cutting-edge greenhouse technology around the world, taking an unrivaled position in the global greenhouse solutions market. Recently, however, South Korea, Israel, the United States, Japan, and Denmark are proving to be competent rivals. China is also rapidly catching up to the global market by taking advantage of its large domestic market and base capital.

South Korea is actively promoting Korean-style "smart farms" that have a long history of development. The Ministry of Agriculture, Food and Rural Affairs (MAFRA) has been pushing for the "Smart Farm Package

Export Promotion Project" since 2020, and operating smart farm demonstration greenhouses overseas after building them in cooperation with the Korea Agricultural Technology Promotion Agency (KOAT). It completed a demonstration greenhouse in Vietnam in 2022, and during the first year of pilot operation, a harvest of Korean varieties of strawberries was completed successfully while making preparations to increase the harvest in the 2023-2024 seasons. This year, MAFRA and KOAT are carrying out a project in Australia, which is seen as a "blue ocean" in the Korean smart farm export market.



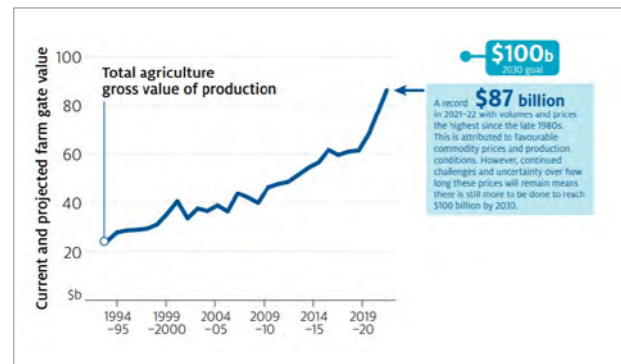
▲ Groundbreaking ceremony for a "smart farm" demonstration greenhouse in Australia

In 2022, MAFRA and KOAT selected Australia as another country to host a Korean-style smart farm. At the time, the general consensus was that there was little need for smart farming in Australia because its status as an agricultural powerhouse and a country that focuses on open-field farming based on its vast landmass. However, Australia is well positioned to integrate high-tech agriculture and it is recognized for its strong purchasing power. Consequently, there are high expectations that business opportunities will continue to expand in Australia because the country is greatly affected by climate change and faces a number of hurdles in the current open-field system amid a labor shortage.

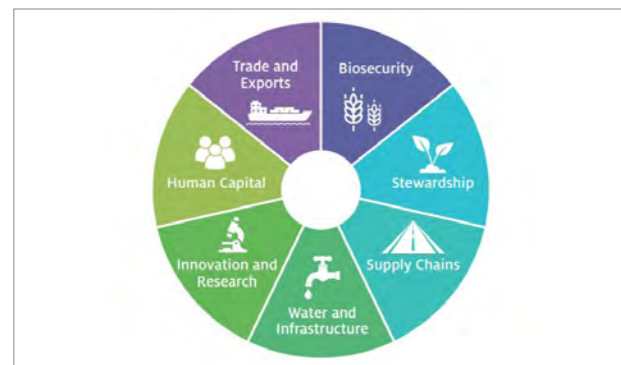
Australia is facing harsh environmental difficulties, including reduced rainfall and other issues due to climate change. The damage from climate change is

becoming more serious, with floods from heavy rains alternating with long periods of drought more recently. This has caused the market to fluctuate sharply, with the prices of agricultural products rising by as much as four times.

In 2017, the Australian government announced the “Ag2030” project for the long-term development of future agriculture. Ag2030 is a project aimed at solving agricultural problems as well as developing and further expanding the agriculture industry, one of Australia’s largest industries. The project is designed to realize the agriculture sector’s goal of building an industry valued at AU\$100 billion by 2030. The government plans to provide AU\$850 million for the project to achieve the goal by supporting the agriculture industry in seven areas: 1) trade and exports, 2) biosecurity, 3) soil and stewardship, 4) supply chains, 5) water and infrastructure, 6) innovation and research, and 7) human capital. This project clearly reflects Australia’s ambitions to break away from conventional farming and lay a new long-lasting agricultural foundation.



▲ AG2030's Goal (Unit: AU\$ billion)



▲ Key Areas for Support Under Ag2030

In addition, the Australian government is trying to attract foreign investment and establish collaborations with foreign companies, while committing to providing AU\$136 million in support for smart farming programs. These programs will require extensive investment in a variety of area such as those related to climate change, food production to meet global demand, response to environmental issues, and the improvement of productivity and efficiency. Investment will be used to develop technologies related to agricultural management platforms, monitoring systems, the internet of things, sensors, drones, robots, and vertical farming. Research and

Sundrop Farms in Australia



※ Sundrop Farms operates a 20-hectare greenhouse, a typical type of smart farming in Australia. It was established with financial support from South Australia’s state government.

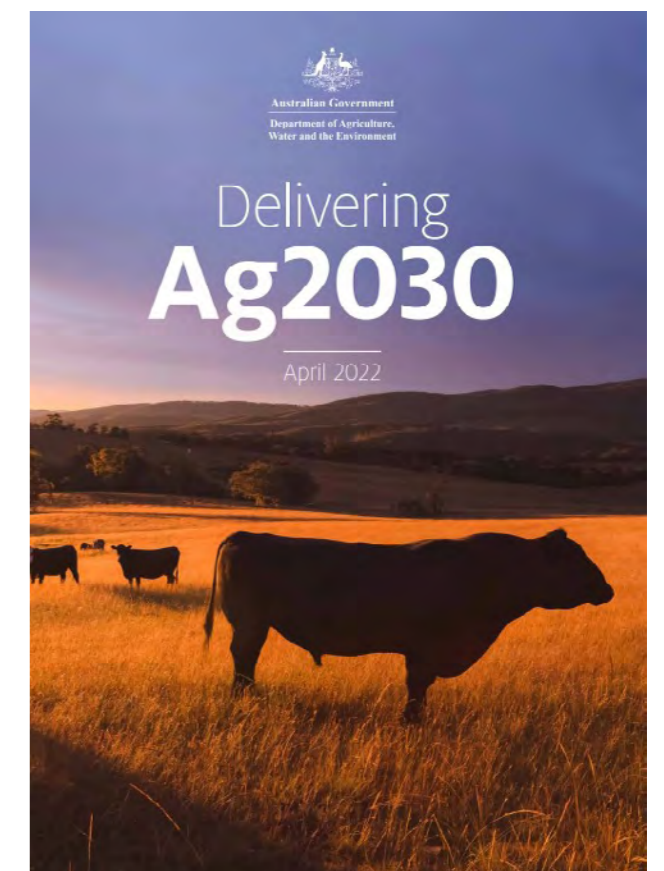
development for Australia’s advanced agricultural technologies are actively conducted largely by universities that are recognized as having world-class technology. However, some say that there is a wide gap between the R&D level and the utilization of developed technology on farms. To some degree, it is difficult for precision agriculture to be used widely on farms because Australia has long relied on large-scale open-field farming. It is also true that the development of related industries is slow compared to the total size of Australia’s agriculture because the manufacturing industry is comparatively weak. In this regard, Korea’s experience with and technology the process of agricultural development together with collaboration between different industries are likely to generate a significant synergistic effect on the country’s cooperation with Australia in the field of smart farming.

South Korea has selected the Gold Coast in Queensland, Australia as a base city for its smart farming project, forming a partnership with Griffith University and a number of Australian companies. The project will serve as a stepping stone to promote cooperation between the two countries in smart farming. Although the South Korean central government initiated the project, it could lead to collaboration between the local governments of the two countries in the future.

South Korea is operating a “Smart Farm Innovation Valley” in four regions in the country to conduct R&D to develop smart agriculture technology while helping young farmers actively engage in smart farming. People from other countries are showing great interest in the Innovation Valley with many of them visiting it. The central and local governments need to work together to produce results by exporting an innovative model for smart farming abroad. If Korea develops smart agriculture technology optimized for Australia’s environment, this will bring a great number

of opportunities to both countries.

The South Korean agriculture ministry and the Australian Department of Agriculture, Water and the Environment held an agricultural cooperation committee meeting in 2021. During the meeting, both sides decided to work out concrete measures for working together on smart farming and agriculture-related climate change responses. The two sides are expected to hold another committee meeting in the near future. Australia is a federation of six states and two self-governing territories. If South Korea and Australia promote collaboration between local governments based on the establishment of cooperative ties between central governments, they can speed up cooperation significantly.



KIM Gyu-Pan

Senior Research fellow at Korea Institute for International Economic Policy(KIEP)



The Local Governments of Kyushu and Trends in the Construction of New Semiconductor Plants in Japan

The ecosystem for semiconductor production in the Kyushu region originally focused around DRAMs and has a long history that dates back to Mitsubishi Electric's construction of a semiconductor plant in the Kumamoto Prefecture in 1967. Kyushu has abundant water resources that are indispensable for semiconductor production coupled with easily secured land and labor. It is also geographically advantageous with a number of well-maintained airports in several location ensuring no issues in product transportation. However, as semiconductor makers have withdrawn across Japan amid the accelerating corporate reorganization that began in the mid-1990s, approximately 1,000 chip-related companies in Kyushu have functioned only as manufacturing factories; even Sony Semiconductor Manufacturing only managed to keep its head above water by mass-producing CMOS image sensors, its flagship product.

In November 2021, Taiwan's TSMC established a joint venture called Japan Advanced Semiconductor Manufacturing (JASM) with semiconductor-related Japanese companies and officially announced that it would build a new foundry in Kikuyocho, Kumamoto Prefecture. At the same time, CMOS image sensor manufacturer Sony, power

semiconductor manufacturers Mitsubishi Electric and ROHM, manufacturing equipment companies Tokyo Electron and EBARA, and materials companies SUMCO and TOK in Kumamoto, Fukuoka, Saga, and Nagasaki prefectures announced plans to build or expand factories one after another.

Even in Kyushu, Fukuoka and Kumamoto are putting immense faith in the revival of the semiconductor industry. Fukuoka Prefecture is the largest semiconductor cluster in Kyushu, with around 400 chip-related companies. In June 2022, Fukuoka Prefecture established the Fukuoka Semiconductor and Digital Industry Development Council as a platform aimed at the regional promotion of the semiconductor and digital industries. Currently, more than 1,000 companies and institutions, including semiconductor firms, take part in the council. Mitsubishi Electric is playing a pivotal role in the promotion of the semiconductor industry by boosting power semiconductor R&D and establishing production bases. Kumamoto Prefecture is home to more than 200 chip companies, second only to Fukuoka Prefecture, thanks to the plentiful underground water around Mount Aso and its auspicious location

in the center of Kyushu. In the wake of TSMC's announcement on the construction of a factory in Kumamoto Prefecture in November 2021, the Headquarters for the Promotion of Enhancement of the Semiconductor Industry and the Project Team for the Promotion of Enhancement of the Semiconductor Industry were established to create an ecosystem for the semiconductor industry in the prefecture. In March 2023, the Kumamoto Semiconductor Industry Promotion Vision was created.

What is currently triggering practical results in the promotion of the semiconductor industry in the Kyushu region is the industry-government-academia cooperation between the Ministry of Economy, Trade and Industry and local governments. In March 2022, the Kyushu Bureau of Economy, Trade and Industry under the Ministry of Economy, Trade and Industry launched the Kyushu Semiconductor Human Resources Development Consortium in cooperation with the Kyushu Semiconductor & Electronics Technology Innovation Association (SIIQ). Roughly 76 industry, government, and academic institutions, including JASM, Kyushu University, and Kumamoto National Institute of Technology, are part of this consortium, which promotes projects to strengthen trade and supply chains between companies in addition to activate industrial exchanges with foreign countries while nurturing the semiconductor workforce. Of particular note is their dedication to developing talented individuals. In April 2022, Kumamoto University opened the Semiconductor Research and Education Center as a base for nurturing semiconductor talent and agreed to conduct joint research with chip-related companies such as Tokyo Electron, Sony, and JASM as well as research institutes at home and abroad. The university has also begun preliminary work toward opening

a semiconductor college in 2024. The two-year Kumamoto Prefectural College of Technology, which is equivalent to a junior college in Korea, decided to establish a semiconductor-related department and allow the transfer of graduates from this department to Kumamoto University. In May 2022, Kumamoto National Institute of Technology and Sasebo Technical High School with a five-year course (equivalent to a technical high school in Korea) were designated as base schools for the semiconductor manpower development project and began classes specializing in semiconductors. Outside engineers and researchers are invited to classes for introductory semiconductor engineering and semiconductor device engineering. Sasebo Technical High School opened, and students tour Sony CMOS image sensor factories and conduct experimental practices at the Kyushu Institute of Technology.

The last industry-university organization to be noted is the Kyushu Semiconductor & Electronics Technology Innovation Association established in 2002. Currently, 277 institutions, including semiconductor firms, belong to the association. As an industry-university cooperation project, 70 out of the more than 1,000 technology seeds owned by 20 universities in the Kyushu region will be selected so that they can be used for projects designed to match semiconductor- and electronics-related companies in Kyushu in the future. To explore overseas markets, SIIQ signed an MOU with Taiwan's Ministry of Economic Affairs in 2019 to focus on matching projects with Taiwanese semiconductor companies.

Kim Dongsoo

Senior Research fellow at Korea Institute for Industrial Economics & Trade (KIET)



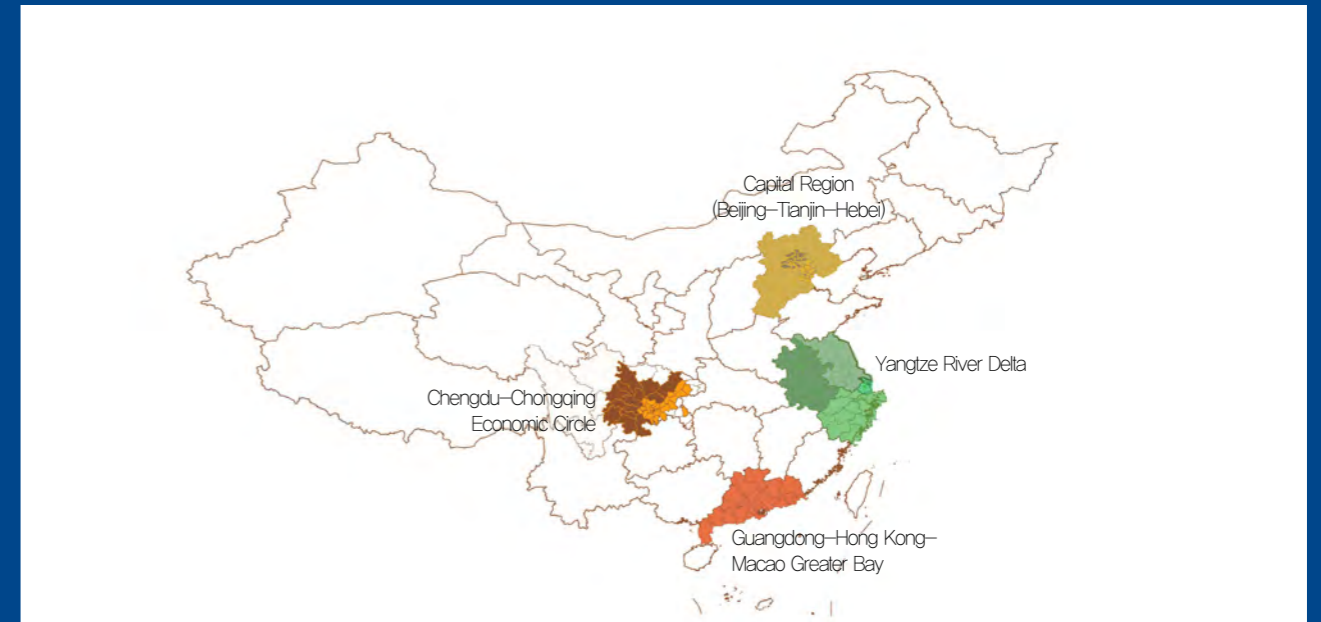
Chengdu-Chongqing Economic Circle and Promotion of New Industries

In China, there are four regions that share many similarities to Korea's great-sphere economic zone. The first is what is referred to as the Yangtze River Delta, formed by the Shanghai, Zhejiang, Jiangsu, and Anhui provinces. This is an area where development plans have long been in place as part of the Yangtze River Economic Belt. Second, with the completion of the Hong Kong-Zhuhai-Macao Bridge linking Macao, Zhuhai, and Hong Kong in 2018, the development plan of the Guangdong-Hong Kong-Macao Greater Bay Area began in earnest. Third is the Beijing-Tianjin-Hebei region that Xi Jinping began developing in 2014 to distribute functionality to nearby areas in a move aimed at solving the overcrowding problem in the metropolitan area. This area consists of Beijing, Tianjin, and the Hebei Province, and it has been taking shape rapidly due to two factors: the announcement of a plan to create the Xiongan New Area in 2017 and the completion of Beijing Daxing International Airport in 2019. The Chengdu-Chongqing Economic Circle makes up the fourth region and began to be developed with the State Council's approval in 2016. The economic zone is centered on Chengdu, the capital of the Sichuan Province, and Chongqing, where a variety of projects are in progress, ranging from the

construction of transportation infrastructure to the promotion of industries.

The Chengdu-Chongqing Economic Circle includes Chongqing and part of the Sichuan Province and is often called the Bashu Cultural Area (a reference to a previously used name). Chengdu is a place where the population is growing rapidly and Chongqing is a hub city in the midwest that the Yangtze River waterway has reached for a long time. These areas have a population of 21 million and 32 million, respectively, exceeding Korea's national population. They are roughly 320 km apart as the crow flies but can be reached in one hour and 15 minutes by high-speed rail. The Chengdu-Chongqing Economic Circle has very important and strategic value in that it is a key base for the growth of China's midwest.

In the Chengdu-Chongqing Economic Circle, there have been active moves to attract businesses and industries thanks to the central government's will to relocate high-tech industries concentrated on the eastern coast to the central region and further to the midwest. These moves have further been supported by local governments' desire for industrial promotion aimed at boosting endogenous development. China's new industrial policy has been in progress since 2010, focusing on eco-



▲ Drawn by the author

Footnote: For convenience, the Yangtze River Delta and the Guangdong-Hong Kong-Macao Greater Bay Area are depicted as including provinces and cities comprehensively, while the Chengdu-Chongqing Economic Circle is depicted as including the actual area.

friendly energy, next-generation information and communication, biomedicine, high-tech equipment manufacturing, new energy, new materials, and new energy vehicles. The Chengdu and Chongqing Economic Circle, in particular, is striving to nurture the electronic information industry involving the production of semiconductors, displays, and laptops; automobiles and new energy vehicles led by Great Wall Motors; and high-tech equipment manufacturing such as high-speed trains. The Chengdu and Chongqing Economic Circle, which has established a foothold for domestic companies to grow by attracting foreign automobile companies such as Volkswagen, Toyota and Suzuki in addition to foreign semiconductor companies such as SK hynix, is being reborn as a major metropolitan area in the midwest by enticing some of China's leading production facilities, including BOE.

The development of the Chengdu-Chongqing Economic Circle is still in progress, but is making great strides toward industrial development and transportation infrastructure construction

through close cooperation and distinction by local governments. This is boosted by the fact that as a hub, it continues to attract people from nearby areas. Aside from the development of related target industries, the circle's development of transportation infrastructure has led to inland railways to Europe, resulting in the exploration of new potential markets. This will certainly have many implications for Korea's non-metropolitan great-sphere economic zones.



▲ Courtesy of Baidu(<https://baijiahao.baidu.com/s?id=1672829893975214390&wfr=spider&for=pc>, Retrieved date: July 30, 2023)

APEC Member Embassy Meeting Held in Incheon for the Hosting of 2025 APEC Incheon

In order to promote the hosting of 2025 APEC Incheon and advertise city governance, Incheon City organized an Asia-Pacific Economic Cooperation (APEC) Member Embassy Meeting and Familiarization Tour on July 6th.

A total of 10 ambassadors and representatives from APEC member countries attended the event that was jointly prepared by Incheon City and the Governors Association of the Republic of Korea. The goal of this event was to foster friendship and cooperation as part of the process for Hosting the 2025 APEC Summit.

The 10 participating embassy officials came from Brunei, Chile, China, Indonesia, Malaysia, Peru,



MATHIAS FRANKE | Ambassador of Chile

"The Embassy of Chile has taken very seriously the motto "think globally, act locally", committing to decentralize our diplomatic work in Korea, focusing on the provinces and local cities.

Regarding energy, innovation and technology, we have been deploying our efforts in strategic areas and following the development of regional hubs in Korea. Topics like green hydrogen are a new horizon for the bilateral relationship, and port-cities will play a key role. In the search of partners, we have visited among others, Incheon, Busan, Ulsan and Gwangyang.

In the cultural field, our goal is to reach the young generations and the diversity of the Korean society, reflected in the different regions of the country. Only this year we have screened Chilean films in Daegu, Jeonju and Bucheon and we participated in literature activities in Nami Island, Paju and Sejong. And more is to come!

We are looking forward to strengthen our collaborative work with regional and local governments and with GAROK as well, as strategic partners to boost the people-to-people relations and to work together for an inclusive and sustainable prosper future."



PAUL DUCLOS | Ambassador of Peru

"It was very stimulating to visit one of the most modern cities in the country, built on land reclaimed from the sea, with unique architecture and cutting-edge urban planning. It also constitutes the prototype of a smart city, open to the world, cosmopolitan and with excellent infrastructure conditions. I consider remarkable the interest of the city of Incheon to approach the Embassies of the APEC member countries, in a shared vision of promoting trade and investment, strengthening digital government, and to fostering sustainable and innovative development."

Philippine, Singapore, Thailand, and Vietnam (in alphabetical order).

Participants had the opportunity to experience the traditional Korean practice of making woven baskets, known as "wanggol", at the Gyeongwonjae Ambassador Hotel.

Furthermore, they explored key locations of interest such as the Incheon Free Economic Zone (IFEZ) Promotion Center, Smart City Operation Center, and the National Museum of World Writing Systems, all locations that highlight Incheon's status as a leading

investment hub with one of the largest economic free zones in the world and the a world-class level of smart city development.

Mayor Jung-Bok Yoo emphasized during the meeting that, "Incheon City, with its world-class airport and harbor, is the most suitable city for cooperation with coastal nations in the Asia-Pacific region." He added, "Incheon will be the most symbolic and ideal place to realize the message of cooperation for stability and prosperity in the Asia-Pacific region pursued by APEC."

THERESA DIZON-DE VEGA | Ambassador of Philippine

"I realize that Incheon provides a template for smart city development – from your innovative waste management system, the beautiful, relaxing, and sustainable Songdo Central Park, the cutting-edge emergency prevention and response system, the growing presence of world-class educational institutions, and the MICE facilities of Songdo Convensia Center. I thank the Mayor of Incheon, Incheon Metropolitan City and the GAROK for organizing this informative activity."



WITCHU VEJJAJIVA | Ambassador of Thailand

"I wish to express my deep appreciation to the Governors Association of Korea (GAROK) and Incheon Metropolitan City for organizing a study tour for the diplomatic corps to Incheon on 6 July 2023. This activity gives me a great opportunity to learn about Incheon's many strengths including economic and business promotion, as well as the city's ambition and readiness to be the host city of APEC 2025. I was not only taken by Incheon's unique charm in well blending modern facilities with strong cultural roots, but also impressed with its smart city programmes as exemplified by the Incheon Smart City Operation Center that utilizes advanced technology to create a safe, efficient and eco-friendly urban environment for its residents, both Korean and foreigners. I look forward to further exploring many new areas for cooperation and fostering closer partnership between Thailand and Incheon."





Jeollanam-do - China Economic and Tourism Day

Jeollanam-do held the “Jeollanam-do - China Economic and Tourism Day” event for two days on July 11th and 12th at the Sono Calm Hotel in Yeosu. The event was held to revitalize cooperation in that have been affected by external conditions—such as investment, exports, tourism, and other areas with China—and to promote local economic recovery. This event was hosted jointly by Jeollanam-do and the Governors Association of the Republic of Korea (GAROK).

On the 11th, the official event was attended by Jeollanam-do Governor Kim Young-Rok, GAROK Secretary General Yoo Min-Bong, Yeosu Mayor Jung Ki-Myung, and Consul General of China Zhang Cheng Gang. Also in attendance were Chinese citizens from both South Korea and abroad, Chinese investors, agricultural and fishery product patrons, travel agency

representatives, and representatives of the China Chamber of Commerce, totaling more than 200 people. Jeollanam-do signed important agreements to enhance cooperation, including a \$3 million export agreement to expand exports to China and a tourism agreement between Jeollanam-do, Beijing Mytour, and Shanghai Mango International Travel Agency with the intent of developing Jeollanam-do's tourism products and attracting more tourists.

During the event, Jeollanam-do appointed Andy, a member of the Korean idol group Shinhwa—known for its popularity in China—as the Honorary Ambassador for Jeollanam-do's tourism promotion. Moreover, overseas Koreans made donations to the “Hometown Love Donation” fund. On top of that, four individuals, including Chairman of the Korean Association in Beijing Park Ki-rak, donated a total of 12.5 million KRW. Additionally, to boost the export of exemplary agricultural, fishery, and industrial products from Jeollanam-do, a “China Buyer Invitational Export Consultation” was held, with 36 Jeollanam-do export companies participating. The consultation resulted in an astounding \$3 million worth of export agreements being made.



Kim Young-Rok | Governor of Jeollanam-do

Jeollanam-do is leaping toward becoming a world-renowned tourist destination through projects such as the Southern Region Tourism Development Project. We hope to find new opportunities for a promising and successful business in Jeollanam-do, which serves as the hub for advanced strategic industries like aerospace and rechargeable batteries, and leads the global energy new industry, combining advanced technology with future life industry.



You Min-Bong | Secretary General of the Governors Association of the Republic of Korea

I am delighted that Jeollanam-do and the Association of Korean Local Governments are jointly organizing “Jeollanam-do - China Economic and Tourism Day.” Jeollanam-do is a region that aspires to become an eco-friendly maritime cultural tourism capital, and this event will serve as another new stepping stone for Jeollanam-do to leap toward the future.

Jung Ki-Myung | Mayor of Yeosu

The private exchanges between China and Jeollanam-do, which have been sluggish due to COVID-19, take on special significance as they start in Yeosu. We promise to provide administrative support to ensure that your investments in Yeosu lead to success.



Zhang Cheng Gang | Consul General of China in Gwangju

I hope that more Chinese people will get to know and understand Jeollanam-do through this event and contribute significantly to the continuous development of people-to-people exchanges and cooperation between Jeollanam-do and China. The Consulate General of China in Gwangju will always provide generous support and cooperation.

Yu Hai Yan | Executive Chairman of China Chamber of Commerce

Korea and China are neighboring countries that cannot be separated. The China Council for the Promotion of International Trade is making efforts to promote economic exchanges between China and Korea. Jeollanam-do, including the Gwangyang Bay Economic Free Zone, provides a favorable environment for Chinese companies to enter, and we look forward to continued mutually beneficial development.



Editorial Review

GLOCALISM QUARTERLY magazine features the diplomatic activities of

Korean local governments divided into four main sections.

The first section, "Korea's Metropolitan & Provincial Government Diplomacy", covers the local diplomatic activities conducted by metropolitan cities and provinces in Korea. It gives an overview of various activities in a number of fields, including economics, trade, and cultural exchange, according to different topics.

The second section, "Local Government Diplomacy in Other Countries", introduces the kinds of local diplomacy activities that are being undertaken by local governments outside of Korea. In particular, the six overseas GAROK offices can use this section to share projects being developed by local governments in foreign countries in order to provide guidance that be used by Korean local governments.

The third section, "Partners in Local Diplomacy", features information on specialized institutions and expert opinions that address the specific theme of each issue. The third issue (Autumn 2023) contains contributions from experts based on the theme "Emerging Industries for Local Governments in Japan and China".

The fourth section, "Local Diplomacy News", is a space where foreign embassies in Korea, relevant domestic and international institutions for international exchange, and local governments can promote their projects. In this issue, it highlights events organized by GAROK with foreign embassies, along with impressions and commitments from attending ambassadors.

Starting with the Spring 2023 issue, this magazine will regularly cover news on the diplomatic activities of Korean local governments as the seasons change. We hope that this magazine will effectively convey the meaning of "local diplomacy" and serve as a catalyst for emphasizing the importance of international exchange activities for local government.

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English Editor	Bazil (Joseph) Manietta
Address	12F Gwanghwamun Building, 149 Sejong-daero, Jongno-gu, Seoul 03186, Republic of Korea
Tel	+82-2-2170-6041

