



Science, Technology and ICT Newsletter(No.82)

Korea to Come up with the Roadmap of Digital ROK, Realizing the New York Initiative

The Ministry of Science and ICT (“MSIT”; Minister Lee Jong-Ho) informed that in the eighth emergency economic meeting chaired by President Yoon Suk-yeol, held on September 28 in the Kimdaejeung Convention Center located in Gwangju, “the Digital Strategy of Korea” was announced.

“The Digital Strategy of Korea” is the plan to specifically implement the New York Initiative* announced on September 21 by President Yoon Suk-yeol. It is a representative strategy for leading national digital policy of the Yoon Suk-yeol administration, and also a pan-government strategy to become a best practice country in digital innovation and take a leap forward as a leading country in the digital era, rather than staying stagnant as a fast-follower.

* President Yoon Suk-yeol took part in the Digital Vision Forum hosted in New York University on September 21, and in his keynote address titled, “Solidarity for the Freedom of Digital Citizens,” proposed a new digital order for realizing the future outlook for Korea’s digital innovation and preserving universal values of humanity, which are freedom, human rights and solidarity.

The main contents of “the Digital Strategy of Korea” announced on that day is as follows.

Current progress, vision & goal

Under this strategy, the future outlook for Digital Korea, which sets an example for the world, together with its citizens has been highlighted, and the specific goals for enabling Korea to take a leap forward again, live harmoniously together, and realize digital economy and society were proposed. To this end, five strategies and 19 specific tasks will be carried out.

Main Elements

【StrategyI】 World’s best digital capabilities

Super gap technology will be secured in the six major innovative digital technologies.

(Direction for investment) From 2023, Korea will focus its investment on R&D in the field of six major innovative digital technologies, including ^① AI, ^② AI semiconductors, ^③ 5G and 6G communication, ^④ quantum, ^⑤ metaverse, ^⑥ cyber security

(Method of implementation) The planning for mission-oriented and challenging technology will be increased from 2023, and support will be provided for the rapid deployment and spread in market, such as outstanding research outcomes being applied to domestic market.

Sufficient digital resources (AI, data, sharing of internet-based resources, software) will be secured.

(AI) Intensive investment* will be provided for developing next-generation fundamental technology, and the world’s best AI infrastructure** such as Neural Processing Unit (NPU), supercomputers and hyper-scale AI models will be established from 2023. Meanwhile, Korea will play a central role in shaping international AI norms from 2023, in ways such as building an AI ethics framework where coexistence with humans is possible.

* Fundamental technology for next-generation AI (2022~2026, a total of 301.8 billion won), core technologies for AI semiconductors (2022~2026, a total of 1.02 trillion won)
** Establish six next-generation supercomputers (2023~), create Neural Processing Unit (NPU) Farm (2023~) etc.

(Data) Integrate* public and private data, and establish the infrastructure* for the value of data to be recognized and distributed in ways such as data asset protection, firmly establishing data transaction order and standardization system. This will create an environment where data can be utilized, by going beyond data accumulation.

* Introduce data value assessment (2022) and data certification system for quality control (2023), put in place a data transmission billing and compensation system (2024) etc.

(Sharing of internet-based resources) From 2022, kick-start the “Korean-Internet-based Resource Sharing Project” which enables AI semiconductors→ sharing of internet-based resources→ AI service to be systematically connected, based on the high-speed and low-power data center for sharing internet-based resources (cloud), made with homegrown AI semiconductors

(Software) Improve the fundamentals* of the software industry through reshaping the software market to be focused on Software-as-a-Service (SaaS), and fostering more than 2,000 SaaS companies by 2027

* Make it mandatory to purchase commercial software, establish a legitimate reward system, promote software industry which is driven by private sector investment etc.

Faster and safer 5G and 6G network will be built.

(5G and 6G communication) Nationwide 5G network will be built by 2024 to maintain the world’s best digital competence, gain dominance in 6G communication standards and patents (2026~) which are known to be the next generation communication technology, and push for a Pre-6G service demonstration in 2026 for the world’s first time.

(Quantum) Secure key technologies in quantum by 2026, based on the flagship project for technologies in three areas (internet, detector, computer) starting from 2022

(Cybersecurity) Cultivate 100,000 cybersecurity talent from 2022, and foster

cybersecurity as a new strategic industry, including the development of four major defense technologies (control, protection, detection, response) starting from 2022

Korea will become a country rich in talent, through fostering one million digital talent.

(Digital education system) Double* the number of classes in information and computer education, compared to the current curriculum, expand software and AI education from elementary and middle schools, and increase the number of graduate schools in six major digital fields**

* 34 or over 34 hours for elementary schools, 68 or over 68 hours for middle schools

** AI, AI semiconductors, data, cybersecurity, metaverse, protection of personal information

(Foster talent based on public and private partnership) Address the shortage of digital professionals, through providing training based on public and private partnership* where it can lead to hiring success, and nurturing experts in digital transformation

* Companies get directly involved from the stage for designing educational curriculum, and provide assistance throughout the training and hiring processes. Under the program, 1,150 people will receive support in 2022, and the support will be expanded over the next five years.

Korea will nurture digital platform industry, going beyond boundaries.

(Internet video service) Increase the “fund for promoting Korean-internet video service contents” for strengthening the competitiveness of Korean-contents (100 billion won in 2022→ 300 billion won in 2027), and support the global expansion of domestic internet video service

(Metaverse) Implement pioneering projects for ten key metaverse areas for promoting the convergence of industry, culture and public sectors (2022~), establish the implementation plan and ethical principles for boosting regulatory innovation in metaverse (2022~)

(Digital platform) Foster outstanding companies in digital platform (2023~) by supporting the operation of “autonomous platform organizations” led by the private

sector (2022~) and providing assistance for the development of innovative platform such as AI

(Blockchain) Implement blockchain project which is closely connected to people's lives to guarantee the reliability of creating, distributing and transacting digital assets (2023~), develop Korean-blockchain trust framework (2024~) and new certification technology (2024~)

Korea will promote “Korean digital initiative” leading the global market.

(Investment and startup) Encourage the supply of innovative capital by bolstering support for digital deep tech startups* and enhancing infrastructure for raising parent fund in the private sector (2023)

* Double the number of Tech Incubator Programs for Startup Korea (TIPS), and create deep tech fields, including data and AI (2023~)

(Export) Operate “digital export pioneering group” from 2023 for boosting global expansion based on public and private partnership, establish “digital delegation” to gather capabilities for supporting global expansion, that used to be scattered

* Establish hubs in strategic regions such as Silicon Valley of the U.S., Brussels of the European Union, and Shanghai of China

(Young people) Provide job training and research opportunities to world-class universities (2022~), carry out the project to foster 1,000 young leaders* (2023~) that can create digital success stories

* Support the creation of innovative cases by providing data and AI vouchers to young small business owners to enable their data purchase and utilization, as well as the application to businesses

【Strategy II】 Burgeoning digital economy

Korea will leverage digital skills to further enhance the competitiveness of service industry.

Digital culture industry	Digital biotechnology industry	Digital logistics industry
<ul style="list-style-type: none"> • Virtual digital museum and library (2024) • Digital culture based on metaverse (2024) • Cultural commentary provided by autonomous driving robots (~2027) 	<ul style="list-style-type: none"> • Build a national big data platform in biotechnology (2022~) • Establish and utilize AI-based new drug development platform (2023) • Establish reward system for digital healthcare activities (2027) 	<ul style="list-style-type: none"> • Establish port automation testbed (2025) • Increase AI-based intelligent logistics facilities • Logistics service based on UAVs and robots

Korea will advance manufacturing industry to be future-oriented by leveraging digital technology.

(Traditional manufacturing) Establish large, small and medium-sized digital factories* for fostering innovation in productivity (2023~2025), and develop the platform for sharing, connecting and utilizing manufacturing data between companies (2022~)

* Support digital transformation, including improving environment to be worker-centered, safeguarding safety, and improving outdated facilities

(Advanced manufacturing) Review the possibility of establishing a complex for commercializing autonomous driving technology in order to reshape flagship industries such as automobiles and ships into high value-added industry of the future (2024~), secure autonomous driving technologies for commercializing self-driving ships, and lay the legal and institutional framework (2026)

Korea will foster agriculture and fisheries industry into future growth engines by leveraging digital technology.

(Agriculture) Deploy and diffuse precision agriculture by collecting, utilizing and spreading the data from intelligent farms of the public and private sectors (2023~), and advance the Korea Animal Health Integrated System (KAHIS) based on big data (2023~2027)

(Fisheries) Establish six hubs* for intelligent marine aquaculture (2025), and increase

productivity through automating the entire process for producing major fish products (dried seaweed, oyster, fish cakes etc.)

* ① Busan (2019 ~ 2022), ② Goseong county in Gyeongnam Province (2019 ~ 2022), ③ Sinan county in South Jeolla Province (2020 ~ 2023), ④ Gangneung and Yang-yang county in Gangwon Province (2021 ~ 2024), ⑤ Pohang in Gyeongbuk Province (2021 ~ 2024), ⑥ to be newly selected

[Strategy III] Digitally inclusive society

Korea will build a safer and more convenient living space by leveraging digital technology.

(Digital safety) Establish a meticulous digital safety network that protects the lives and safety of citizens with digital technology, in three areas including livelihood, industry and disaster (2022~2027)

Safety management in daily lives	Industrial safety ensuring a safe workplace	Respond to typical Korean disasters
<ul style="list-style-type: none"> • Detect and respond to abnormal situations by using ultra high frequency technology • Nurture and hire AI nutritionists in school cafeterias • Inspect and manage imported food using AI 	<ul style="list-style-type: none"> • Designate and operate special safety zones in industrial complexes • Demonstrate clocks for vessels to signal distress • Distribute intelligent safety equipments 	<ul style="list-style-type: none"> • Deploy AI-based flood forecasting system in rivers nationwide • Coastal management based on digital replicas • UAVs on patrol and robots to prevent fires

(Digital welfare) Provide intelligent caring service that protects both the safety* and health** of elderly people living alone (2024~), and support intelligent health management of pregnant women, children and middle-aged people by leveraging digital technology (2024~)

* (Prevent safety accidents) Support rapid reporting to 911, by increasing accuracy and speed for recognizing emergencies

** (Emotional and health care) Provide emotional support such as sending information through voice, giving guidelines for blood pressure, exercise intensity and taking medicine

(Digital carbon neutrality) Promote eco-friendly data center for improving energy efficiency in the digital sector (2022~), ensure effective energy production and consumption based on AI (2022~), and select and demonstrate representative city in digital carbon neutrality (2025)

Korea will create a society where every citizen can enjoy the benefits from digitalization.

(Universal digital rights) Establish “the Bill of Digital Rights (tentative title)” that stipulates digital technology as an universal right for anyone to enjoy, by going beyond digital inclusion such as gaining access to digital resources and reducing the digital divide (~2023)

(Utilization of digital technology) Provide support to small business owners and traditional markets in their utilization of digital technology*(2022~), ensure digital devices can be developed and distributed to the vulnerable groups (5,300 devices in 2023), and implement the project to remove digital barrier in ten places based on social overhead capital (SOC), including nursery schools, schools and senior citizen community centers

* (as-is)2 million businesses, 11 types of database → (to-be)over 6 million businesses, over 20 types of database

Korea will revitalize local economy by leveraging digital technology.

(Innovation Hub) Establish greater “local digital hubs” with digital infrastructure and R&D to lay the foundation for local digital emerging industries (starting 2023)

* E.g. (Busan) fashion and beauty (Daegu) healthcare and robot (Daejeon) national defense, mobility and healthcare

【Strategy IV】 Open Digital Platform Government

We will realize digital welfare and democracy through the Digital Platform Government.

(Services Resulting in Tangible Benefits) Promote projects that will create benefits for people and businesses in the short term (starting 2023)

Convenience for People	Innovative Businesses	Scientific Government
<ul style="list-style-type: none">• Easy claim process for medical expense insurance• Real estate and housing subscription information service• Youth employment, taxi service for disabled people	<ul style="list-style-type: none">• Support for SMEs• Public data by small business districts• AI robot delivery by smart address system	<ul style="list-style-type: none">• Sharing of key national issues• Global supply chain risk warning• Address the “blind spots” of welfare system

(Proactive Customized Services) Proactive procurement of public and administrative services according to people’s life cycles, employment status and welfare status, and standardize data and government services to provide them as API (starting 2023).

※ Register common government services (e.g. inquiry, registration, booking) and private software services (e.g. map, payment, notification) as API and make them public

We Will Innovate How the Government Works With Digital Technologies.

(Scientific Government) Instead of depending on existing practices and experiences, establish an AI- and data-based administrative system (by 2027) and make public administrative procedures smart and scientific (starting 2023)

* Maximize policy-making process (e.g. real-time monitoring of key data for national issues, early warning system)

(Expand Government Collaboration) Transition into a public-private partnership

system to address urgent issues by leveraging the private sector's expertise and capabilities(by 2027)

【Strategy V】 Innovating Digital Culture

We Will facilitate Private-led Digital Innovation Culture to Take Root.

(People) Implement the Digital Badge system*, which certifies individuals' digital education, experience and qualifications and link them with employment, and establish the Digital Talent Alliance**, a system that the government, businesses and universities jointly nurture talent

* Support it to be linked to and used by diverse private digital platforms and digital wallet services.

** Exclusive recruitment system for digital companies and joint job fair, priority for co-op opportunities, joint curriculum development, diffusion of the digital badge system

(Business) Nurture 1,000 digital startups with support from large companies (starting 2023), Open Innovation Strategy for Public-Private Partnership*, which aims to address large companies's challenges with startup technologies (starting 2022)

* The government provides support by designating qualified startups, financing, matching large companies in need (demand) and startups with appropriate technologies (supply)

We Will Remove Regulatory Barriers That Undermine Innovation And Mediate Conflicts

(Regulatory Improvement) By linking with the government's regulatory improvement policies (governance*), encourage the private sector to take the lead in identifying regulations that need to be improved in emerging digital industries (e.g. platform, metaverse) (starting 2022).

* e.g. Presidential Regulatory Improvement Strategy Meeting, Regulation Deliberation Committee, Economy Regulation Innovation task force

(Mediation) Allow special permission for pilot testing to address conflicts between emerging industries and traditional industries and create a mediation task force under the ICT Strategy Committee (starting 2023)

We Will Establish the Legal Framework for Digital Economy and Society

(Legislation) Enact the Digital Society Framework Act (tentative) to prepare for a new digital era, together with the major five digital economy act* (starting 2023)

* Artificial Intelligence Framework Act, Metaverse Special Act, Cyber Security Framework Act, Digital Inclusion Act, Data Framework Act (enacted in October 2021)

** Establish a framework act that can cover industry promotion, social foundation establishment, talent nurturing, convergence and expansion (→consider integrating the Framework Act on Intelligent Informatization and the Special Act on Promotion of Information and Communications Technology, Vitalization of Convergence Thereof, Etc.)

(Digital Order) Establish a digital order (policy direction and standards)* for issues related to economic and social principles that can be raised in the digital era

* Operate a ministry-led task force in which stakeholders and experts participate to create a social consensus and develop standards

We Will Share Korea's Digital Innovation With the World

(International Agenda) Share Korea's digital innovation vision and achievements and discuss measures for cooperation at international events such as the G20 Summit (Nov. 2023) and digital ministers' meeting (UN ESCAP, OECD)

(International Cooperation) Expand the New York Initiative and the National Digital Strategy as a major agenda of international cooperation* (e.g. bilateral and multilateral cooperation, international organizations, private exchanges) and lead the global discussion

* e.g. Korea-US ICT Policy Dialogue, Korea-EU Joint Committee Meeting on Science and Technology, standard-setting organizations (ITU, 3GPP), keynote speeches at international exhibitions (MWC, CES)

Implementation System

The government will review the implementation process through the ICT Strategy Committee, in which relevant ministries, private businesses and experts participate, to promote these strategies nationwide and will discuss cooperation measures.

If needed, a Digital Strategy Task Force (tentative) will be created under the ICT Strategy Committee to facilitate the review process faster and more systematically.

Going Global

MSIT Underscores the Innovation of Digital Economy and Society at G20 Digital Ministers' Meeting

The Ministry of Science and ICT (“MSIT”; Minister: Lee Jong-Ho) announced that the Korean delegation (Head of Delegation: Deputy Minister Hong Jin-Bae) participated in the G20 Digital Ministers' Meeting held on September 1 in Bali, Indonesia.

* US, UK, France, Germany, Japan, Italy, Canada (G7); Brazil, Russia, India, China, South Africa (BRICS); Mexico, Indonesia, Republic of Korea, Türkiye, Australia (MIKTA); Argentina, Saudi Arabia, EU

Ministers and vice ministers of the G20 countries* and nine Invited Guests** including Spain, as well as the heads of international organizations*** including the UN and the OECD participated in the G20 Digital Ministers' Meeting.

** Spain, Singapore, the Netherlands, United Arab Emirates, Cambodia, Democratic Republic of the Congo, Rwanda, Antigua and Barbuda, Fiji

*** United Nations (UN), International Labour Organization (ILO), International Monetary Fund (IMF), World Bank (WB), Organisation for Economic Co-Operation and Development (OECD), World Trade Organization (WTO), Financial Stability Board (FSB), World Health Organization (WHO), Islamic Development Bank (IsDB), Asian Development Bank (ADB)

Under the theme of “Leveraging Digitalisation for a Resilient, Strong, Sustainable and Inclusive Recovery,” the participants shared their views and related policy examples on △digital connectivity and post-COVID-19 recovery, △digital skills and literacy and inclusive digital transformation, and △data free flow with trust and cross-border data flows.

In his speech, Deputy Minister Hong underscored digital connectivity and the importance of public service based on it, as well as the need for a stable approach to strike a balance between data use and privacy protection.

He also presented Korea's key policies for network infrastructure expansion and digital

economy innovation, such as 5G-based subway Wi-Fi services after the world's first commercial 5G deployment, 5G network sharing in rural areas, private 5G networks deployment.

The MSIT also had bilateral meetings with Saudi Arabia, Spain and Japan during the Ministers' Meeting, and actively promoted Korea's policies for wired and wireless network infrastructure, digital healthcare projects and cyber security, as well as Busan's candidature to host 2030 World Expo and Korea's candidature for ITU Council and Deputy Secretary-General.

In particular, in the bilateral meeting with Saudi Arabia, Deputy Minister Esam Althukair of the Ministry of Communications and Information Technology of Saudi Arabia highlighted cooperation built upon "trust" and encouraged Korean companies and organizations in digital infrastructure, digital service and cyber security to participate in Saudi Arabia's underway smart city projects such as Neom and Medina.

Deputy Minister Hong expressed his gratitude for Saudi Arabia's deep trust in Korea and said he will spare no effort to continue the bilateral cooperation between the two countries.

The ministers gathered at the Ministers' Meeting acknowledged the need for international cooperation to maximize the benefits of digital transformation and achieving a sustainable economic growth, and the Indonesian Presidency published the Chair's Summary of the G20 Digital Economy Ministers' Meeting 2022.

The key points of the discussion at the Ministers' Meeting will go through a review process by the G20 and will be reflected in the G20 Leaders' Declaration, which will be published after the G20 Leaders' Summit (November 15-16, 2022)

The MSIT said that it will continue its ICT leadership and expand global cooperation to navigate the socioeconomic changes initiated by digital transformation.

Korea Receives Six Awards at the IAEA's RCA Ministerial-Level Meeting in Celebration of the 50th Anniversary of the RCA

The Vice Minister Oh Tae-Seog of the Ministry of Science and ICT (“MSIT”; Minister Lee Jong-Ho) attended the Ministerial-Level Meeting of the Regional Cooperative Agreement for Research, Development and Training Related to Nuclear S&T for Asia and the Pacific (RCA) held at Vienna, Austria on September 26, 2022. He commended the RCA's contributions to the economic and societal development of the Asia Pacific region for the past five decades, and expressed his gratitude for those who have endeavored to establish the RCA Secretariat and strengthen cooperation among member countries in the region, as they helped enhance Korea's international standing.

* Regional Cooperative Agreement for Research, Development and Training Related to Nuclear S&T for Asia and the Pacific)

Korea joined the RCA in 1974, and established and operates a regional RCA secretariat office in 2012, contributing to grow the presence of RCA in the international community and supporting cooperation among member countries in nuclear power technologies.

* Australia, Bangladesh, Cambodia, China, Fiji, India, Indonesia, Japan, Korea, Thailand, Malaysia, Mongolia, Myanmar, New Zealand, Pakistan, Palau, Philippines, Singapore, Sri Lanka, Vietnam, Nepal, Laos

In particular, in the first RCA Achievement Awards Ceremony to celebrate the 50th anniversary of the Agreement, Korea received a total of 6 out of 28 RCA Achievement Awards in four different categories*.

* The RCA Achievement Awards are presented in five categories: Special Awards, Governance Awards, Project Excellence Awards, Talent Development Awards, Regional Cooperation Awards.

Among the Korean recipients, the MSIT and the RCA Secretariat received the RCA Special Awards, the Korea Atomic Energy Research Institute received the RCA Talent Development Awards, the Korea Nuclear International Cooperation Foundation received the Regional Cooperation Awards, and Dr. Lee Man-ki and Dr. Jang Won-il of the Korea Atomic Energy Research Institute received the RCA Project Excellence Awards.

In his keynote speech, Vice Minister Oh said, “The RCA contributed to the development of member states for the past five decades, and I look forward to the RCA's continuous role in driving sustainable growth across regions, addressing global challenges such as carbon neutrality, energy security, and responding to climate crisis. Korea will do its utmost to cooperate in the RCA's efforts.”

Going cooperation

Korea and Germany Holds the First Korea-Germany Digital Dialogue at Vice-Minister level

The Ministry of Science and ICT (“MSIT”; Minister Lee Jong-Ho) announced that it officially launched the Korea-Germany Digital Dialogue with the German Federal Ministry for Digital and Transport (BMDV) at Berlin on September 5, 2022.

The Korea-Germany Digital Dialogue is an intergovernmental consultative body for the two countries to discuss ways of cooperation in the digital domain, which Germany proposed to Korea.

Vice Minister Park Yun Kyu of Science and ICT and State Secretary Stefan Schnorr presided over the first Digital Dialogue, which kicked off with the signing of the Joint Declaration of Intent (JDoI) for Digital Cooperation, including the establishment of the Digital Dialogue.

The Korean delegation to Digital Dialogue included representatives from the MSIT, 5G Forum, National IT Industry Promotion Agency (NIPA), and Born2Global Center. From the German side, representatives from the BMDV, Federal Ministry for Economic Affairs and Climate Action (BMWK), German Research Center for Artificial Intelligence (DFKI), and Germany Trade & Invest (GTAI) attended.

The two countries discussed cooperation in six thematic areas, which are smart factory, supporting startups, artificial intelligence, quantum technology, 6G, and Internet-based resource sharing (cloud computing).

A smart factory refers to a factory that applies ICTs to either the entire or part of its manufacturing process to enhance the productivity and product quality.

The chairman of the Smart Manufacturing Council of the Korea 5G Forum proposed technical cooperation to their German counterpart in using dedicated 5G network to build a smart factory.

The German side responded by wishing the upcoming joint training program between (Korea) Smart Manufacturing Council and (Germany) Alliance for Connected Industries and Automation (5G-ACIA) in November to yield fruitful outcomes and be the starting point for more cooperation. The 5G ACIA is an alliance of companies in information and communication technology and manufacturing and other various sectors that discuss relevant technologies, system, and business models needed for 5G

manufacturing application. launched in April 2018 by the German Electrical and Electronic Manufacturers' Association (ZVEI).

During the Digital Dialogue, Korea and Germany also agreed to cooperate in supporting ICT start-ups' growth and entry to foreign markets as well as B2B partnerships.

The Chief Executive Director of Born2Global proposed to expand bilateral cooperation and shared how a German wind turbine manufacturer worked together with a Korean unmanned AI startup to conduct safety inspections of wind power plants without the physical presence of a human inspector.

In response, the GTAI said that it will send a delegation composed of its officials and a startup incubator institution to visit Korea in November with startup entrepreneurs to discuss specific ways of cooperation.

In artificial intelligence, the Korean side proposed mobility programs and joint workshops between the two countries to jointly develop tools and evaluation criteria to measure the reliability of artificial intelligence systems.

The German side also noted that artificial intelligence is a key technology for digital transformation and expressed their hope to make joint endeavors towards developing standardizing how the reliability of artificial intelligence systems are measured.

Quantum theory was first presented to the general public by a German physicist Max Planck. Recently, quantum technology is gaining traction as the properties of quantum states, such as entanglement and superposition, enable high performance computing (quantum computing), ultra-trustworthy security (quantum communication) and ultra-precise measurement (quantum sensors).

Korea shared how it developed the world's best quantum cryptography communication service and proposed to cooperate in quantum technology through joint research, exchanges between learned societies, researcher exchange, quantum materials, parts and equipment, and development of international standards.

In response, the German side talked about its efforts to transfer quantum technologies from the laboratory to the marketplace. They mentioned the ongoing cooperation with the Korea Research Institute of Standards and Science (KRISS) and expressed willingness to expand cooperation with Korea in areas including international standards.

The Korea-German Digital Dialogue will be held every two years alternately in Korea and Germany, attended by various members such as government officials,

businesspeople, and experts to explore greater cooperation as well as business opportunities.

Prior to the Korea-Germany Digital Policy Dialogue, the Vice Minister visited IFA Berlin 2022, an exhibition held in Berlin over the weekend (September 3-4), to see the latest trends in AI, 5G and other technologies used in smartphones, home appliances, healthcare devices, etc. Vice Minister Park visited the exhibition booth of Korean companies that are supporting Busan to host World Expo 2030 and made encouraging remarks.

To this end, he visited the exhibition booths companies from in and out of the country, including Samsung Electronics, LG Electronics, Siemens, Bosch, and about 20 Korean SMEs and startups.

On September 3, Vice Minister Park attended a meeting with Korean SMEs attending the exhibition to hear from the businesses about the difficulties in entering the European market and to seek solutions.

ICT Trends of Affiliated organizations

Three Proposals for International Standards by the National Radio Research Agency of Korea on Ensuring the Security of Vehicular Communications in the Final Stage Before Adoption in the ITU

The National Radio Research Agency under the Ministry of Science and ICT (“MSIT”; Minister Lee Jong-Ho) announced that three international standards developed by Korea, including intelligent transportation system communication devices, were adopted in advance* and three new standard development tasks, including quantum cryptography communication, were approved at the “International Telecommunication Union’s Telecommunication Standardization Sector (ITU-T) Information Security Study Group 17 (SG17*)” (Chairman: Mr. Heung Youl YOUM, Professor of Soonchunhyang University) which was held in Geneva, Switzerland from August 23 to September 2.

* This refers to Last Call phase, which is a phrase right before the final adoption of standards. The proposed standards are finally adopted after being circulated to member states and if there is no objection.

1 Three Last Call international standard proposals related to vehicular communications security

In recent years, there is a growing security threats to vehicular communication as more vehicles are connected to the network and relevant technologies have advanced enough to enable autonomous driving. In response, Korea made years of efforts to develop a standard for vehicular communications security based on collaboration between the industry, academia and research institutes (Korea University, ETAS Korea, ETRI, Hyundai Motor Company). Three related proposals were adopted in advance as international standards at the meeting of ITU-T SG17.

The adopted Last Call proposals include ① Guidelines for sharing security threat information on connected vehicles, ② Security guidelines for cloud-based data recorders in automotive environments, and ③ Security guidelines for Ethernet-based In-Vehicle networks. It is expected that such standards will have positive implications well beyond contributing to ensure the security and safety of the vehicular network, as they can be used as objective and reliable references for auto insurance companies in analyzing the cause of vehicle accidents and settling disputes.

2 Three new work items on topics including quantum cryptography communication

added to the SG17 Work Programme

Among the new work items agreed to be added to the SG17 Work Programme, the following items were proposed by Korea: ① Security requirements for Quantum Key Distribution Network interworking (QKDNi), ② Supplement to X.1813**: Security deployment models and requirements for the operation of C-V2X services supporting ultra-reliable and low latency communication (URLLC), ③ Security guidelines for electric vehicle plug and charge (PnC) service using vehicle identity (VID). The development of the proposals for the new work items were led by MagData, Sooncheonhyang University, Hyundai AutoEver, SK Telecom, and TTA. Research to develop relevant standards are slated to begin this year.

* C-V2X refers to Cellular Vehicle-to-Everything

** X.1813: Security requirements for operation of vertical services supporting ultra reliable and low latency communication (URLLC) in IMT-2020 private networks Supplement: documents that are complementary to or related to a standard, but not essential for understanding and implementation

A spokesperson from the National Radio Research Agency said, "The goal is to realize a digital powerhouse that ensures safety, at this tumultuous time when cyber threats are growing in all areas of society, while the pace of digital innovation accelerating at the same time. Building on Korea's strong data protection capacity, we will continue efforts to lead the development of international standards by working closely with experts from the industry, academia, and research institutes."

For further information, please contact the Public Relations Division (E-mail: msitpress@korea.kr) of the Ministry of Science and ICT.