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Legal Update

Korean Government Announces National AI Strategy to Bolster the Economy & Improve Living Standards by 2030

On December 17, 2019, all ministries within the executive branch of the Korean government (including the Ministry of Science and ICT) jointly announced the “national strategy for artificial intelligence” (hereinafter “National AI Strategy”).

Artificial intelligence (“AI”) has brought innovative changes across all areas of technology, industries and the entire society in this era of the Fourth Industrial Revolution. The National AI Strategy calls for “100 action plans”, based on nine overarching strategies to be implemented across three areas.

Among the notable points of the strategy include the coverage on how to facilitate the use of AI by businesses (e.g., make the expansive data produced by all areas of the public sector available to the public as fully as possible through open access), and attempts to comprehensively convert or remove cumbersome regulations to create a more favorable environment for the development and use of AI and other new industries. Also, under the

strategy, Asia's fourth largest economy plans to leverage its dominance in the global supply of memory chips, and invest over KRW 1 trillion (approx. USD 858 million) into the next-generation smart chips by 2030.

If implemented, these plans under the National AI Strategy will help generate upwards of KRW 455 trillion (approx. USD 389 billion) by 2030, and increase Korea's competitiveness and standard of living. As part of a parallel effort, the Korean government will also improve its regulatory and legal systems to stimulate greater AI innovation and use.

In order to make serious inroads into achieving the National AI Strategy, it is expected that the major aspects will be reflected in each ministry's 2020 business plan.

1. Overview

The below table provides a summary overview of the National AI Strategy across 3 areas, covering 9 general strategies.

3 areas of AI development	9 strategies and detailed plans
Build AI	[Expand infrastructure] Push ahead with greater public sector data to be made freely accessible and strengthen the data mapping between public and private sectors, etc.
	[Secure competitiveness] Develop a new-concept AI semiconductor, and invest in R&D for next-generation AI, etc.
	[Improve regulations] Comprehensively convert or remove cumbersome regulations to create a more favorable environment for AI, come up with a basic legal system to govern AI, etc.
	[Nurture start-ups] Create AI investment funds, and promote exchanges of and cooperation with AI specialists, etc.
Make use of AI	[Nurture talent] Newly establish and/or expand fields of study or programs related to AI (majors) at universities, expand and develop various programs related to AI, etc.

Make use of AI	[Push for all-out use of AI across all industries] Push for and support projects that make use of large-scale data held by public institutions, and those that make use of AI across all industries (e.g., manufacturing, SMEs, healthcare & life sciences, transportation & logistics, agriculture and fish farming, and cultural & creative industries, etc.)
	[Embrace digital transformation for a modern, digital government] Introduce AI to government (public) services, provide customized services to citizens, etc.
Harmonize with AI	[Establish a job safety net - bridge the skills gap in the future workforce] Prepare tomorrow's workforce by increasing the percentage of job training in the areas of new technologies (e.g., programming for AI initiatives or data analytics and other related skills)
	[Prevent adverse effects] Respond to new types of adverse effects from AI-based technologies (e.g., AI-based cyber infringement, deepfake AI)

2. Key Aspects

- **Expand infrastructure - promote data to be made public and to be distributed:** Under the National AI Strategy, efforts will be made to make **public data** (held by public institutions and can be made public) to be made **completely public**. In particular, public data that helps to **promote the use of AI in new industries** (e.g., **automated driving, smart city**) would be proactively identified and be made readily and freely accessible to the public.
 - Where particular data is more difficult to be made public (e.g., personal information), a project for the active use of data would be pushed ahead through which a private institution (e.g., a company) would access such data and develop an algorithm (e.g., AI-based airport classification and tracking system - build a separate space with secure environment, develop algorithm so that businesses can make safe use of 90 million cases of facial data held by the Ministry of Justice).
 - A big data platform covering 10 areas (finance, transportation, communications and medicine, etc.) would be made completely open to the public. This would strengthen the link between big data centers of the public sector, and would lead to more participation of private institutions holding personal data.

- As a result of building and expanding data for AI learning and supply of data via an “AI hub,” an AI development infrastructure would be established. An AI hub or the like would be a platform that is necessary for AI R&D and would function as one-stop provision of data, software and high performance computing, etc. To be specific, data in specific areas (e.g., x-ray videos, automated driving videos), including data for universal use (e.g., Korean sounds and Korean alphabet font images), would be established and be made open to the public.
- **Expand infrastructure - strengthen data mapping between public and private sectors:** The link of data maps between public and private sectors would be strengthened to provide comprehensive support for the generation, distribution and use of data across all areas of the country and the society. **Government-wide data platform** would be built to integrate, analyze and make use of data dispersed across the public sector. In addition, **data maps in each area of the private sector** would be established (i.e., integrate data on the big data platform and data storage, among others, as well as the results of general surveys gathered from data sources). Also, efforts would be made to strengthen the link between such data maps and the nation’s data maps.
- **Expand infrastructure - support the use of data:** The Korean government would expand the **support for making use of data that is tailored** to each company’s needs. An AI voucher policy would be introduced, so that a company with the demand for AI would be able to introduce the optimal AI solution that can be used for its products. Additionally, the government would push forward with efforts to diversify the data voucher business supporting data purchase or the processing service in each area that is customized to a company’s need. Moreover, **my data demonstration business**, which uses personal data with relevant individuals’ consent, would be expanded to administrative, medical and financial areas.
- **Improve related regulations - comprehensive list of burdensome regulations:** The government would develop a “**comprehensive burdensome (impeding) regulations roadmap**” for the field of AI under the basic direction of “**allow first and regulate later**,” so as to support active launching of AI-based innovative services. Also, the government would review the results of the approval and demonstration test cases of temporary permits under the regulatory sandbox. This **would swiftly amend statutes and regulations** for the matters that require the amendment of existing statutes and regulations.

- **Improve regulations - establish a legal system/framework:** The government would establish basic legal framework, which include basic concepts, principles, and policies to prevent adverse effects in the AI era. This effort would include identifying major pieces of legislation on key common issues across all areas as well as those that are specific to certain fields, and coming up with measures to establish or amend the existing legal system. In addition, the government would pre-emptively establish and amend existing legal structures in each area that appropriately reflects technological developments and social changes in the AI era.
- **Push for all-out use of AI for all industries - go ahead with AI convergence projects:** Under the National AI Strategy, a project would be pushed forward, whereby the ultimate goal is to seek convergence of AI in each major industry, based on large-scale data held by the public sector and thereby create a greater (societal) achievement. An example is “Dr. Answer,” an AI-based precision medical solution (AI-based solution that predicts, diagnoses, and treats diseases; clinical test is currently underway; total of 46 medical institutions and ICT companies, universities, research institutions, hospitals are collaborating under the supervision of Seoul Asan Medical Center). As a result, such efforts would lead to the creation of the private-public collaboration ecosystem with the participation of AI-specialized companies, competent companies in each area and public institutes and would provide domestic AI companies with business opportunities at an early stage.
 - **Push for all-out use of AI for all industries: AI would be used across all industries** (e.g., (e.g., manufacturing, SMEs, healthcare & life sciences, transportation & logistics, agriculture and fish farming, and cultural & creative industries, national defense, etc.)
 - AI-based data hub would be built, which would link to and make use of smart city data. Smart construction technologies would be secured (e.g., CPS (Cyber Physical System)-based control of construction fields and simulations), and smart construction support centers would be built.
 - Public transportation technology (automated driving) would be developed, which would optimize service intervals and routes, depending on real-time traffic and demand. Technology for optimizing port logistics would be developed, which would support real-time sharing and analysis of port resources (e.g., containers and workers) with AI and IoT technology.
 - Intelligent network slicing would be developed through AI-based automatization of 5G core network, to create 5G convergence services.

3. Potential Impact / Why This Matters To You

- The National AI Strategy acknowledges that AI is an important foundation for industries for the future, and highlights the need and importance of making proper use of data. Should the three data-related bills proposing to establish legal grounds for making use of personal information be passed in the plenary session of the National Assembly, then, together with the National AI Strategy, businesses are expected to make more active use of personal information.
- The National AI Strategy outlines general directions, and each ministry's 2020 business plan (and any other related announcements) will provide the necessary details for the execution and implementation of the plans. Accordingly, we will need to pay close attention to relevant developments going forward.
 - Specifically, under the National AI Strategy, the government would launch the tentatively titled "legal system reform task force in preparation for an AI-based future society." This task force would include participation by each ministry, specialized ICT institutions, and experts from academia, etc., and this task force would play the roles of identifying major AI-related legislative issues, and of coming up with measures to establish and amend the relevant laws and regulations. Thus, we recommend AI-related companies to monitor this task force's discussions and developments, look for ways to actively present their opinions when and where appropriate, and to take the necessary measures so that reasonable improvements would be made to the legal and regulatory system.
- Meanwhile, as civic groups are still opposing the use of big data, among others, it would be prudent for AI-related companies to refrain from pushing ahead with businesses faster than the pace of regulatory improvements, have an accurate understanding of which direction and how fast the government is moving ahead with its policies, and to conduct its business in line with the direction and pace of the government's policies.

About Shin & Kim's TMT Practice Group

Shin & Kim's TMT practice - with unparalleled expertise, experience and network within the information and communications technology ("ICT") field (including former Vice Minister of the Public Administration and Security, Mr. Young-Ho KIM, and former Vice Minister of the Science, ICT and Future Planning, Mr. Jae-You CHOI) - provides both

domestic and foreign-based businesses with the utmost professional advice on personal information protection (e.g., domestic & foreign personal information regulations such as the GDPR, responses to personal data leakage cases, development of compliance systems for personal information protection). Further, we also provide legal advice on how to identify and contribute to the development and improvement of regulations relating to the broadcasting, communications and ICT fields. Our professionals also work with our clients to communicate with relevant government agencies discuss ways to improve the legal and regulatory system, and provide related legislative and public affairs consulting services (e.g., analyze the regulatory impact, develop customized company strategy).

Thus, should you have any questions or comments about the contents of this newsletter, or if we can otherwise be helpful, please do not hesitate to contact us.

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