

Blueprint for Korea's Leap to Become One of the Top Three Global AI Powerhouse (AI G3)

- Joint Announcement of “Policy Directions for National AI Strategies” at the 1st National AI Committee chaired by President Yoon Suk Yeol, setting the course for Korea's leap to AI G3

- Unified Efforts Between Government and Private Sector to implement four nationwide “AI Flagship Projects” under the vision of “Establishing a Global AI Hub through the Leap to AI G3”

(Project 1) Expand advanced GPU capacity by 15 times and support the commercialization of domestic AI semiconductors, including the establishment of the “National AI Computing Center”

(Project 2) Stimulate private investment of KRW 65 trillion in the AI sector over four years (2024-2027), with government initiatives to encourage this growth

(Project 3) Drive a nationwide AI transformation to achieve an AI adoption rate of 70% in industries and 95% in the public sector by 2030

(Project 4) Establish robust AI safety and security capabilities early on to take the lead in global AI governance

- Outline of Policy Directions across four key areas of the AI ecosystem: (1) Fostering Startups and Talent, (2) Innovating Technology and Infrastructure, (3) Creating an Inclusive and Fair Environment, and (4) Securing Global Leadership

The Ministry of Science and ICT (MSIT), led by Minister Yoo Sang-im, announced that on September 26th, the “Policy Directions for National AI Strategies” was unveiled at the 1st meeting of the National AI Committee, chaired by President Yoon Suk Yeol and held at the Four Seasons Hotel in Seoul.

Key Summary of the “Policy Directions for National AI Strategies”

1. Background and Significance

The world is rapidly entering the AI era, marked by an unprecedented and expansive revolution. AI is no longer just a technological advancement; it is driving a profound shift that reshapes national economies and security. Major nations like the U.S., China, and the EU are racing to accelerate AI innovation and establish global leadership, viewing AI as crucial to their national survival.

Since the current government took office, Korea has placed AI at the forefront of its agenda and launched President-led initiatives such as the “New York Initiative” (Sept. 2022), “Paris Initiative” (June 2023), “Digital Bill of Rights” (Sept. 2023), “AI-Semiconductor Initiative” (April 2024), and the “AI Seoul Summit” (May 2024). These efforts aim to boost AI competitiveness and shape global standards.

Korea has developed a robust AI software ecosystem, producing several indigenous generative AI models, and boasts world-class semiconductor memory and manufacturing capabilities. However, as competition intensifies due to big tech companies with immense capital, there is a growing need for a paradigm shift in AI policies. Notably, Korea ranks third globally in generative AI models, with 11 developed domestically, following the U.S. (64) and China (42) as of July 2024 (source: EPOCH AI).

Recognizing AI’s critical role in the next 30 years, the "Policy Directions for National AI Strategies" was created to provide a blueprint for Korea’s emergence as an AI G3 powerhouse, building on the country’s experiences from the digital revolution and the combined expertise of both public and private sectors.

2. Shift in Policy Paradigm

By analyzing the successes and shortcomings of current AI policies, as well as considering the global AI market landscape and Korea’s potential, the policy aims to enhance AI innovation capabilities while addressing existing gaps with targeted support. The government will move beyond merely expanding the initial AI infrastructure to focus on scaling and integrating systems that private entities find difficult to build independently. In addition to direct investment, the government intends to greatly improve the landscape for private AI investments. Moreover, the government will establish AI as part of the national infrastructure, fostering transformation across all sectors and support public-private partnerships to help domestic companies venture into global markets.

3. Vision and Implementation Strategy

The “Policy Directions for National AI Strategies” envisions establishing Korea as a “Global AI Hub through the Leap to AI G3.” This vision is driven by four nationwide “AI Flagship Projects” and policy directions across four key areas of the AI ecosystem: (1) Expanding Startups and Talent, (2) Innovating Technology and Infrastructure, (3) Creating an Inclusive and Fair Environment, and (4) Securing Global Leadership.

Vision	Establish a Global AI Hub through the Leap to AI G3			
Implementation Strategies	[Four AI Flagship Projects]			
	1. Significant Expansion of National AI Computing Infrastructure		2. Substantial Increase in Private AI Investment	
	3. Comprehensive National AI Transformation (AI+X)		4. Securing AI Safety, Security, and Global Leadership	
	[Four Core Policy Directions]			
	1. Fostering Startups and Talent	2. Innovating Technology and Infrastructure	3. Creating an Inclusive and Fair Environment	4. Securing Global Leadership
Implementation Framework	The National AI Committee will consolidate efforts between the government and private sector to drive these initiatives			

4. Key Contents

Details of the Four AI Flagship Projects

Significant Expansion of National AI Computing Infrastructure(Expand to over 2 exaflops (EF) by 2030, increasing current GPU capacity 15-fold)

To bridge the current gap in AI computing infrastructure compared to major tech companies, Korea aims to expand its GPU capacity by more than 15 times by 2030, achieving over 2 exaflops. Efforts will also be made to commercialize domestic AI semiconductors. Through joint public-private investment, a “National AI Computing Center” will be established with a budget of up to KRW 2 trillion, alongside a low-interest loan program to support private sector expansion of AI computing infrastructure through 2027. This initiative aims to foster sustained private investment in AI computing infrastructure and provide world-class computing resources to companies and researchers. Furthermore, during the course of this initiative, the adoption of domestic AI semiconductors, such as NPUs (Neural Processing Units) and PIMs (Processing-In-Memory), will be promoted to nurture a specialized AI computing ecosystem in Korea, with a focus on developing and applying tailored hardware and software technologies. Moreover, efforts will be made to drive the globalization of Korea's AI computing ecosystem by supporting the export of domestic AI semiconductors through collaborations with global companies.

Substantial Increase in Private AI Investment

(4-year private investment totaling KRW 65 trillion from 2024 to 2027, supported by government measures to boost investments)

Although private AI investment in Korea currently lags behind other major countries, a total of KRW 65 trillion in private investments will be made over the next four years (2024-2027). The government will support and incentivize these investments. As private companies expand their investments in AI technology, talent development, and computing infrastructure, the government will explore various tax benefits and expand policy finance measures, including the establishment of large-scale funds. This approach is intended to foster a virtuous investment cycle throughout the AI value chain, allowing Korea to actively engage in the growing global competition for AI dominance.

Comprehensive National AI Transformation (AI+X)

(Expand AI adoption across all sectors to achieve 70% in industries, 95% in the public sector by 2030)

Beyond limited AI applications in specific sectors, a comprehensive AI transformation will be implemented across the entire nation, covering industry, public services, society, regional development, and defense. Customized AX(AI+X) plans will be created for eight key industries—such as manufacturing, finance, and medical biotechnology—that have

high potential for AI adoption but currently exhibit slow transitions. To enhance public sector capabilities, the government will establish a government-wide AI platform, which will be used to develop AI-based services in 18 public domains (e.g., safety, disaster response, healthcare, etc.), resulting in tangible AI services that citizens can experience (public sector AI+X). Additionally, proactive measures will be taken to address employment shifts caused by AI, strengthen protections for vulnerable workers, and introduce AI-based digital textbooks starting in 2025 to transform public education. AI-based innovations in the healthcare system will also be pursued. The establishment of regional AI innovation hubs and the formulation of military AI security policies, alongside the expansion of AI infrastructure in defense, will contribute to the widespread use of AI in national defense. Through this comprehensive AI adoption strategy, Korea aims to achieve AI adoption rates of 70% in industries and 95% in the public sector by 2030, ultimately reshaping the entire economic structure and generating an economic impact of approximately KRW 310 trillion by 2026.

Securing AI Safety, Security, and Global Leadership

(Take the lead in global AI governance by securing AI safety and security capabilities early on)

With the global rise of risks associated with advanced AI technologies—such as deepfake crimes and cyber threats—the importance of AI safety and security is becoming increasingly apparent. To systematically address the advanced risks of AI, Korea will establish a national AI Safety Research Center in November. Additionally, efforts will be made to achieve a balanced development of AI and ensure its safety and reliability by enacting an “AI Basic Act” within the year. The values and norms outlined in the “Seoul Declaration” will be promoted globally, and international cooperation will be expanded to encourage responsible use of AI in military and security contexts. Further efforts will be made to identify and support collaborative models between domestic and international companies, establish global AI research platforms like the AI Frontier Lab, and actively pursue AI-focused Official Development Assistance (ODA) initiatives to reinforce Korea’s position as a global AI leader.

Details of the Four Core Policy Directions

Fostering AI Startups and Talent to Support AI Innovation

While AI unicorn companies are emerging globally, Korea currently lacks its own AI unicorns, and there are ongoing challenges in securing AI talent. To address this, the government aims to nurture 10 AI unicorn companies by 2030 by creating a supportive environment for specialized AI startups and promoting M&A activities. Additionally, efforts will be made to simplify and globalize AI talent development, with the goal of securing 200,000 AI experts by 2030 (up from 51,000 in 2023).

2) Advancing Core AI Technologies and Innovating AI Infrastructure

Joint research hubs focusing on AI semiconductors will be established to strengthen technological cooperation with leading countries. Efforts will also focus on securing competitiveness in emerging AI markets, such as on-device AI. Regulatory reforms concerning personal data will support AI innovation in new industries, and mechanisms for utilizing high-quality copyrighted content will be improved to create a conducive environment for generative AI. Furthermore, innovations in low-latency and low-power edge networks will be pursued, and laws such as the “Special Act on the Expansion of the National Power Grid” will be enacted to manage increased AI traffic and power demand.

3) Establishing a Sustainable Foundation for AI Development and Expansion

To ensure that everyone benefits from AI, the government will work towards enacting a “Digital Inclusion Act,” guaranteeing universal access to AI. Moreover, a fair competition framework will be established to support AI innovation, along with a framework to protect legitimate rights. Measures to prevent unfair discrimination and privacy violations during AI development and use will also be implemented.

Establishing New Norms for the AI Era and Leading Global AI Governance

Legal frameworks will be developed to address emerging issues in the AI era, such as the allocation of responsibility and rights for AI decisions. In addition, protections will be put in place for individuals and vulnerable groups in an era of AI-based automated decision-making. As a global AI hub, Korea will continue to expand its cooperation with leading nations and international organizations, actively taking the lead in global AI governance discussions.

5. Implementation Framework

The newly established National AI Committee will be responsible for establishing and implementing the “National AI Strategy” by translating the policy directions into concrete and actionable tasks. To achieve this, the committee will operate specialized subcommittees that include top private-sector experts and relevant ministries, who will work together to develop detailed initiatives and implementation plans. Additionally, dedicated support teams will provide structured support to ensure the committee’s smooth and efficient operation.

During the meeting, President Yoon Suk Yeol, who chairs the National AI Committee, announced, "We are embarking on a national all-out effort to achieve our ambitious goal of becoming one of the top three global AI powerhouses (AI G3)." He further highlighted the committee’s role, stating, "The National AI Committee, inaugurated today, will serve as the central platform for fostering public-private cooperation, bringing together national innovation capabilities to spearhead a critical AI transformation. Together, we will design and shape the next 30 years, driven by AI."

For further information, please contact the Public Relations Division (Phone: +82-44-202-4034, E-mail: msitmedia@korea.kr) of the Ministry of Science and ICT.

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