▷ **National AI Strategy Policy Directions**

MSIT Presents Blueprint for Korea's AI Innovation to Achieve AI G3 Status

- The National AI Strategy Policy Directions were announced at the inaugural meeting of the National Artificial Intelligence Committee, held jointly with relevant ministries and chaired by President Yoon Suk Yeol. The policy outlines a vision for national AI innovation to drive Korea's advancement as a top-three AI nation (AI G3).

- With the vision of "Emerging as one of the top three AI powerhouses to become a Global Pivotal State," the public and private sectors will unite as one team to promote four national AI flagship projects

▶ Project 1: Establish a "National AI Computing Center," expand graphics processing units (GPU) to 15 times the current size, support the commercialization of domestically produced AI chips

▶ Project 2: The private sector to invest KRW 65 trillion in AI development over the next four years (2024-2027), with active support from the government

▶ Project 3: Accelerate nationwide AI transformation to achieve a 70% adoption rate in the industry and 95% in the public sector by 2030

▶ Project 4: Lead global AI governance by securing AI safety and security capabilities ahead of demand

- Policy directions presented in four key areas of the AI ecosystem: ① Fostering startups and talent, ② Innovating technology and infrastructure, ③ Creating a culture of inclusiveness and fairness, ④ Securing global leadership

The Ministry of Science and ICT (MSIT) announced that the inaugural National AI Committee meeting, chaired by President Yoon Suk Yeol, was held on September 26, 2024, at the Four Seasons Hotel Seoul. During this meeting, the MSIT unveiled the National AI Strategy Policy Directions.

> **< Overview of the Launch Ceremony & Inaugural Meeting of the National AI Committee >**
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> ■ **Date & Venue**: September 26, 2024 (Thursday), 10:00 AM - 11:10 AM / Four Seasons Hotel Seoul
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> ■ **Theme**: AI Transformation: Transformative Leap of the Republic of Korea
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> ■ **Objective**: To promote the national AI vision and blueprint, and convey a strong message regarding the President's commitment to drive this initiative forward through the launch of the National AI Committee, which will serve as the central platform for national AI policy development
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> ■ **Attendees**:
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> Government members - 10 members including the President (Chairperson), Ministers of relevant ministries, Senior Secretary to the President for Science and Technology
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> Private sector members - 30 AI experts including President Yeom Jaeho of Taejae University (Vice-Chairperson)

The main points of the National AI Strategy Policy Directions announced on this

day are as follows:

1. Background

An unprecedentedly rapid and extensive AI technology revolution is underway, and the world is quickly entering the AI era. Today, AI has become more than just a technology; it is now a transformative force that influences national economies and security. Major countries, including the U.S., China, and the EU, are already fully committed to accelerating AI innovation and establishing global AI leadership, as it is directly linked to national survival.

Since the launch of the Yoon administration in 2022, AI has been one of its key agendas. The administration has made dedicated policy efforts to strengthen AI competitiveness and has taken the initiative in shaping a global order. President Yoon unveiled the New York Declaration (September 2022), the Paris Initiative (June 2023), the Digital Bill of Rights (September 2023), and the AI Chips Initiative (April 2024), and hosted the AI Seoul Summit (May 2024).

Korea has built a robust AI software ecosystem by developing multiple proprietary generative AI models and possesses world-class capabilities in AI semiconductor memory and manufacturing. However, as competition for AI innovation intensifies -driven by major tech companies with substantial capital- a paradigm shift in AI policy is essential.
* World rankings by the number of proprietary generative AI models: 1st - U.S. (64), 2nd - China (42), 3rd - Korea (11) (Source: EPOCH AI, July 2024.)

At a critical juncture where AI will shape the future over the next 30 years, the

Korean government has established the National AI Strategy Policy Directions, which outline a blueprint for Korea to emerge as one of the top three global AI powers. This initiative builds on the country's successful experience in driving the information revolution and the AI capabilities accumulated by both the public and private sectors.

2. Policy paradigm shift

The Korean government will assess the achievements and limitations of past AI policies, considering both the current global AI landscape and Korea's potential. This will drive a policy paradigm shift to maximize AI innovation while addressing any shortcomings. First, the government will support the scaling and integration of AI infrastructure that the private sector cannot easily develop independently, moving beyond initial infrastructure expansion support. Additionally, the government plans to significantly improve the investment climate, encouraging active private sector investment in AI alongside government budget support. Our aim is to integrate AI into national infrastructure to drive a nationwide AI transformation and foster public-private collaboration, expanding efforts from the domestic to the global stage.

3. Vision and Implementation Strategy

The National AI Strategy Policy Directions envisions "Emerging as one of the top three AI powerhouses to become a Global Pivotal State" and outlines the policy direction for the four national AI flagship projects, which will be pursued on a national scale. It also presents policy directions for four key areas of the AI ecosystem: ① Fostering startups and talent, ② Innovating technology and infrastructure, ③ Creating a culture of inclusiveness and fairness, ④ Securing

global leadership.

Vision	Emerging as one of the top three AI powerhouses to become a Global Pivotal State
Implementation Strategy	【Four national AI flagship projects】 1. Significantly expand national AI computing infrastructure 2. Substantially increase private sector AI investment 3. Encourage the deployment of AI across sectors (AI+X) 4. Ensure AI safety and security ➕ 【Policy directions for four key areas of the AI ecosystem】 1. Foster startups and talent 2. Innovate technology and infrastructure 3. Create a culture of inclusiveness and fairness 4. Secure global leadership
Implementation Framework	The National Artificial Intelligence Committee to mobilize public and private sector capabilities

Pursuing the Four National AI Flagship Projects

1. Significant Expansion of National AI Computing Infrastructure
(Expand GPU performance capability to more than two exaflops, or 15 times the current capability by 2030)

Currently, Korea's industry and research community face a critical shortage of AI computing infrastructure compared to big tech companies, which is fundamental to the country's AI competitiveness. To prepare for the AI era over the next 30 years, the Ministry plans to expand current GPU performance by 15 times the current capability (increasing GPU capability to over two exaflops by 2030) and support the early deployment of domestic AI chips. The Ministry will establish a national AI computing center valued at up to KRW 2 trillion, based on public-private investment partnerships. Additionally, it will support the development of private AI computing infrastructure through a low-interest loan program (until 2027). This initiative aims to encourage continuous private investment in AI computing infrastructure and provide world-class AI computing resources to businesses and researchers. Additionally, as part of the implementation process, domestic AI chips such as NPUs and PIMs will be deployed, and specialized hardware and software technologies will be developed and implemented to foster the domestic AI computing ecosystem. The Ministry plans to promote the globalization of the domestic AI computing ecosystem by supporting the export of domestic AI chips through collaborations with global companies and technology demonstrations.

2. Substantiall Increase in Private Sector AI Investment

(The private sector will invest a total of KRW 65 trillion in AI development over the next four years (2024-2027), while the government will actively support such investments)

While the private sector's investment in AI in Korea is relatively lower than that of other major countries, the private sector plans to invest a total of KRW 65 trillion in AI over the next four years (2024-2027), with the government offering incentives to support these investments. As the private sector intensifies its investment in securing AI technologies, talent, and computing infrastructure, the government will review tax incentives and expand policy financing support, including the establishment of large-scale funds. This approach is expected to create a virtuous cycle in the investment ecosystem across the entire AI value chain, enabling the country to to stay ahead of the intensifying global competition for AI leadership.

3. Encouraging the Deployment of AI Across Sectors (AI+X)

(Achieving AI adoption rates of 70% in the industry and 95% in the public sector by 2030)

The Ministry will pursue a nationwide AI transformation, expanding AI deployment from its current limited use in a few areas to encompass industry, public services, society, regions, and national defense. First, the Korean government will establish and implement tailored AI + X ("AX") strategies for eight key industries where AI adoption has significant potential but is currently slow, such as manufacturing, finance, and healthcare. Additionally, the

government aims to enhance AI capabilities by providing a government-wide AI-enabled infrastructure and creating AI services in 18 public sectors that will have a tangible impact on citizens, including safety, disaster response, and health ("Public AX"). In addition, the government will address AI-induced changes in employment, use AI to enhance protections for vulnerable workers, transform public education through AI digital textbooks (starting in 2025), and promote innovation in AI-driven medical systems. Additionally, regional AI innovation hubs will be established, and the deployment of AI in national defense will be promoted through the development of AI military security policies and the expansion of defense AI infrastructure. With full-scale efforts for nationwide AI deployment, the government aims to achieve AI adoption rates of 70% in the industry and 95% in the public sector by 2030. It also plans to generate a total economic impact of KRW 310 trillion by 2026 by enhancing Korea's overall economic fundamentals through AI.

4. Securing AI Safety, Security, and Global Leadership
(Leading Global AI Governance)

The risks associated with advanced AI, such as deepfake crimes and cyber threats, are escalating globally, underscoring the importance of AI safety and security. In response, the Ministry will establish the AI Safety Institute in November of this year as a dedicated national agency to systematically address the risks posed by advanced AI systems. Additionally, it aims to pass a Framework Act on AI within this year to achieve a balanced approach to AI development, safety, and trust.

Moreover, Korea plans to promote the values of the Seoul Declaration around the world and expand international cooperation for the responsible use of AI in

military and security sectors. Furthermore, the government will support the discovery and dissemination of cooperation models between domestic and international companies, establish joint international AI research platforms such as the Global AI Frontier Lab, and actively promote global AI ODA projects to strengthen our AI leadership in the world.

Four Key Policy Directions

1. Foster AI Startups and Talent to Strengthen the Foundational Capabilities Bolstering National AI Innovation

While unicorn AI companies are springing up rapidly in other countries, there are currently no Korean AI unicorns, and there is a persistent issue with the lack of AI talent. To address this, the MSIT aims to lay a foundation for fostering specialized AI startups and create an environment that encourages mergers and acquisitions, with the goal of nurturing 10 AI unicorns by 2030. The ministry will also aim to nurture 200,000 AI professionals by 2030 (51,000 as of in May 2023) by facilitating, globalizing, and generalizing the process of AI talent development.

2. Enhance Key Foundational AI Technologies and Promote Innovation in AI Infrastructure.

First, the MSIT will expand technological cooperation with leading nations through the establishment and operation of joint research hubs focused on AI semiconductors, and the ministry will work to secure competitiveness in on-device AI, a promising future AI technology. The Korean government will also support innovation in the emerging AI industry by reforming personal data regulations, and create a suitable data utilization foundation for generative AI by improving systems that promote the use of high-quality content. Furthermore, the government will advance AI-oriented network enhancements, such as low-latency, low-power, and edge network innovations, and address the increasing demands for AI traffic and power by enacting the Special Act on National Power Grid Expansion.

3. Establish a Foundation for Sustainable Development and Dissemination of AI.

To ensure that all citizens can enjoy the benefits of AI, the MSIT will promote the enactment of the Digital Inclusion Act to guarantee access to and utilization of AI for everyone. The ministry will also establish a fair ground for competition and lay the foundation for protecting rights to support AI innovation. The government plans to implement measures to prevent discrimination and privacy violations during the development and use of AI.

4. Establish a New Order for the AI Era and Lead Global AI Norms and Governance.

The MSIT aims to establish fundamental legal principles regarding key AI issues, such as accountability and rights attribution, and to develop measures for protecting individuals and vulnerable groups in the age of AI-driven automation. Moreover, as a central player in the global AI landscape, Korea will continue expanding its collaboration with other countries and international organizations and take the lead in discussions on global AI governance.

5. Implementation

The newly launched National Artificial Intelligence Committee plans to establish and implement the National AI Strategy, which will consolidate the National AI Strategy Policy Direction and translate it into actionable policy tasks. In particular, the AI Committee will operate subcommittees involving top private sector experts and relevant government agencies to derive detailed tasks and implementation plans for each sector, and will systematically support their activities through a dedicated support team.

President Yoon Suk Yeol chaired the Committee meeting and said, "I declare a national "all-out effort" campaign to realize the grand vision of transforming Korea into one of the top three AI powerhouses."

He emphasized, "The National AI Committee launched today will serve as the focal point for public-private collaboration to harness Korea's innovation capabilities, driving the AI transition that is critical for our country's future. Together, let us shape the next 30 years driven by AI."

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