

Global Market Size/Forecast

- ▶ The global information and communication market is expected to grow by 9.3% from USD 5.7 trillion in 2025, compared to the previous year.
- ▶ The market for IT devices equipped with AI is expanding, and the demand for artificial intelligence and cloud-related technologies is rising. As a result, the data center and software markets are expected to see strong growth.
- ▶ After the impact of inflation over 2022-2023, the consumer and enterprise device markets are expected to recover by 9.4% in 2025.

<Global Information and Communication Market Expenditure Size (2023-2025)>

(Unit: billion USD, %)

Category	2023		2024 (estimate)		2025 (forecast)	
	Expenditure	Change	Expenditure	Change	Expenditure	Change
Data Center System	238	4.7%	318	33.8%	367	15.5%
Corporate S/W	916	12.9%	1,088	18.7%	1,240	14.0%
Device	689	-10.0%	736	6.7%	806	9.5%
IT Service	1,401	7.3%	1,588	13.3%	1,738	9.4%
Communication Service	1,449	1.8%	1,530	5.6%	1,597	4.4%
Total	4,694	3.5%	5,260	12.1%	5,747	9.3%

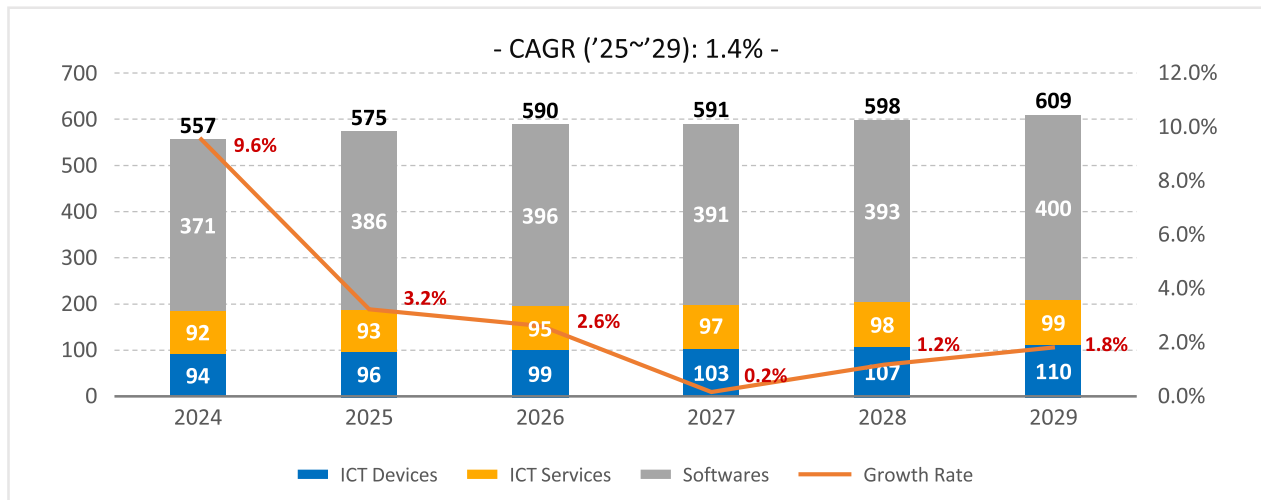
* Source: Gartner (2024.10)

Domestic Market Size/Forecast

- ▶ In South Korea, the ICT industry's production is expected to grow by 3.5% to KRW 575.3 trillion in 2025, compared to the previous year, due to the slowdown in ICT device growth and stagnation in the ICT services and software markets.
- ▶ With the demand for AI growing, AI-equipped semiconductor, information services, and software markets are expected to drive the growth within the ICT industry.

<Domestic ICT Industry Production Forecast>

(Unit: KRW trillion)

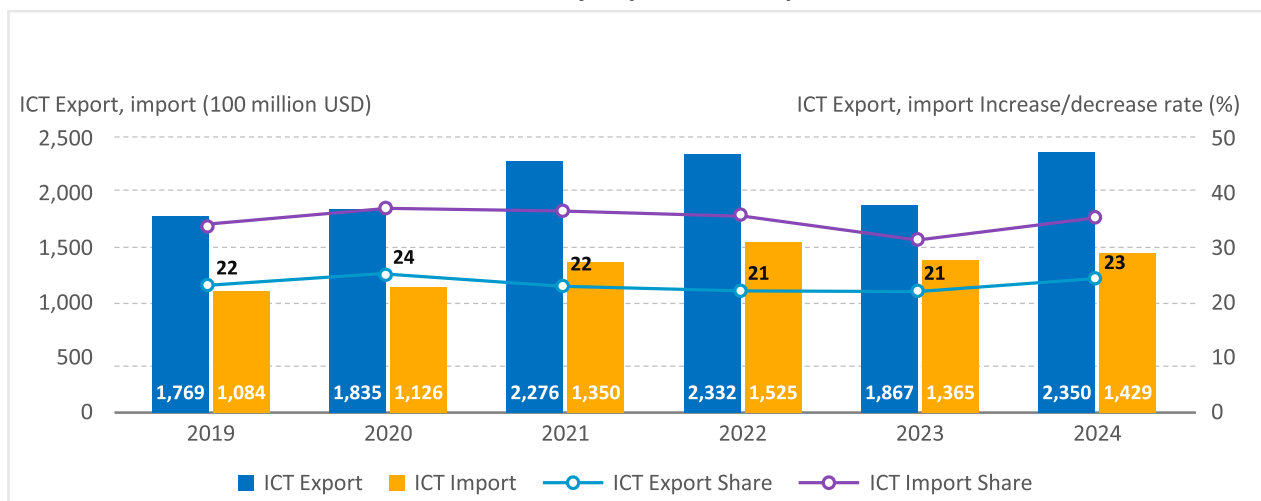


* Source: Ministry of Science and ICT, KISDI 2024

Sales/Exports/Production Volume

- ▶ South Korea's ICT industry exports are expected to reach USD 235 billion in 2024, achieving the highest record ever, driven by the surge in demand for AI technology and the expansion of the domestic semiconductor industry and exports.
- ▶ In 2025, Korea's ICT export is expected to be USD 242.6 billion, up 7.4% from the previous year, due to slowing growth of semiconductor and SSD and a decrease in export of LCD panels. Despite continued demand for AI-related semiconductors and SSD, pricing adjustment and decreasing global market share of LCD panels are likely to slow down the export growth compared to the previous year.

<ICT Industry Export and Import>



* Source: Ministry of Science and ICT, Information and Communication Planning and Evaluation Agency

Trends in Foreign Investment in South Korea

- ▶ Foreign Direct Investment (FDI) in the information and communication sector in 2024 is expected to increase by 13.8% from the previous year to USD 2.14 billion.
- ▶ The number of filings was 294, reflecting a 4.8% decrease from a year ago.
- ▶ Investments continue in sectors such as gaming, software, K-Content production, and data processing and hosting. However, investments in the more mature e-commerce sector and data centers have decreased due to regulatory tightening and public complaints.

<Yearly Information and Communication Industry Investment Amounts (Filing-Based)>

(Unit: million USD, %)

Sub-industry	2020	2021	2022	2023	2024
ICT (Share)	1,683 (8.2)	7,022 (23.8)	3,571 (13.3)	1,883 (5.76)	2,143 (6.4)

* Source: The Foreign Investment Statistics System (INSC)

Investment Strengths

(THE WORLD'S FIRST AND BEST IT POWERHOUSE)

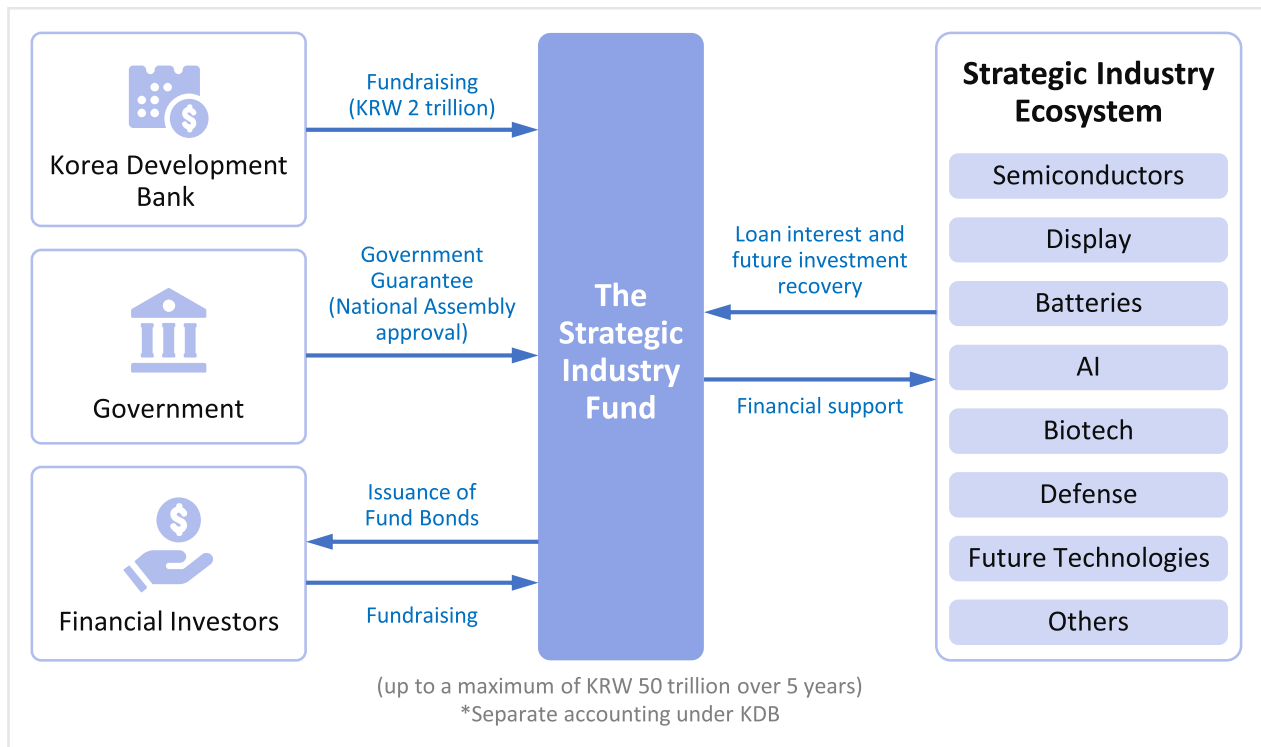
- ▶ **1. Global leader in the ICT industry:** Korea was the first country in the world to commercialize CDMA in 1996, LTE-A in 2013, and 5G in 2019. The country is acknowledged as a global ICT leader based on its high level of ICT related technologies and penetration rate.
- ▶ **2. Excellent ICT infrastructure:** Korea's excellent ICT infrastructure is not just high-speed internet, it's about a hyperconnected ecosystem for business to flourish.

Incentives/Regulatory Status

(INCENTIVES)

- ▶ **Tax Reductions:** Tax reductions are available for the establishment of factories in new growth industries and original technologies (such as AI, IoT, cloud, IT, and robotics)
- ▶ **Cash Grants:** Cash support is provided to industries that contribute to the national industrial advancement in new growth sectors, including original technologies, when the foreign investment ratio is over 30%.
- ▶ The government has confirmed the establishment of a KRW 50 trillion Advanced Strategic Industry Fund to support investment in advanced industrial facility investment and R&D, with comprehensive support, including equity investments and subordinated debt, for ten industries such as AI, robotics, and other high-tech industries outlined in the Act on the Restriction on Special Cases Concerning Taxation.

<Operation of the Strategic Industry Fund>



(REGULATIONS) <DATA CENTERS>

- 📌 **Parking Lot Act:** Requirements for installing parking facilities during data center construction (standards differ by region).
- 📌 **Distributed Energy Activation Special Act:** Impact assessments on power systems required for large energy-consuming facilities.
- 📌 **Telecommunications Business Act:** Obligation to consult with local residents when building data centers (currently at the bill proposal stage).
- 📌 **Urban Traffic Promotion Act:** If constructing facilities over 1,000m² in urban areas, traffic impact assessments and access road provisions are required.

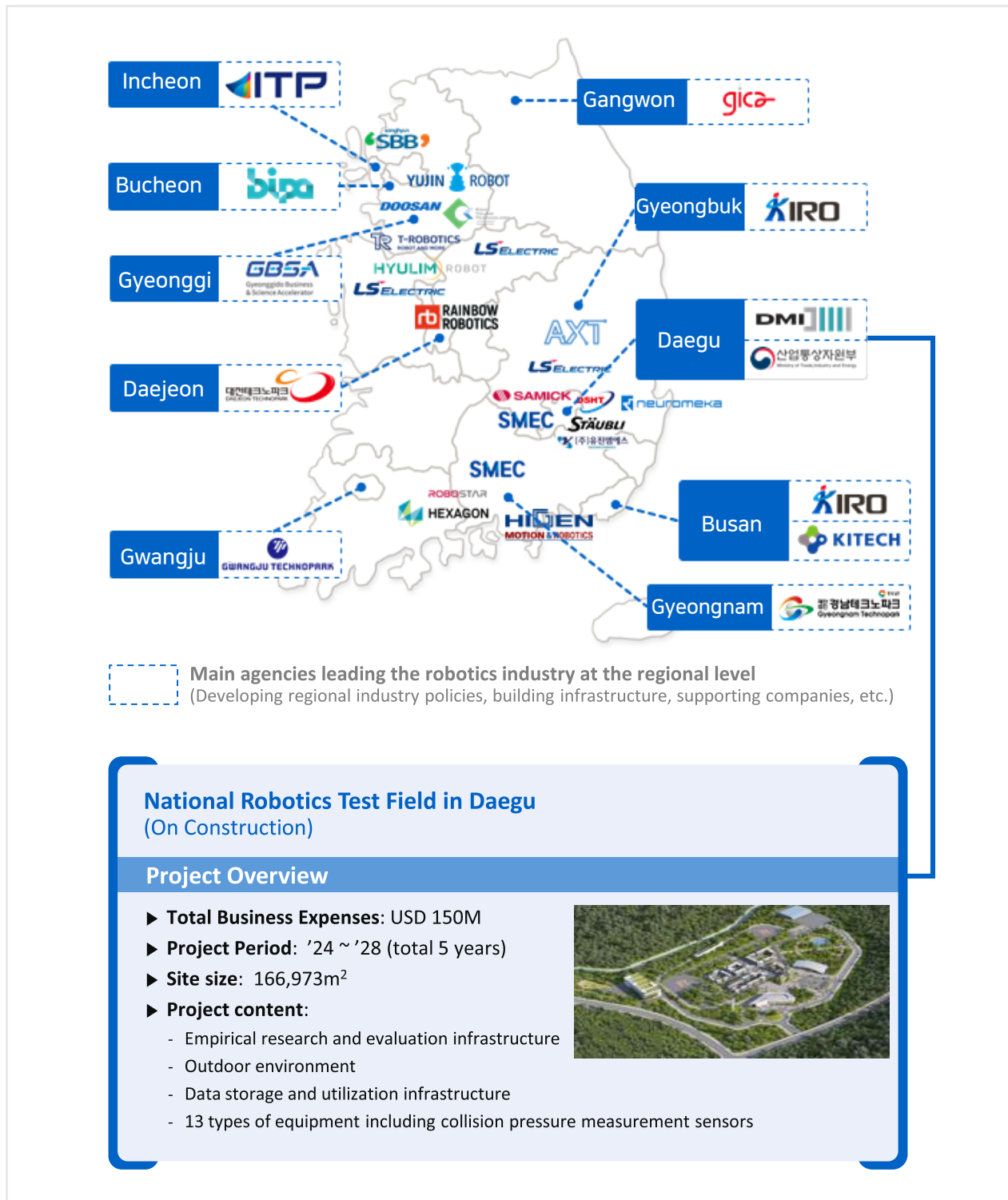
(Regulations) <AI> (Effective from January 1, 2026)

- 📌 **AI Basic Act:** Regulations on the insertion of watermarks in AI-generated content for user protection, the obligation to inform users in advance about high-risk AI, and the designation of domestic representatives for foreign AI businesses.

Cluster Status

(ROBOTICS)

- ▶ **Busan:** Korea Institute of Robotics & Technology Convergence (KIRO) conducts R&D and commercialization support related to robotics convergence and core technologies.
- ▶ **Daegu:** Daegu Mechatronics & Materials Institute (DMI) is working on building robot industry infrastructure, technology development, performance evaluation of parts/modules/products, and business support. DMI is also establishing a "National Robot Test Field" to analyze and evaluate robotics technologies in Dalseong-gun, Daegu.



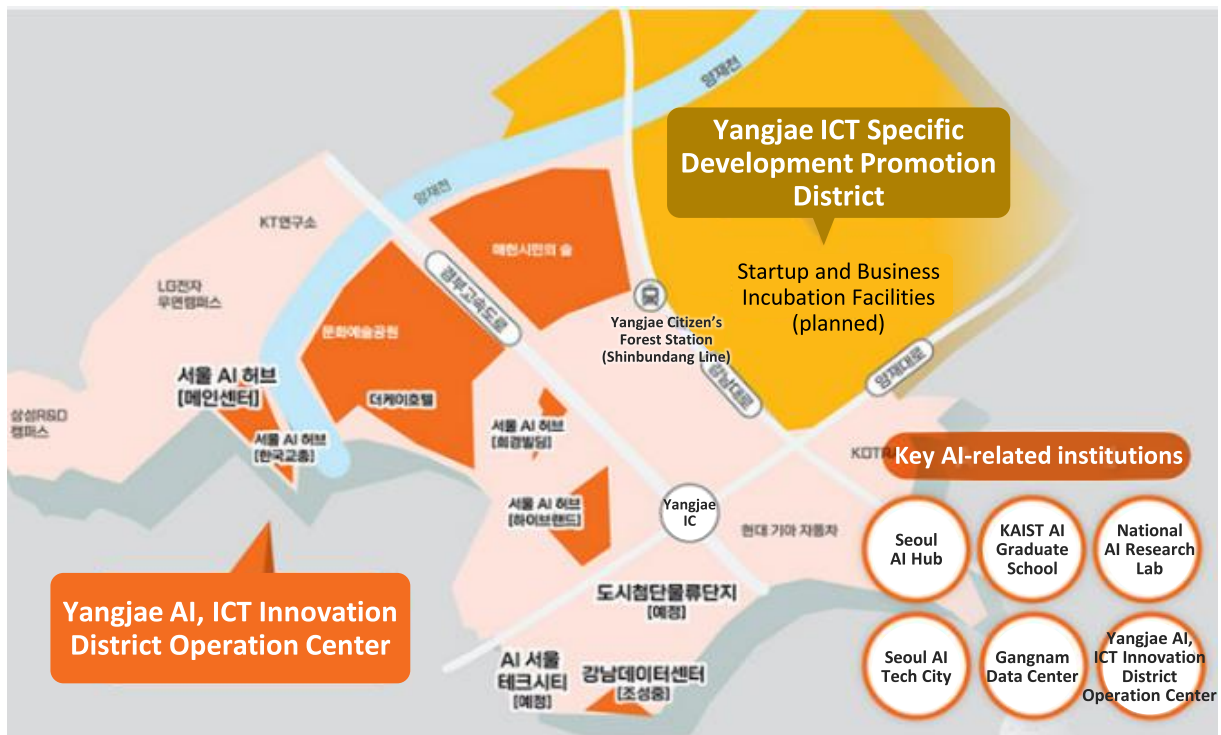
(AI)

➤ Gwangju: Gwangju AI Special Zone

▶ **Seoul:** Yangjae AI Future Convergence Innovation District (Yangjae AI Special Zone)



* Sources : NEWSIS 2025.03.13. photo@newsis.com



Industry Development Policies

▶ **(PROMISING TECHNOLOGIES)** 「Based on the "12 Core National Strategic Technologies" and the "New Growth 4.0 Strategy," the following 12 key technologies are seen as promising: Cloud Computing; Artificial Intelligence; Quantum Computing; 6G/Satellite Communications, among others.

▶ **(INDUSTRY NURTURING POLICIES)** In September 2024, the government launched the National Artificial Intelligence Committee, which will play a role as a National AI Policy Control Tower, announcing AI strategy and policy directions.

- Build a "National AI Computing Center" with a maximum investment of KRW 2 trillion through collaboration between the private sector and the government
- In 2024-2027, the private sector plans to invest KRW 65 trillion in the AI field.
- A national AI transition will be promoted across industries, public sectors, social spheres, regions, and defense.

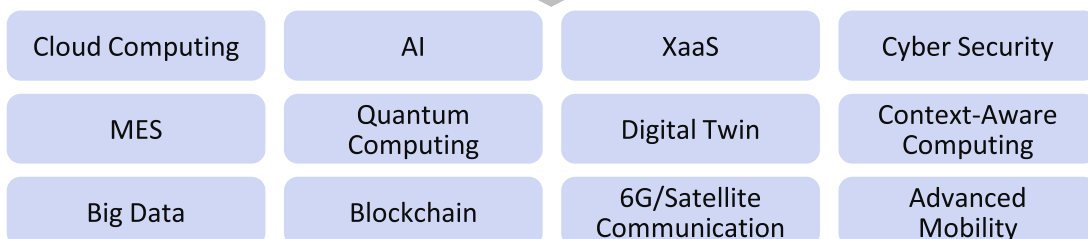


National Digital Strategy

Leading technologies to secure future growth drivers based on 12 national strategic technologies, New Growth 4.0 strategy

Item Consolidation & Organization

실감형 콘텐츠	스마트 홈	지능형 데이터 분석	빅데이터
가용성 강화	DRM/CA/S	지능형 데이터 분석	스몰데이터
가용성 강화	XaaS	지능형 데이터 분석	예측 및 처방적 분석
가용성 강화	블록체인	지능형 데이터 분석	재난연 전관리시스템
가용성 강화	사이버 보안	지능형 데이터 분석	지능형 사격간 접자본 유지관리
가용성 강화	소프트웨어 집적화	지능형 데이터 분석	지능형 교통시스템
가용성 강화	클라우드 컴퓨팅	차세대 무선통신미디어	5G 통신
능동형 컴퓨팅	동작인식 및 분석	차세대 무선통신미디어	6G 통신
능동형 컴퓨팅	디지털 트윈	차세대 무선통신미디어	RFID/USN
능동형 컴퓨팅	상황인 지형 컴퓨팅	차세대 무선통신미디어	다중입출력 안테나 시스템 (MIMO/MIMO)
능동형 컴퓨팅	스마트 플류시스템	차세대 무선통신미디어	밀리미터파 (5G/6G)
능동형 컴퓨팅	예지형 컴퓨팅	차세대 무선통신미디어	방송용 신인프라
능동형 컴퓨팅	인간형 퓨터상호 작용 (HCI)	차세대 무선통신미디어	사물인터넷 (IoT/IIoT)
능동형 컴퓨팅	민중지능	차세대 무선통신미디어	원격통신시스템
소프트웨어	게임엔진	차세대 무선통신미디어	스마트 시티
실감형 콘텐츠	가상현실시스템	차세대 무선통신미디어	차량간 통신 (V2X)
지능형 데이터 분석	데이터 시각화	실감형 콘텐츠	실감형 콘텐츠 소프트웨어
		실감형 콘텐츠	확장현실



- Establish an AI safety research institute
- Support the nurturing of AI startups and talent.

- ▶ Select Leading Technology Areas for Securing Future Growth Drivers based on the New Growth 4.0 Strategy and 12 Key National Strategic Technologies
- ▶ The Ministry of Trade, Industry, and Energy (MOTIE) announced 10 key tasks for AI diffusion at the 3rd AI Industry Promotion Committee held on January 22, 2025, including fostering AI semiconductors, humanoid robots, and AI agents
- It suggests the MOTIE's policy directions in 10 tasks of 3 sectors (success models, key elements, infrastructure) based on input from the private sector and discussions with experts.

<Vision and Goals for Industrial AI>



* Source: MOTIE

- ▶ In February 2025, the 3rd National AI Conference announced National AI Support Directions
- By the first half of next year, secure computing resources (high-performance GPUs) equivalent to 18,000 units for the National AI Computing Center and Supercomputer 6.
- Stimulate private investment in AI data centers by strengthening tax incentives across the entire AI value chain, improve systems related to electricity and land use, and . Demonstrate domestic AI semiconductors and AI model packages through the National AI Computing Center.
- Expand the use of unstructured original data, such as video, which was previously only allowed for autonomous driving, to broader societal and industrial applications. Prepare exceptions for the use of personal data, etc.

Key Examples

(MICROSOFT)

- In 2016, Microsoft announced plans to establish six centers by investing in 54,000 pyeong of foreign investment zones in Mideum, Gangseo-gu, Busan. The first region was completed in May 2020, and the second region was completed in September 2024.
- MS operates 60 service regions across 140 countries worldwide, with business applications being serviced from data centers in 19 of these countries. MS is the only company providing SaaS solutions from domestic data centers.

(AMAZON WEB SERVICES (AWS))

- In 2016, AWS started operating its data center in Seoul, marking its fifth in Asia and twelfth globally.
- In response to increasing demand for cloud services in South Korea, AWS plans to invest KRW 7.85 trillion (USD 5.88 billion) in domestic cloud infrastructure by 2027 and has been granted approval for a 32,476m², 1000MW-capacity data center in Seo-gu, Incheon.

