

AI Readiness: Shaping the Future AI Landscape

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Section 1

Why AI Readiness Matters

Getting Started

Fueled by the rise of generative AI services, the artificial intelligence market is experiencing unprecedented growth. According to PwC estimates, which compile multiple professional sources, the AI market is projected to grow at an average annual rate of 28% until 2030, reaching an estimated size of \$827 billion. In response to this surge, nations and regions worldwide are intensifying their investments to gain a competitive edge in the AI arena. The continuous emergence of innovative startups and groundbreaking technologies underscores the boundless potential of the AI industry. Consequently, a critical imperative has emerged: how to effectively acquire and leverage AI capabilities in this dynamic landscape. Now, more than ever, countries/regions should accelerate the development and implementation of strategies aimed at bolstering their AI competitiveness.

Having the full ‘AI Stack’ is key

A dominance in the global AI race lies in the development of a complete, integrated AI ecosystem, or ‘AI stack’—comprising AI chips, infrastructure, models, and services. Each division plays a critical role in the AI value chain, from the hardware foundation, AI chips, which enable powerful computing, to the infrastructure that supports the deployment of AI technologies. AI models drive innovation by providing the algorithms necessary for problem-solving, while AI services directly impact end-user applications. Together, these four dimensions represent the full spectrum of AI development, highlighting the interconnected nature of the technology.

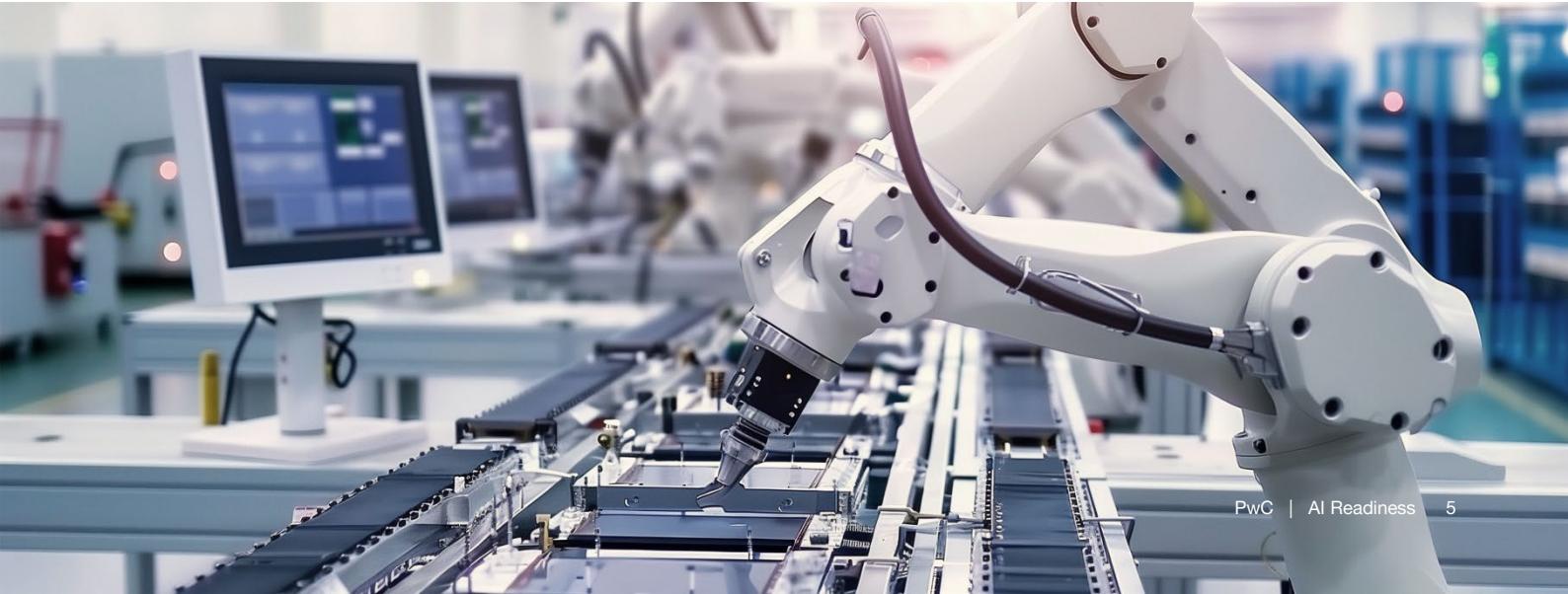
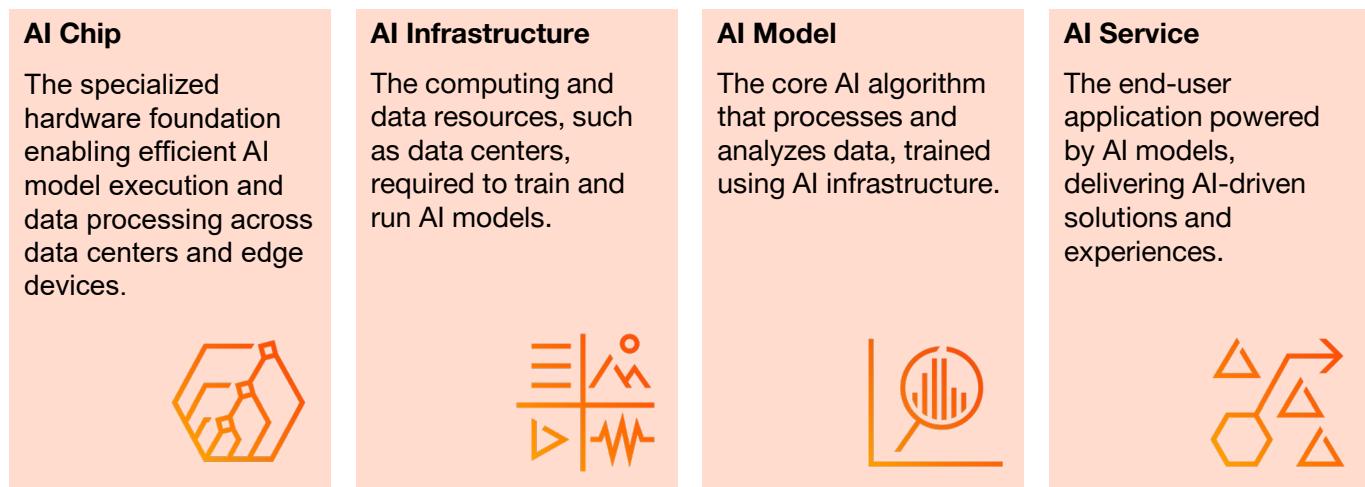


Exhibit 1

Full AI Stack and its 4 Dimensions



Source: PwC Analysis

AI chip as the foundation of the AI Stack

AI semiconductors are the foundational hardware that powers AI stacks, making them a critical component of overall AI capabilities. Unlike AI models and services, which are software-based and can be deployed regardless of physical location, AI semiconductors require not only design and R&D but also a physical manufacturing infrastructure. Consequently, a country's AI capabilities are significantly influenced by the presence and location of domestic production facilities. Even the most sophisticated AI models and services cannot reach their full potential without the underlying semiconductor foundation to support them. Therefore, the ability to independently develop and manufacture AI chips is essential for gaining a competitive edge in the AI landscape. (see Exhibit 1)

Now is the Right Time to Assess AI Readiness

The growing influence of AI on the global economy and international relations make AI readiness a critical factor for future competitiveness. As a key driver of innovation, AI is transforming industries such as healthcare, finance, and manufacturing. Due to these rapid technological advancements, now is the time to assess where regions stand and how well they can reinforce their AI capabilities in the years ahead.

To gain a thorough understanding of AI readiness, this report analyzes 10 countries/regions, each with a distinctive approach to expanding their AI capabilities. These countries/regions were selected based on their varying strategies, current AI development paths, and transformative potential for further growth in the AI sector.

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Nations that will lead in the AI race will be those that leverage their distinct advantages while systematically investing across the entire AI stack to build holistic ecosystems.

Glenn Burn

PwC Global Semiconductors Leader



Assessing the State of AI Readiness: A Tangible Criteria Framework

This report assesses each nation's AI capabilities across the four components of the AI stack – AI semiconductors, infrastructure, models, and services – using three tangible and measurable criteria: Foundational Capability, Supply & Demand, and Ecosystem & Environment. Focusing on present-day factors rather than intangible aspects, this assessment provides an overview of each country's state of AI readiness. (see Exhibit 2)

Exhibit 2

Assessment Criteria



Foundational Capability

Fundamental building blocks of AI in each country, including talent, patents and resources – critical factors that drive AI development

Supply & Demand

Market momentum of AI development and adoption, reflected in startup activity, infrastructure expansion, and positioning in the global AI value chain

Ecosystem & Environment

Structural and environmental conditions that shape the scalability, energy efficiency, investments, and supportive policy frameworks

Source: PwC Analysis

Section 2

Different Pathways to AI Readiness



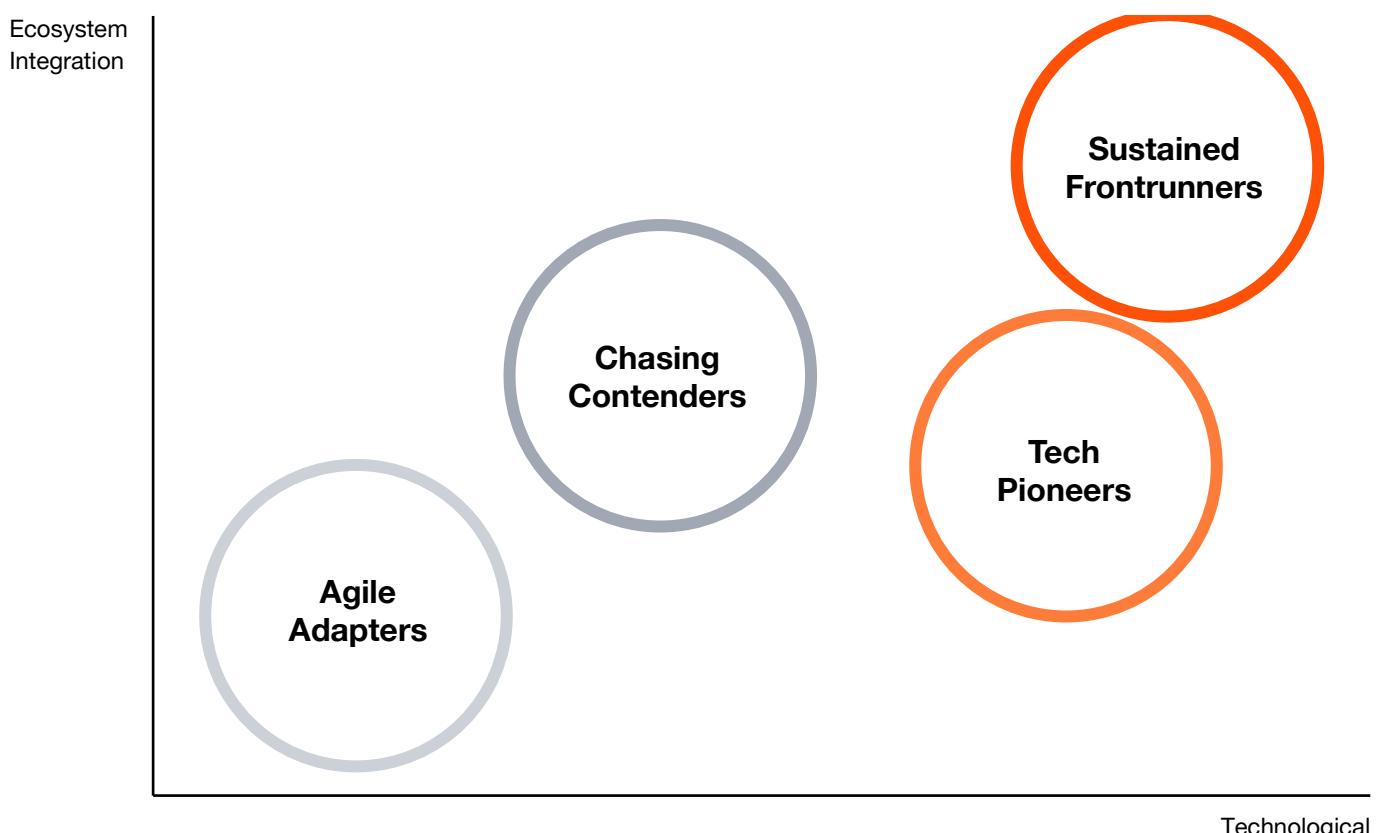
Four Approaches to AI Readiness

Before assessing each country's AI readiness, it's helpful to examine how their strategies align within distinct models. Our analysis reveals four different groups based on two key dimensions: technological foundation (a capacity to develop and produce core technologies domestically, with semiconductor capabilities standing out as particularly crucial) and ecosystem integration (how effectively it connects all elements of its AI stack). (See exhibit 3). These groupings provide valuable insights into various national approaches to AI development.



Exhibit 3

Bubble Chart Assessment of where each group stands



Source: PwC Analysis

1 Sustained Frontrunners

The United States, China, United Kingdom

How are they maintaining the frontrunner positions?

Connecting and expanding the integrated ecosystem through diversified investments in all four dimensions

What these nations share in common is their long-term, substantial investment across dimensions, driven by complementary government and investments.

Neither country has focused narrowly on a single aspect; instead, both have invested across all four AI full-stack dimensions. They've particularly prioritized investments crucial for maintaining long-term leadership: talent development, educational infrastructure, financial backing, and R&D for technological advancement. This demonstrates that successful AI development requires connecting the entire ecosystem rather than concentrating solely on isolated areas.

2 Tech Pioneers

Republic of Korea, Taiwan

How do these tech pioneers keep up their competitiveness?

Utilizing strong foundational bedrock: AI chip capabilities

These leading tech pioneers possess strong AI chip development capabilities, which serves as the foundation of their competitive advantage and helps them maintain their high rankings. The ability to domestically produce AI chips offers significant potential for expansion into three other dimensions, as all these areas depend on the performance delivered by advanced AI chips.

Furthermore, since AI chip development requires long-term investment and technological advancement, countries with this capability can maintain their positions more stably, even if they possess weaknesses in other areas. Overall, this highlights the critical importance of AI chip capabilities for any nation or company seeking to excel in the global AI competition.

3 Chasing Contenders

Germany, France, Singapore

How are they chasing the frontrunners?

Leveraging their unique strengths to hold solid positions

These nations exemplify how countries can maximize their inherent advantages to secure solid positions in the middle tier of global AI readiness while striving to reach the top tier. Germany, with their robust manufacturing foundations, are leveraging their semiconductor strengths to enhance competitiveness. France, with its traditionally strong education system in mathematics and engineering that excels with talent with skills in mathematics, algorithms, and AI, is seeing its ranking rise through AI model development. Singapore is utilizing their agility in AI adoption to expand their ecosystem.

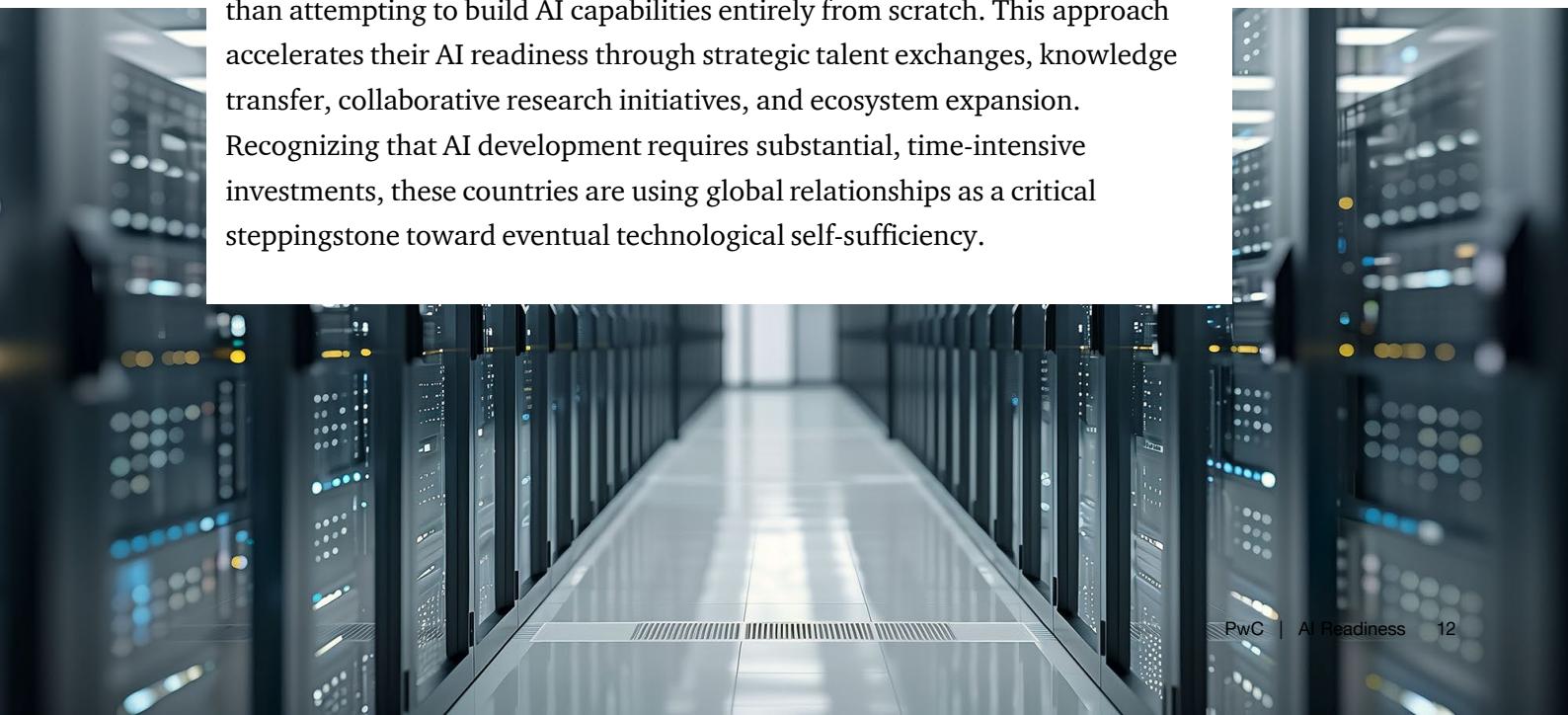
4 Agile Adapters

Japan, the Netherlands

How are agile adapters catching up?

Utilizing global resources for faster growth

These nations are strategically leveraging global resources by fostering international collaborations and attracting multinational companies, rather than attempting to build AI capabilities entirely from scratch. This approach accelerates their AI readiness through strategic talent exchanges, knowledge transfer, collaborative research initiatives, and ecosystem expansion. Recognizing that AI development requires substantial, time-intensive investments, these countries are using global relationships as a critical steppingstone toward eventual technological self-sufficiency.



Section 3

AI Readiness Case Study

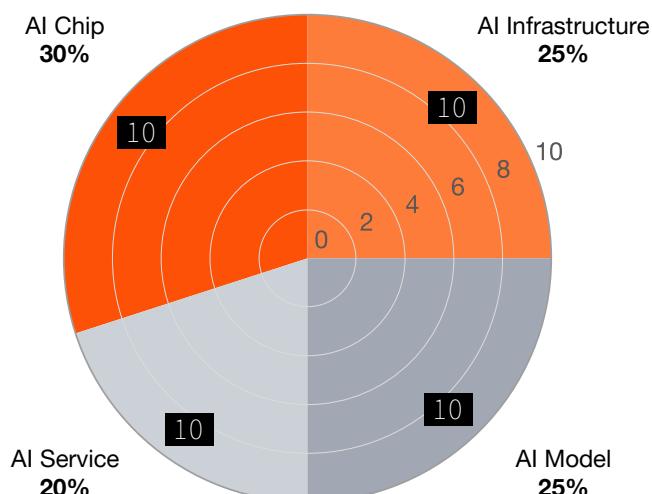




The United States

Overview

The United States appears to be one of the players that holds leadership in AI. The government actively supports market-driven innovation by fostering an environment conducive to investment, research, and talent development. This is reflected in the fact that 42% of US venture capital was invested in AI companies in 2024, a notable increase from 36% in 2023, demonstrating the strong concentration of investment in AI. The US prioritizes the interconnected growth of the entire AI ecosystem, rather than focusing on isolated areas.



Key Trends

AI Chip

- Global leader with 37% of semiconductor technology patents worldwide
- \$52B in government incentives for new semiconductor manufacturing through the 2022 CHIPS Act

AI Model

- Created 130+ notable LLMs, the highest number worldwide
- Led global AI model investment in 2023, with U.S. companies contributing most of the \$12B spent on LLM R&D

AI Infrastructure

- Houses 5,300+ data centers (2024), with supercomputing power tripling from 2.22B to 6.48B GFLOPS (2022-2024)
- U.S. AI clusters command 65% of global high-end computing infrastructure as of 2023

AI Service

- Dominates with numerous AI unicorns showing overwhelming market penetration and growth
- Invested nearly \$13B (2022-2023) in broad AI applications, including LLM platforms and search engines

Navigating The Path Forward...



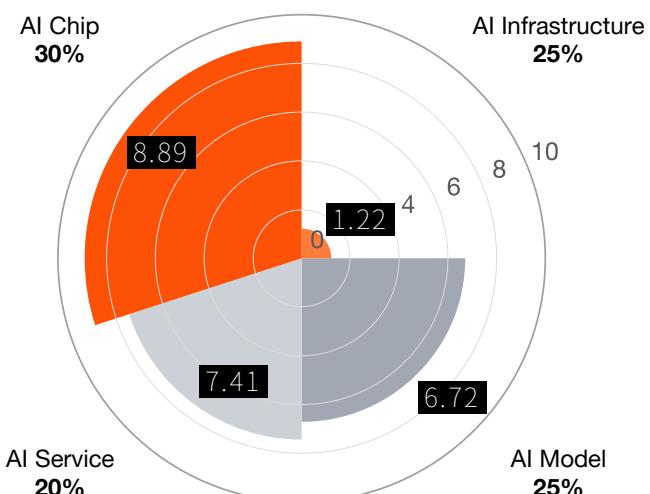
The U.S. will likely maintain AI dominance through its integrated ecosystem and cross-dimensional investments. While competition is undoubtedly growing, significant private funding coupled with government policies that foster market flexibility could help to sustain its prominence. A key consideration going forward would be carefully navigating the balance between ethical and regulatory considerations and the U.S.'s historically open approach to innovation.



China

Overview

China is securing its AI lead through combined government initiatives and market innovation. Unlike the U.S. market-driven approach, the Chinese government proactively strengthens AI capabilities through strong leadership. This includes institutional frameworks bolstering infrastructure and access to anonymized data for model development, among other initiatives. This government-directed growth model has driven rapid expansion, with the focus now on optimizing resource allocation to maximize efficiency relative to substantial investments.



Key Trends

AI Chip

- Filed most semiconductor patents in last decade with more than 6,400 patents
- Market expanding through government-led localization, with 60-70 fabless companies and 1.4M chip shipments (2023)

AI Model

- Ranks second globally with 90+ notable AI models (2024)
- Launched 'AI Foundational Model Development Action Plan' targeting \$21B investment, resulting in 60,000+ research papers (2023)

AI Infrastructure

- Operates ~450 data centers (2024) with 0.32B GFLOPS supercomputing power, ranking second globally
- Investing \$210B in AI data centers through 'New Infrastructure' policy (2020-2025)

AI Service

- Leads in generative AI adoption at 83% among business decision makers according to July 2024 SAS/Coleman Parkes survey
- Registered 300+ generative AI products with regulatory authorities

Navigating The Path Forward...

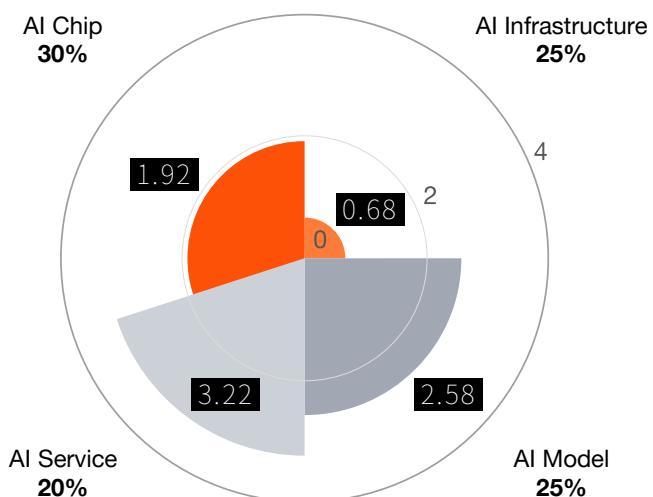


China is expected to remain a significant competitor to the U.S. in the pursuit of AI leadership, supported by government-directed investments and considerable access to resources. As China steadily strengthens its domestic AI ecosystem and works towards greater self-reliance, it may encounter potential constraints stemming from its relatively less open innovation landscape and certain difficulties in fostering global collaboration.

The United Kingdom

Overview

The UK has established itself as an AI leader through 'pro-innovation regulation'. As an ecosystem architect, the government fosters voluntary standards and operates regulatory sandboxes like the FCA's Digital Sandbox to accelerate innovation. With \$3.5B invested in its National AI Strategy and funding for AI safety research, the UK nurtures talent and infrastructure while maintaining its balanced approach to regulation, resulting in Europe's largest AI startup ecosystem.



Key Trends

AI Chip

- National Semiconductor Strategy commits \$1.3B to AI chip design, IP development, and research
- Controls 14% of global AI chip fabless market through strong presence in IP architecture

AI Model

- Recognized as R&D leader through renown institutes such as the Alan Turing Institute and UCL
- Released over 20 notable LLMs, the most among European countries

AI Infrastructure

- Hosts more than 500 data centers nationwide, and plans to invest \$380M in AI supercomputing infrastructure
- Launched \$17B AI action plan, attracting \$3B in AI infrastructure investment

AI Service

- Hosts Europe's largest AI startup ecosystem, attracting \$4.8B in 2022 (37% of European AI investment)
- Operates regulatory sandboxes like FCA and ICO initiatives, supporting innovative AI services

Navigating The Path Forward...

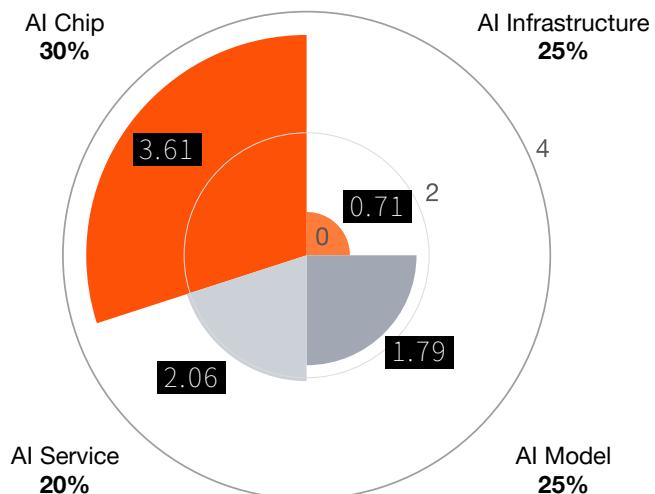


Despite smaller investments than the US and China, the UK appears well-positioned in AI. Leveraging strong R&D and talent, it may develop AI capabilities at its own pace, rather than competing on investment scale. The UK could influence global AI ethics and governance, with academic-industry relationships mitigating post-Brexit collaboration challenges.

Republic of Korea

Overview

Korea excels in the AI race by leveraging its semiconductor manufacturing strengths. Korean companies with global influence continue growing through technological expertise and financial resources. Major players expand the ecosystem by establishing in-house ventures and investment teams that nurture AI startups and semiconductor fabless companies. Leading telecom and tech firms also drive data center development and model creation, highlighting the significant impact of large corporations.



Key Trends

AI Chip

- Ranks third globally with 600+ AI semiconductor patents, leveraging filings from global leading companies
- Combines manufacturing capability from existing players with growing AI chip fabless startups

AI Model

- Developed 14 notable LLMs (2024), many created by Korean tech and telecom companies
- Completed decade-long 'Exobrain' project for Korean-language AI models with 400~500 papers and 300~400 patents

AI Infrastructure

- National 'Digital New Deal' policy (2020) supports AI and cloud computing centers nationwide
- Operates more than 150 data centers with expansion planned through 2028

AI Service

- 84% of funding comes from private investment, fostering a self-sustaining startup ecosystem
- Fostering AI startup ecosystem with 5 global unicorn targets and 50% SME AI adoption by 2027

Navigating The Path Forward...



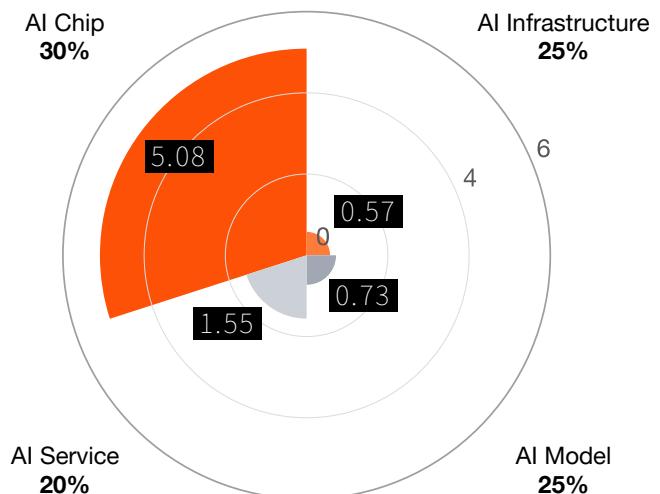
Korea has the potential to make significant advancements by leveraging its strong semiconductor capabilities and integrating AI into key sectors like electronics. However, relatively smaller market capital and a potential talent shortage could pose ongoing challenges. To fully realize its AI potential, collaboration among government, industry, and academia may be beneficial in developing talent and diversifying beyond large conglomerates to encourage a more dynamic startup ecosystem.

Taiwan



Overview

Taiwan dominates global semiconductor manufacturing, including advanced chips, providing a foundation for expansion into other AI dimensions. While still developing in other AI dimensions beyond chips, Taiwan is actively promoting initiatives such as "The Industry-Academia Collaboration Program," which has increased STEM programs by 10-15% in AI, semiconductor, and engineering fields as well as "Ten Major AI Infrastructure Projects," which aims to bolster their AI infrastructure. These initiatives position Taiwan for future success in broader AI technological domains.



Key Trends

AI Chip

- Hub for advanced semiconductor manufacturing, producing ~90% of advanced chips
- Taiwan Chip-based Industrial Innovation Program leverages semiconductor expertise to integrate chips with innovations like generative AI

AI Model

- Have released 6 local LLMs so far, including FoxBrain and TAIDE
- Developed Taiwanese LLM TAME with 70B parameters through government, academia, and industry collaboration

AI Infrastructure

- Operates more than 20 data centers with plans to expand national AI computing capacity
- Building AI infrastructure with phased deployment targeting 480PF total computing power and large-scale cloud data centers

AI Service

- Hosts ~200 AI startups (2023), with relatively smaller focus on AI services
- "Taiwan AI Action Plan" facilitates industrial transformation by promoting local AI service startups

Navigating The Path Forward...

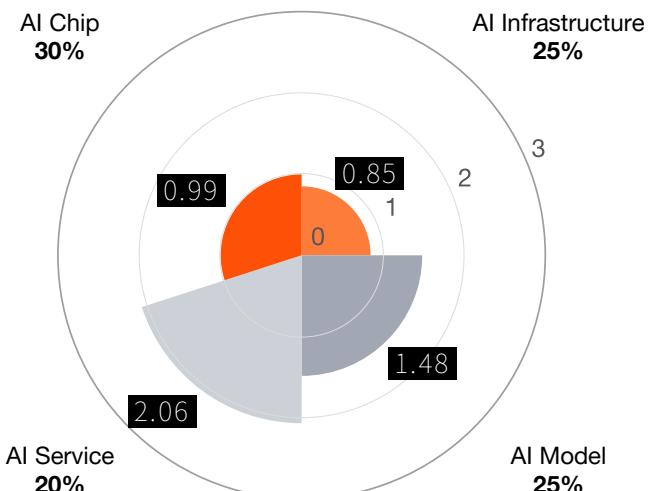


Taiwan is well-positioned to continue its role in AI development through its strong semiconductor manufacturing capabilities. This advantage helps attract strategic partnerships with global companies, as seen in the growing tech firm presence in Taiwan. Future opportunities lie in expanding the ecosystem through infrastructure development and new service ventures. In the longer term, Taiwan appears to have strengths in hardware infrastructure, which may complement global software development efforts.

Germany

Overview

Germany, one of the early adopters among European countries to establish a national AI strategy, initially focused on industrial AI rather than strengthening its entire ecosystem. In 2023, Germany's AI investment surged 244% year-over-year, demonstrating its expansion ambitions. Currently hosting over 400 AI startups, Germany is strengthening its ecosystem by deploying research centers focused on R&D-to-commercialization pathways while attracting global companies concurrently.



Key Trends

AI Chip

- Secured global company's new \$33B semiconductor facility (2023) with \$11B in government subsidies
- Participates actively in European Chips Act, driving collaborative research in AI chips

AI Model

- Investing \$5.4B in AI research by 2025, with over \$1B dedicated to AI model development
- Launched three domestically developed LLMs (2024), accelerating foundational AI model capabilities

AI Infrastructure

- Attracted \$3.2B in AI infrastructure investments from global leading tech companies
- Expanded national supercomputational capacity to 399M GFLOPS, supporting high-complexity AI workloads

AI Service

- Achieved \$3.7B in AI startup investments (2024), driven by acquisitions and venture activity
- Leveraged industrial strengths with 40% of AI startups operating across industrial sectors such as manufacturing and transport

Navigating The Path Forward...



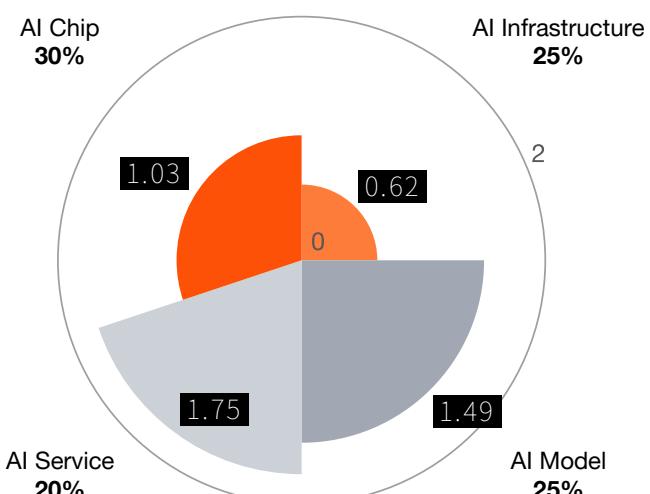
Germany may leverage its strong manufacturing base to excel in areas like industrial AI, potentially using research and European collaboration to offset limited venture capital. Its focus on regulation and technological sovereignty could offer a unique path. While this might moderate short-term growth, capitalizing on European strengths and regional leadership, Germany seems positioned to emerge as a trustworthy AI leader, rather than focusing solely on investment-driven innovation.



France

Overview

France has a tradition in applied mathematics and statistics which are the foundations for innovation in AI algorithms, with an education system that produces talent in algorithms and machine learning. Leveraging these strengths, France has achieved notable success in LLM development. On the hardware side, it's expanding AI data center infrastructure through global investments while growing its semiconductor sector by attracting manufacturing hubs. By combining software capabilities with strategic attraction of global resources for hardware, France is emerging as another powerful EU player.



Key Trends

AI Chip

- Investing \$2B under its 'AI for Humanity' strategy, including funding for AI semiconductor research and industrialization
- Attracting global companies, with plans for a new \$6.3B advanced chip manufacturing facility

AI Model

- Released 10+ domestically developed LLMs by 2024, showing strength in foundational AI
- Strengthened AI research through domestic startups and international collaborations like the BLOOM open-source model

AI Infrastructure

- Maintains Europe's second-largest supercomputing infrastructure, adding 35 new data centers in 2023
- Secured \$21B foreign investment for a large-scale data center in Cambrai by 2030

AI Service

- Hosts more than 500 AI startups (2024), supported by strong domestic investments and favorable innovation environment
- Committed \$11B from a public investment bank to accelerate AI startup growth by 2030

Navigating The Path Forward...



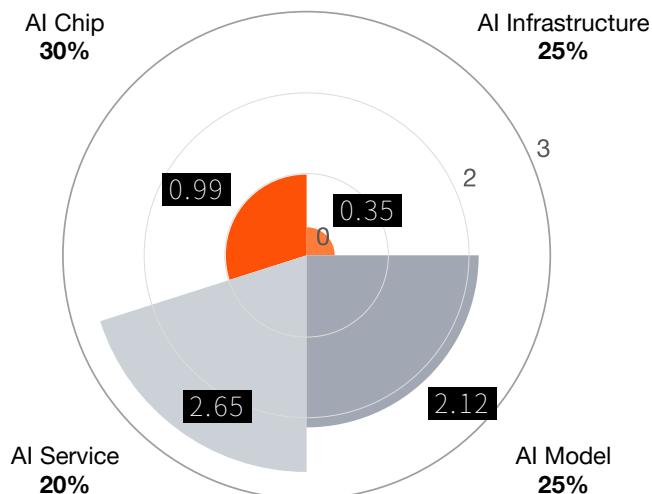
France appears well-positioned for AI research and talent development, benefiting from its strong STEM education system and research institutes. With continued investments in AI startups, it could emerge as a prominent European innovation hub. Integrating its software expertise with semiconductor capabilities could create a more complete AI stack and enhance technological autonomy. While closing gaps with established semiconductor leaders remains challenging, France may find leveraging EU resources advantageous, potentially smoothing its path to stronger hardware capabilities.



Singapore

Overview

Singapore is rapidly advancing in AI adoption through nimble governance, with a 37% increase in business AI implementation over three years, making it a premier innovation testbed. With strong strategic relationships between industry and academia through AI Singapore, the nation has achieved key milestones, including Southeast Asia's first LLM. Though smaller in absolute terms, Singapore's per capita AI infrastructure ranks among the world's highest, demonstrating how it leverages agility as an advantage.



Key Trends

AI Chip

- Launched "Semiconductor 2.0" strategy (2023), investing \$220M in AI-specialized chip development
- NTU's SCARV program focuses on low-power AI chip research

AI Model

- Leads SEA-LION initiative through AI Singapore, developing LLMs tailored to Southeast Asian contexts
- Collaborates to develop specialized datasets for Southeast Asian languages

AI Infrastructure

- Serves as APAC data hub with ~99 data centers and connectivity through 22+ submarine cables
- Launched 'National AI Strategy 2.0' (2023) with \$150M for dedicated AI Compute Resource Hub by 2025

AI Service

- Invested \$370M in AI Singapore program, resulting in 100+ solutions across multiple industries
- Maintains one of the highest AI adoption rates globally, showing strong demand for AI services

Navigating The Path Forward...



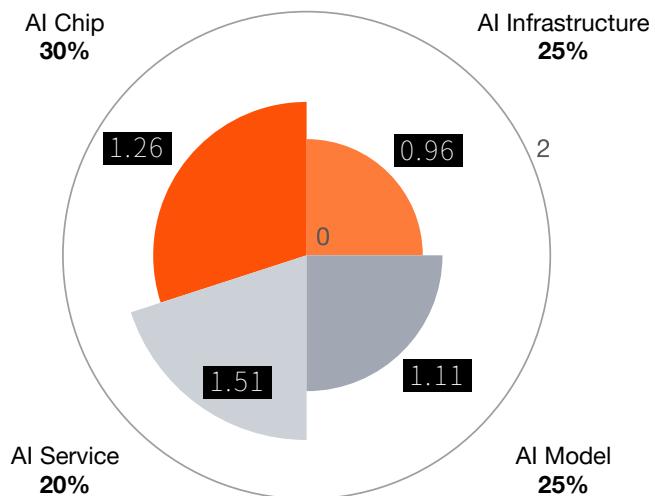
Singapore is well-positioned to aim to become an Asian AI hub through government policies and business-friendly conditions that facilitate rapid technology adoption. The country could potentially lead niche innovation in its strongest sectors, such as finance and logistics, as well as attracting global talent. Leveraging its neutral position and city-state efficiency, Singapore may accelerate AI experimentation and implementation, although its domestic market size remains a consideration.



Japan

Overview

Japan is advancing AI by leveraging global resources, with strengths in AI infrastructure. It possesses the world's second-largest supercomputing power with favorable expansion conditions including low electricity costs and clean energy. Since 2022, Japan has expanded data center capacity through global collaborations. Moreover, Japan established a consortium-led advanced chip company with support from government and global corporations. Japan conducts AI research as members of global alliances, positioning for growth in the AI model sector.



Key Trends

AI Chip

- Established government-led semiconductor consortium (2022) with \$6.2B funding to produce advanced AI chips
- Plans \$65B investment in microchips to boost domestic production and attract foreign capital

AI Model

- Developed 4 LLMs by 2024, demonstrating growing AI model capabilities
- Filed approximately 27,000 AI-related patents as of 2022, with ~30% focused on AI models and algorithms

AI Infrastructure

- Hosts world's second-largest supercomputing capacity (940M GFLOPS)
- Announced \$3B investment in AI computing infrastructure through 2025 as part of 'AI Strategy Enhancement Package'

AI Service

- AI-as-a-service market reached \$950M in 2024, with 32% projected CAGR through 2033
- Emphasizes industry-wide AI adoption through "Society 5.0" initiative, integrating AI into manufacturing, healthcare, and robotics

Navigating The Path Forward...

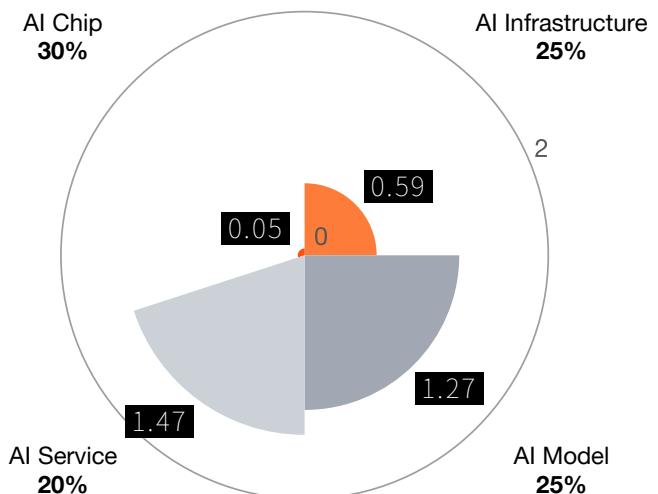


Japan could strengthen its AI ecosystem by strengthening semiconductor capabilities to its existing computing infrastructure, creating a more robust technological foundation. Its ability to attract global companies and utilize multiple collaborations provides a foundation for rapidly expanding its AI ecosystem. However, developing internal capabilities will be crucial for maintaining long-term competitiveness, ultimately requiring Japan to build and strengthen its indigenous expertise.

The Netherlands

Overview

The Netherlands strategically leverages global resources to enhance AI readiness. Amsterdam hosts European headquarters for 200+ global tech companies, while the Netherlands AI Coalition facilitates international collaborations and secures EU funding. The country capitalizes on infrastructure strengths with Europe's highest data center density and processing 20% of global internet traffic through AMS-IX. By focusing on global strategic partnerships rather than proprietary development, the Netherlands steadily grows its position in the AI race.



Key Trends

AI Chip

- Participating in European Chips Act project centered around a global company and TU Eindhoven
- Joined "Semicon Coalition" with 8 other European countries to enhance chip capabilities

AI Model

- Excels in AI research through Delft and Amsterdam Universities, collaborating with 30+ European institutes via ELLIS
- Developed the first Dutch-language LLM, jointly created by University of Amsterdam and TNO

AI Infrastructure

- Hosts dense network of ~300 data centers with 8% annual market growth
- Leverages AMS-IX, one of the largest internet exchanges, offering high-speed connectivity for AI data centers across 870+ networks

AI Service

- Attracts global companies to establish innovation hubs
- Netherlands AI Coalition brings together 400+ global organizations to accelerate AI service startup development

Navigating The Path Forward...



The Netherlands should take a long-term approach to developing self-sufficient AI capabilities due to its relatively small scale and resource dependencies. By leveraging European Union resources while capitalizing on its advanced semiconductor equipment strengths and open environment, the Netherlands could develop unique capabilities in niche AI semiconductor markets, ultimately establishing solid foundational capabilities and high potential for expansion.



Section 4

Advancing AI Readiness: What Next?

It is essential for all countries to assess their current position and implement step-by-step strategies that leverage their specific circumstances for optimal results. To improve their ranking in AI readiness, countries should consider the following strategies:

Secure Domestic AI Chip Capabilities

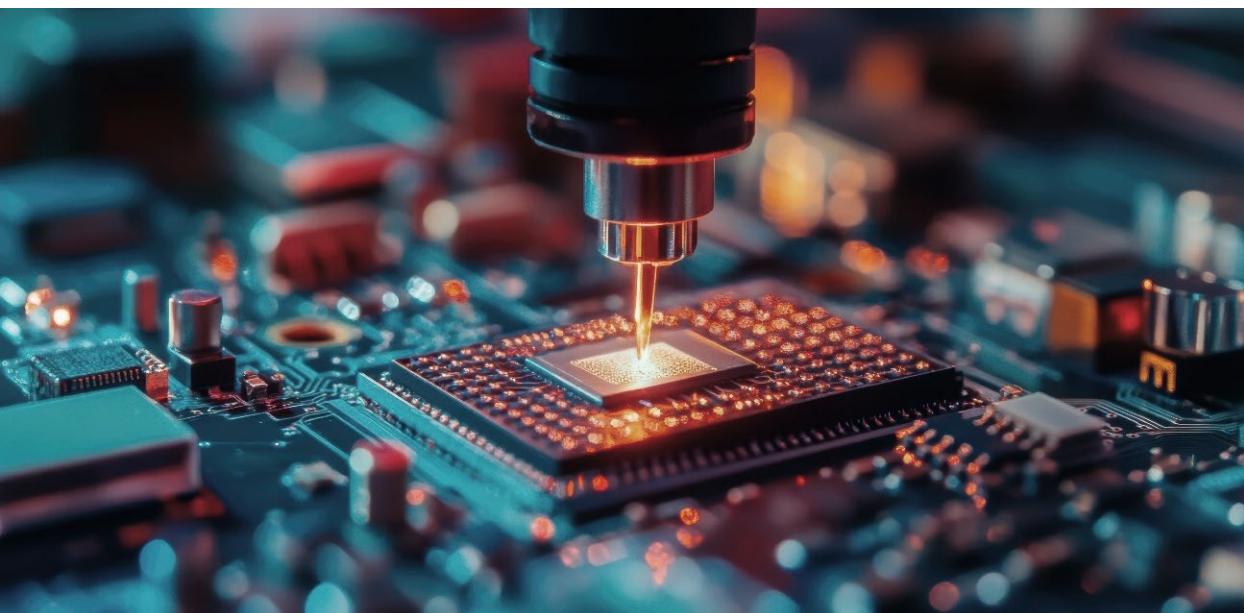
As global environment fluctuates, potentially disrupting stable AI chip production, developing self-sufficient ecosystems becomes increasingly critical. Semiconductors form the essential foundation of the AI stack, enabling expansion across all other dimensions. Countries poised to lead in AI readiness long-term will likely be those that develop these foundational capabilities domestically.

- **Target niche market**

Since foundries require massive capital investments, beginning with investments in fabless companies that compete primarily on technological innovation can reduce initial financial burdens. AI semiconductors divide into training and inference categories. While training chips currently dominate, projections indicate inference semiconductors will exceed 50% market share within a decade. The ability to design customized chips tailored to specific customer requirements becomes crucial, making companies with customized AI inference chip design capabilities an attractive starting point.

- **Strategic positioning by bridging fabless and foundries**

Developing design houses that connect fabless companies with foundries offers another entry point into the AI chip ecosystem, though this represents a specialized market segment. For foundries requiring substantial initial investments, attracting global production facilities to expand the national semiconductor ecosystem is more practical than direct development. By establishing domestic AI semiconductor capabilities, countries can accelerate growth across the remaining dimensions of the AI stack.



Government as Ecosystem Architect

To lead in AI readiness, countries must strengthen the entire ecosystem by expanding across dimensions rather than excelling in just one area. The most critical factor in enhancing this ecosystem is proactive government policy. AI is a field where financial investment, technological development, regulations, and governance significantly impact growth. Therefore, well-defined government policies with phased planning and implementation are essential for rapid and efficient advancement. The United States and China, current global leaders, demonstrate distinctly different approaches:

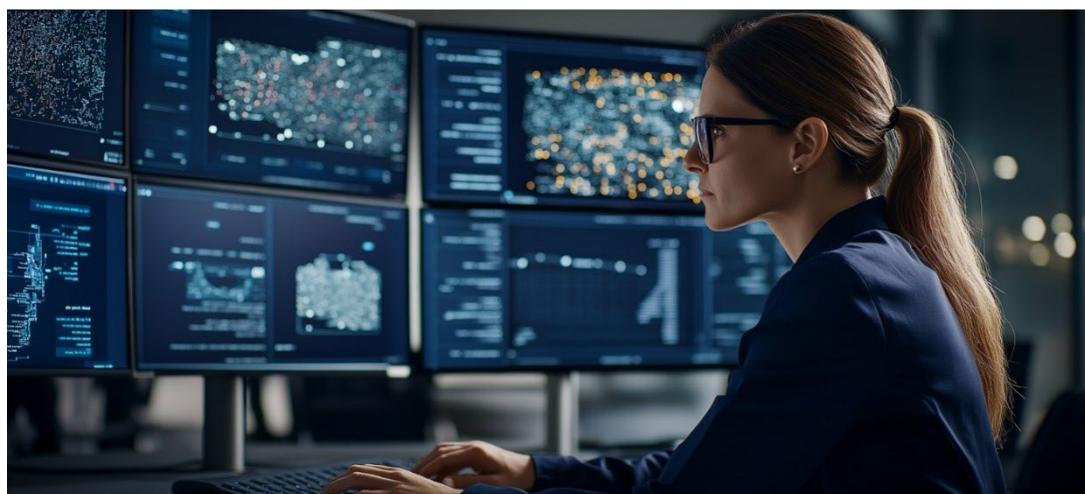
- **Government Enabling Market-Driven Innovation (U.S. Model)**

With over 60% of investment funds in the United States coming from private sources and non-binding AI safety guidelines, the U.S. government creates a flexible, autonomous market environment. This approach enables rapid research development, diverse service creation, and business expansion.

- **Government-Directed Development (China Model)**

China represents active government intervention, where state-owned enterprises like SMIC have rapidly grown through direct support, with more than 50% of funding coming from government and public institutions. AI research and model development involve significant official oversight, including prior approval requirements and restrictions on generating politically sensitive information. This centralized approach quickly develops targeted areas and nurtures specific companies but limits the emergence of diverse market participants.

While the United States and China exhibit fundamentally different policy directions, both demonstrate that active government leadership in shaping markets has enabled them to achieve AI readiness leadership.



Global Cooperation to Accelerate Full Stack Development

Countries should aim to develop capabilities across the full AI stack—from chips to services. However, structural challenges like limited funding, talent shortages, or lack of critical resources make it difficult to develop all areas independently making this ambition challenging for many. Rather than building each dimension separately, countries can integrate into global AI value chains. By attracting global companies and forming strategic inter-country partnerships, countries can close capability gaps and accelerate progress.

▪ Attract Global AI Companies to Strengthen Domestic Ecosystems

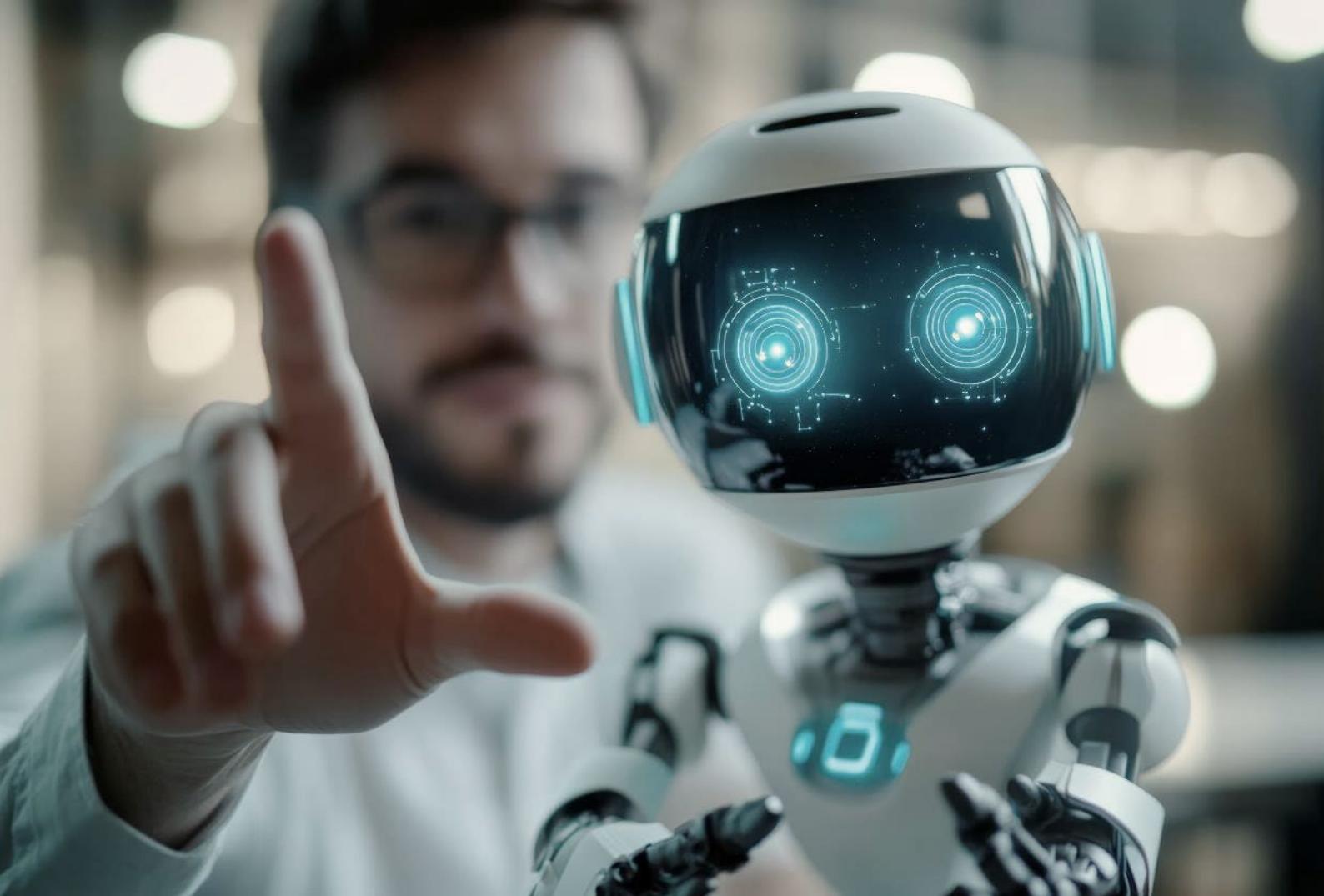
Attracting global AI companies—whether semiconductor companies, infrastructure providers, model developers, or service platforms—can help countries bridge gaps in their domestic capabilities and accelerate development across the AI stack. Offering clear regulatory frameworks, tax incentives, robust infrastructure, and innovation-friendly ecosystems increases the appeal of a country as a new regional hub for global players.

Japan's case exemplifies how this strategy can be put into practice. Faced with the need to rebuild advanced semiconductor capabilities, Japan launched Ravidus as a national initiative—while actively partnering with global leaders. This model shows how countries can attract global players and their investments to strengthen their own ecosystems. Rather than building everything from scratch, such collaborations allow nations to gain access to cutting-edge knowledge while expanding the ecosystem.

▪ Forming Strategic Inter-Country Alliances

Developing a full AI stack often exceeds the capacity of individual nations—particularly in capital- and knowledge-intensive areas like semiconductors. In this context, strategic alliances with other countries, research institutions, and industry stakeholders become essential. Such strategic partnerships enable shared access to critical infrastructure, talent, and expertise, allowing countries to accelerate their overall AI readiness.

A recent example is the Semiconductor Coalition, launched by nine EU Member States including Germany, France, and the Netherlands. By joining forces, these countries aim to strengthen Europe's position in the global semiconductor market—pooling expertise, coordinating investments, and supporting innovation across borders. Such alliances not only increase resilience but also help countries take on more specialized, strategic roles within the broader global AI ecosystem.



Final Remarks

Advancing AI readiness is a long-term strategic transformation. Building capabilities across the full AI stack—from semiconductors to services—requires more than isolated initiatives; it demands a coherent, phased approach aligned with national strengths and policy objectives. The development of such capabilities takes time, and requires investment and consistent coordination across government, industry, and academia. Countries that define clear priorities, mobilize relevant stakeholders, and engage globally to build a comprehensive AI ecosystem will be best positioned to shape and benefit from the future AI landscape.

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