

Artificial intelligence (AI) has become an indispensable part of modern life, powering systems from conversational agents to autonomous vehicles and complex financial infrastructures. While these innovations offer tremendous opportunities, they also introduce complex risks that extend beyond technical vulnerabilities, affecting national security, economic stability, and public safety and trust.

The Global Alliance for Taiwan Technology Diplomacy (GATTD) seeks to facilitate cooperation, helping governments, industry, and academia confront these challenges together. Our mission is to strengthen global and regional security through research, partnerships, talent development, and commercialization, while fostering economic growth through collaboration between Taiwan and other technology-driven economies. In partnership with, and under the leadership of, the Taipei Representative Office in Singapore, we aim to share insights widely and connect audiences across Taiwan, Singapore, and beyond.

This report features Singapore's rise in global AI rankings in the world through the government's initiatives and strategies to encourage industry level implementation of AI.

We welcome your feedback and comments, which will help us improve and expand future reports in this series.

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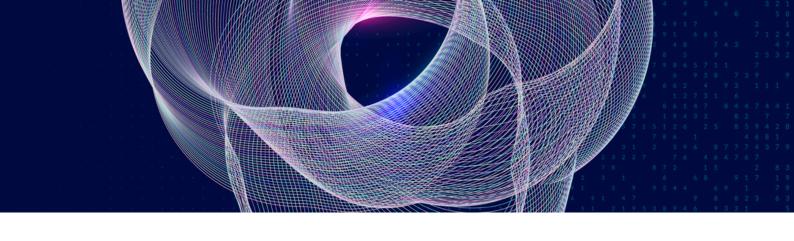


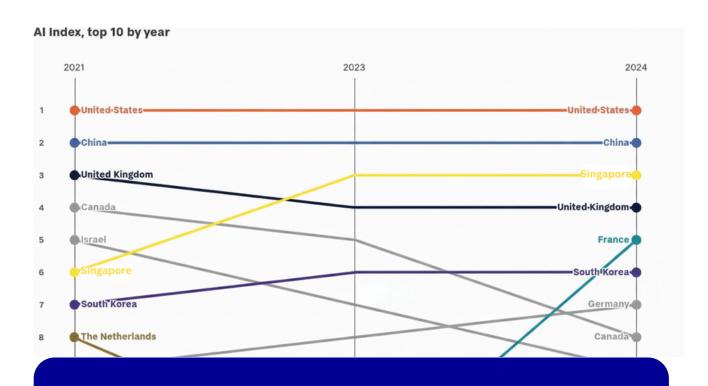
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Introduction

In 2024, the Tortoise Global AI Index ranked Singapore third in the world behind the United States and China for its advancements in artificial intelligence (AI) innovation and application in the Asia-Pacific. With agile policy design, sustained infrastructure investment, academia-industry collaboration platforms, strong international partnerships, and constant reinvention, Singapore is establishing itself as the region's premier hub for AI applications.



Singapore ranked 3rd in Tortoise Al Global Index 2024

Policy Continuity

Singapore's Al journey is not a flash in the pan but a systematic project spanning nearly a decade. In 2017, the government launched the "Al Singapore" (AISG) initiative, investing SG\$ 150 million from the National Research Foundation to lay the groundwork for Al research and applications.

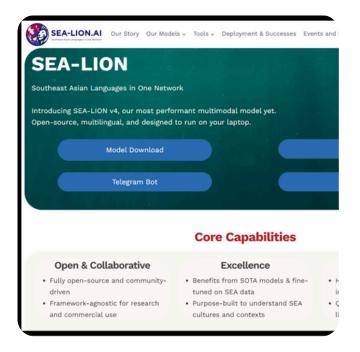
In 2019, the government released the National AI Strategy, identifying five priority areas—transport, city management, healthcare, education, and border security—while setting the vision of building a "Smart Nation" by 2030 through public-private-academic collaboration.

When generative AI swept the world in 2023, Singapore once again showcased its adaptability by launching the National AI Strategy 2.0 at year's end. The policy framework outlines 15 action plans, depicting AI as a foundational technology on par with electricity and the internet, emphasizing both "excellence" and "empowerment" as dual goals. These initiatives include expanding the AI talent pool to 15,000, building high-performance computing facilities, developing centers of excellence, accelerating open access to public data, and creating a trusted regulatory environment—underscoring Singapore's comprehensive determination to drive AI forward.

Notably, Singapore is developing SEA-LION, a large language model supporting 11 Southeast and South Asian languages, with the goal of supporting the region's linguistic diversity and further strengthening its Asia-Pacific leadership.

According to the 2024 national budget, over SG\$ 1 billion will be invested in AI development over the next five years—SG\$ 500 million earmarked for computing infrastructure, SG\$ 300 million for the National Quantum Strategy, and SG\$ 100 million by the Monetary Authority of Singapore for AI and quantum adoption in finance.

In October 2024, the Smart Nation 2.0 plan was officially launched, further emphasizing Al integration into government services, alongside the Al for Science interdisciplinary program with an investment of SG\$ 120 million.





Singapore AI & Quantum Investments (2024 Budget & Beyond)

- Total Al Development (2024-2029): SG\$ 1 billion+
 - SG\$ 500 million → Computing infrastructure
 - SG\$ 300 million → National Quantum Strategy
 - SG\$ 100 million → AI & quantum adoption in finance (Monetary Authority of Singapore)
- Al for Science (Oct 2024): SG\$ 120 million
 - Part of the Smart Nation 2.0 plan
 - Focused on interdisciplinary AI integration in government and research



Governance as a Competitive Edge

In early 2019, Singapore became the first in Asia to propose an Al governance framework based on four principles: fairness, ethics, accountability, and transparency. In 2022, it introduced the Al Verify tool to help businesses test model compliance; in 2023, it partnered with the United States to establish the mutual recognition of standards. The subsequent establishment of the Al Verify Foundation attracted global players such as Google, Microsoft, IBM, and AWS, cementing Singapore's pivotal role in global Al governance.



Image source: Microsoft, "Singapore Launches AI Verify Foundation to Shape the Future of International AI Standards through Collaboration," Microsoft Source Asia, June 12, 2023.



This style of leadership is reflected in international rankings. According to Salesforce, in 2024, Singapore ranked second worldwide in government Al readiness with a score of 84.25. It scored particularly high in "Data and Infrastructure" (93.14) and "Government" (90.96), highlighting its strengths in institutional design and public investment.

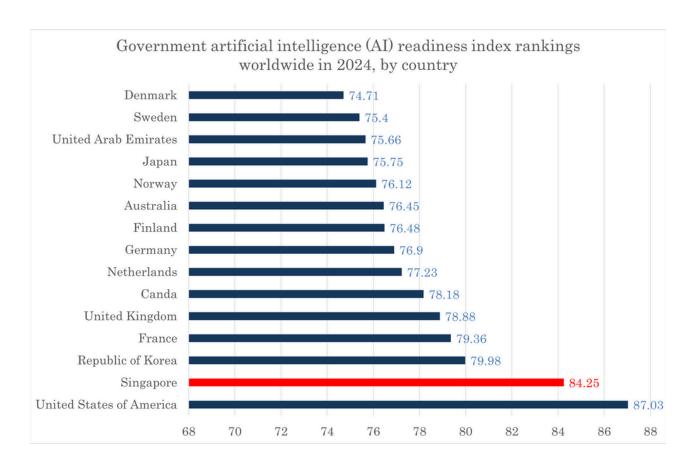


Fig.1

However, there is a disparity between the private and the public sector when it came to implementation. Corporate readiness lagged at 53.6 behind the 86.5 in government readiness in 2023, showing limited adoption. Still, 53% of Singaporean companies have integrated AI into core operations—well above the global average—with another 41% in exploratory stages, signaling a steady onboarding onto the national AI strategy.

Accelerating Industrial 04 Adoption

Singapore's Al market, at US\$ 650 million in 2022, is projected to double by 2025.

Policy momentum is steadily translating into industry impact. According to Statista, Singapore's Al market, valued at US\$ 650 million in 2022, is projected to nearly double to US\$ 1.24 billion by 2025 and is set to grow to US\$ 4.98 billion by 2031.



FINANCIAL SECTOR

The financial sector leads in AI adoption. At DBS Bank, 10,000 of its 40,000 employees are in IT, running over 800 AI models that generated SG\$ 750 million in value in 2024. OCBC developed OCBC GPT, enabling its 30,000 staff to integrate generative AI into daily work.



HEALTHCARE SECTOR

The healthcare is also thriving: Integrated Health Information Systems launched Note Buddy to help doctors draft clinical notes; the National University Health System developed RUSSELL-GPT to ease documentation burdens; the Singapore National Eye Centre uses SELENA+ to screen for diabetic retinopathy—Al is becoming deeply embedded in clinical care.



TRANSPORT, LOGISTICS, AND MANUFACTURING

Al is also transforming transport, logistics, and manufacturing: the Land Transport Authority uses Al to optimize traffic signals and bus schedules; PSA International launched OptETruck to cut carbon emissions; the Manufacturing Al Centre of Excellence promotes Al for quality control and supply chain management.

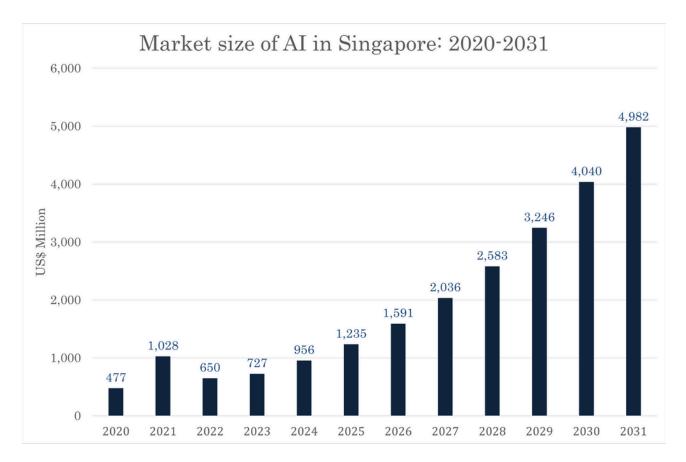


Fig.2

Singapore's Almarket is set to grow to US\$ 4.98 Billion by 2031.



Talent and Research Foundations

Talent development remains central to Singapore's Al push. By late 2023, the government had designated a target to triple the Al talent pool to 15,000 in the coming years, implementing state-wide efforts to integrate Al education from secondary schools through to tertiary institutions.

In order to provide pathways for seamless career transitions, AISG's ninemonth full-time AI Apprenticeship Programme places trainees directly into industry projects, providing hands-on experience to turn professionals into AI engineers—with particular emphasis on those in mid-career. At the same time, Singapore aims to attract global talent through its Tech Pass and Overseas Networks & Expertise Pass.



On public education and industry collaboration, IMDA and AISG launched the AI for Everyone free course to spread basic AI knowledge across all age groups. The Ministry of Education (MOE), in partnership with leading industry stakeholders, has spearheaded an accelerated AI master's programme backed by SG\$ 7 million in investment. The initiative seeks to establish 100 AI centres of excellence by 2028, positioning companies as vital hubs for both training and research.

Singapore's research capacity is equally noteworthy. In 2023, it produced 7,185 Al-related academic papers—nearly double the output from 2014. According to Tortoise Media, Singapore ranked third globally with 25 points, behind the US (100) and China (54), underscoring its strategic position in Al research.

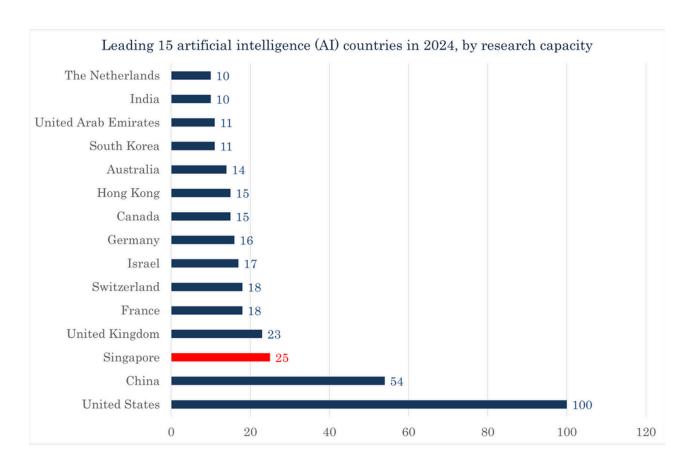


Fig.3

International Cooperation and Startup Dynamism

Singapore understands that leadership in AI requires international collaboration. In recent years, it has built partnerships with the US, UK, Australia, and Israel across talent exchange, data sharing, and safety testing. Tech giants including Amazon, Microsoft, Google, and NVIDIA continue to expand data center investments, making Singapore's data center market worth US\$ 4.16 billion in 2024—solidifying its role as an Asia-Pacific compute hub and fueling startup opportunities.

Chinese companies such as Alibaba and Huawei have also set up labs and R&D centers in Singapore, advancing cloud Al services and joint innovation to accelerate enterprise adoption across Asia.

Singapore is also fostering talent and research collaborations: AWS pledged to train 5,000 Singaporeans annually in cloud and AI skills between 2024–2026 under its AI Spring initiative; Microsoft Research Asia partnered with A*STAR, National University of Singapore, and Nanyang Technological University to develop preventive healthcare AI solutions and run the Future Ready Interns program; NVIDIA teamed with Singapore Polytechnic to establish an AI center of excellence with more than 10 joint projects.

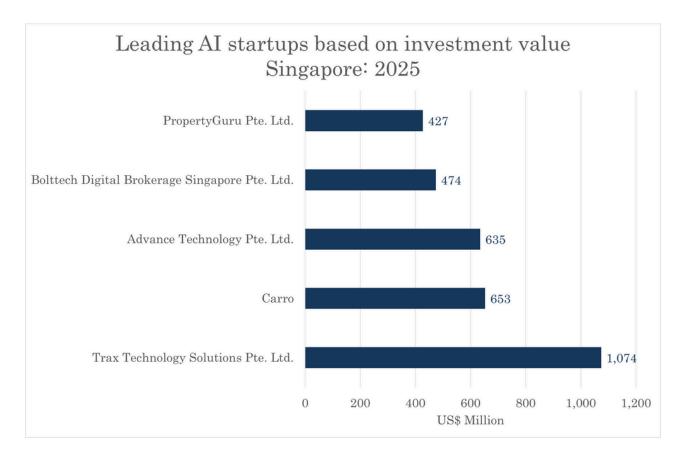


Fig.4

The startup ecosystem is booming. Between 2014–2023, Singapore attracted US\$ 7.49 billion in AI venture capital; by August 2024, cumulative VC exceeded US\$ 8.4 billion, accounting for 75% of ASEAN's total. As of September 2024, Singapore was home to over 1,100 AI startups, the densest cluster in Southeast Asia.

OECD notes representative cases such as retail analytics firm Trax (US\$ 1.07 billion investment), car marketplace Carro (US\$ 650 million), and software developer Advance Technology (US\$ 640 million). The government also supports adoption through the 100 Experiments (100E) program, helping companies solve real-world problems with AI, and in 2024 launched the Ignite AI Accelerator with NVIDIA and Tribe to connect startups to markets and international networks.



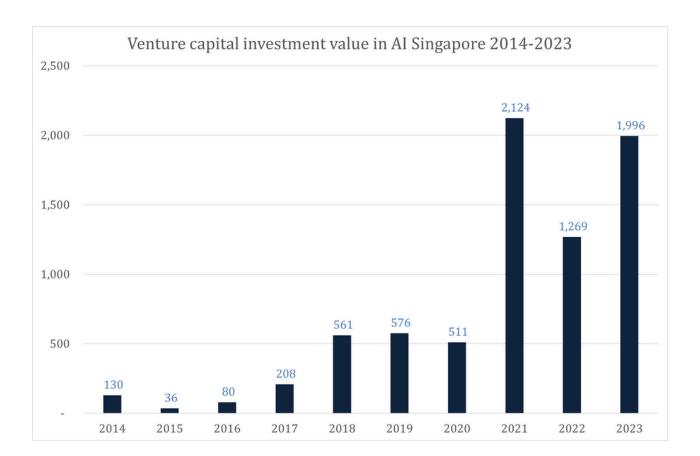


Fig.5

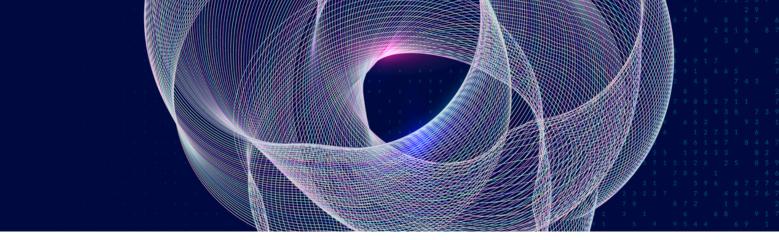


Conclusion: Seven Pillars 7 Shaping a "Small Nation, **Smart Wisdom"**

From strategic blueprints to governance frameworks, from industrial adoption to startup vitality, Singapore demonstrates leadership in every dimension of Al development. Its success lies not in any single factor but in a systematic approach: a clear government vision, strong infrastructure, dynamic market momentum, ample venture capital, top-tier research, responsible governance, and resilient international networks.

Together, these seven pillars weave an AI blueprint for Singapore.





TAIWAN PLUS VIDEOS

114/8/2 CONNECTED How Did Appier Build Taiwan's First Al Unicorn? CEO Explains



Taiwan's first digital unicorn, Appier, is redefining global marketing with the power of Al. CEO and cofounder Chih-Han Yu shares how the company grew from a living room idea to a public tech giant using deep tech, strategic pivots and relentless innovation. So how do you build a world-class software company in this part of the world?

114/08/30 Connected <u>The Future of Manufacturing:</u> <u>Industrial AI Is the New</u> Industrial Revolution



Industrial AI is shaking up global industries, transforming construction, energy, logistics and precision manufacturing.

What are the 'digital twin' and 'factory in a box' manufacturing models everyone's talking about? What challenges are slowing industrial AI adoption? And where does it have the biggest growth potential?

We chat with Daniel Yu, cofounder & CEO at MetAI, and Chris Kong, general partner at PaperJet Ventures.



Please feel free to reach out to the Economic Division of the Taipei Representative Office in Singapore should you have any enquiries or are seeking partnership opportunities of investment or collaboration in the field of semiconductors and AI in Taiwan.

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