

AUSTRALIA CHAPTER

Asia/Pacific AI Maturity Study 2024



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Executive summary

If 2023 was a year of “artificial intelligence (AI) awakening” due to the rise of ChatGPT, 2024 is a year when organizations start building a more pragmatic view of how they can incorporate AI long term. In Asia/Pacific, predictive, interpretive, and generative AI (GenAI) use cases will become more expansive and external-facing as organizations recognize their benefits – from improving internal processes and productivity, to delivering personalized customer experience (CX) and enhancing market differentiation.

Despite the great interest and surge in AI usage, IDC’s study of eight Asia/Pacific economies (Australia, India, Indonesia, Japan, South Korea, Malaysia, Singapore, and Taiwan) shows that they are in the mid-stages of overall AI maturity.

According to the IDC Asia/Pacific AI Maturity Study 2024, the level of AI maturity in each market depends on several factors across three dimensions:



Enterprise (strategy, process, human capital, technology and data readiness)



Government (policy, regulatory and investment support)



Socio-economic (economic, social, and skills)

AI maturity requires all three dimensions in varying degrees and at different stages of development:

- Investments in enterprise data and technology create options and build experience and executive confidence in the value of future investments.
- Supportive government policies and regulations remove uncertainties and clarify the rules by which enterprises should engage with data and AI technologies.
- Scaling up AI is often constrained by skills and the readiness of local employees to adopt these new technologies.

This IDC InfoBrief dives deeper into the findings of the IDC Asia/Pacific AI Maturity Study 2024 and explores the current AI landscape, the state of AI and its challenges, and AI spending forecasts and future potential in this region – providing guidance and recommendations for the markets studied to move up the AI maturity ladder.



AI spending for Asia/Pacific is forecast to grow at a compound annual growth rate (CAGR) of 28.9% from 2022 to reach \$90.7 billion by 2027.

However, AI regulatory divergence across geographies will create major challenges for A2000* companies at the same time, increasing implementation time and effort for sensitive use cases by up to 20%.

Sources: IDC FutureScape: Worldwide AI and Automation 2024 Predictions – Asia/Pacific (Excluding Japan) Implications; Initial GenAI Implementation Forecast, October 2023
*A2000 – refers to the top 2,000 Asia-based organizations by revenue

What is driving AI adoption in Asia/Pacific?

Organizations' AI spending in Asia/Pacific will reach \$90.7 billion by 2027, growing at a CAGR of 28.9% from 2022 to 2027.

Top AI adoption drivers for 2023-2024

1 **Improve employee productivity**

2 **Accelerate new product introduction**

3 **Reduce costs**

4 **Improve operations efficiency**

5 **Improve risk management**

6 **Generate new revenue**

● Internally-focused goals ● Externally-focused goals

AI adoption in 2024 will become more expansive and externally driven, especially in Asia/Pacific. In contrast to the emphasis on improving efficiencies and cost-cutting to counteract global inflationary pressures in 2023, organizations are using AI to augment the value delivered by their digital platforms and to expand their market reach. Their top adoption drivers emphasize employee productivity across existing functional areas such as IT and marketing, followed by plans to accelerate new product introduction.

Enterprises in particular are optimistic about the potential of AI to:



Improve productivity, simplify operations, automate processes, reduce costs, provide data-driven insights that enhance decision-making capabilities.



Transform industries, create product and service differentiation, generate new revenue streams.

These promise to deliver trillions of dollars in economic growth globally. **But such large-scale enterprise adoption can only occur if government regulations, supportive policies, as well as socio-economic conditions, such as skills and incentives, are in place.**

2023



A year of planning: internally focused AI initiatives aimed at driving productivity, reducing costs, and enhancing operational efficiencies.



2024



AI use cases become more expansive and externally focused, driven by extensive adoption of AI across Asia/Pacific.



2028



AI will drive economic expansion, creating new business models and ways of doing things unknown to us today.

Sources: GenAI ARC Survey, 2023 (August 2023); Data-Driven Enterprise Survey, 2023 (May 2023); IDC FutureScape: Worldwide AI and Automation 2024 Predictions — Asia/Pacific (Excluding Japan) Implications

AI is more than GenAI

Despite the hype around GenAI, only **19%** of Asia/Pacific AI budgets are focused on GenAI, with **81%** directed toward predictive AI and interpretative AI. But increasingly, we expect that use cases will cross multiple AI categories (predictive AI, interpretative AI, and GenAI), with GenAI the fastest growing, particularly in Asia/Pacific – **15%** of Asia/Pacific organizations' 2024 IT budgets have been earmarked for GenAI, compared to the worldwide average of 11%. We believe this is driven by proactive business planning, fewer regulations, strong government support, and a deeper regional belief (**84%** of Asia/Pacific enterprises) that leveraging GenAI models will provide a significant competitive edge for their business. Asia/Pacific markets especially highlight these desired business outcomes from GenAI – increased operational efficiency and employee productivity, improved customer satisfaction, and the development of new business models.

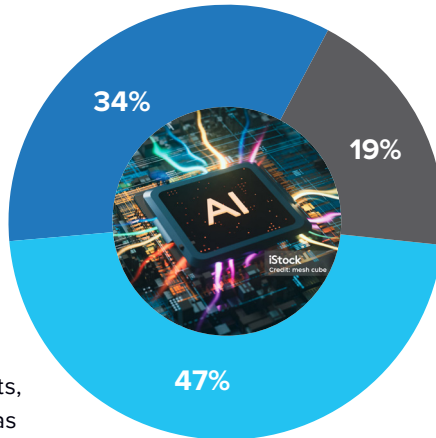
2024 investment allocation for AI-related development, data, and infrastructure

PREDICTIVE AI

- Utilizes historical data and provides future predictions
- Use cases: weather forecasting and financial fraud detection

INTERPRETIVE AI

- Enhances human efforts, advancing tasks such as image and voice recognition
- Use case: cancer detection



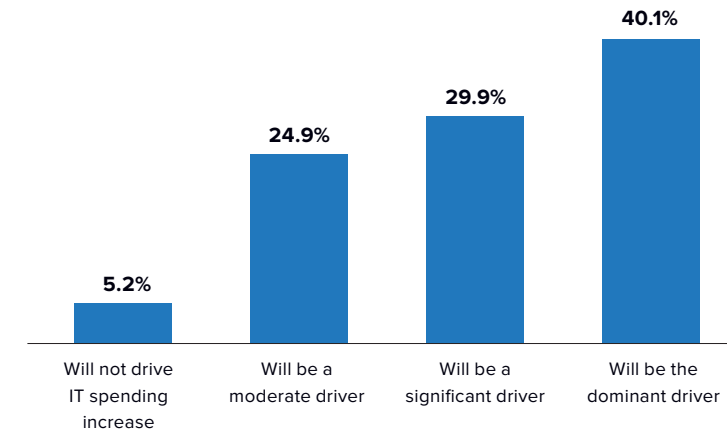
GenAI

- Creates new content/code using previously created content/code
- Examples: ChatGPT and developer copilots

Will GenAI drive IT spending increase?

70% of Asia/Pacific organizations cited GenAI as a significant or dominant factor driving up IT spending.

Issues like high cost of computing resources and the need to address skill gaps, such as prompt engineering for accurate GenAI responses, are crucial factors.



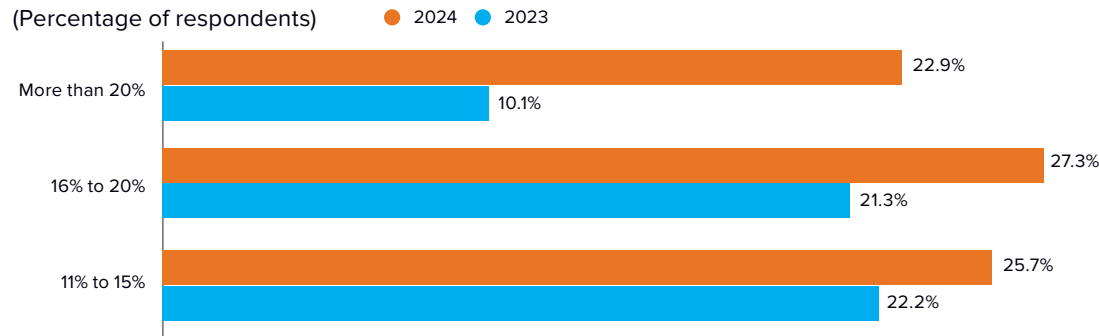
Sources: GenAI ARC Survey, 2023 (August 2023); Data-Driven Enterprise Survey, 2023 (May 2023)

AI on the edge is rising – welcome to the age of hybrid AI

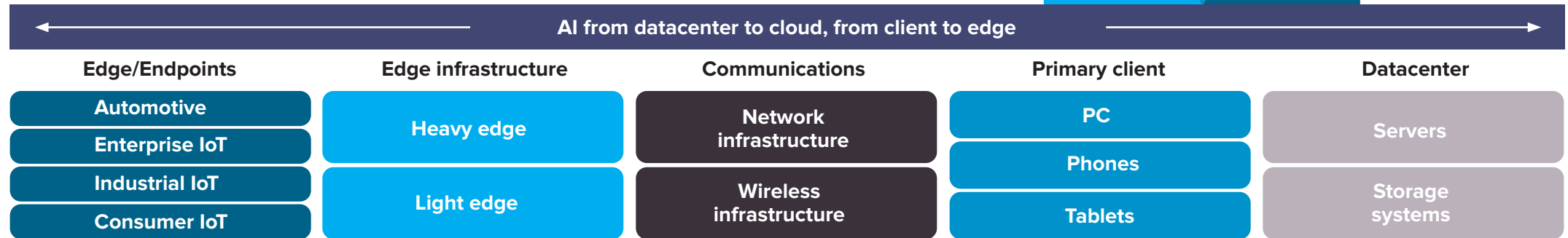
As we bring AI to everything and everywhere, making AI real time becomes increasingly critical, especially in areas like manufacturing and healthcare, but is often hindered by latency issues associated with centralized infrastructures. Hence, the shift to edge computing – where data generated at the edge, e.g., Internet of Things (IoT) devices and applications, are processed at the edge, which improves response time and lowers costs. IDC believes this is pivotal to truly bringing AI everywhere.

In fact, by 2025, **75%** of enterprise-generated data globally will be created and processed outside of traditional datacenters or the cloud, but on the edge; at least **75%** of Asia/Pacific organizations surveyed expect to spend more on edge in 2024, with about **50%** estimating edge to account for at least 16% of their overall IT expenditure.

Organizations’ estimated expenditure on edge computing as a percentage of total IT expenditure for 2023 and 2024



Edge use cases most impacted by AI



Source: IDC CIO Playbook Survey, 2023

Most Asia/Pacific markets are still in the mid-stages of overall AI maturity

IDC conducted the Asia/Pacific AI Maturity Study to assess how far individual markets have progressed in adopting AI. They are evaluated on three key dimensions – enterprise, government, and socio-economic readiness factors. Five of the eight markets studied are at stage 2 or 3, at the mid-levels of maturity. Only one, Singapore, is at stage 4 – an early-stage AI Leader. See Appendix (page 18) for details on the methodology.



Stage 1 – AI Explorer (Indonesia, Malaysia)

This maturity stage is characterized by the exploration of AI opportunities as well as a need to demonstrate clear results to justify investments. AI use cases are mainly experimental or project-based, with room to improve IT infrastructure, data, process, and skills to enable innovation and industry-wide transformation.

Stage 2 – AI Practitioner (India, Taiwan)

This maturity stage is characterized by tactical AI and innovation initiatives defined by reactive interventions through technology, data, processes, and people to accomplish shorter-term objectives. There are some successful use cases but not at scale.

Stage 3 – AI Innovator (Australia, Japan, South Korea)

This maturity stage is characterized by concerted efforts in planning and managing AI initiatives through well-laid technology infrastructure and data management strategies. New use cases are often introduced, especially industry use cases.

Stage 4 – AI Leader (Singapore)

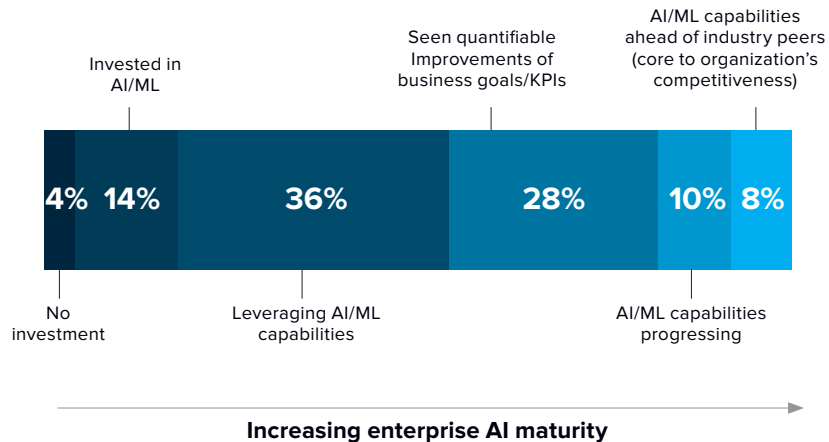
This maturity stage is characterized by the presence of an AI-first and data-ready culture, and the ability to scale AI to achieve short- and long-term objectives. Enterprises take a dynamic and disruptive approach toward AI and innovation, supported by executive leadership and established processes.

More details on the methodology are found in the Appendix.

While many enterprises are keen to explore AI, few are truly successful

While an impressive **82%** of larger organizations in Asia/Pacific surveyed are leveraging AI/ML's capabilities, only **8%** are truly integrating AI at scale such that it becomes core to their organizations' competitiveness.

How organizations describe their AI/ML-related capabilities



To succeed with AI requires enterprise-wide investments in flexible and scalable platforms and infrastructure, change management, training and upskilling. This is challenging and takes time. That said, some industries are more mature than others – e.g., financial services have long prioritized AI for risk and compliance management, whereas healthcare is just starting to make the necessary investments.

Source: IDC Data-Driven Enterprise Survey, 2023

While there are common challenges like data management, skills gap, and costs when it comes to implementation, infrastructure, ecosystem support, regulations, and organizational change management failure are the pitfalls of AI projects.

Top reasons why AI projects fail

1

Inability to select the right use case

Choosing the right AI use cases is crucial to ensure that value can be derived, and that it is cost-effective and sustainable in the long term; however, many businesses lack the AI maturity for this.

2

Lack of infrastructure and support

Organizations should thoroughly analyze the project's technological requirements beforehand, plan long-term and future-proof the infrastructure with flexible and scalable technology stacks, or consider using cloud-based solutions to avoid up-front costs.

3

Failure to comply with relevant laws and regulations

Data and AI regulations are still evolving. Organizations need to stay abreast of the latest regulations and perform thorough risk and compliance assessments to ensure transparency and compliance.

4

Unclear goals

Technology is never an end in itself and AI is no exception. Organizations must first identify the specific business values they want to achieve and the tasks that the AI system can perform to meet this goal. They must also decide on the metrics and have the evaluation tools in place.

5

Lack of vendor support

AI requires a host of complex capabilities across hardware, software, systems, and processes. No company can operate in this space without support from its ecosystem partners. Choose solutions and partners with an eye on the long term.



State of AI maturity in Asia/Pacific: enterprise factors

The table below ranks, by order of importance (“1” being the most important), the attributes that contribute to, and influence the level of enterprise AI maturity in the eight Asia/Pacific markets.



State of AI maturity in Asia/Pacific: government and socio-economic factors

The table below ranks, by order of importance, the attributes that contribute to and influence the state of AI maturity of the eight Asia/Pacific governments, as well as their socio-economic readiness.



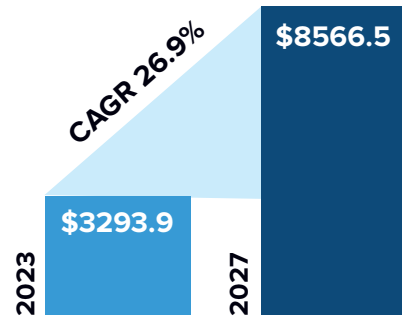
Asia/Pacific AI spending by industry: BFSI and manufacturing



Banking, financial services and insurance (BFSI)

The BFSI sector has long led other industries in AI spending. Next-generation AI in BFSI increasingly personalizes customer experience (CX) approaches, leveraging geolocation and spending patterns, as well as supporting deeper client engagement, improving CX, and reducing customer attrition.

Asia/Pacific BFSI's AI spending (\$M) 2023-2027



Key AI spending by use cases

- Augmented fraud analysis and investigation
- Program advisors and recommendation systems
- Automated threat intelligence and prevention systems
- GenAI : GenAI for audio, text, image, video

Key AI investment goals

- Operational efficiency
- Customer experience
- Employee productivity

Asia/Pacific financial institutions automate lending, onboarding, Know Your Customer (KYC), and account opening with AI and ML. This reduces errors, improves productivity, cuts costs, and enhances satisfaction.

IDC Prediction

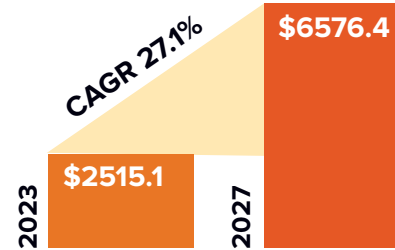
- By 2028, powered by CX analytics at the edge, real-time sentiment analytics will drive 33% of customer engagements, delivering 10% growth in customer loyalty and retention for banking firms.
- Expect 50% of the top 100 banks to hyper-personalize customer rewards and loyalty programs by 2026.



Manufacturing

AI/ML is the future of programming assistance and advanced inspection in manufacturing. Robotics has become more accessible, flexible, and versatile due to lower prices, ease of installation and programming, and universal end effector tools. Robots can readily tend to computer numerical control (CNC) machines, weld sheet metal, and navigate manufacturing autonomously.

Asia/Pacific manufacturing's AI spending (\$M) 2023-2027



Key AI spending by use cases

- AI-augmented quality management investigation and recommendation system
- Automated preventative maintenance
- Digital assistants
- GenAI : GenAI for audio, text, image, video

Key AI investment goals

- Employee productivity
- Operational efficiency
- Knowledge management

AI, ML, and robotics boost output, enhance efficiency, and cut costs. Automation speeds up identifying and resolving machine failures, expands production capabilities, reduces mundane tasks, and increases productivity.

IDC Prediction

- By 2028, the integration of AI/ML into robotic and automation routines within industrial operations will increase by 30%, driving higher efficiencies and a 10% reduction in downtime.

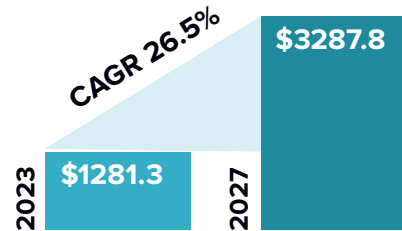
Source: IDC AI Spending Guide V2 2023 Forecast; IDC Syndicated BDA and AI Survey (Data-driven Intelligent Enterprise Survey) 2023, APJ Financial Services (n = 44), Manufacturing (n = 42); IDC FutureScape: Worldwide Banking 2024 Predictions; IDC FutureScape: Worldwide Manufacturing 2024 Predictions
 Note: CAGR is for 2023 to 2027 (4 years)

Asia/Pacific AI spending by industry: government and telecommunications

Government

Government employees require quality real-time data to enhance collaboration, decision-making, and strategic thinking. Digital assistants can boost productivity by providing prompt responses, and empowering employees to make better decisions with fewer errors. They can also reduce rework time and ensure consistency in decision-making.

Asia/Pacific government's AI spending (\$M) 2023-2027



Note: CAGR is for 2023 to 2027 (4 years)

Key AI spending by use cases

- Augmented fraud analysis
- Augmented defense, terrorism investigation, and government intelligence
- Augmented threat intelligence and prevention systems
- Program advisors and recommendation systems
- GenAI : GenAI for audio, text, image, video

Key AI investment goals

- Employee productivity
- New revenue generation
- Knowledge management

In Asia/Pacific, AI is used to assess worker performance, identify development areas, suggest training for productivity, attract new enterprises, and boost economic competitiveness.

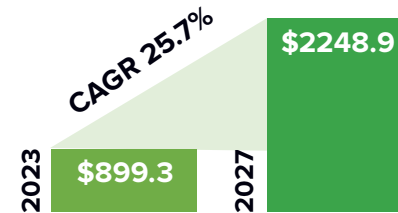
IDC Prediction

By 2026, 60% of governments will close digital gaps by automating and connecting data, processes, and employees and deploy AI-enabled platforms for intelligent operations end to end.

Telecommunications

Telecommunications (telecom) operators are leveraging AI to detect and predict network anomalies while service providers have long used AI to enhance CX through chatbots and conversational AI. Business process providers are developing chatbots to assist human agents, while application development providers incorporate GenAI in quality assurance testing.

Asia/Pacific telcos' AI spending (\$M) 2023-2027



Key AI spending by use cases

- AI infrastructure provisioning
- Smart networking
- Program advisors and recommendation systems
- GenAI : GenAI for audio, text, image, video

Key AI investment goals

- Employee productivity
- New revenue generation
- Product service enhancement and differentiation

AI-powered technology helps telcos improve employee productivity by automating mundane tasks and analyzing market trends, customer preferences, and technological developments. This leads to the development of new telecom products and services that better address consumer needs.

IDC Prediction

By 2026, with the accelerated adoption of GenAI, 35% of enterprises will enhance edge computing use cases with contextual experience, further aligning business outcomes with customer expectations.

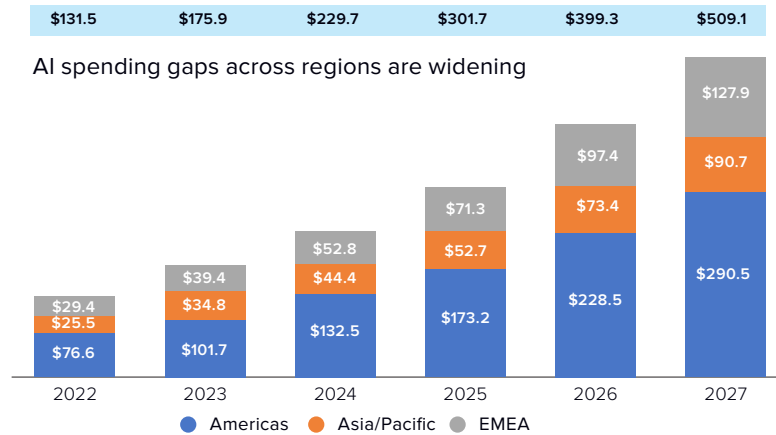
Sources: IDC AI Spending Guide V2 2023 Forecast; IDC Syndicated BDA and AI Survey (Data-driven Intelligent Enterprise Survey) 2023, APJ Government (n = 38), Telecommunications (n = 42); IDC FutureScape: Worldwide National Government 2024 Predictions; IDC FutureScape: Worldwide Future of Connectedness 2024 Predictions

The future of AI in Asia/Pacific: AI market to surpass \$90 billion by 2027

IDC forecasts that AI spending in Asia/Pacific will grow at a CAGR of **28.9%** from 2022 to reach \$90.7 billion by 2027. The Americas will continue to lead in GenAI investments, with Europe, the Middle East, and Africa (EMEA) and Asia/Pacific trailing behind. AI adoption in the three regions will continue to grow in the next few years, albeit slower in Asia/Pacific as its diverse cultural, linguistic, and regulatory landscape could potentially impede regional AI progress.

Within Asia/Pacific, AI adoption varies widely due to variances in economic development, regulations, infrastructure, and cultural attitudes. Nonetheless, across the region, IDC sees increasing growth in AI investments, and some markets are further ahead than others.

Total AI spending forecast in Asia/Pacific in comparison with EMEA, and Americas (US\$B)

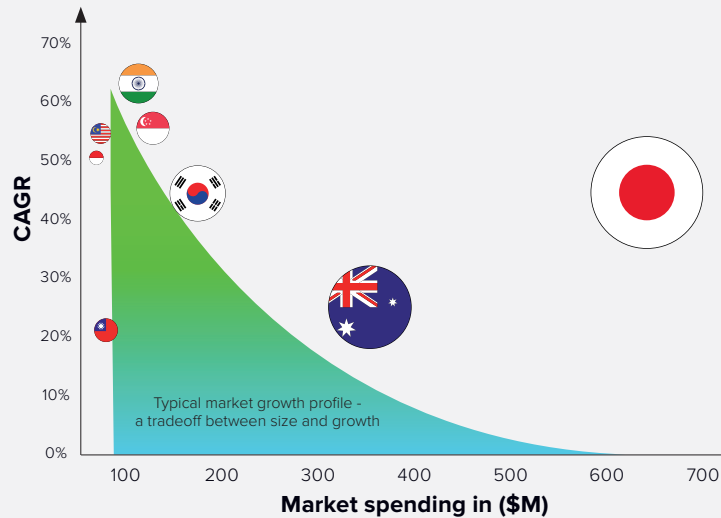


Source: Initial GenAI Implementation Forecast, October 2023

The importance of scale and learning in AI investments

Developed economies like **Australia, Japan, Singapore, and South Korea** have deeper financial resources and so have more existing investments in AI – as represented by the size of the bubbles in the chart below and their relative position to the right side of the chart. Having invested early in AI, these economies have learned to use these technologies better, and as they see the business value from these investments, spending continues in a virtuous cycle of change. This is typical of transformative technologies like AI which are still in the early stages of adoption, where many early benefits flow to more mature first movers.

AI software platforms spending



Notes:
 1. AI software platforms comprise AI life cycle, AI software services, and intelligent knowledge discovery tools
 2. Revenue in US\$ million/billion
 3. CAGR 2023-2027

Later entrants like **India, Malaysia, and Indonesia** start from a lower base, and hence show higher growth rates, placing them on the upper left corner of the chart.

In the near term, organizations in many economies will focus on funding their core AI infrastructure (network, compute, and storage), including the necessary security and trust layers. Once the build-out phase is complete, investments will scale for AI initiatives that can deliver true transformational impact.

In the longer term, AI spending may be driven by the size of the economy and population as these are the drivers of data – the raw material that powers AI use cases. This suggests that markets like **India and Indonesia** will potentially become AI powerhouses of the future.

The future of AI in Asia/Pacific: IDC predictions of AI adoption and investments

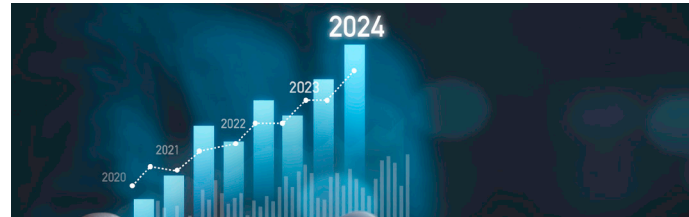


By 2025

Majority of A1000 enterprises will allocate over 50% of their core IT spending on AI initiatives leading to double-digit increase in rate of product and process innovations.



- AI is driving a fundamental shift in how enterprises function, meet customers' needs, and bolster productivity, resulting in more than double-digit growth in the rate of production and process innovations. This virtuous cycle of rising business value from AI is leading to a rise in AI investment. With rising IT spending on AI, enterprises need to start thinking carefully now on how to lay the right foundation for future infrastructure integration and scaling for diverse AI use cases, so whatever IT spending on AI invested now is worthwhile down the road.



By 2027

AI regulatory divergence across geographies will create major challenges for A2000 companies, increasing implementation time and effort for sensitive use cases by up to 20%.



- Unlike EMEA, where the EU AI Act provides a comprehensive framework, governments in Asia/Pacific have individual AI regulations, lacking a unified approach. This fragmented landscape contributes to longer implementation time for sensitive use cases and widening AI spending gaps compared to EMEA.
- Although commendable progress has been made in formulating AI policies and regulations across Asia/Pacific, there is a need for governments to collaborate on a unified framework. This ensures that regulations not only protect data and privacy but also facilitate information sharing and boost AI deployment and scaling across markets.



By 2028

10% of A1000 companies will experiment with Artificial General Intelligence (currently speculative) systems that will have a transformative effect on society and create significant opportunities and threats.



- Artificial general intelligence (AGI) software or machines show human-like cognitive and problem-solving capabilities even when faced with an unfamiliar task. To gauge how close we are to AGI, we need to recognize intelligence as a continuum, where systems are evaluated based on their progression along this spectrum.
- AGI's transformative potential will reshape industries, redefine concepts like intelligence and creativity, and revolutionize the labor market.
- Recent advances have made AI a C-suite and board-level priority and require IT to balance the risks and value of these systems. With AGI, these issues become even more pressing, and organizations need to embark on proactive change management as soon as possible to prepare people and process to embrace AGI systems in the future.

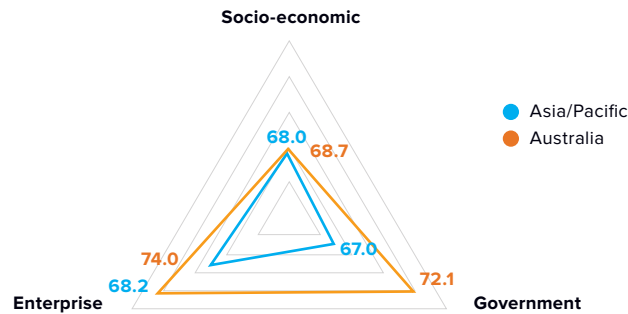
State of AI in Australia



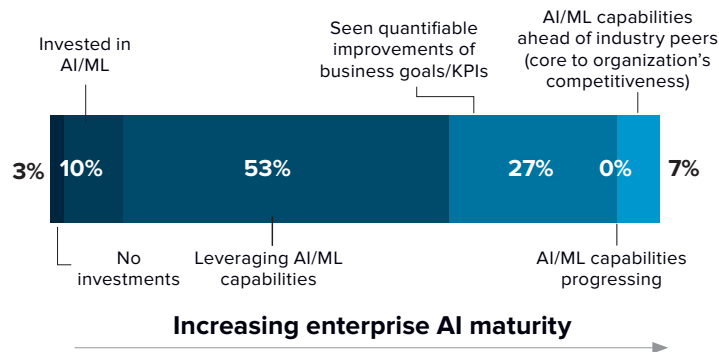


Australia has solid technology and skills foundation, but scalability may constrain wider adoption

Australia is currently an **AI Innovator** (stage 3) based on the IDC Asia/Pacific AI Maturity Study 2024. The chart below shows how Australia scores against the Asia/Pacific average, and indicates that it is above the Asia/Pacific average for the enterprise and government dimensions, but only slightly above for the socio-economic dimension.



How organizations describe their AI/ML-related capabilities



Source: IDC Data Driven Enterprise Survey, 2023 (n = 30 for Australia)

ENTERPRISE

- Australia possesses advanced manufacturing technologies and processes, well-established digital infrastructure, and strong 5G, cybersecurity, and quantum computing capabilities. These have paved the way for significant AI investments from both domestic and international companies, which expand opportunities for AI innovation.
- Strong collaboration and partnerships among industry players, academia, and research institutions foster knowledge sharing and accelerate AI innovation.
- However, wider AI adoption in Australia is hindered by challenges faced by small and medium businesses (SMBs), which make up the bulk of business entities in Australia. These include the lack of AI skills, data quality and availability issues, integration challenges, and high salary costs.
- While a majority of mostly large Australian enterprises surveyed are investing in AI to varying degrees, only **7%** believe their adoption of AI is core to their organizations' competitiveness.

GOVERNMENT

- The Australian government takes a less restrictive, innovation-friendly approach to shaping a future where AI contributes positively to society, while balancing it with ethical and regulatory standards.
- The government has allocated \$101.2 million to assist businesses to integrate AI into their operations, and has emphasized its commitment to fostering innovation and driving economic growth through AI. This investment is in line with the broader objective of creating 1.2 million tech-related jobs by 2030.
- The public consultation on "Safe and Responsible AI in Australia" in June 2023 highlights the government's commitment to ensuring transparency and involving the general public in the matter.
- However, while the approach to regulating high-risk use cases and allowing lower-risk forms of AI to flourish more or less unimpeded is a step in the right direction, incremental progress in establishing AI regulation could inhibit further adoption. Without comprehensive regulations and guidelines soon, there are risks of misuse, unfocused AI tech investments, and disparities in AI advancements.

SOCIO-ECONOMIC

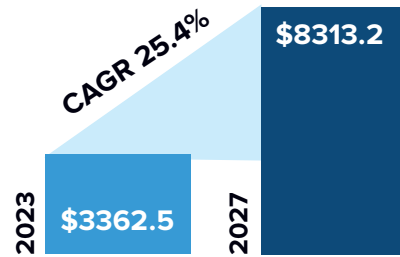
- Australia is the second biggest total AI spender among the markets studied, just behind Japan. Blessed with ample resources for AI use and development, such as data and infrastructure, Australia has long attracted global tech companies and investors, as well as young AI talent.
- Government funding and private investments in tech startups underscore the strength and potential of Australia's tech ecosystem and provide a conducive environment for innovation to flourish.
- Australian universities have published over 52,000 AI-related research papers in the last 3 years, demonstrating strong expertise in AI. Also, collaborations between academia and industry are spurring innovation and speeding up AI development, particularly in use cases that address labor shortage and social security, and create opportunities for economic and social growth.
- However, with a population of just 26 million, Australia faces challenges in scalability that could influence the extent of AI technology growth. Its remote and widely dispersed population poses logistical challenges and increases operational costs for tech infrastructure expansion.
- Though Australia has a solid skills foundation, its AI talents are unevenly distributed across sectors. Upskilling talent in all industries will boost adoption in those with currently low uptake.
- Australia's high tax rates inevitably push high-end AI skills and innovation offshore. And while it has many AI startups, Australia has struggled to produce tech unicorns in recent years.



AI spending trends in Australia

Overall AI spending to reach \$8.3 billion by 2027 across infrastructure and applications

AI spending in Australia 2023-2027 (\$M)



Note: CAGR is for 2023 to 2027 (4 years)

- Australia's overall AI spending is forecast to grow at a CAGR of 25.4% from 2023, reaching \$8.3 billion by 2027. The AI software sector will steer AI market growth and reach \$5 billion by 2027 at the second-highest CAGR of 28.5% among the eight markets studied, led by the fastest-growing AI platforms and large spending on AI applications. AI services, encompassing IT services and business services, will grow at the highest CAGR of 28.8% by 2027 among the eight markets studied.
- AI infrastructure spending is projected to expand at 10.1% CAGR from 2023, reaching \$963.2 million by the end of 2027. The anticipated increase in spending, especially in AI software and infrastructure, signals a thriving ecosystem conducive to the adoption of transformative digital technologies such as AI. With government initiatives and widespread AI adoption across various industries, Australia is poised to emerge as a leader in AI innovation.

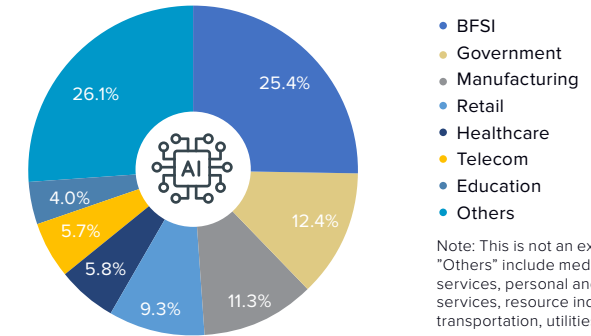
AI spending by use cases

Use Cases	2023 Spending (\$M)
Augmented customer service agents	301.9
Augmented threat intelligence and prevention systems	287.9
AI infrastructure provisioning	251.0
Augmented fraud analysis and investigation	245.1
Program advisors and recommendation systems	217.6

* Not exhaustive

- As businesses invest in IT services and embark on digital transformation initiatives, they often seek innovative solutions to enhance their customer service capabilities. Augmented customer service agents, powered by AI and ML technologies, offer a range of benefits that align with business objectives, reaching a spending of \$301.9 million in 2023, indicating a major opportunity for extensive future AI adoption among end users, making AI prevalent in everyday life.
- The increasing prevalence of cyberattacks in Australia underscores the critical need for AI-driven cybersecurity solutions. Organizations invest in augmented threat intelligence and prevention systems, harness the power of AI, and enhance their ability to detect, respond to, and mitigate cyberthreats, ultimately strengthening their overall cybersecurity posture in an evolving threat landscape.

AI spending by industry (2023)



Note: This is not an exhaustive list "Others" include media, professional services, personal and consumer services, resource industries, transportation, utilities.

Top industry spenders: BFSI and Government

- The **BFSI** sector leads in AI spending in Australia. Their priority is cost reduction and automation to increase efficiency. Hence, the sector focuses on AI in areas such as robust risk assessment, fraud detection, and compliance. Furthermore, AI capabilities are utilized to enhance the customer experience through chatbots and virtual assistance, seamless onboarding and account management, providing personalized recommendations, and more.
- The **government** sector is the second biggest spender. Significant investments in AI in the sector indicate an integration of AI technology into public services and digital infrastructure that contribute to multiple government initiatives, including the development of smart cities, digitized government practices, personalized healthcare services, and many more.
- **Manufacturers** in Australia use AI in predictive maintenance, quality control, and robotics to boost productivity and streamline tasks. Integrating GenAI can enhance manufacturing by generating new content from data patterns, impacting areas like product design, supply network controls, among others.

Sources: IDC Data Driven Enterprise Survey, 2023; IDC Worldwide Artificial Intelligence Spending Guide, August (V2 2023); IDC Semiannual Artificial Intelligence Infrastructure Tracker, 2023H1, Nov 2023



Support for SMBs in AI adoption and clear regulatory guidance will move Australia further up the AI maturity ladder

Large AI investments and digitally-mature infrastructure have contributed to Australia's AI Innovator status. While a majority of mostly large Australian enterprises surveyed are investing in AI to varying degrees, AI adoption among SMBs must be accelerated to further bolster Australia's AI advancement. The government plays a critical role in supporting AI proliferation among SMBs and enhancing regulations to spur AI growth.

Top challenges to AI adoption in Australia

- 1 **Business** issues — unclear or lower-than-expected business outcome
- 2 **Technology** issues — the adopted technology is insufficient or non-performant
- 3 **Compliance** issues — security, compliance, and explainability related
- 4 **Skill** issues — critical skills are hard to acquire or retain
- 5 **Cost** issues — cost of ownership too high to justify

RECOMMENDATIONS

ENTERPRISE

- **Define clear business use cases and expected outcomes:** Stakeholders must outline their goals for AI, e.g., increased efficiency, cost reduction, or enhanced customer experience, and develop detailed use cases showing how AI applied in their business processes will help achieve these goals. Setting specific, measurable key performance indicators is critical to evaluating the success of AI adoption and justifying further investments.
- **Encourage SMBs to adopt AI:** Missing out on AI adoption will cost SMBs opportunities for cost savings, productivity gain, and sharpening competitiveness in this tech-driven market. They can choose to collaborate with AI service providers, tech vendors, or industry partners to leverage their expertise and resources. Smaller businesses especially need to explore simpler embedded AI use cases to support their business functions.

GOVERNMENT

- **Refine existing regulations as AI progresses:** By augmenting existing regulations and developing AI-specific, risk-based legislation, Australia is on the right track to address the challenges and opportunities associated with AI technologies while promoting responsible innovation and safeguarding societal interests. These will require identifying regulatory gaps, promoting ethical AI standards, crafting focused legislation, and seeking input from industry specialists.
- **Support AI expansion into SMBs:** The government can provide incentives, such as funding or tax breaks to SMBs for AI adoption and training, and facilitate partnerships between AI-mature enterprises and SMBs. Australia needs to also enable easier access to AI tools and data for SMBs, and, to inspire other SMBs, it should publicize success stories of small businesses that have successfully integrated AI.

SOCIO-ECONOMIC

- **Upskilling talents for AI across broader industries:** With its ability to attract and retain local and foreign AI talent, the talent crunch is less severe in Australia than in other regional markets. However, AI talents are heavily concentrated in financial services and IT sectors. For AI adoption to extend, AI skills are needed in other sectors such as healthcare, transportation, utilities, and resources. This may include providing AI upskilling programs for workers, industry-specific AI training, and competitive wages to attract AI talents to work outside of BFSI, IT, or the government sectors.
- **Enable startups to scale through local and international investments:** While the startup landscape is lively in Australia, most startups struggle to really scale. In the last 2 years, only one Australian startup has managed to reach unicorn status (valued at over \$1 billion). Funding and grants from the government and investors are important, but there is also a critical need for easier access to other markets for scaling, as well as partnerships with established industry leaders that can provide the infrastructure and market.

Source: IDC Data Driven Enterprise Survey, 2023 (n = 30 for Australia)

Methodology

IDC assessed the current state of AI maturity of eight Asia/Pacific economies by examining three different dimensions — average enterprise, government, and socio-economic dimensions. Each is broken down into a number of attributes listed below:

AI Maturity Dimensions	Attributes
Enterprise 45%	Strategy Technology and data Human capital Process
Socio-economic 40%	Economic and social Talent and skill
Government 15%	Policy Regulations Government investments

Scores for these attributes were based on surveys and secondary data, and weighted to determine overall AI maturity for the market. Average enterprise factors, IDC believes, are the most critical and so are given the highest weightage (45%), followed by socio-economic readiness (40%) and government (15%). Maturity scoring is on a scale of zero to 100, with 100 as the highest possible score.

Enterprise dimension

Strategy factor

- Includes dimensions like innovation and AI strategy.
- Least mature organizations tend to not have a long-term innovation strategy and AI initiatives are often fragmented.
- Most mature organizations often have disruptive AI strategies that are dynamic in nature.

Process factor

- Includes dimensions like business process automation and change management.
- Least mature organizations often lack continuous business process improvement initiatives.
- Business process transformations tend to be iterative in nature and are often embedded in organizational DNA of most mature enterprises.

Technology and data readiness factor

- Includes technology dimensions like cloud, AI and IT modernization and data dimensions like data governance and customer analytics.
- Least mature organizations often lack business data visibility and rely on legacy and uncoordinated groups of IT infrastructure, which can have no or limited focus on leveraging AI and data platforms.
- Data monetization is often a key aspect of business strategy in mature organizations and tend to have a cloud/AI-first strategy driven by cognitive and contextual data inputs.

Human capital factor

- Includes culture, AI program leadership, workforce management.
- Least mature organizations tend to be limited by change management challenges and lack executive support for AI initiatives.
- Mature organizations often have a transformative culture driven by executive leadership with organization-wide participation in AI initiatives.

Government dimension

Policy factor

- Includes dimensions like policy frameworks and governance practices in place to access data and technology.
- Least mature markets often lack capability to meet policy requirements.
- Most mature markets tend to have a defined government policy framework. An AI policy framework helps governments develop rational, robust but supportive policies to fully realize the potential of AI technology and address its challenges.

Regulatory factor

- Includes dimensions like data sovereignty regulatory requirements and governance, risk, compliance software attributes.
- Least mature markets often lack capability to meet regulatory requirements.
- Most mature markets tend to have a defined regulatory framework.

Government investment factor

- Includes dimensions like technology investments, governance, policies and technology initiatives.
- Least mature markets often lack support from government investments to excel in technology infrastructure and support development.
- Most mature markets tend to have a defined investment architecture.

Socio-economic dimension

Economic and social factor

- Includes dimensions like technical education, knowledge management (the process of organizing, using, and sharing information) digital adoption, and GDP.
- Least mature markets tend to not have a long-term knowledge management strategy affecting AI initiatives.
- Most mature markets have technical education and digital adoption as key aspects of government strategy.

Talent and skill factor

- Includes employee skills, future talent pipeline, productivity, data engineering, and data science attributes.
- Least mature markets tend to be limited by change management challenges and a lack of executive support for AI initiatives.
- Mature markets often have a transformative approach to becoming data driven, with organization-wide participation in AI upskilling.



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