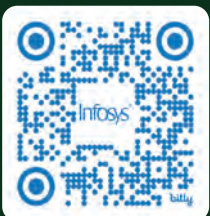
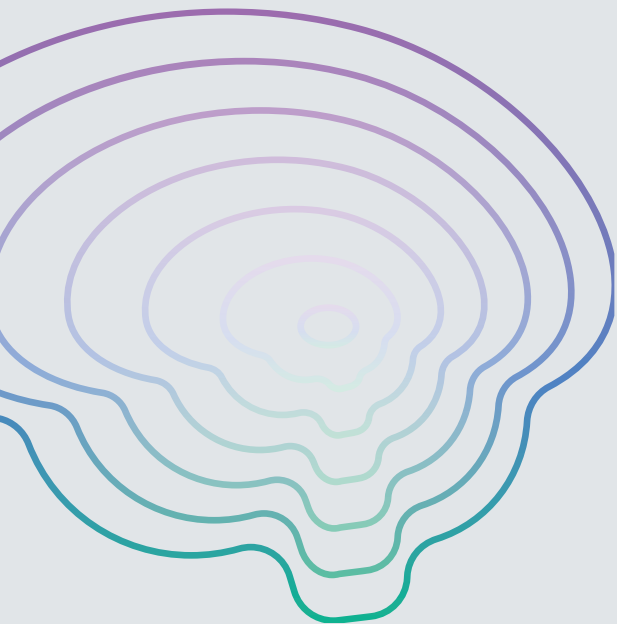


# GENERATIVE AI RADAR APAC



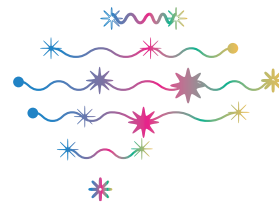
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# Contents

Executive summary	4
Spending: Catching up	8
Effective adoption	12
Concerns and challenges	17
Recommendations	26
Appendix A — Generative AI by industries	29
Appendix B — Research approach	55



# Executive summary

Generative artificial intelligence (AI) emerged from Silicon Valley, but it is Asia-Pacific (APAC) companies that are utilizing it most effectively. APAC firms also show signs of more maturity and readiness than their North American competitors, despite that region's far greater spending.

These insights are from our research into how large APAC companies are adopting generative AI. Our survey focused predominantly on businesses in Australia and New Zealand (ANZ), but also included samples across four leading Asian economies: China, India, Japan, and Singapore. These new findings add to those published for North America and Europe in October and December 2023 respectively.<sup>1,2</sup>

## Less spending, more value

We estimate that the six APAC countries we surveyed have invested \$1.4 billion in generative AI initiatives in 2023 — driven mostly by China's \$800 million in spending.

As a proportion of GDP, however, APAC spending on generative AI is half that of Europe, and a third of North American spending.<sup>3,4</sup>

Much of this reflects the slower roll-out of generative AI tools, and availability of GPUs in the region: in October 2023, the US told chip manufacturers NVIDIA and AMD to halt the export to China of some of its high-end

chips used in AI hardware.<sup>5,6</sup> Despite APAC's lower spending, this region demonstrates an impressive level of maturity and business value creation.

For instance, 55% of APAC companies are already implementing generative AI or creating business value from their generative AI initiatives. This is more than the 46% of North American and 42% of European companies that have reached those more mature stages.

China accounts for much of this fast start, leading all countries surveyed in generative AI adoption and value creation. But Australia really punches above its weight too. At the current rate of adoption, Australian firms demonstrate higher effectiveness (17%) than those in North America (11%), relative to the amount they are spending as a proportion of their GDP. China, however, is way out in front, with a rate of 37%.

Given that APAC's generative AI spending is expected to grow twice as fast as North America's, APAC companies could deliver significantly more generative AI business value by the end of 2024 compared to North American businesses.

## More caution, less clarity

While APAC companies are already benefiting from generative AI, they are concerned about the technology's potential impact.

Asian countries are particularly worried about negative effects on talent and cost effectiveness, whereas companies in Australia and New Zealand cite concerns about business models and reputational impact.

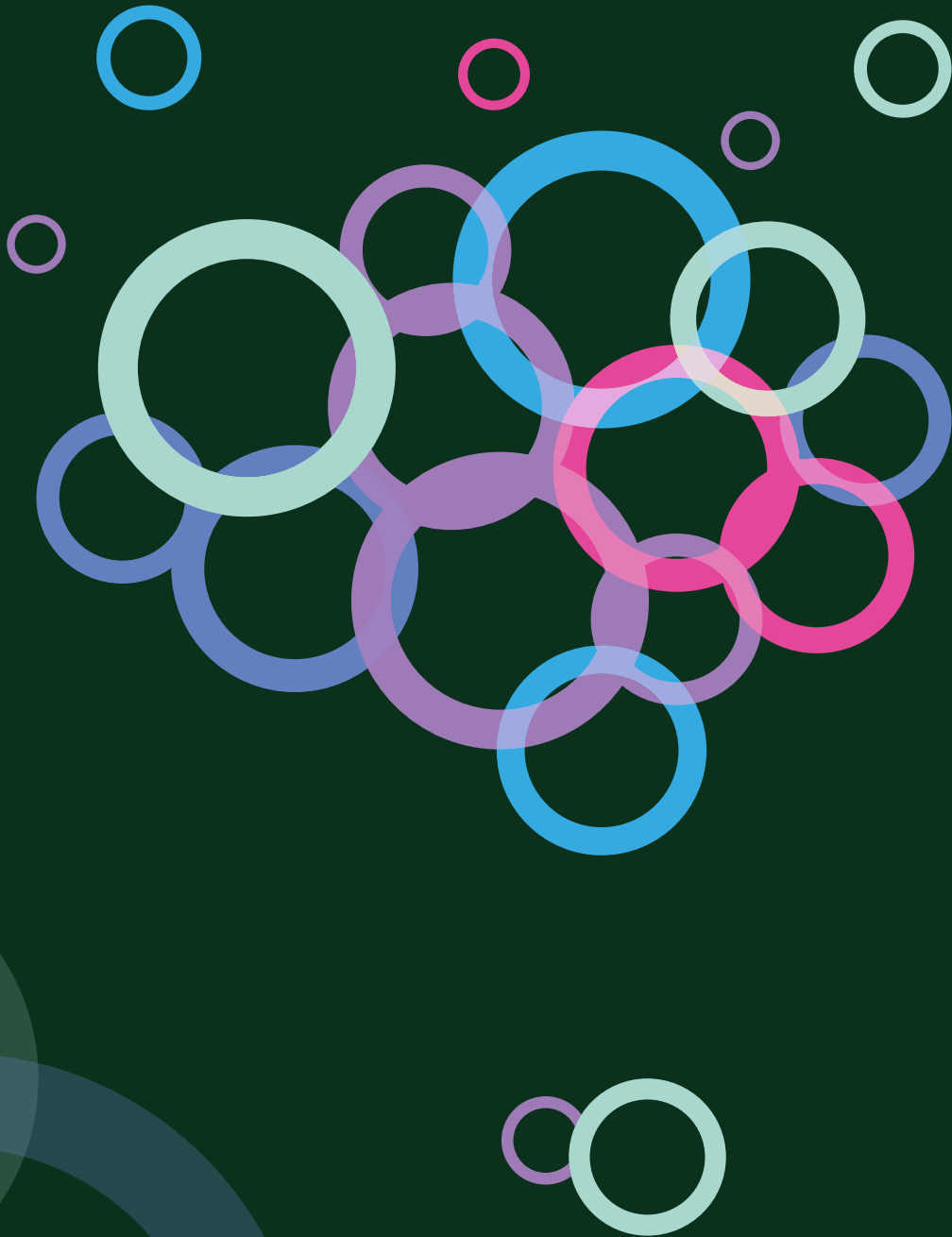
Similar to European firms, Australian businesses are more concerned about ethics and bias than usability.

Yet APAC firms still lack clarity over who in their organization should sponsor and lead generative AI initiatives. This lack of clarity is particularly acute among ANZ's public-sector organizations, where almost a third have yet to determine their sponsors.

## A pattern for the future

APAC's advanced maturity could well represent the future for generative AI in enterprises globally. The region believes that AI will support product development and design or content generation and creativity more than operational efficiency.

The caution and concern over ethics and privacy, combined with the heterogeneous politics of APAC, make the region an ideal proving ground for multiple regulatory regimes. The region's spending is smaller than other regions now, but APAC could mark the future for generative AI for us all.

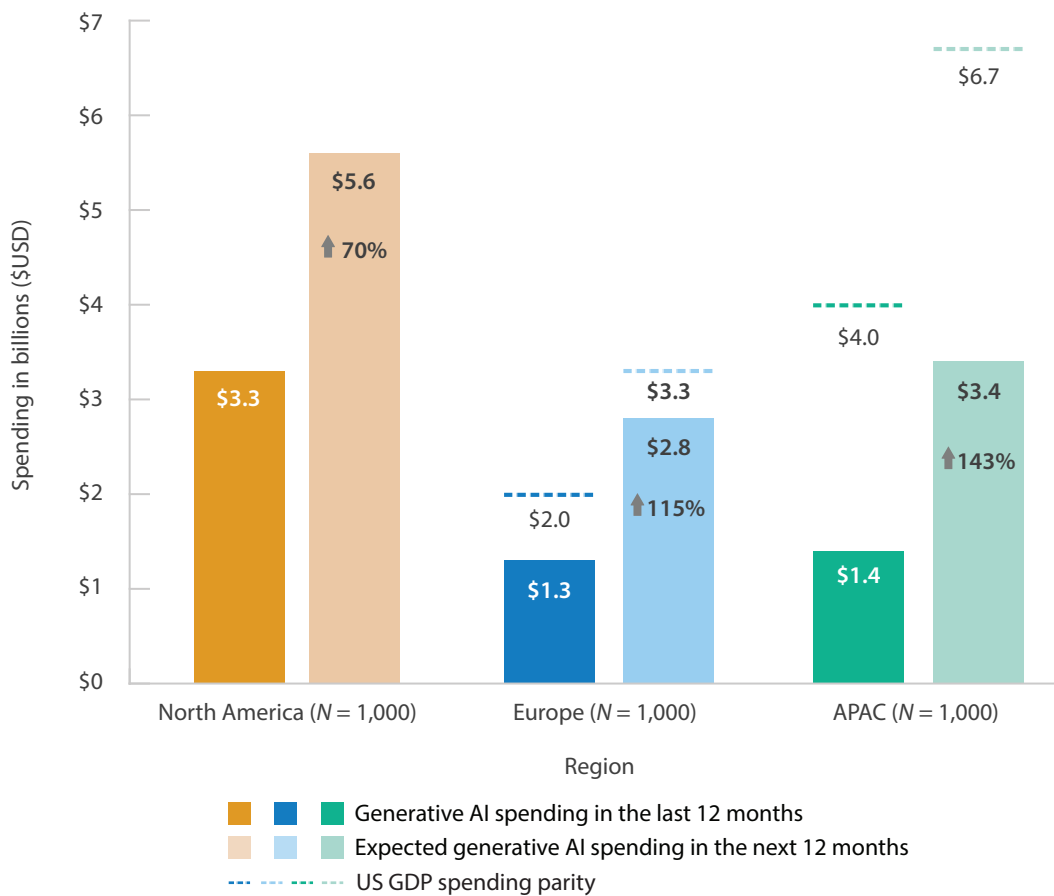


# Spending: Catching up

APAC companies overall have spent \$1.4 billion on generative AI in the past 12 months — a sizable sum that’s well behind North American firms but slightly ahead of those in Europe (Figure 1). However, more aggressive spending by APAC businesses in the next 12 months is expected to shrink the gap with North America and extend the lead

over Europe, according to our survey data. Our research found that APAC companies plan to increase generative AI spending by more than 140% to \$3.4 billion in 2024. These investments are well ahead of Europe’s forecasted growth rate of 115% and about double the expected growth in North America (70%).

Figure 1. Generative AI spending by region



The dotted line indicates the expected spending on generative AI by European and APAC countries if they were spending the same percentage of GDP as North America.

Source: Infosys Knowledge Institute



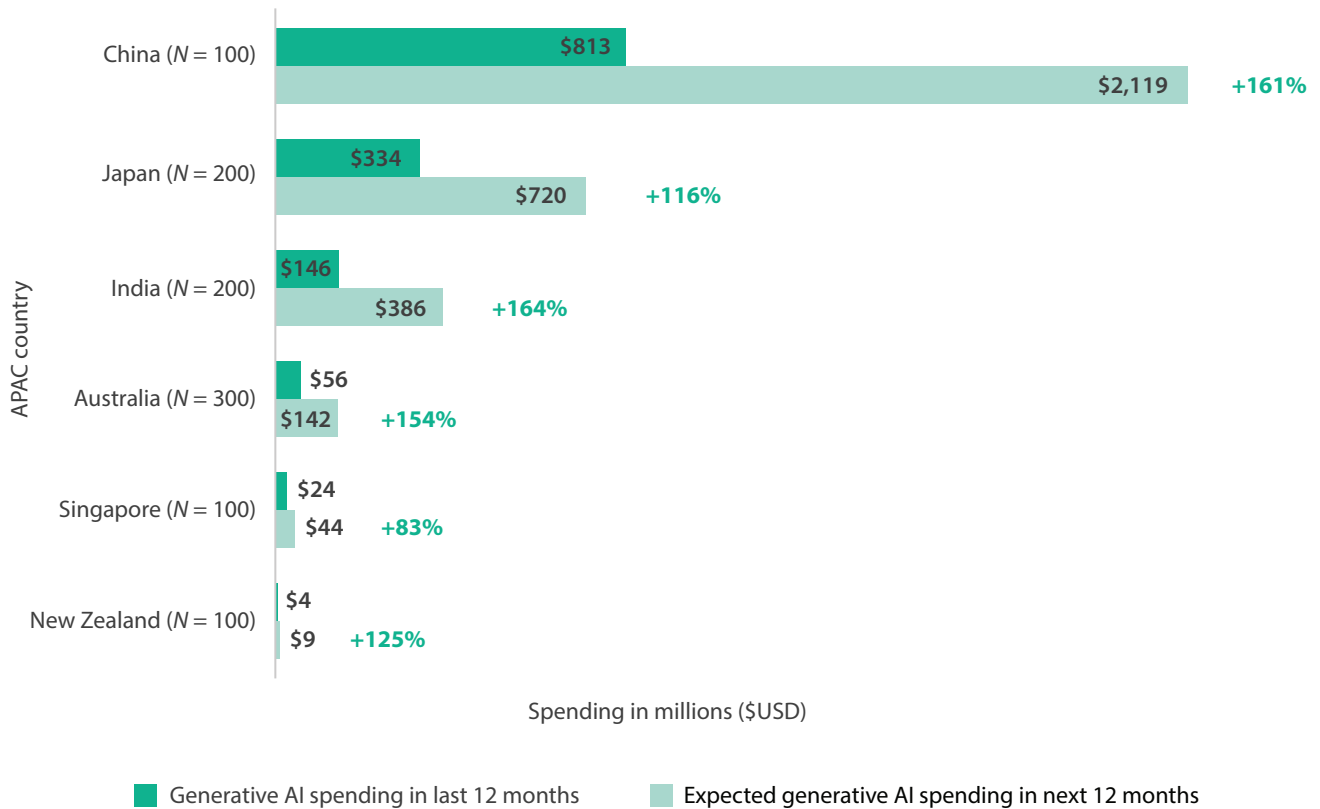
In dollar terms, the APAC region will move ahead of generative AI spending in Europe but still fall well behind North America in late 2024. But the total spending does not tell the entire story, since APAC companies spent much less as a ratio of the region’s economy.

We compared the APAC, North American, and European ratios of spending to GDP, and we found that if APAC companies had spent the same amount compared to their GDP, they would have spent about \$4 billion this past year, more than North America’s \$3.3 billion. APAC’s parity spending would also be nominally higher in 2024: \$6.7 billion vs \$5.6 billion in North America.

Looking at the countries individually, a more nuanced picture emerges. China — as might be expected, given its highly developed and mature technology sector — is the region’s leader (Figure 2). APAC companies expect to increase their generative AI spending to more than \$2 billion in the next year, or more than all of Europe’s spending on this technology in the past year. China’s projected \$2.1 billion in the next year would be a 161% increase.

Japanese companies also expect strong growth (116%) in generative AI spending, from \$334 million in 2023 to \$720 million in 2024. And India, which is jostling to establish itself as an AI leader, is also set to boost

Figure 2. Spending on generative AI by APAC country



Source: Infosys Knowledge Institute

spending substantially. We estimate that generative AI spending by Indian companies will increase by nearly 165% to \$386 billion.

South of the equator, we see a clear focus on generative AI even though the sums spent are smaller. The Australian government is backing tech investment through its Digital Economy Strategy, which includes a AU\$124.1 million AI Action Plan that aims to position the country as a global leader in this technology by 2030.<sup>7</sup> Overall, generative AI spending by Australian companies is expected to increase by more than 50% in 2024, to \$142 million.

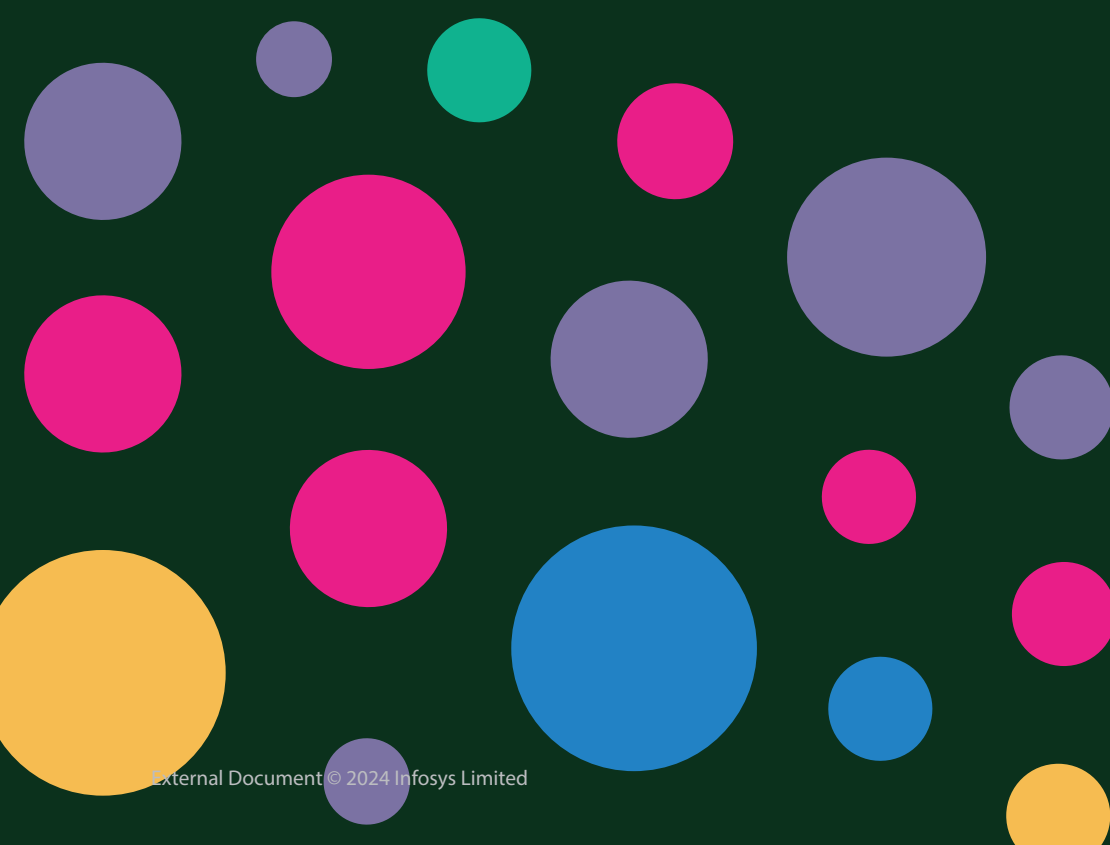
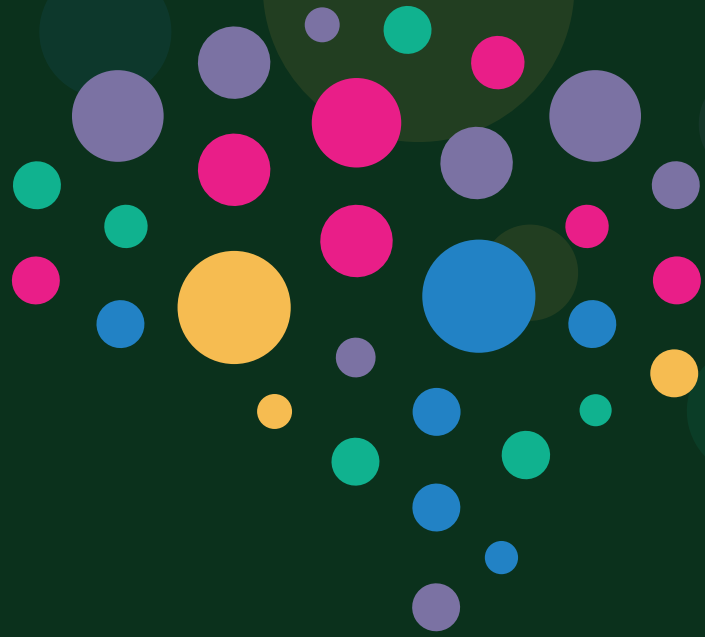
Similarly, companies in New Zealand also expect to increase their spending, although from a low base. Firms in New Zealand spent \$4 million on generative AI in 2023, and we see that growing by 125% over the next 12 months.

It is worth noting that APAC countries — with

the exception of China — had their access to generative AI technology delayed as a result of the global shortage of GPUs that drive AI computing power.<sup>8</sup>

This chip scarcity slowed in-house development by firms that prefer not to send corporate data to the cloud for processing. For those in the southern hemisphere that did use cloud AI, the regional imbalance caused latency issues since they had to rely on servers in North America. These factors likely explain why spending in Australia and New Zealand trails others in the region.

However, coming later to the technology, APAC countries are arguably well poised to benefit from the lessons learned from other regions that have been more enthusiastic in their approach. For instance, our analysis shows that ANZ companies generally spend more effectively on AI, and create more business value than most countries in Asia, Europe, and North America.



# Effective adoption

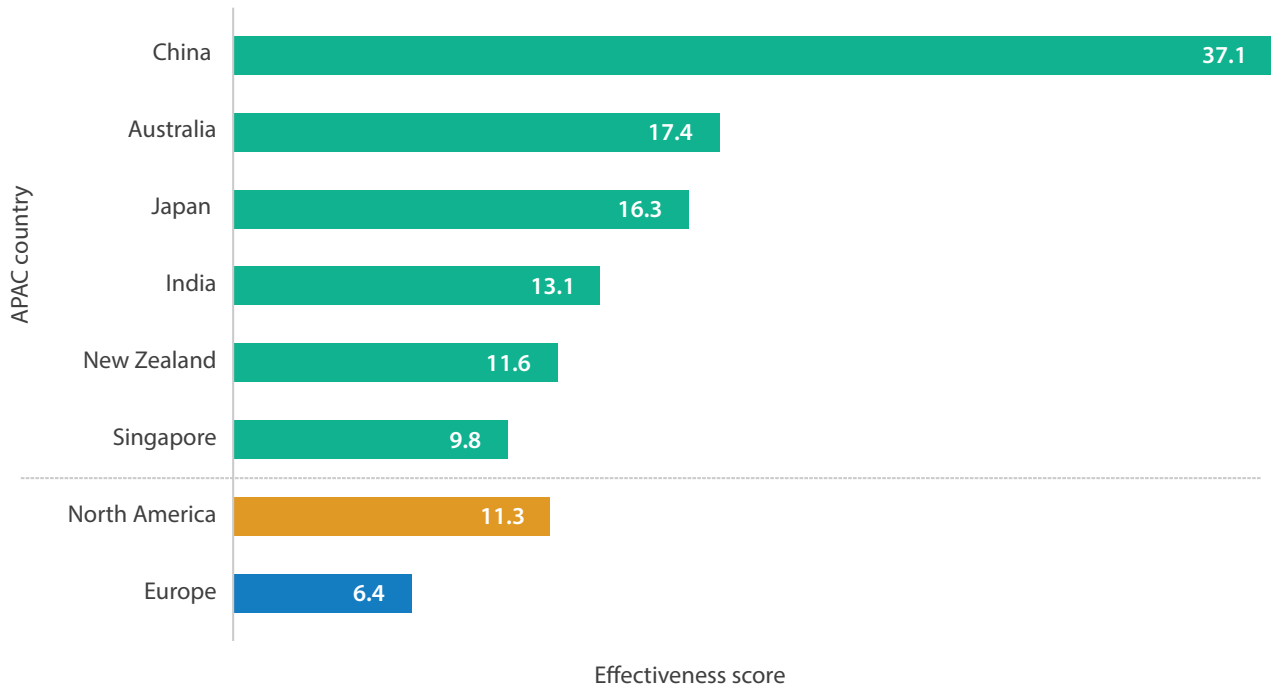
Although APAC companies spend less proportionally compared to the region's economy, they still lead the way on generative AI adoption. The region as a whole spends its money more effectively and creates more business value from its initiatives — particularly China.

We calculated a score to measure the effectiveness of spending on generative AI. This score is the percentage of companies that would create business value from

generative AI for every 0.01% of GDP spent. For example, China leads the world with an effectiveness score of 37.1 — which means that 37% of Chinese companies can expect to create business value from generative AI for every 0.01% of GDP spent. This is more than triple the North American score (Figure 3).

As we noted above, China's position here reflects its mature technology sector; anecdotally, China is already using generative AI widely. The huge Chinese e-commerce

Figure 3. Effectiveness score of APAC countries compared to Europe and North America



*The effectiveness score is a measure of the proportion of generative AI initiatives that create business value per 0.01% of GDP (for a country or region) spent on generative AI. In other words, increasing spending on generative AI by 0.01% of GDP would increase the proportion of companies creating business value in Australia by about 17 percentage points.*

Source: Infosys Knowledge Institute

platform and cloud services provider Alibaba has built several generative AI tools on the platform, including a way for customers to ask for personalized recommendations, and a coding assistant.<sup>9</sup> In June 2023, the Beijing Academy of AI released its own open-source LLM that can operate in both English and Chinese.<sup>10</sup>

Although they trail China, Australian companies are ahead of businesses in all other nations, with an effectiveness score of 17.4.

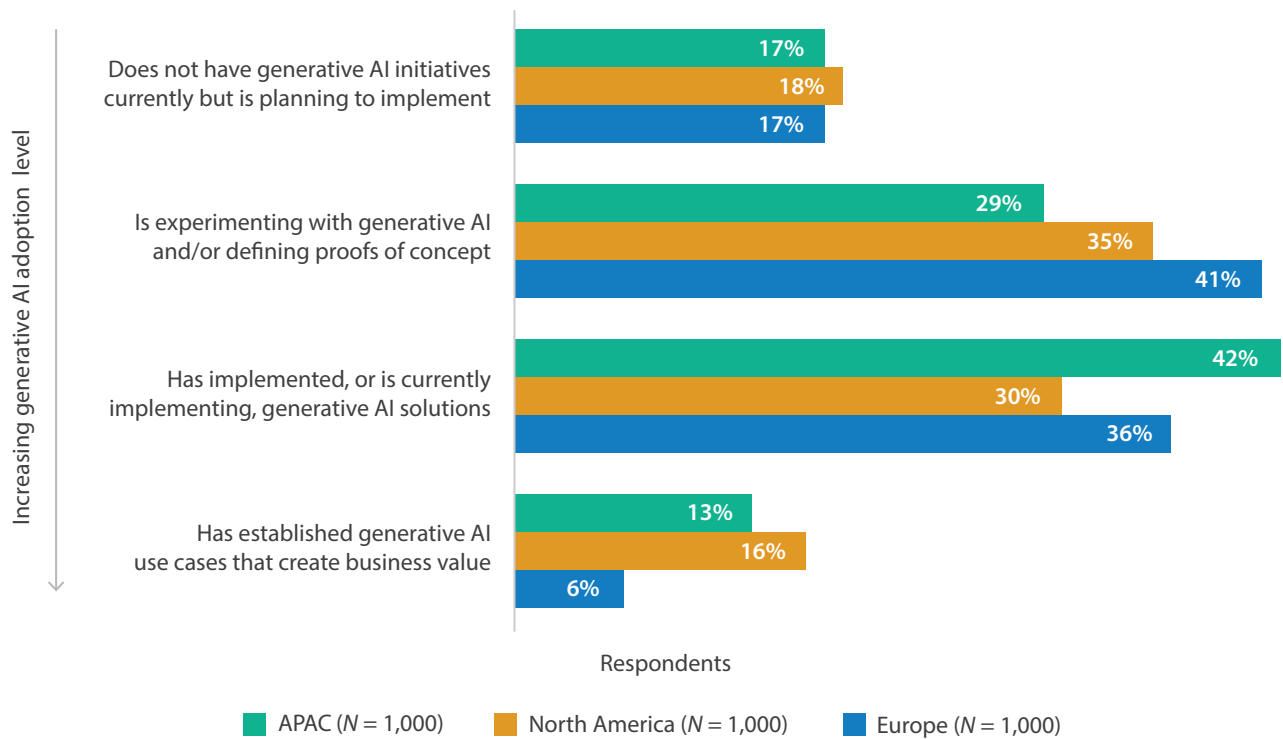
The picture is similar in New Zealand (11.6). Despite its small overall spending

on generative AI, firms in New Zealand use generative AI more effectively than those in Singapore, Europe, and North America.

This effectiveness score supports our findings on AI maturity, which we define as a spectrum with four steps: The least mature organizations are the ones with no existing generative AI initiatives, followed by an experimentation phase, an implementation phase, and then the most mature are those now generating business value from the technology (Figure 4).

This provides a snapshot of how organizations deploy emerging technologies.

**Figure 4. Generative AI adoption phase by country and region**



*We asked respondents which of the above statements best categorizes their generative AI projects. The statements are listed in order of increasing levels of adoption, with creating business value being the highest level of adoption. Percentages do not add up to 100% because of rounding.*

Source: Infosys Knowledge Institute

It also highlights business value as a distinct marker of how generative AI is being used and how often it is used most effectively.

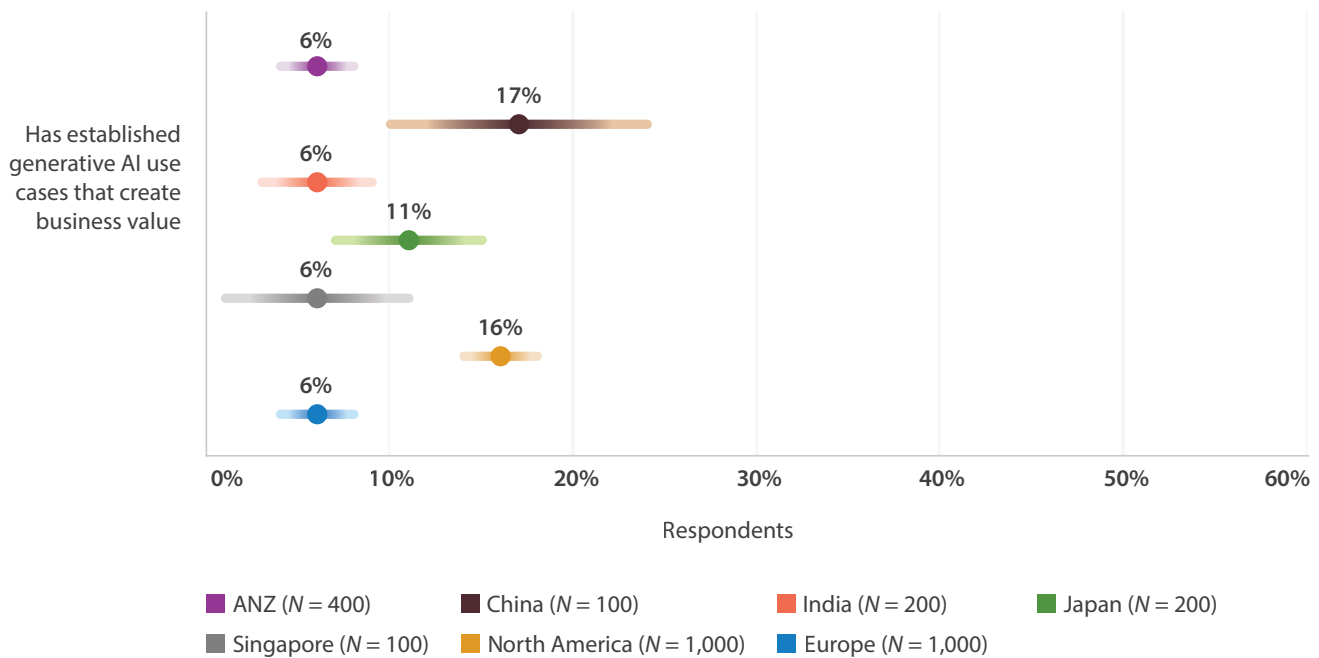
APAC is the most mature region in implementation and established use cases.

China and North America lead the world in the proportion of companies that have created value from generative AI, with 15% or more companies doing so. Japan and China also lead with almost 50% of their companies that have implemented or are currently implementing generative AI solutions.

Although Australia and New Zealand are progressing more slowly with generative AI, the effectiveness scores suggest that this more cautious approach is nonetheless yielding business value. This is perhaps due to early support for AI from their governments to build AI maturity, such as the Australian government’s launch of its AI Action Plan in 2021.<sup>11</sup>

Data at that time suggested that most Australian businesses were at an initial “thinking about it” phase, whereas our new research has found that 44% have been at least experimenting with generative AI

Figure 5. Companies creating business value with generative AI by region



Values show the proportion of respondents that indicated their generative AI projects were at this level of adoption. Overlapping error bars indicates there is likely not a difference between two values. Larger error bars are the result of smaller sample sizes.

Source: Infosys Knowledge Institute

and defining proofs of concept over the past 12 months.<sup>12</sup> Nearly one-third say they were either implementing or had implemented generative AI solutions or had actually established use cases that create business value (Figure 5, Figure 6).

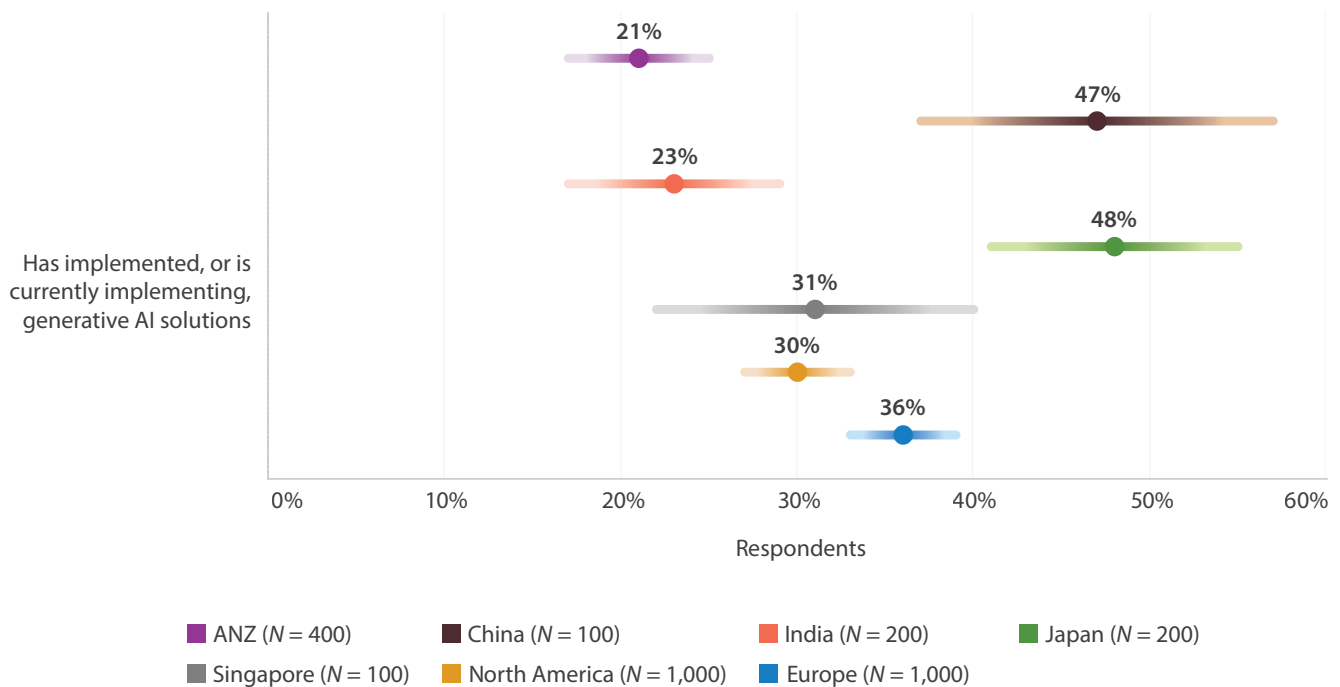
In New Zealand, the adoption has been slower, with more than half telling us they were experimenting with generative AI or defining proofs of concept, and just 2% deriving business value. But as we noted above, the spending effectiveness by New Zealand companies led most Western economies that we surveyed.

Our effectiveness scores show that APAC countries are benefiting more from their generative AI spending, despite the lower budgets and lower maturity in ANZ.

In addition, we found that midsize ANZ companies were leading the adoption of generative AI, which bucks the global trend. In North America and Europe, the largest firms have the greatest generative AI maturity.

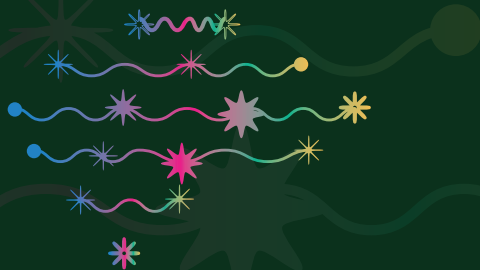
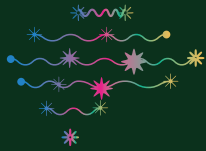
As a result, APAC has the smallest proportion of companies expected to spend more than \$10 billion on generative AI in the next 12 months, at 3.5% (Figure 7).

Figure 6. Companies in the implementation phase by country and region



Values show the proportion of respondents that indicated their generative AI projects were at this level of adoption. Overlapping error bars indicates there is likely not a difference between two values. Larger error bars are the result of smaller sample sizes.

Source: Infosys Knowledge Institute



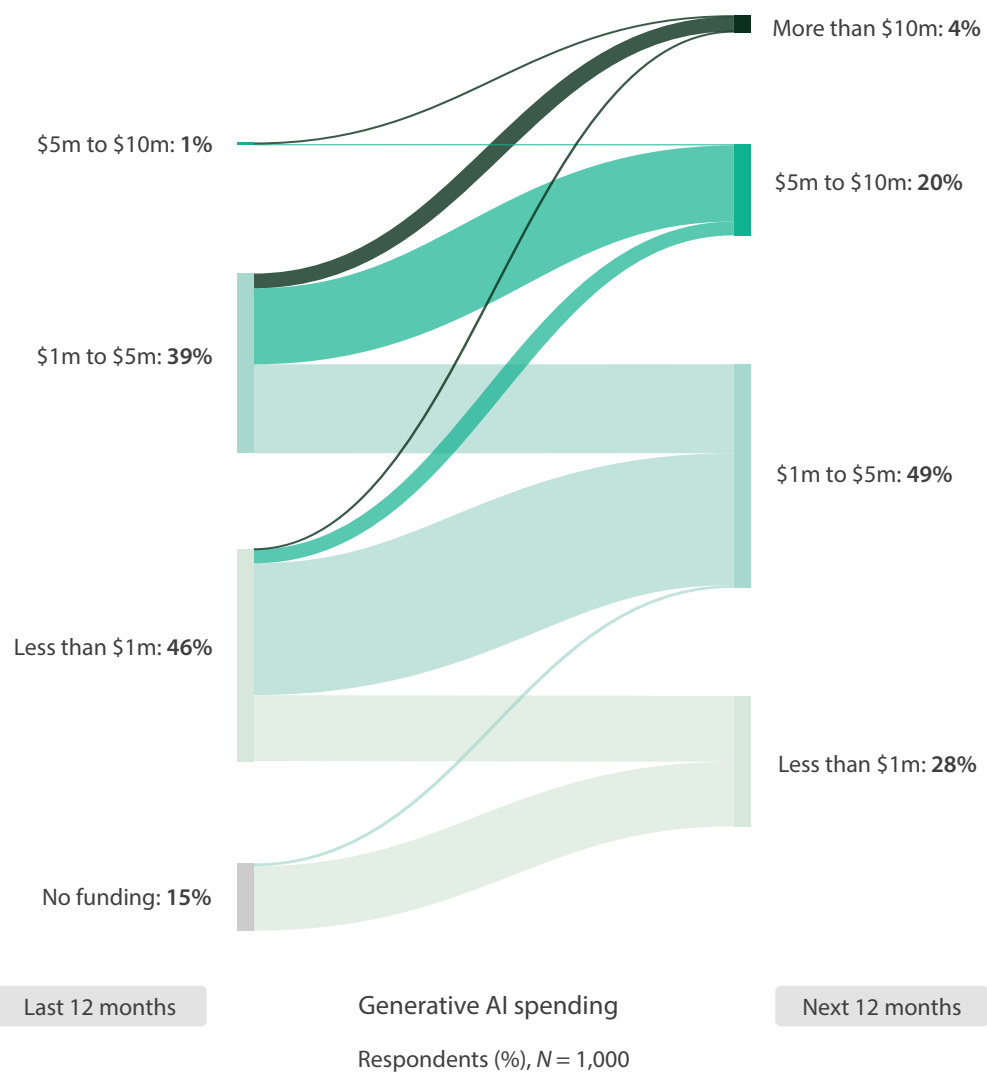


# Concerns and challenges

Despite the widespread adoption and more mature business deployment of generative AI in the region, APAC is not a leader in every category. There is a significant level

of guardedness, with 9% of APAC leaders indicating that generative AI will have a negative impact on business — despite their successes so far.

Figure 7. Generative AI spending increases



Percentages do not add up to 100% because of rounding.

Source: Infosys Knowledge Institute

Generally, businesses in APAC are slightly less positive and slightly more negative about generative AI's impact on business than those in North America and Europe (Figure 8). APAC companies are also a little more likely to be neutral about generative AI compared to businesses in North America and about even with those in Europe.

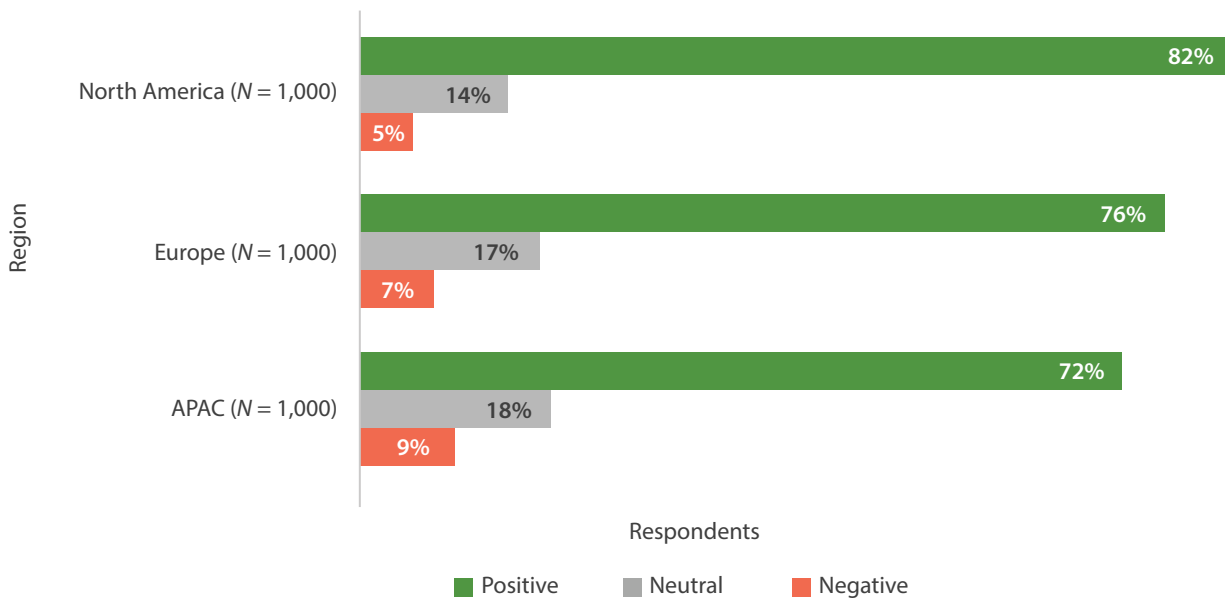
The reasons for this negative sentiment vary widely by region, with ANZ and Asian companies more concerned about almost every potential impact compared to businesses in Europe and North America (Figure 9).

Generally, business leaders in ANZ are significantly more worried than their counterparts in other regions about

generative AI's negative impact on their business models and reputations. We found that 10% of leaders in Australia and New Zealand expect generative AI initiatives to negatively affect their reputations, compared to 3% in North America and 5% in Europe. Just over one in 10 (11%) also said they expect a negative impact on business models, compared to 6% each for both North America and Europe.

Asian leaders also have significant concerns about the more practical aspects of generative AI, such as its negative impact on talent (14%) and cost efficiency (12%). However, as we discuss in our Tech Navigator report, one key function of enterprise AI is to augment human capabilities rather than replace them.<sup>12</sup>

Figure 8. General sentiment of generative AI's expected business impact



We asked respondents whether generative AI would have a negative or positive impact on various business areas, including revenue, business model, talent, reputation, profit, and cost efficiency. Values indicate the proportion of respondents with positive, negative, and neutral sentiments across all business areas. Percentages do not add up to 100% because of rounding.

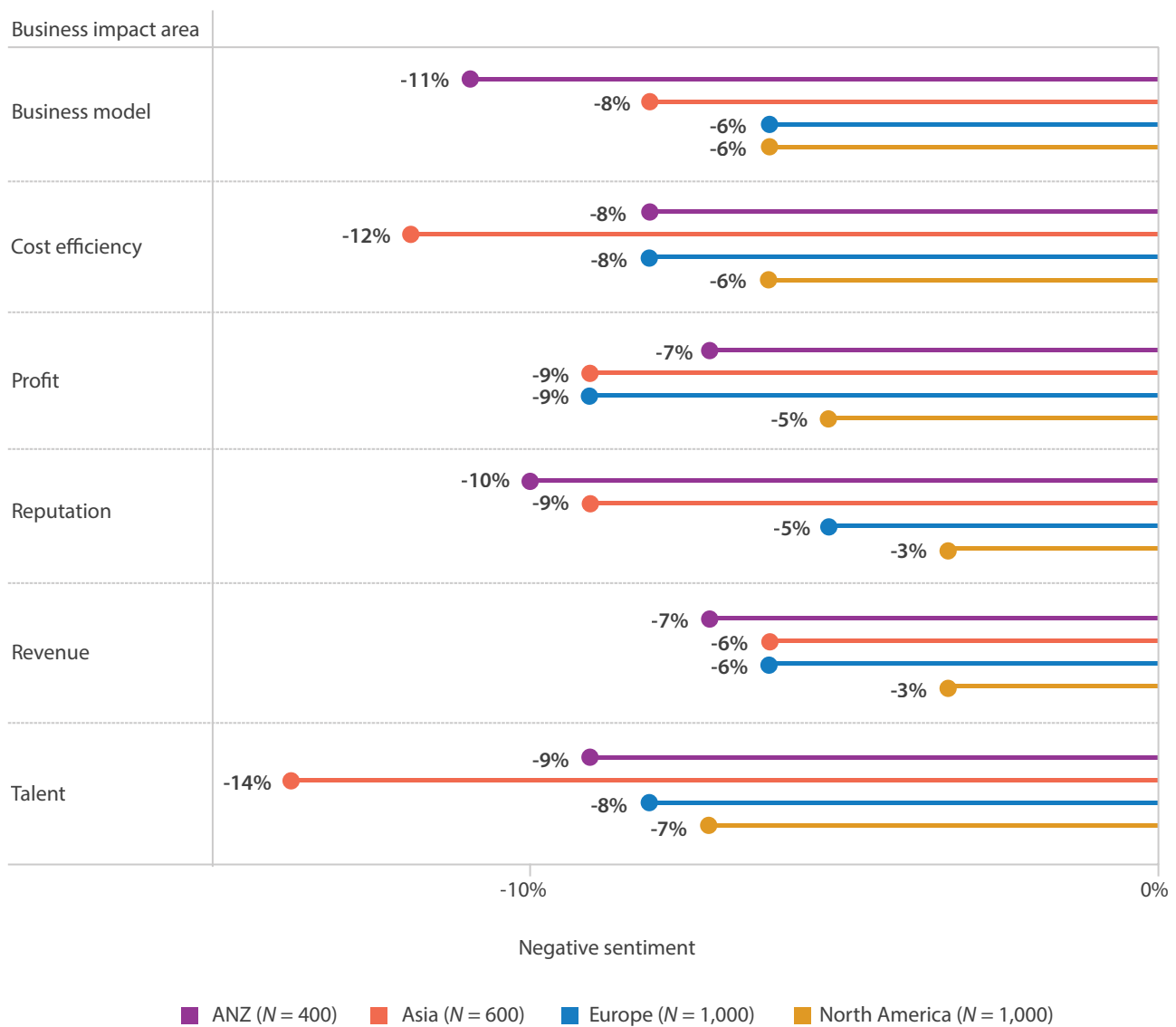
Source: Infosys Knowledge Institute

We expect that generative AI will lead to the development of new jobs as well as an evolution of previous employment categories. For example, prompt engineers will be in demand from companies wanting to extract the maximum potential from this technology. Companies are already reskilling

and upskilling existing staff as an alternative to competing in the jobs market for prompt engineers, as we discuss below.

Similarly, we expect that companies will use generative AI's capabilities as an assistant. Many firms are already experimenting with

Figure 9. Negative view of generative AI's potential on business areas by region



We asked respondents whether generative AI would have a negative or positive impact in different business areas. Values indicate the proportion of respondents with negative sentiments across in each business area.

Source: Infosys Knowledge Institute

Microsoft's Copilot, which is being rolled out alongside its enterprise suite of productivity applications.

Copilot and similar tools can take over tasks such as summarizing meetings and documents, as well as code review, code completion, and other manual tasks. This in turn frees up humans to do other work, in theory making them more productive. In short, generative AI could help mitigate talent shortages.

## Data and security challenges

As with any new technology, generative AI poses many challenges, some more daunting than others.

About one-third of APAC companies consider data privacy and security to be the top challenge of generative AI (Figure 10). This is consistent with governmental guidance, particularly in New Zealand, which insists on transparent and accessible discussions of ethical and privacy concerns. Data usability also rates as the most significant challenge for about one-quarter of APAC respondents, with ethics, bias, fairness, and safety just behind.

A further complicating factor for companies, both based in and operating in this region, is the fragmented regulatory regime. While firms in the EU benefit from that bloc's unified approach to regulation with the EU AI Act and the General Data Protection Regulation, individual countries in the APAC zone have their own legal frameworks.<sup>13,14</sup>

China is "very ahead of the game" on



regulation, according to Professor Lilian Edwards of Newcastle University in the UK.<sup>15</sup> She pointed out that the country has three pieces of legislation complete, at least two of which are already in force.<sup>16</sup>

Singapore is taking a wait-and-see approach to regulation, and Australia has proposed amendments to existing legislation that would, among other things, require transparency around targeting, algorithms, and profiling.<sup>17</sup>

The Australian government is reviewing existing law and sought public submissions on the future governance of AI in Australia in the middle of 2023.<sup>18</sup> Professor Edwards flags the potential for challenges in this fragmented landscape. "There's going to be lots of new rules coming out about AI governance and how they are going to compete with each other."

Despite these perceived challenges, Asian

organizations are broadly positive about their readiness for generative AI deployment in the workplace (Figure 11). About two-thirds (67%) say their workforce is ready, the highest among the regions we have surveyed. This compares to 59% of businesses in Europe and 56% in ANZ and North America that say they are positive about their workforce readiness.

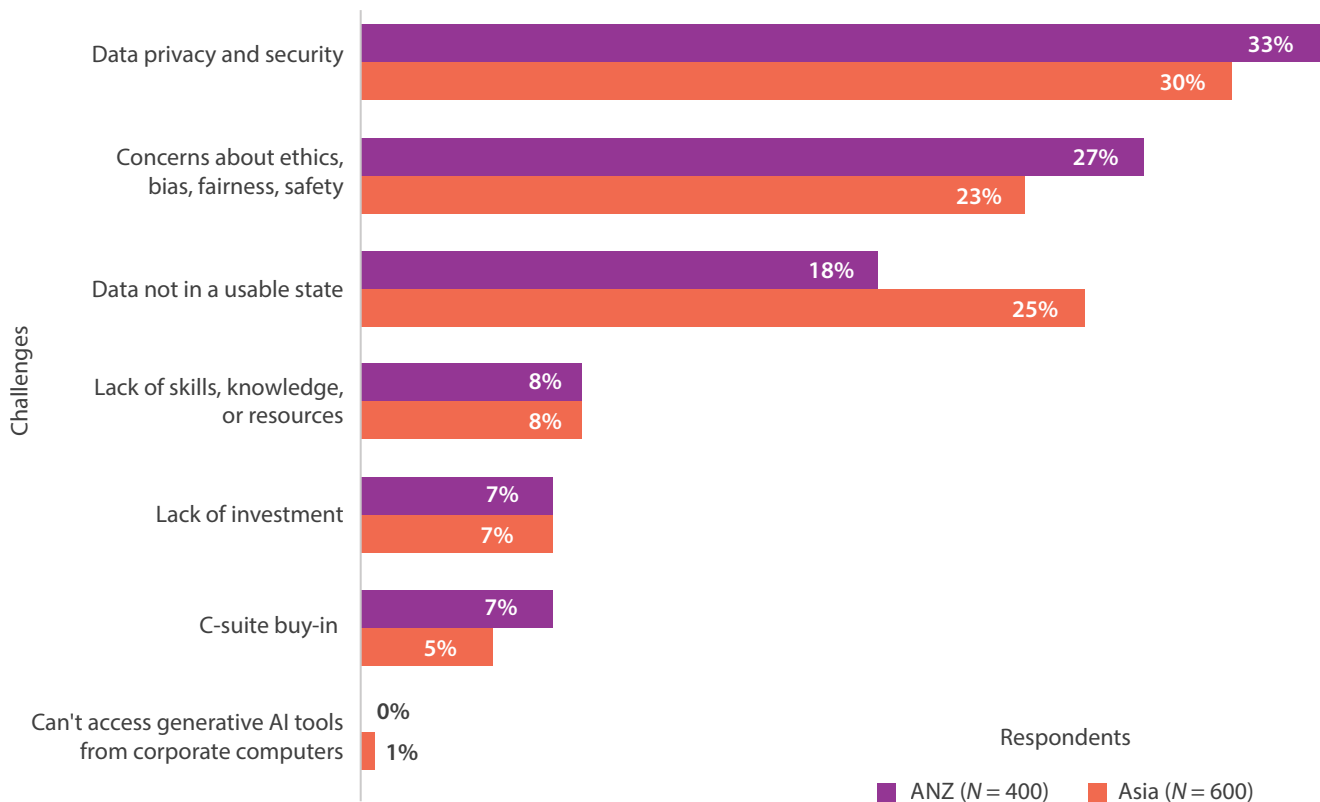
## Expected benefits

This generative AI future, however, will require a workforce with new skills, many of which are in high demand and short supply. To fill the skills gaps, APAC leaders will look mainly to upskill. Respondents in every

APAC country we surveyed expect to use upskilling and reskilling as their strategy for managing demand for new generative AI skills more than half the time (55% in ANZ and 54% in Asian countries). In comparison, the frequency was 41% of the time in North America and 47% in Europe.

The countries and regions we surveyed also vary in how they think generative AI will benefit them the most (Figure 12). Asian countries expect the biggest benefits from product development and design use cases than in any other region. This is driven by China, where three in 10 companies list this as their primary use case as where generative

Figure 10. Percentage of respondents by region rating each challenge as the most difficult



Values indicate the percentage of respondents indicating a challenge is the most difficult obstacle for implementing generative AI. Percentages do not add up to 100% because of rounding.

Source: Infosys Knowledge Institute

AI will have the largest positive impact in their companies. Singapore is an outlier here, with nearly 40% of companies holding the same view for enhanced user experience and personalization.

Like North America and Europe, ANZ companies were most likely to expect generative AI to have the most positive effect on user experience. Similarly, ANZ respondents list increased operational efficiency and automation as the use cases most likely to have the biggest impact.

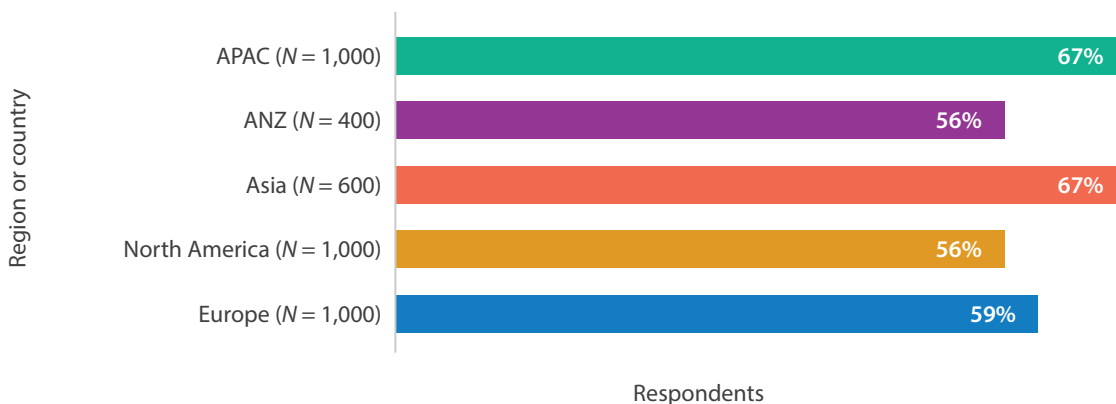
Operational efficiency and automation is not a top focus for any region, despite research indicating that workers are interested in the benefits that AI-assisted automation could bring. A 2023 study found that nearly 60% of respondents think that automation

will “address burnout and improve job fulfillment.”<sup>19</sup> An almost equal number more favorably view employers that modernize and use business automation to help support workers than those that do not.

The retention of skilled workers poses a pressing problem across tech-related fields globally. APAC businesses can do more to explore the benefits that automation can bring to the workforce.

There are some nuances, though. We found in our North America and Europe Generative AI Radars that content creation was not a top-of-mind use case for the benefits of generative AI. However, the picture is different in Japan, where 30% of companies identified this as the most likely use case — ahead of enhanced user experience and

Figure 11. Readiness for generative AI



We asked respondents to rate the level of generative AI readiness in their company’s workforce. Values indicate the percentage of respondents that indicated a positive sentiment regarding readiness. APAC consists of Asia (China, Japan, India, and Singapore) and ANZ.

Source: Infosys Knowledge Institute

personalization, streamlined product design, and increased efficiency and automation.

## Public sector vs. private sector

Companies pursue generative AI for different reasons, often steered by industry needs. Our survey of ANZ firms found a split between the public and private sectors (Figure 12).

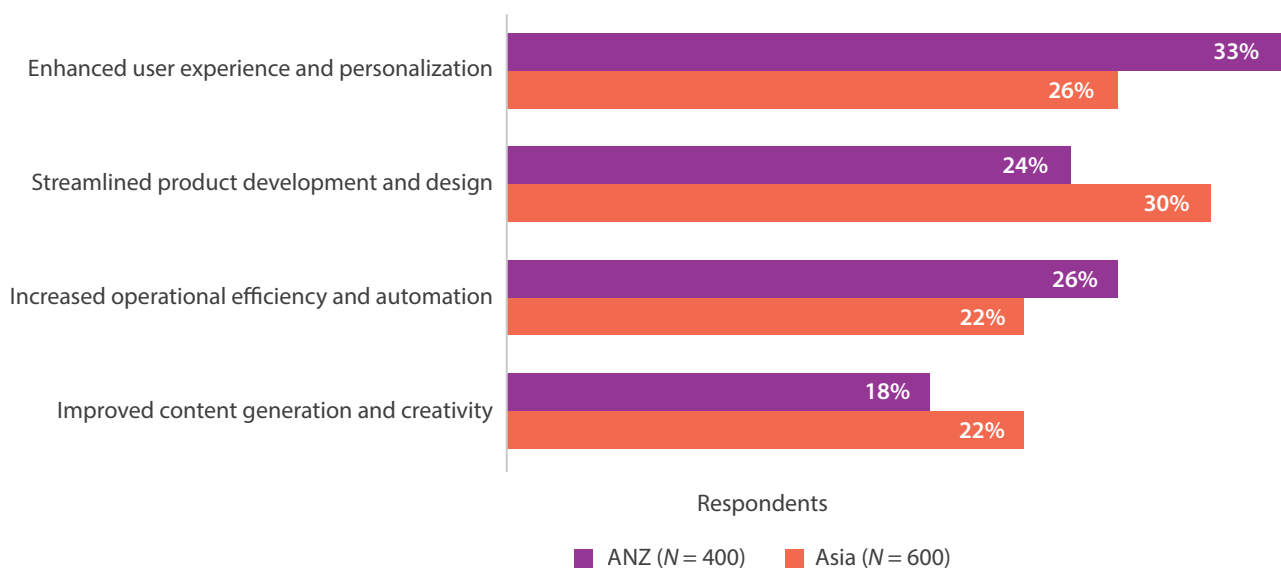
Public-sector organizations expect that generative AI will help them achieve operational efficiency (Figure 13). About four in 10 (44%) of public-sector leaders list this as where they expect generative AI to do them the most good. Just two in 10 (22%) in the private sector say the same about efficiency. User experience ranks second for the region’s public sector, but it is where private-sector organizations are most likely to expect

generative AI to perform well for them.

Almost a third in the ANZ public sector (31%) have yet to determine who in the organization should sponsor generative AI projects. It is striking compared to only 12% responding in the “to be determined” category in the ANZ private sector. Organizational structures, processes and relationships are key areas for improvement here.

In the APAC region, the chief information security officer (CISO) is the primary sponsor for AI initiatives in organizations across the region. Executive boards also assume a significant role alongside CISOs across the region in setting policy, which highlights the need for a collaborative board-CISO relationship.

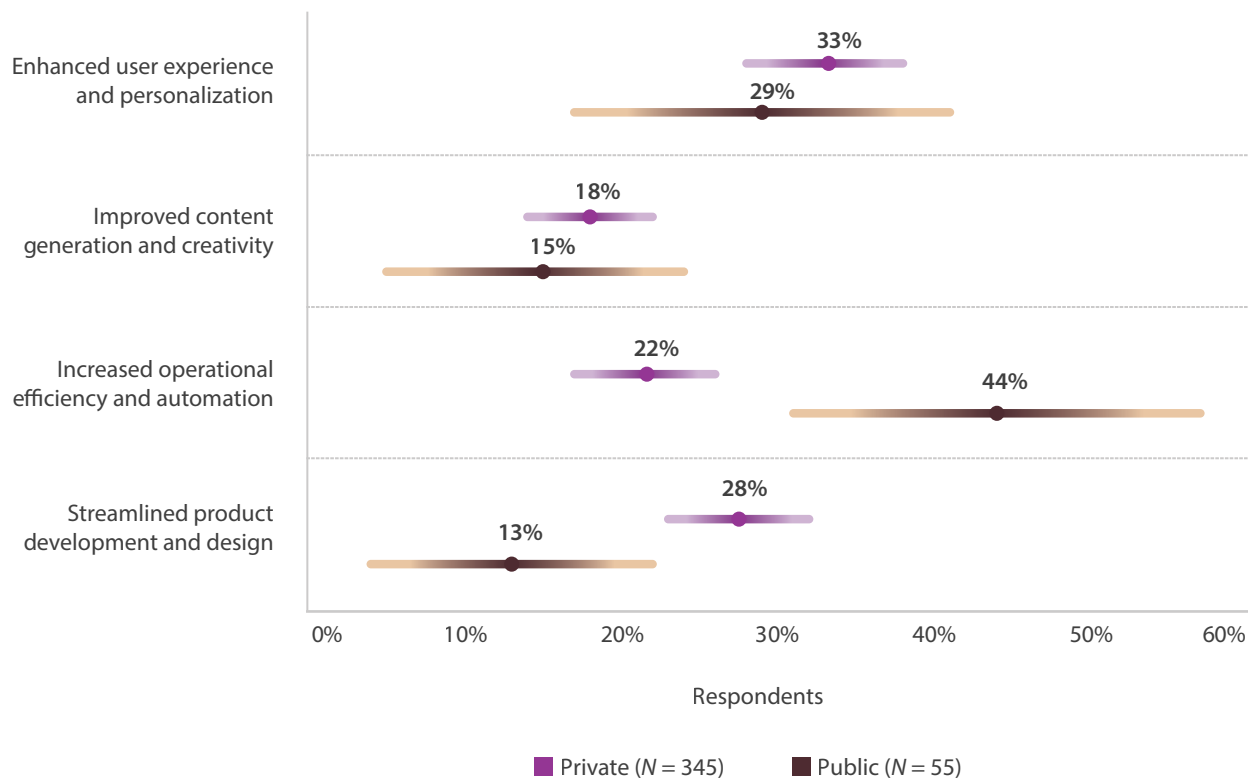
Figure 12. Where generative AI is expected to have the biggest impact



We asked respondents where generative AI would have the biggest positive impact. Values indicate the percentage proportion of respondents that thought that generative AI would be most helpful in that area for their company. Percentages do not add up to 100% because of rounding.

Source: Infosys Knowledge Institute

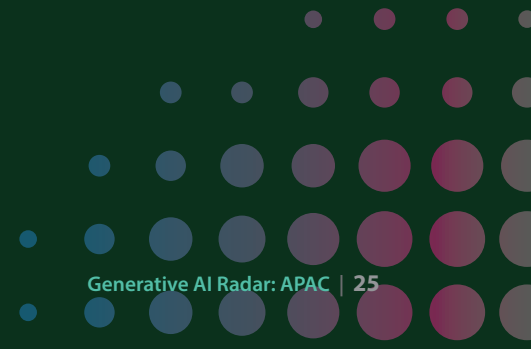
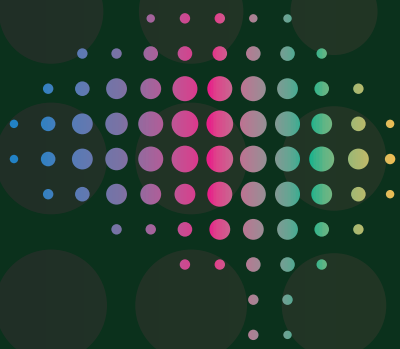
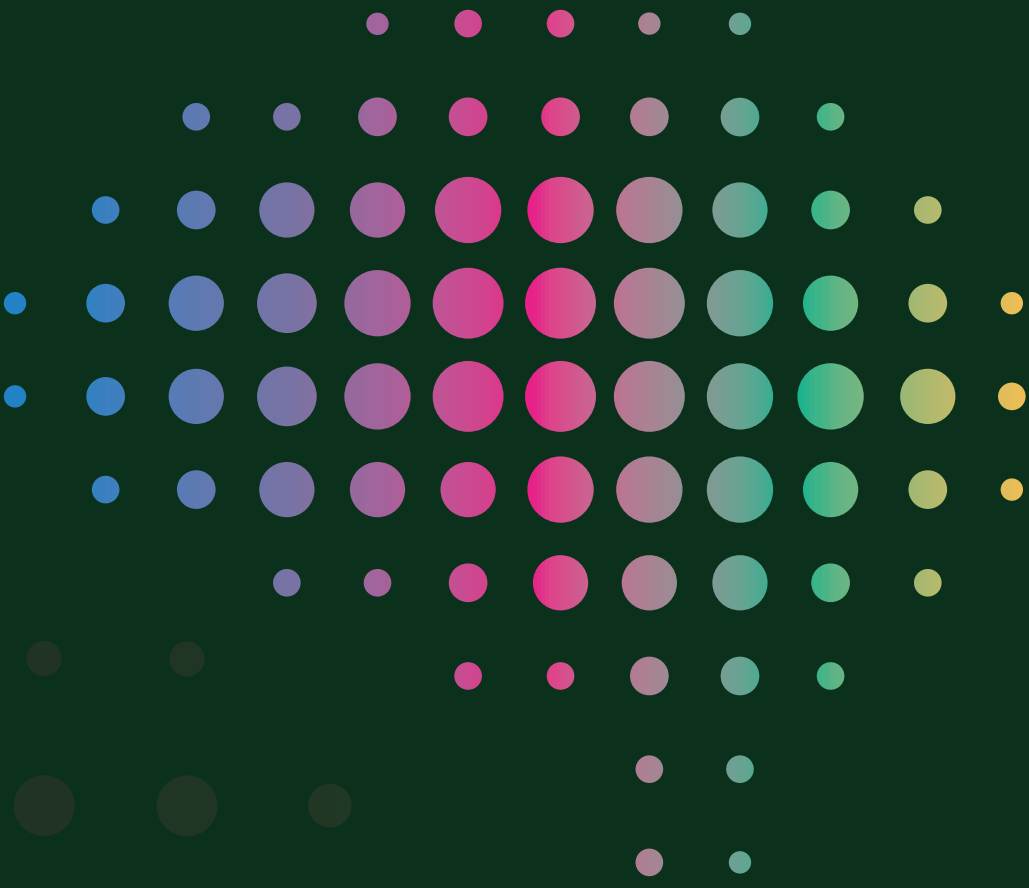
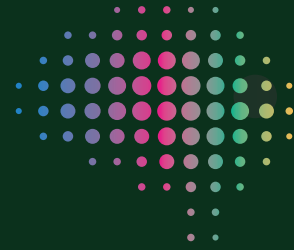
Figure 13. Most positive expected impact among public and private sector organizations in ANZ



We asked respondents where generative AI would have the biggest positive impact. The above represents the proportion of ANZ respondents that thought that generative AI would be most helpful in that area for their company. Overlapping error bars indicate no statistical difference.

Source: Infosys Knowledge Institute





# Recommendations

## Prepare data responsibly

Responsible AI, including data veracity and privacy, is a concern for Asian countries, although Australia and New Zealand are less concerned about data usability. This is of course a priority for firms around the world as they get their AI systems ready for production.

The enterprise data universe for AI has expanded beyond traditional analytical and transactional data to many other data types such as user-generated content, synthetic data, machine data, ecosystem, and third-party data.

Firms thus need to establish an effective data estate, ensuring all data assets are available, accessible, discoverable, and of high quality. In our AI research and client work, four successful data practices stand out:<sup>20</sup>

- **Organize and identify data** — Autonomously discover datasets, identify them for metadata, catalog for holistic understanding of AI initiatives, and ensure data is of high veracity.
- **Govern through better control** — This includes access security; distribution and data rights management; synthetic data versioning; data monitoring; consent management and access control for user-generated content; and governance for privacy, legal, and IP concerns.
- **Regulatory compliance and zero-trust privacy** — Continuously track regulations, as well as identify and deploy capabilities that lead to compliance.
- **Governed consumption** — Define user groups to consume model output, and ensure models are current and perform effectively.

This data also needs to be connected, protected, and consumed: All of this is part of the responsible-by-design approach vital for best data practice.

## Develop AI-led learning paths

Asian and Australian firms plan to upskill employees, but will also recruit new talent and work with partners, similar to North America

With this in mind, APAC needs to build AI-led learning paths that include both the creator community (data scientists, econometricists, machine learning engineers, etc.) and the consumer community (prompt engineers). These firms should also develop new AI-era roles such as experience designers, digital specialists, and platform engineers.

APAC companies should focus on automation. Human and AI system collaboration will free up significant resources to do more fulfilling work and increase productivity. According to the annual State of AI report, using Github Copilot led to

significant productivity gains for developers.<sup>21</sup> In fact, less experienced users benefit the most, with a productivity gain of 32%.

## Implement a platform model

Our research found that 56% of APAC firms are implementing or are creating business value, compared with 46% in North America and 42% in Europe.

One way to progress toward building business value is to offer access to self-service generative AI tools from a platform repository.<sup>22</sup> This enables agile, product-centric teams to build and deploy generative AI applications without having to find or write complex code.

The suite of platforms includes:

- **Low-code, no-code tools** — Offer visual interfaces and drag-and-drop functionality, allowing users with little to no coding experience to build and deploy simple AI models, like chatbots or data analysis tools.
- **Prebuilt models and templates** — Provide pretrained models for common tasks like image recognition, text classification, or sentiment analysis. Users can adapt these to their needs without building them from scratch, reducing the technical barrier to entry.

- **Automated and guided workflows** — Platforms can guide users through the AI development process step-by-step, offering automatic data preparation, model training, and deployment options. This simplifies the process and reduces the risk of errors for novice users.
- **Cloud-based infrastructure** — Deploying AI models in the cloud removes the need for expensive hardware and software investments, making AI more affordable for individuals and smaller firms. Additionally, cloud platforms offer easy scaling options, allowing users to adapt their AI resources as their needs evolve.
- **Collaborative features** — Internal development platforms can facilitate collaboration between technical and nontechnical teams by providing secure access to data, models, and results. This enables knowledge sharing and fosters a culture of experimentation and innovation around AI within an organization.

AI-first firms should also build explainable AI tools into their platforms. These reveal how AI models reached their decisions and increase trust, a pillar of any AI-first strategy.

This in turn enables agile AI product teams to quickly prove the veracity and thinking behind their work, enabling better decision-making across the whole firm.



# Appendix A

## Generative AI by industries

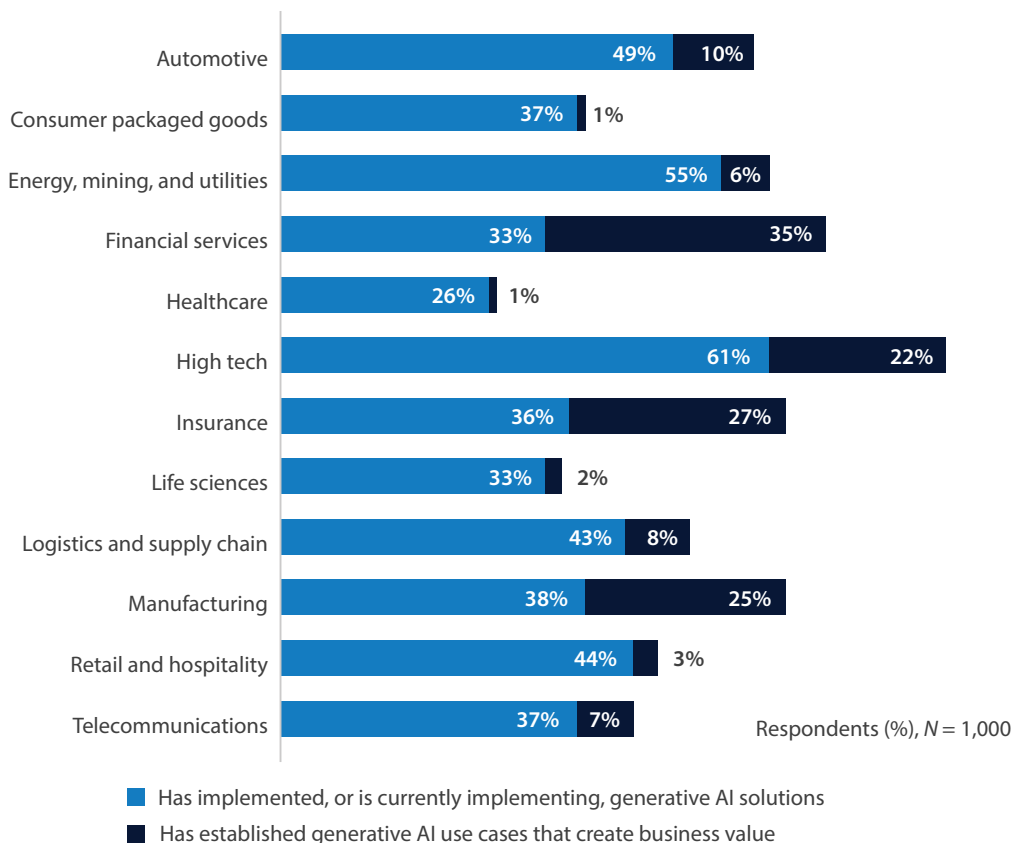
This covers 12 sectors across Australia, China, India, Japan, New Zealand, and Singapore, allowing us to compare how extensively and effectively each industry is using generative AI. Although most firms are investing, there is a wide range of spending among sectors.

While there are small differences between most industries in the frequency of implementation, in some industries this difference is significant. Automotive, energy, mining and utilities, and high-tech industries

report significantly higher implementation of initiatives. There are also statistically significant differences in industries that have implemented use cases that create business value. Financial services, high tech, insurance, and manufacturing report having significantly more initiatives that create value than almost all of the other industries in the survey.

Healthcare is the only industry that significantly lags other industries in both implementation and creating business value.

Figure 14. Generative AI adoption and business value by industry



Source: Infosys Knowledge Institute



## Automotive

Product design is a key focus for automotive companies, so it is not unexpected that nearly half of the APAC firms in our survey

expect streamlined product development and design to be the most impactful use case for generative AI.

### Automotive: Most positive impact expected from generative AI



22% — Enhanced user experience and personalization



47% — Streamlined product development and design



18% — Increased operational efficiency and automation



13% — Improved content generation and creativity

#### Potential use cases

- Quality control — Image processing to identify production defects in parts and alert staff so they can resolve the problems
- Inventory management — Predict client demand for specific vehicles, which can lead to optimal production and inventory levels
- Contract management — Review and summarize supplier and dealer contracts to optimize relationship management
- Autonomous vehicle training — Create virtual environments and synthetic data for realistic simulations
- User personalization — Power in-car personal assistants, and predict preferred routes and dashboard settings
- Road freight — Plan effective and efficient delivery routes





## Consumer packaged goods

As might be expected for companies in the region that focus on winning consumers over with marketing content, nearly two thirds said

they expect improved content generation and creativity to be the most impactful use case for generative AI.

### CPG: Most positive impact expected from generative AI



5% — Enhanced user experience and personalization



16% — Streamlined product development and design



20% — Increased operational efficiency and automation



59% — Improved content generation and creativity

#### Potential use cases

- Quality control — Identify defects in products and packaging, and issue automatic order refills
- Product design and packaging — Analyze consumer preferences, trends, and social media to inform new product and packaging designs
- eLearning content — Analyze consumer information such as customer service calls and chats to develop learning materials for new products
- QR codes as digital art — Transform QR codes into visually appealing brand identifiers
- Consumer research — Generate synthetic customer data to test retail scenarios, and produce summaries and reports
- Visual merchandising — Optimize planograms based on customer behavior and product data



## Energy, mining, or utilities

Energy, mining and utilities companies in the Asia-Pacific region told us that they find operational efficiency, user experience,

and product development to have the most impact when using generative AI technologies in their businesses.

### Energy, mining, or utilities: Most positive impact expected from generative AI



29% — Enhanced user experience and personalization



27% — Streamlined product development and design



34% — Increased operational efficiency and automation



9% — Improved content generation and creativity

#### Potential use cases

- Lease management — Use natural language processing to analyze leases for renewals, renegotiations, and cancellations
- Site risk assessment — Analyze site safety measures and maintenance logs to predict equipment failures and downtime. This information can also be used to design response strategies
- Refinery optimization — Process and analyze vast amounts of data related to oil refining to identify patterns and optimize processes in real time
- Grid management — Analyze data on consumption patterns and load distribution to optimize grid performance and anticipate problems
- Demand forecasting — Enhance accuracy of demand management, allowing for more efficient resource allocation and cost savings
- Environmental impact modelling — Simulate the impact on the environment of different mining methods



## Financial services

Almost 40% of financial companies in APAC find the most positive impact of generative AI to be in creating new financial products,

significantly ahead of the use case they consider the next most impactful, increased operational efficiency and automation.

### Financial services: Most positive impact expected from generative AI



25% — Enhanced user experience and personalization



37% — Streamlined product development and design



27% — Increased operational efficiency and automation



12% — Improved content generation and creativity

#### Potential use cases

- Claim processing — Analyze documentation and summarize relevant information such as coverage, incident reports and images, and supporting documents
- Portfolio management — Continuously monitor market, news, and sentiment to generate early indicators to better advise clients and manage banking assets
- Data analytics — Generate reports to highlight anomalies
- Document management — Use large language models (LLMs) trained on the firm's data to summarize documents
- Fraud detection — Identify anomalies and flag potential fraud
- Customer service — Use chatbots built on LLMs trained with domain-specific data to manage first-line interactions with customers, such as loan decisions



## Healthcare

Enhanced user experience is the standout use case expected to have the most positive impact from generative AI among APAC's

healthcare companies, with improved content generation and creativity seen as the least impactful potential use case.

### Healthcare: Most positive impact expected from generative AI



42% — Enhanced user experience and personalization



21% — Streamlined product development and design



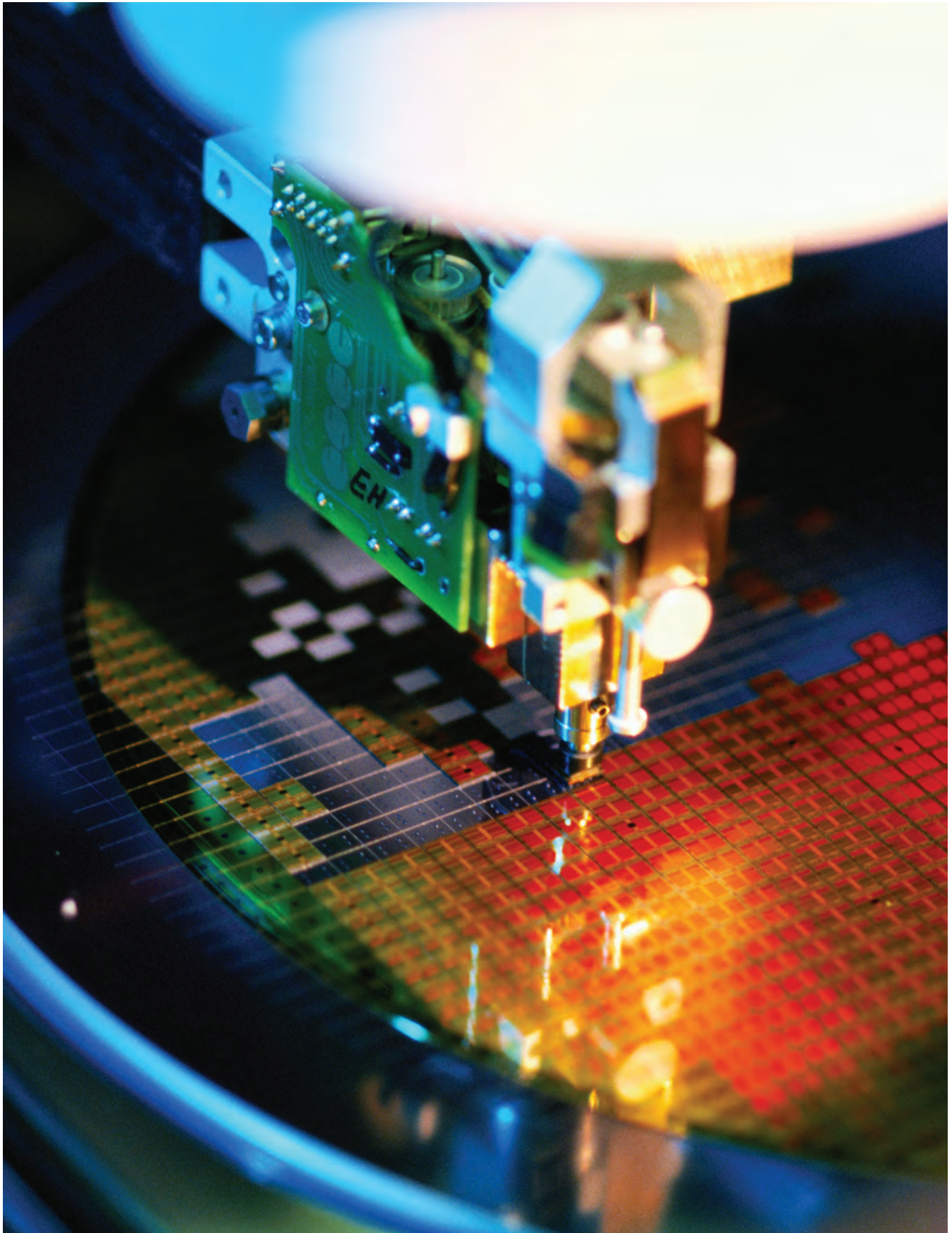
26% — Increased operational efficiency and automation



11% — Improved content generation and creativity

#### Potential use cases

- Customer care optimization — Record, process, and analyze customer information, including medical records, calls, and emails, to save time in addressing customer problems and requests
- Personalized care — Analyze health data and speed up sequencing genomes to identify health predispositions and develop personalized care
- Medical imaging — Improve the accuracy of medical imaging techniques, including CT and MRI, by automatically identifying anomalies
- Patient triage — Use chatbots trained on specialized LLMs to provide first-line triage, assessing symptoms to send the patient to the appropriate human professional
- Risk management — Use data gathered in previous outbreaks to model future epidemics and pandemics, and predict outcomes based on different theoretical inputs





## High tech

As is the case with other industries, high-tech companies in APAC see enhancing user experience as the most effective use case for

generative AI, with 43% reporting this. The next most effective use case this industry sees is streamlined product development.

### High tech: Most positive impact expected from generative AI



43% — Enhanced user experience and personalization



26% — Streamlined product development and design



25% — Increased operational efficiency and automation



6% — Improved content generation and creativity

#### Potential use cases

- Quality assurance — Deploy image processing to quickly identify issues in website and application UX and UI so designers and developers can focus on solving the issue
- Code management — Review code and create reports that can be used by engineers, business analysts, and product managers
- Software development — Generate code, review existing code, and act as an assistant for developers
- Business analysis — Create reports to provide insights to the entire business
- Automation — Automate repetitive tasks, freeing up humans to do more creative or higher-level jobs
- Product iteration — Speed up product development by generating and testing product ideas



## Insurance

In common with other companies and sectors in the region, insurance firms expect enhanced user experience to be the most

effective use case for generative AI, although more firms here than in other sectors see content generation as an effective use case.

### Insurance: Most positive impact expected from generative AI



35% — Enhanced user experience and personalization



24% — Streamlined product development and design



15% — Increased operational efficiency and automation



26% — Improved content generation and creativity

#### Potential use cases

- Claim processing — Analyze documentation and summarize relevant information such as coverage, incident reports and images, and supporting documents
- Risk assessment — Continuously monitor market, news, and sentiment and generate reports to generate early warnings of events and mitigate risks
- Streamline underwriting — Train models on document corpus to identify patterns to inform pricing and coverage recommendations
- Fraud detection — Scan claims to identify anomalies and flag potential fraud
- Customer service — Use chatbots built on LLMs trained with domain-specific data to manage customer interactions



## Life sciences

New product development is top of the list for life sciences firms in APAC when it comes to considering the most effective use case for

generative AI, with the next most effective use case — increased operational efficiency — 25 points behind that top use case.

### Life sciences: Most positive impact expected from generative AI



10% — Enhanced user experience and personalization



48% — Streamlined product development and design



23% — Increased operational efficiency and automation



19% — Improved content generation and creativity

#### Potential use cases

- Synthetic data — generate data to augment existing data to help improve the performance of AI models
- Medical imaging — Improve the accuracy of medical imaging techniques, including CT and MRI, by automatically identifying anomalies
- Education — use text-to-image AI to create images of body structures and processes to help students visualize anatomy and medical interventions
- Drug discovery — Accelerate drug discovery by designing molecules and proteins with specific properties and optimize synthetic gene design for biomanufacturing
- Regulatory submissions — Summarize data needed for regulatory submissions and create drafts of required documents
- Create novel molecules — Design drug-like molecules for specific use cases



## Logistics or supply chain

Logistic and supply chain companies report that using generative AI will increase operational efficiency. They also expect to

use generative AI for improved content generation, such as for drafting contracts and bidding documents etc.)

### Logistics or supply chain: Most positive impact expected from generative AI



22% — Enhanced user experience and personalization



14% — Streamlined product development and design



34% — Increased operational efficiency and automation



30% — Improved content generation and creativity

#### Potential use cases

- Maritime route optimization — Analyze vast amounts of data, such as currents, cargo weight, weather, and traffic, to plan the most optimal and fuel-efficient routes
- Risk management — Analyze data on geopolitical concerns, weather, industrial unrest, and other factors to create dashboards that reveal insights and suggest mitigation
- Supplier management — Chatbots can facilitate interactions with suppliers and create reports based on interactions and supplier data
- Trends insight — Summarize information from external sources such as newspapers to understand trends that impact operations
- Price intelligence — Gather information on competitor pricing and costs, and use chatbots to generate insights and reports
- Returns management — Generate reports analyzing reasons for returns and suggesting mitigation





## Manufacturing

Streamlining product development and design is expected to be the use case with the most impact for this sector, with

China leading in using generative AI for manufacturing. Enhanced user experience is second, 12 points behind product design.

### Manufacturing: Most positive impact expected from generative AI



23% — Enhanced user experience and personalization



35% — Streamlined product development and design



19% — Increased operational efficiency and automation



22% — Improved content generation and creativity

#### Potential use cases

- Quality control — Image processing to identify production defects in parts and alert staff to solve the problems
- Continuous improvement — Integrating with IoT and edge computing to enhance data collection and analysis of manufacturing processes
- Product design — Generate reports based on data from previous iterations of a product, including manufacturing issues, consumer preferences, and returns
- Cost management — Reduce costs by streamlining maintenance and design processes
- User feedback — Collate feedback reports from customers to generate recommendations for further refinement of products



## Retail or hospitality

Given the focus on user experience, it is not a surprise to see that APAC companies in this industry expect generative AI to be

most impactful for content generation and creativity, with enhanced user experience in second place.

### Retail or hospitality: Most positive impact expected from generative AI



29% — Enhanced user experience and personalization



15% — Streamlined product development and design



21% — Increased operational efficiency and automation



36% — Improved content generation and creativity

#### Potential use cases

- Personalized itinerary — Analyze customer search and purchase histories to generate tailored itineraries for customers before they book
- Content generation — Create personalized content and campaigns for enhanced customer engagement
- Data analysis — Speed up analysis of structured data, such as sales figures and emerging trends, to offer faster, deeper insights
- Translation — Help visitors who don't speak the local language to plan visits
- Social listening — Monitor social media and generate reports based on user conversations and emerging trends to fine-tune content and enhance personalization
- Energy management — Analyze energy use patterns to save costs on hospitality and retail locations



## Telecommunications

In an industry that has a great deal of contact with customers and users, it is not surprising to see that firms here expect enhanced user

experience and personalization to be the area where generative AI will have the most impact for them.

### Telecommunications: Most positive impact expected from generative AI



58% — Enhanced user experience and personalization



9% — Streamlined product development and design



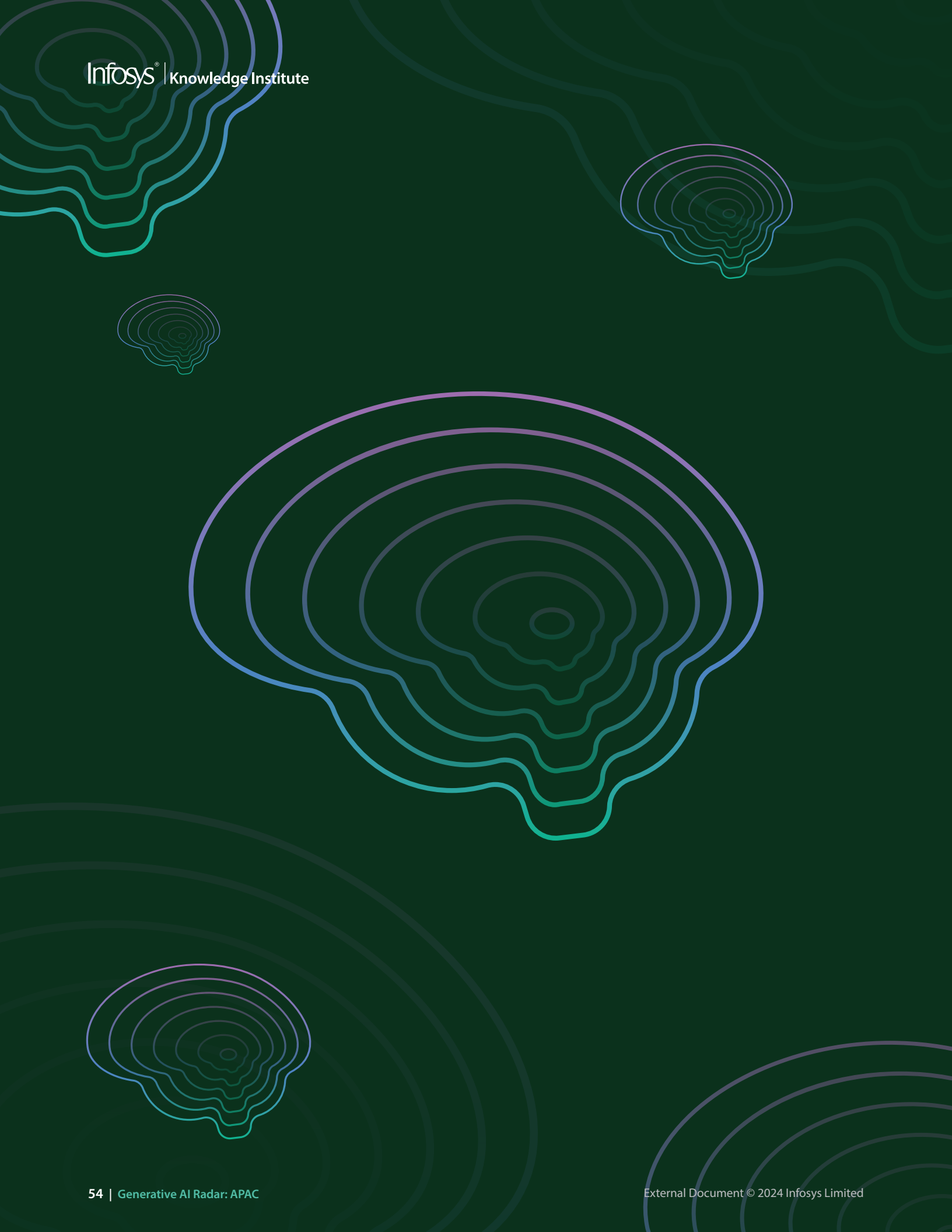
15% — Increased operational efficiency and automation



18% — Improved content generation and creativity

#### Potential use cases

- Risk management — Automate responses to network and infrastructure irregularities through continuous real-time data analysis
- Customer support — Help users with billing queries and orders
- Engineer support — Train generative AI on the network topology so that engineers can be guided through tasks with interactive assistance
- Software development — Help developers build specialized code and applications more quickly
- Network optimization — Analyze network data and conditions and generate insights to streamline resource development
- Network security — Track threats and assess vulnerabilities by analyzing network traffic and generating reports to spot malicious activity



# Appendix B

## Research approach

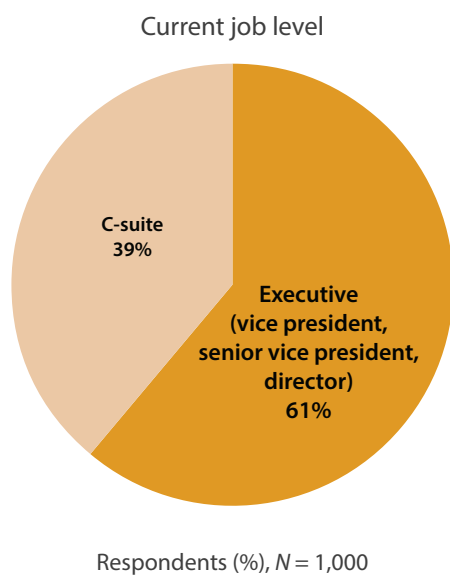
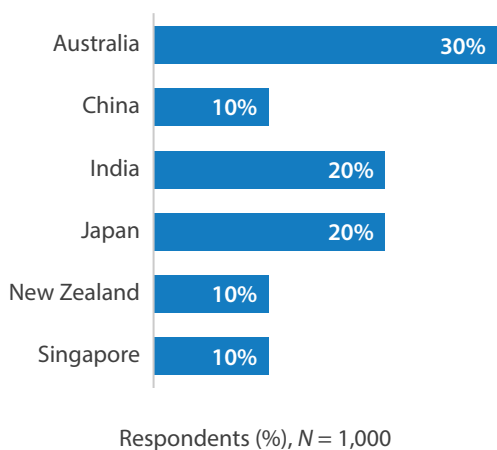
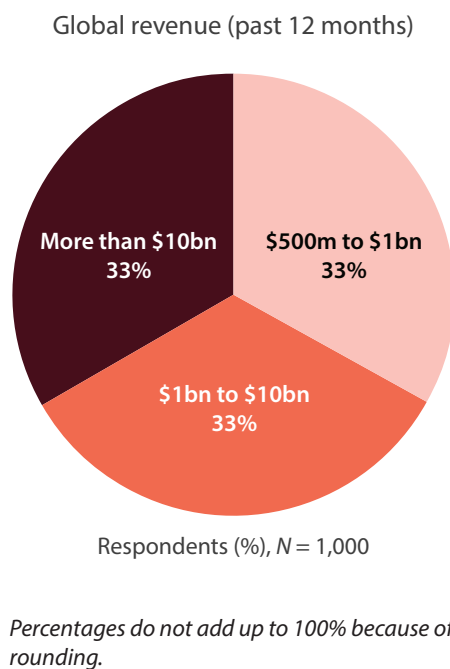
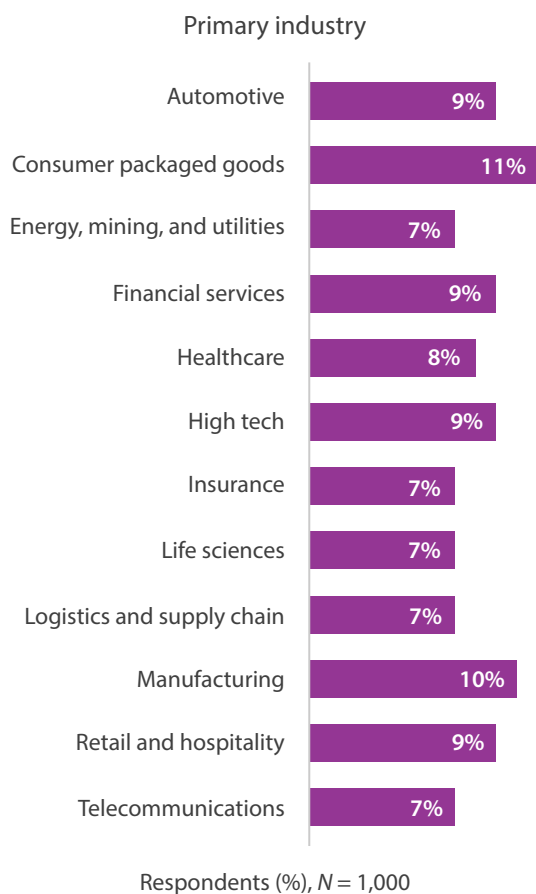
Infosys commissioned a survey of 1,000 executives at companies in Australia, China, India, Japan, New Zealand, and Singapore during August and September 2023 to gauge their attitudes toward and adoption of generative AI.

The survey looked at 12 sectors: automotive; consumer packaged goods; energy, mining, or utilities; financial services; healthcare; high tech; insurance; life sciences; logistics or supply chain; manufacturing; retail or hospitality; and telecommunications.

We asked respondents about the state of generative AI in their organizations, including questions about investment plans, how generative AI is rolled out and managed across the organization, where the leadership comes from in the business, and how confident the respondents are about the readiness of their company to adopt and use generative AI.

We also asked respondents about where they expect generative AI to have the most impact in their businesses, as well as questions about their company's location and size. To determine the generative AI investment figures, we:

- Asked each respondent the range of spending on generative AI.
- Used the midpoint (or the lower bound in the case of an infinite range) as an estimate for the amount spent on generative AI for each respondent.
- Grouped respondents into our 12 industries and created totals for each industry.
- Adjusted these industry spending totals on the basis of the difference in industry representation in our sample, compared to the distribution of companies, using data from Refinitiv.
- Calculated industry totals for both the past 12 months and the next 12 months.





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