National
Artificial
Intelligence
Centre

CSIRO

Australia's AI ecosystem momentum

March 2023

Important disclaimer

CSIRO advises that the information contained in this publication comprises general statements. The reader is advised and needs to be aware that such information may be incomplete or unable to be used in any specific situation. No reliance or actions must therefore be made on that information without seeking prior expert professional, scientific and technical advice.

To the extent permitted by law, CSIRO (including its employees and consultants) excludes all liability to any person for any consequences, including but not limited to all losses, damages, costs, expenses and any other compensation, arising directly or indirectly from using this publication (in part or in whole) and any information or material contained in it.

No warranty of completeness, accuracy or reliability is given in relation to the statements and representations made by, and the information and documentation provided by stakeholders consulted as part of the process.

>ceda
committee for economic development of australia

Google

Contents

Executive summary

For the last decade, we observed artificial intelligence (AI) adoption evolve from a futuristic promise pursued by early adopters with mature technology teams, to a legitimate and rapidly growing priority shared by many C-suite and senior leaders across functions. Organisations across industries in Australia continue to identify new use cases to embed AI technologies and tools. They are engaging with a robust network of ecosystem partners across the AI value chain to navigate their adoption journey and maximise the potential benefits.

As the rate of AI adoption continues to grow so do the opportunities (and requirement) for collaboration among ecosystem players. Collaboration is essential to respond to the growing need for more creativity, trust, and delivery of the capabilities a national AI ecosystem needs to fully harness the potential for AI transformation of Australia's technology landscape.[1] These technologies are pivotal to increasing productivity, improving experiences and innovations through automating routine work, generating intelligence-based conversations, and processing large amounts of data. Continue reading to understand the state of Australia's AI ecosystem and how Australian businesses plan to benefit from adopting AI.

The National AI Centre (NAIC) commissioned Forrester Consulting to evaluate the state of AI adoption and innovation in Australia. To explore this topic, Forrester conducted an online survey of two hundred respondents and four qualitative interviews targeting IT and business decision-makers, as well as AI service providers in Australia (see Appendix A and B for demographic details). The study found that Australian businesses are growth-focused, using AI technologies across the organisation to gain competitive advantage and improve strategic decision-making.

In this study, we consider **AI technology** to include, but not be limited to, any technology (hardware and/or software elements) that is utilised to improve business performance and outcomes through the automation of tasks, interactions, decision-making, and data analytics. AI systems can be programmed to perform specific tasks such as reasoning, planning, natural language processing, computer vision, audio processing, interaction, prediction, process automation, text analytics, machine learning, and more.

AI third-party services refer to but are not limited to, advisory services and any other supporting service or area of expertise that enables AI technology and its associated business systems. This is inclusive of its entire lifecycle, from strategy, testing, deployment, maintenance, and optimisation.

---

1   Source: "Predictions 2023: Artificial Intelligence," Forrester Research Inc., October 27th, 2022

Key findings

Organisations have matured their understanding of AI, shifting from a narrow focus on utilising AI to achieve cost savings, to aligning the use of AI with organisation-wide and cross-functional business objectives, specifically business growth.

Despite the prevailing global geopolitical and economic uncertainty in 2022, Australian businesses are pragmatically growth-focused – with most prioritising improving differentiation in the market, accelerating their responsivness to market changes, and reducing costs. To support these objectives, organisations are using AI technologies including content intelligence, e-discovery, and AI-assisted prototyping. Furthermore, providers of AI third-party services are responding to the demand for services and support; 60% of respondents indicated they are accelerating and expanding their AI-related solution offerings to meet market demand.

Implementing AI is a complex process that often requires a multi-disciplinary team of partners to design and execute solutions while mitigating risks and managing costs.

Throughout the AI adoption journey, organisations often require the support of multiple AI service providers to draw on a wide range of expertise ranging from AI software development, AI specialists, data privacy, and data science resources. The average number of AI technology and service providers per AI project reported by IT and business decision-makers was four (4) with only 17% reporting to have worked with one partner. While organisations leverage partners to accelerate implementation, they continue to develop in-house capabilities, primarily in the areas of AI strategy (60%), data analysis (57%), and AI operations (55%).

AI budgets are often funded by an organisation's research and development (R&D) or other already-constrained innovation budgets, despite data indicating AI technologies are yielding valuable results across the whole organisation.

Ensuring a return on AI-related investments is critical; respondents indicated the most important consideration when looking for an AI technology or provider was the ability to demonstrate a clear Return-On-Investment (ROI) to secure additional AI investment (51%). Australian businesses are using AI to drive both process efficiency and financial ROI. Decision-makers whose organisations adopted AI-enabled solutions reported average time savings for existing processes of 30% across each AI-enabled initiative. This is in addition to an average of AUD $361,315 of incremental revenue generated by each AI-related initiative implemented, regardless of which part of the business these efforts originally targeted.

AI momentum in Australia's commercial sector

In the next 12 months, Australian businesses are chiefly focused on discovering new ways of differentiating in the market, improving business agility to respond to emerging opportunities and rapidly changing marking dynamics, and reducing operating costs. Moreover, businesses view addressing customer experience (CX) as a key lever to achieve these objectives, and various AI technologies can play a role in bridging the gap. We found that present-day:

- **AI-related technologies play a key role in helping Australian businesses achieve growth objectives.** Australian businesses are optimistic about their growth prospects and are investing in AI as a mechanism to fuel revenue growth. How optimistic are organisations?

Well, 81% of decision-makers expect their organisation's year-on-year revenue to grow in FY2023, with 38% projecting significant revenue growth over 10%. How are organisations responding to growth projections? Their growth strategies include improving how they differentiate themselves in the market, accelerating their responsiveness to market changes, and reducing costs over the next 12 months. Specifically, business leaders are investing in product/service innovation (64%), initiatives to improve customer experience (63%), and initiatives to drive greater sales (63%) to achieve organisational priorities. These initiatives are technology-driven and AI-related technologies play an increasingly critical role in bringing these initiatives to fruition (see Figure 1).
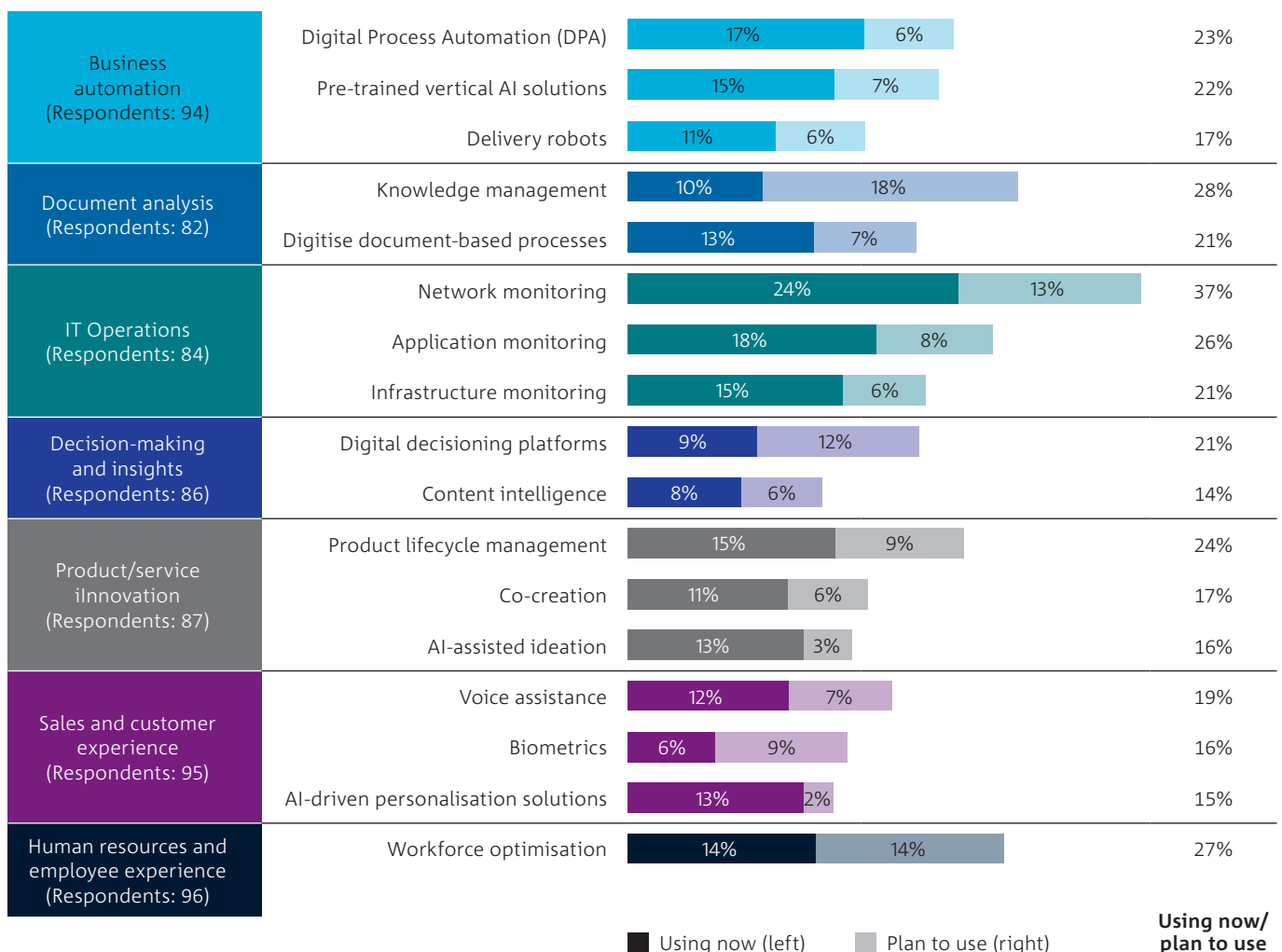

Figure 1: Current and future AI-related use cases to support organisational initiatives

Source: A commissioned study conducted by Forrester Consulting on behalf of NAIC, November 2022

- **AI-related technologies support process-related improvements, but also broader customer experience and employee experience (EX) initiatives.** Organisations are leveraging AI-related technologies across a wide range of business functions. For example, AI-driven automation shifts employee roles away from being task-oriented to become more value-oriented, applying human intervention and expertise where it's needed most, inviting more creativity, uplifting EX, and consequently CX.[2] Decision-makers reported common use cases in Australia to include business automation by implementing technologies such as delivery robots, digital/robotic process automation (RPA), IT operations with automated troubleshooting, sales and CX with voice assistance, and human resources and employee experience with workforce optimisation.

- **Privacy, security, and data quality are challenges impacting AI adoption, exacerbated by talent shortages in Australia.** When introducing or working with AI-related technologies and services, organisations are challenged by the current AI-skill gap. Decision-makers reported being concerned with using AI to analyse customer insights (58% of respondents currently using) due to the potential for introduction of new security threats (59%), poor data quality (59%), and privacy concerns as leading barriers to AI adoption. The lack of skills to implement and operate AI systems only exacerbates these concerns. The majority of respondents reported sourcing these skills either through a service provider or a combination of in-house talent supplemented by service provider expertise. The top three skills (capacity, ability, and/or technique) sourced externally include AI-specific project management, AI development, and AI architecture design (see Figure 2).

"Artificial Intelligence (AI) technology can be applied to any sort of optimisation problem, and beyond. The only real limitation is your imagination of what you choose to apply it to. For example, we have started applying AI to improve the shelf life of produce, mainly to reduce waste and cost. During that process, we also found that AI insights can be used to support other areas of the business including predicting and meeting customer demands, understanding supply chain and preparing employees to meet demand."

– Chief Technology Officer, Retail and Wholesale Organisation (IT decision maker)

---

2   Source: "Your Company Needs A Chief Automation Officer," Forrester Research Inc., July 11th, 2022

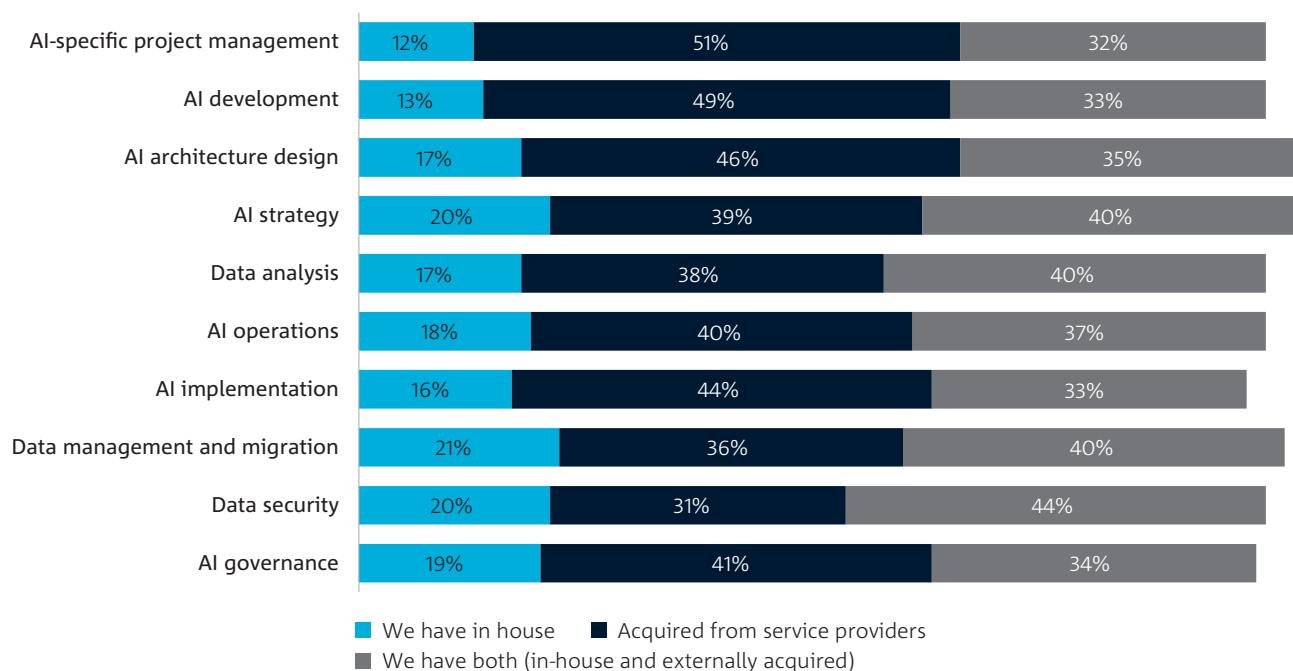|	We have in house	Acquired from service providers	We have both (in-house and externally acquired)
AI-specific project management	12%	51%	32%
AI development	13%	49%	33%
AI architecture design	17%	46%	35%
AI strategy	20%	39%	40%
Data analysis	17%	38%	40%
AI operations	18%	40%	37%
AI implementation	16%	44%	33%
Data management and migration	21%	36%	40%
Data security	20%	31%	44%
AI governance	19%	41%	34%

Figure 2: Source of AI skills to deliver AI projects

Source: A commissioned study conducted by Forrester Consulting on behalf of NAIC, November 2022

• **Australian businesses rely heavily on AI providers across all stages of implementation, especially around data.** There is significant demand from Australian businesses for finished solutions and machine learning (ML) training data sets, alongside data science resources to support implementation. AI providers are responding to these needs by providing finished solutions or components to increase the ease with which Australian businesses can adopt AI. AI technology providers in Australia report that the three most common AI technologies offered and used by buyers include AI hardware components, ML training data sets, and AI-finished solutions. In comparison, AI service providers report the most commonly available AI services are data science resources, data privacy, and AI skills training (see Figure 3).

AI hardware components	30%
ML training data set (e.g. image library)	28%
AI finished software solution	28%
AI infrastructure	27%
Pre-built/commercial component or online service (e.g. Apache Spark)	24%

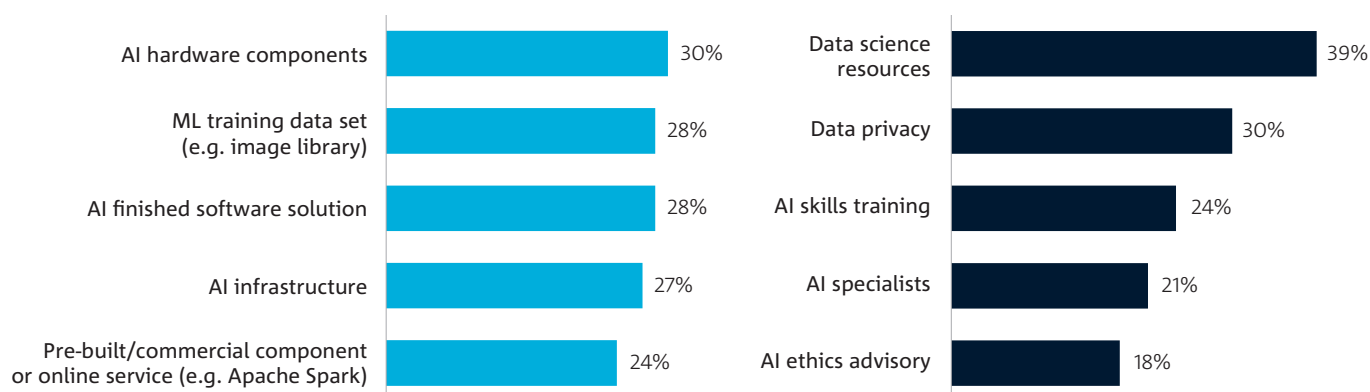|	
Data science resources	39%
Data privacy	30%
AI skills training	24%
AI specialists	21%
AI ethics advisory	18%

Figure 3: AI-related technology and services offered in Australia by AI providers (top 5 responses)

Source: A commissioned study conducted by Forrester Consulting on behalf of NAIC, November 2022

'It takes a village' of AI ecosystem capability

Large organisations have the resources to train and establish in-house AI delivery and management teams, but what about small-to-medium enterprises? At first glance, Australian businesses have a rich ecosystem of AI providers to engage, however businesses interviewed express a challenge to identify partners with robust delivery acumen and end-to-end delivery experience. The study also suggests that many providers are still in the early stages of the innovation chain with the majority identifying themselves as industry networks and academic bodies. This suggests that the Australian AI ecosystem is still maturing and that AI-enabled innovation has yet to be fully diffused into the broader technology services ecosystem from the early stages of research and development. When adopting and implementing AI technologies in the face of a budding AI ecosystem, we found the following challenges:

- **Australian businesses are working to navigate understanding a complex ecosystem of AI providers and considering in-house versus outsourced AI skills to implement AI projects.** Providers range from AI-related services companies offering ideation, strategy and design to AI-related technology providers who supply pre-built platforms, components and in many cases, finished solutions. Most IT and business decision-makers reported working with four AI technology and service providers per AI project, with only 17% working with one provider, while 28% with more than 6 providers. The providers used by businesses are highly diverse and play a variety

of roles or functions within the engagement, from AI software development, AI specialists, and data privacy experts, to specialist data science resources (see Figure 4). Organisations recognise the importance of AI and its complexity and have developed relevant in-house capabilities to achieve their AI objectives; priority skills include AI strategy (60%), data analysis (57%), and AI operations (55%). It is important to note, however, AI providers reported working with an average of three partners to deliver AI customer projects – lower than the average of four reported by decision-makers in this study. This disparity may indicate a gap in understanding by the providers of AI services or misconceptions of the scope of work required to undertake an AI project by organisations implementing solutions.

> "Understanding the ethics and governance of implementing AI is lacking across organisations globally. There are a limited amount of AI tools available to help organisations build responsible AI systems. As a result, organisations are looking to engage AI providers who can provide technical know-how as well as AI governance expertise."
>
> – Chief Executive Officer, Nonprofit Research Institute (AI Provider)

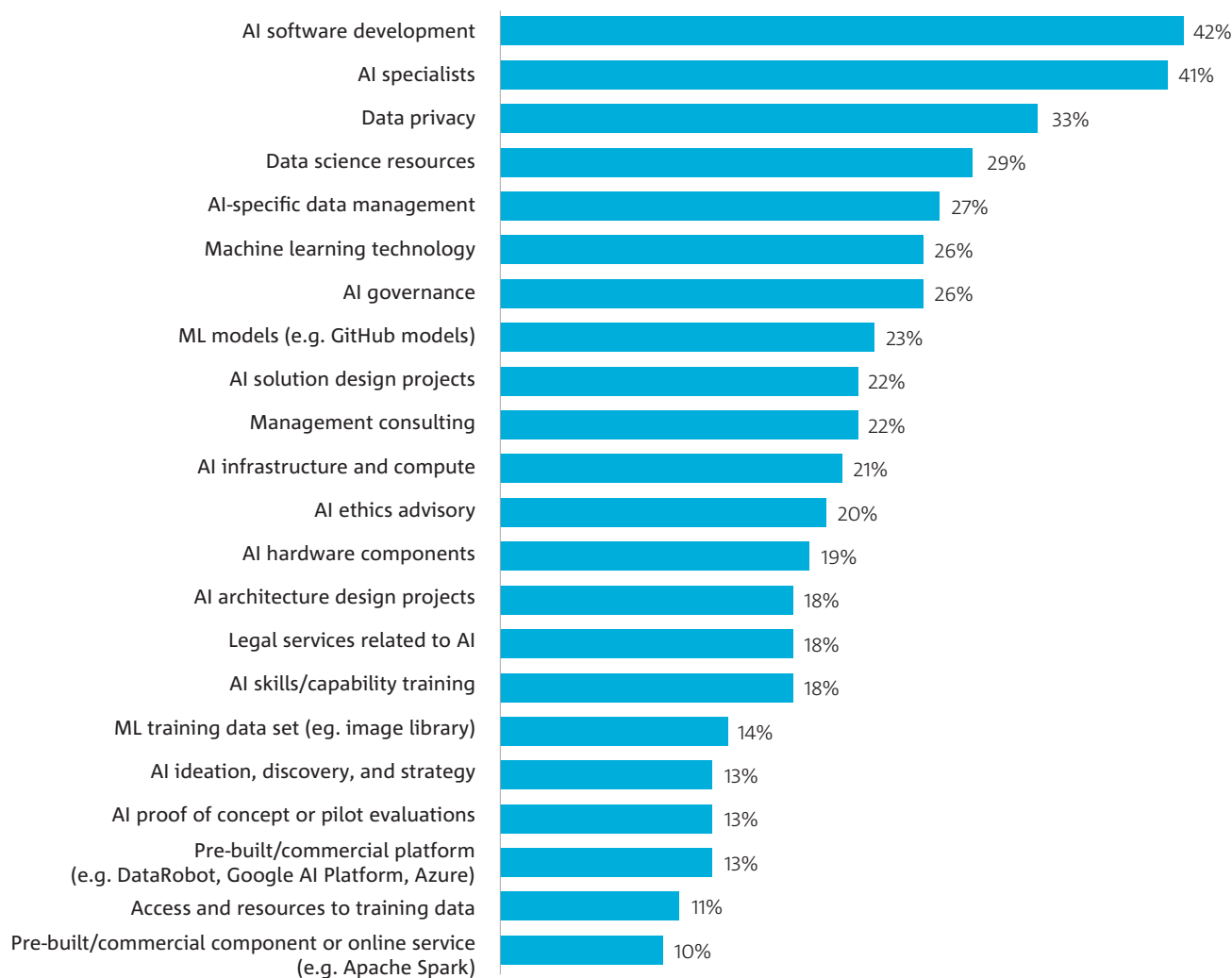|	
AI software development	42%
AI specialists	41%
Data privacy	33%
Data science resources	29%
AI-specific data management	27%
Machine learning technology	26%
AI governance	26%
ML models (e.g. GitHub models)	23%
AI solution design projects	22%
Management consulting	22%
AI infrastructure and compute	21%
AI ethics advisory	20%
AI hardware components	19%
AI architecture design projects	18%
Legal services related to AI	18%
AI skills/capability training	18%
ML training data set (eg. image library)	14%
AI ideation, discovery, and strategy	13%
AI proof of concept or pilot evaluations	13%
Pre-built/commercial platform (e.g. DataRobot, Google AI Platform, Azure)	13%
Access and resources to training data	11%
Pre-built/commercial component or online service (e.g. Apache Spark)	10%

Figure 4: Functions/roles AI providers play

Source: A commissioned study conducted by Forrester Consulting on behalf of NAIC, November 2022

- **Australian businesses struggle to find AI providers that offer end-to-end project support and can integrate solutions into their broader existing business systems and processes.** Decision-makers rated the ability to handle end-to-end projects from strategy through to implementation as the most important business competency when working with an AI technology or service provider. However, organisations find it difficult to identify AI solutions that can integrate with existing enterprise solutions to create the most value. Analysis revealed that the most frequently occurring AI ecosystem partnerships are between Australian businesses and AI specialist partners (e.g., niche providers of specialist AI skills, as well as academic and research institutions), AI data services partners (e.g., providers of data sets, training data, models, etc.), and service partners (e.g., professional services) (see Figure 5)[3]. For instance, when the interviewed retail and wholesale organisation adopted AI vision technology, the provider was not able to integrate the AI-enabled components into the existing point-of-sale system.

---

3   Partner classifications include: Data Services Partners, e.g. Providers of data sets, training data, ML models as well as AI-specific data management activities. Platform Provider Partners, e.g., Providers of AI-related hardware, infrastructure (including cloud providers without AI-specific offerings) and related components. System Integrator Partner, e.g., Firms offering professional services including AI architecture, design and development along with systems integration, managed services, telecommunications providers. Skills and Training Partners, e.g., Contingent labour providers, recruitment firms and training organisations. Specialist Partners, e.g., Niche providers of specialist AI skills, as well as academic and research institutions along with legal advisory firms addressing issues such as privacy and regulation. Business Advisory Partners, e.g., Firms offering management consulting, business advisory and governance services. Finished Solutions Partners, e.g., Vendors providing pre-built or commercial off the shelf AI platforms or components including machine learning technologies and the like.

This gap is reflected in the scope of offers from AI service providers who operate primarily under short-term consulting, research, or recruitment business model. Moreover, decision-makers identified AI training (61%), AI-specific data management (60%) and AI governance (59%) as the most difficult capabilities to source. This leaves many businesses taking more of a 'Do It Yourself' (DIY) approach to AI implementation where you develop or compose bespoke solutions when the preference may be in favour of a 'Make Others Do It For You' (MODIFY) engagement model requiring the configuration of finished solutions and a more standardised approach.

> "There are a lot of good conceptualisers out there today. What is missing, however, are the companies that can combine that with deep implementation expertise. It's an ontological problem – what is missing, is a provider that cannot just support one use case but help us interconnect different use cases across our entire business."
>
> – Chief Technology Officer, Australian Retail and Wholesale Organisation (IT decision-maker)

Platform provider

Business advisory

Finished solutions

Data services

Skills and training

Specialist partners
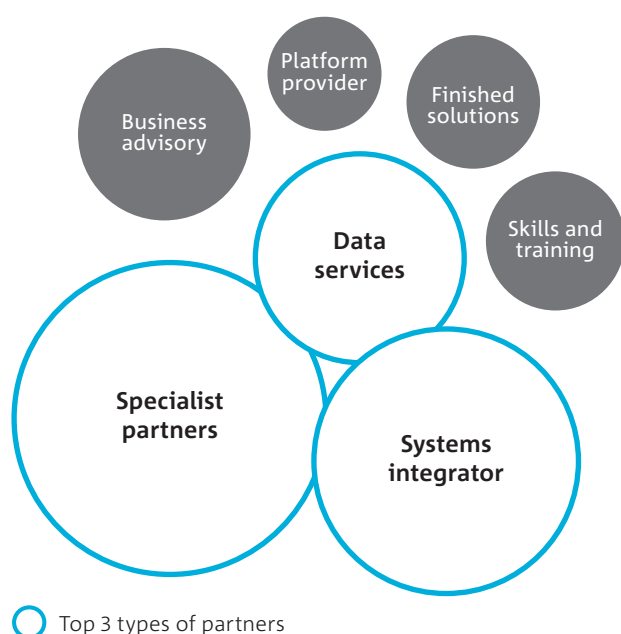
Systems integrator

○ Top 3 types of partners

Figure 5: Most common categories of AI service providers Australian businesses partner with

Source: A commissioned study conducted by Forrester Consulting on behalf of NAIC, November 2022

- **AI providers are also navigating a maturing ecosystem that still demonstrates significant gaps in data and implementation.** AI service providers are also working against a talent shortage in their partnerships and channels, impacting organisations in need of AI services which express the difficulty faced by partners to provide end-to-end delivery support. Thirty per cent of AI service providers indicated they cannot find appropriate AI technology and service partners in Australia to deliver on specific client needs. Although most AI providers agreed Australia has a strong ecosystem, they also identified ecosystem gaps in data management (33%), data analysis (31%), and AI implementation (27%).

> "The biggest gap in the Australian market is the capability to advise organisations of how they need to think in terms of strategy, culture change, use cases, road mapping, designing, and evolving their operating model. I have yet to see a provider that can handle both the strategic and technical sides of the equation."
>
> – AI Director, Global Technology Company (AI provider)

Partner to unlock AI value

Mature adopters of AI understand that AI technologies represent a strategic cross-organisational growth opportunity, given the wide applicability of AI-enabled solutions across all business processes and functions. Other organisations that recognise this and apply a similar organisation-wide and strategic approach will differentiate themselves as higher maturity organisations. This means taking advantage of existing in-house skills and expertise and engaging expert partners where there are gaps. When considering the potential of AI in Australia, we found that:

- **Australian businesses that have already implemented AI technologies have realised significant benefits.** AI projects can be complex, time-consuming, and costly to implement, but they deliver significant differentiation for organisations that succeed. Decision-makers reported improved security, greater revenue growth and increased cyber safety as the top three benefits of using AI technologies (see Figure 6). On average, respondents reported time savings of 30% across all AI-related initiatives that were implemented. When asked to quantify the revenue benefit of AI, Australian businesses recognised an average of AUD $361,315 from each implemented AI-related initiative. Also of note is that higher revenue benefit was experienced by organisations engaging a higher number of partners, perhaps indicative of the maturity of the organisation and the integration work undertaken to connect systems across the organisation.
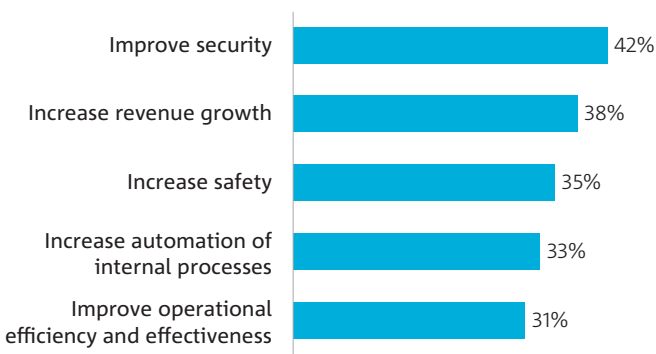
> "While it started with a focus on optimisation, we soon realised that AI had the potential to piece together and uplift all areas of our business across EX, CX, operations, and supplier management. We expect that AI technologies will drive between 25–30% of our cost out target in the next five years."
>
> – Chief Technology Officer, Australian Retail and Wholesale Organisation (IT decision-maker)

- **To navigate the complex AI ecosystem and recognise the benefits, businesses need an AI partner, not just a service provider.** Both the benefits and complexity of AI adoption lead Australian businesses to look for more than standalone solutions from providers. While we have observed some organisations in Australia act as a central AI ecosystem broker for businesses facilitating connections between businesses and AI service providers particularly in a complex and emerging ecosystem, this is not widespread. Organisations are striving to utilise and extend AI technologies across dynamic use cases within their business ecosystem and relate and complement new AI investments with existing business and technology objectives, processes, and systems. To achieve this, an AI partner who can work alongside the organisation through the transformation journey is critical. Competitive AI service providers will need to clearly articulate their unique value proposition, design fit-for-purpose and flexible solution offerings, demonstrate competency and experience through past delivery experience, and have strong cross-vendor partnerships to deliver end-to-end support for their clients (see Figure 7).

Benefit	%
Improve security	42%
Increase revenue growth	38%
Increase safety	35%
Increase automation of internal processes	33%
Improve operational efficiency and effectiveness	31%

Figure 6: Top five benefits organisations experience when using AI technologies

Source: A commissioned study conducted by Forrester Consulting on behalf of NAIC, November 2022

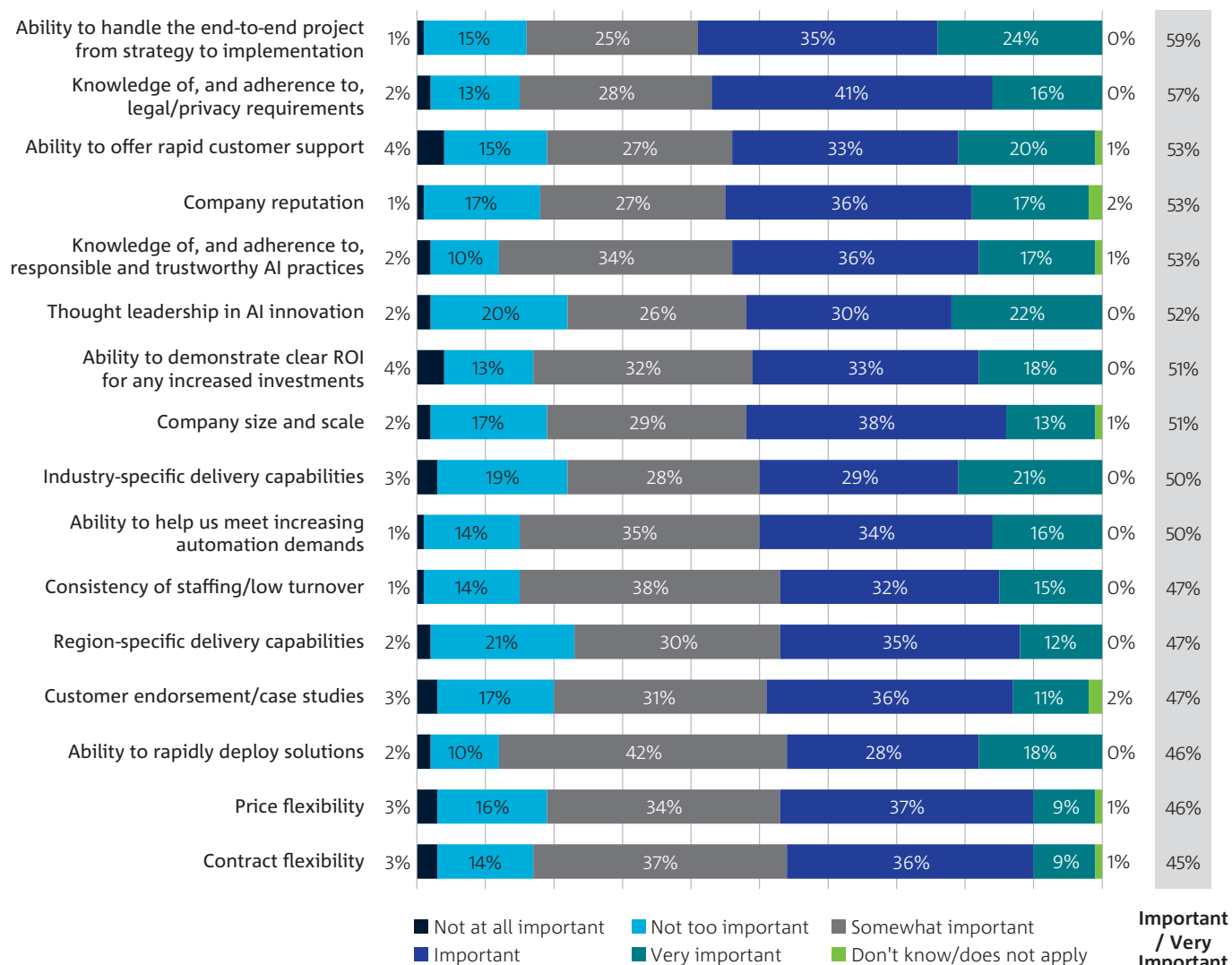| Business characteristic	Not at all important	Not too important	Somewhat important	Important	Very important	Don't know/does not apply	Important / Very Important
Ability to handle the end-to-end project from strategy to implementation	1%	15%	25%	35%	24%	0%	59%
Knowledge of, and adherence to, legal/privacy requirements	2%	13%	28%	41%	16%	0%	57%
Ability to offer rapid customer support	4%	15%	27%	33%	20%	1%	53%
Company reputation	1%	17%	27%	36%	17%	2%	53%
Knowledge of, and adherence to, responsible and trustworthy AI practices	2%	10%	34%	36%	17%	1%	53%
Thought leadership in AI innovation	2%	20%	26%	30%	22%	0%	52%
Ability to demonstrate clear ROI for any increased investments	4%	13%	32%	33%	18%	0%	51%
Company size and scale	2%	17%	29%	38%	13%	1%	51%
Industry-specific delivery capabilities	3%	19%	28%	29%	21%	0%	50%
Ability to help us meet increasing automation demands	1%	14%	35%	34%	16%	0%	50%
Consistency of staffing/low turnover	1%	14%	38%	32%	15%	0%	47%
Region-specific delivery capabilities	2%	21%	30%	35%	12%	0%	47%
Customer endorsement/case studies	3%	17%	31%	36%	11%	2%	47%
Ability to rapidly deploy solutions	2%	10%	42%	28%	18%	0%	46%
Price flexibility	3%	16%	34%	37%	9%	1%	46%
Contract flexibility	3%	14%	37%	36%	9%	1%	45%

Figure 7: Business characteristics organisations seek when working with an AI service provider

Source: A commissioned study conducted by Forrester Consulting on behalf of NAIC, November 2022

"To succeed in adopting AI, you must have a broad and ambitious vision that is [deconstructed], and clear on the set of use cases and capabilities where AI can drive business benefits across your value chain. It's not that the technology isn't ready – the question is whether you can establish what your proposition is before an MVP is developed (and iterated over) to bring business value."

– AI Director, Global Technology Company (AI provider)

Key takeaways

Australian businesses have access to the foundations to start taking advantage of AI but the partner and support ecosystem in Australia needs to mature.

AI-related technologies and the associated ecosystem is ever-evolving and maturing, but the current state is sufficient for Australian businesses to launch their AI implementation journey. Fifty-six per cent of AI providers agree that the Australian AI industry has the necessary expertise to deliver positive outcomes to Australian businesses, and over half agree that Australian businesses are easily able to find all required partners to deliver AI-related solutions. Further, 51% agree that Australian businesses are equipped to take advantage of AI-related solutions. The catch? Today, these capabilities are presented to the market as siloed elements. To maximise the potential of AI-related technologies, organisations must operationalise them across different business functions and actively identify solutions that can fit together to drive multiple outcomes. This will require a change not only for businesses consuming AI but for the ecosystem of providers as well.
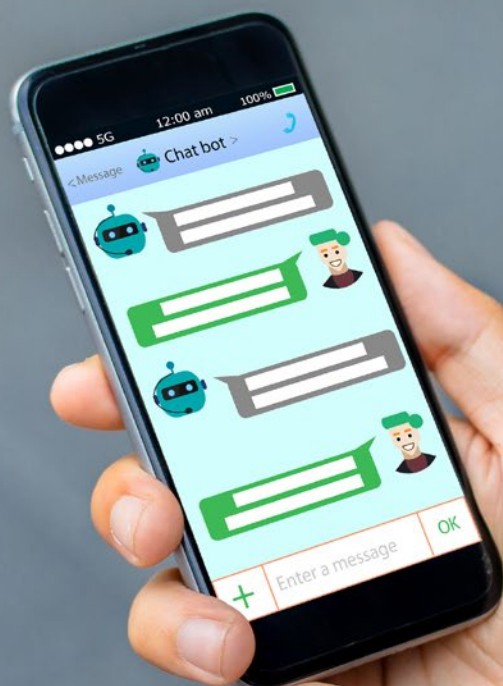
Moving forward the key messages for Australian firms and AI service providers alike are:

Understand where your AI-related needs sit along the 'Configure to compose' continuum.

The AI ecosystem is wide ranging from open source components, cloud-based services and data sets through to finished solutions as stand-alone offerings or embedded within existing software packages for particular use cases. But as Australia's AI ecosystem is still maturing, many businesses are still shouldering the load to create fully integrated solutions for various aspects of their business – some of which are not unique. When it comes to embarking on an AI-enabled initiative you should consider what the core business needs are and what priorities the business is looking to address. Are these needs unique? What are the existing development and data capabilities you have that can be leveraged? What degree of configuration is required? This assessment will help you to determine whether you should seek partners and solutions to leverage pre-configured AI solutions to which you add configurations, extensions, and integration to obtain the required solution. Or, compose a new solution starting first with an AI development platform to which you will add open-source libraries, cloud services, and/or prepackaged visual components to obtain the required solution.

Recognise the importance of AI solutions in driving revenue growth, process enhancement, CX and EX, and digital maturity.

AI solutions can address both immediate and long-term business needs. For example, automation can radically improve your organisation's operations, operating processes, customer-facing experiences and future-fit foundations of adaptiveness, creativity, and resilience in an environment of constant change. AI solutions are valuable for both front and back offices. Identify key use cases in every department that slow or delay the generation of business value to manual and repeated processes. Reconsider where AI investment and budgets come from, and be prepared to make a compelling business case with measurable results for key stakeholders. Keep in mind when making budgeting decisions, that the benefits of AI are quantifiable and felt across the organisation.

Connect with the right network of AI partners to drive successful outcomes.

Australian businesses who have successfully implemented AI solutions engage a combination of providers – most importantly a mix of partners with capabilities in data, services and strategy. In addition to having the right partners at the table, look for AI partners who can showcase successful past AI project delivery experiences in a similar industry or business context. Strong capabilities in governance and knowledge management will set the organisation up with a solid foundation moving forward. It is important to work with partners who align with your organisation's goals and are willing to build and develop your organisation's in-house AI capabilities required to carry AI initiatives forward. Leverage partner expertise to continuously upskill your workforce and ensure baseline adoption of AI technologies across business departments to achieve cross-functional impact.

Investing in data management skills is a sound strategy, but so is investing in AI technology for data management.

AI-related solutions are highly data-dependent or data-generative. Both the quality and quantity of data have a material impact on whether AI-enabled investments deliver the expected benefits. While the focus on data resourcing and increased investment in analytics and data science skills by both business and AI providers will not be wasted, Australian firms can and should go further, making investments in AI-enabled data management solutions such as data profiling, data discovery, and synthetic data generation. All of which can help reduce the need for additional data science and other scarce resources. These types of AI solutions are useful tools that can be deployed as a foundation for broader AI-enabled initiatives.

Take a 'Responsible AI' approach to lead AI in accordance with human and organisational values and ensure accountability.

AI is one of the most powerful tools companies can leverage to drive business value — if implemented correctly. The adage 'with great power comes great responsibility' should be top of mind for executives that plan to implement AI, particularly with privacy, security and data quality being top challenges affecting AI adoption. While enterprises are realising tangible benefits, enterprises must adopt AI with utmost care because it can have some far-reaching ethical implications for customers, society, and the world at large. In fact, without instituting the proper processes and protections, AI may behave exactly as it is trained to do, but contrary to its intended purpose. To mitigate the risk of unintended consequences with AI, business leaders must prioritise building and deploying AI systems that work toward achieving ethical, safe, and responsible outcomes. These tools, platforms, or frameworks are known as 'Responsible AI solutions' and can help ensure explainability, fairness, and accountability in AI systems. For example, several smaller, emerging vendors offer machine learning engines with proprietary explainable AI techniques – known as explainability engines. Some of these vendors offer general-purpose machine learning capabilities, while others focus specifically on generating models for highly regulated use cases such as credit determination and hiring. While these vendors inherently focus on explainability, they can also help address bias detection since transparent models are auditable models.[4]

This report has highlighted that it takes 'a village' of AI product and service providers to most effectively implement AI in Australia. Find your team of AI service providers on the National AI Centre Discoverability Platform.

csiro.au/naic

---

4   Source: "New Tech: Responsible AI Solutions, Q4 2020," Forrester Research Inc., November 23rd, 2020

Appendix A: Methodology

The National AI Centre (NAIC) commissioned Forrester Consulting to evaluate the state of AI adoption in Australia. To explore this topic, Forrester conducted two online surveys, one with 100 IT and business decision-makers with responsibility or influence over their organisation's AI strategy; and the other with 100 AI provider decision-makers with responsibility or influence over their organisation's AI commercial strategy or provision of AI-related solutions. Forrester also conducted four qualitative interviews, two with senior AI decision-makers in Healthcare and the Retail industry; two with AI service providers based in Australia to obtain further insights.
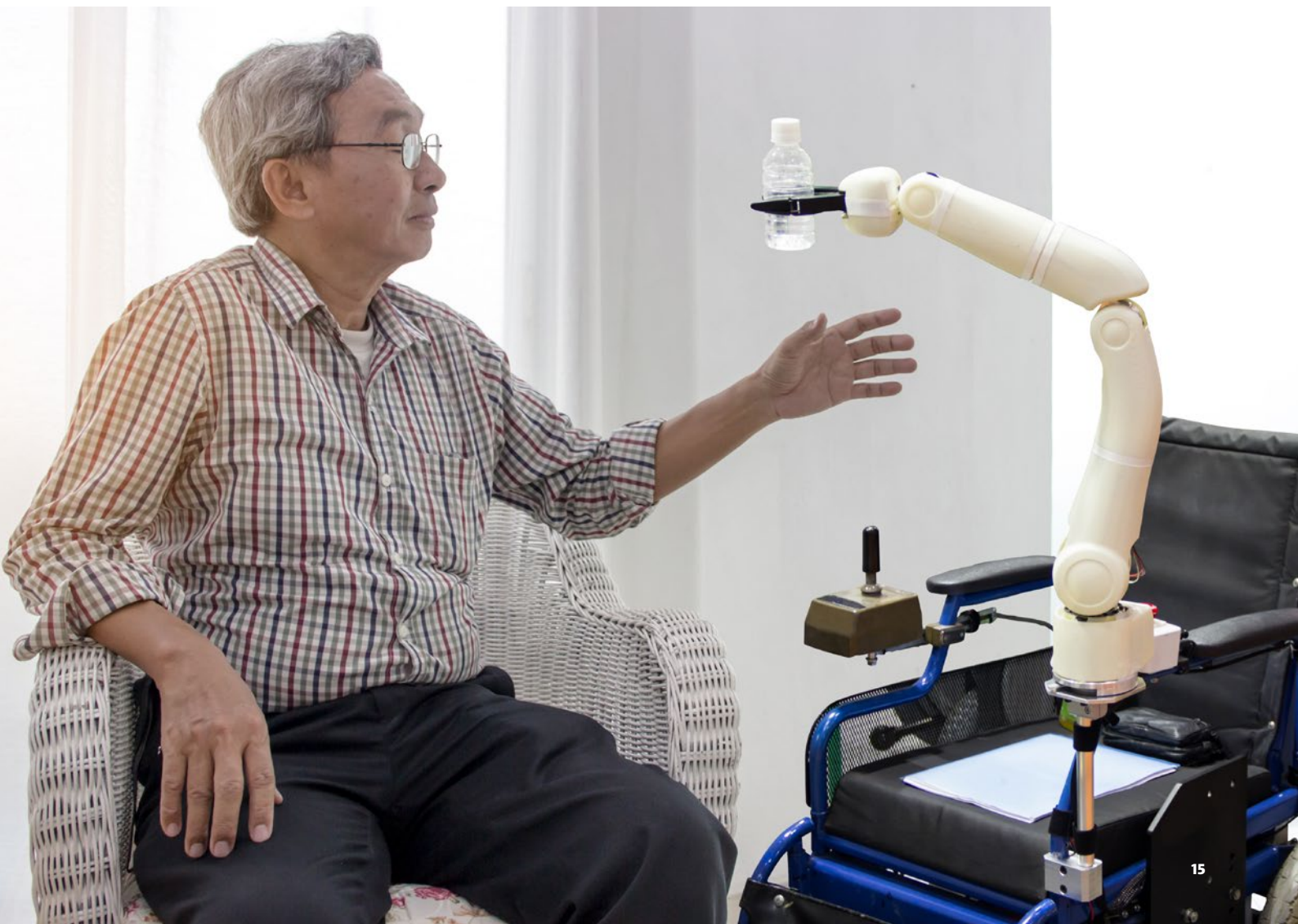
Appendix B: Survey respondent demographics

AI decision-maker survey

COUNTRY	
Australia	100%

INDUSTRY (TOP 10)	
Financial services and/or insurance	14%
Business or professional services	12%
Technology and/or technology services	11%
Artificial Intelligence technology and/or service provider	8%
Healthcare	7%
Telecommunications services	7%
Manufacturing and materials	6%
Advertising and/or marketing	4%
Chemicals and/or metals	4%
Construction	4%

NUMBER OF EMPLOYEES	
50 to 499 employees	32%
500 to 999 employees	40%
1000 or more employees	28%

ANNUAL REVENUE (AUD)	
<$1M	1%
$1M to $99M	8%
$100M to $199M	12%
$200M to $299M	15%
$300M to $399M	21%
$400M to $499M	21%
$500M to $999M	15%
$1B to $5B	6%
>$5B	1%

AI PLANS	
Interested but no plans to implement	7%
Planning to implement in the next 12 months	23%
Implemented, not expanding/upgrading	44%
Expanding or upgrading implementation	24%
Decreasing or removing	2%

POSITION	
Non-Technology related C-level executive	7%
Technology related C-level executive	19%
Director	24%
Manager/Supervisor	22%
Solution Architect, AI Architect, AI Engineer	9%
Data/Digital/AI Project manager	10%
Part-time employee/contributor	3%

DEPARTMENT (TOP 5)	
IT/Technology	22%
Legal/Finance/Sales/Marketing	15%
Data sciences/Analytics	11%
Product management	10%
Administration/Human Resources/Facilities	10%

LEVEL OF RESPONSIBILITY	
I am the final decision-maker for my organisation's AI strategy	21%
I am part of a team making decisions for my organisation's AI strategy	35%
I influence decisions related to my organisation's AI strategy	29%
AI is part of my remit	10%
I have led an AI project in my team/organisation	5%

AI provider survey

HEADQUARTER COUNTRY	
Australia	76%
Canada	4%
Germany	4%
United States	4%
Brazil	3%
China	2%
India	2%
Japan	2%
United Kingdom	2%
France	1%

NUMBER OF EMPLOYEES	
5 to 19 employees	18%
20 to 199 employees	33%
200 or more employees	49%

ANNUAL REVENUE (AUD)	
$1M to $99M	18%
$100M to $199M	21%
$200M to $299M	16%
$300M to $399M	13%
$400M to $499M	15%
$500M to $999M	9%
$1B to $5B	6%
>$5B	2%

TYPES OF CHANNEL PARTNERS IN AUSTRALIA (TOP 5)	
An industry body or network	33%
A short-term consultancy business	33%
A standards body or network	27%
A professional services firm	26%
A recruitment or labour hire company	26%

CURRENT BUSINESS OFFERINGS	
We offer AI-related services	26%
We offer AI technologies	33%
We offer both AI technologies and services	41%

BUSINESS MODEL (TOP 5)	
A consultancy business	11%
An industry body or network	10%
A skills provider	10%
A research organisation	10%
An academic organisation	10%

POSITION	
C-level Executive, Vice President, Director	4%
Manager of a technology or service team	20%
Solution Architect, AI Architect, AI/Data Customer Success	22%
Project manager of AI technology or service projects	25%
Full-time employee/contributor	18%
Part-time employee/contributor	11%
C-level Executive, Vice President, Director	4%

LEVEL OF RESPONSIBILITY	
I am the final decision-maker for my organisation's AI-related solutions and commercial strategy	9%
I influence decisions related to my organisation's AI-related solutions and commercial strategy	51%
I lead or am part of a team enabling or designing AI-related solutions for my organisation's clients	40%

The National AI Centre is
building Australia's responsible
and inclusive AI future.

For further information
National AI Centre
1300 363 400
+61 3 9545 2176
naic@csiro.au
csiro.au/naic