A RESEARCH & ADVISORY

State of the Nation 2025

# Data and AI in Australia

Data ambition surges, but organisational foundations lag, creating an AI readiness gap.

# Executive summary

Data and AI are now core to Australia's digital competitiveness. In 2025, nearly every major enterprise is racing to deploy AI-powered solutions—from predictive analytics in logistics to generative AI copilots in finance, health, and law.

ADAPT's 2025 CDAO and CIO Edge Surveys find "piloting and adopting generative AI use cases" is the top priority of Australian data and AI leaders in next 12 months.

Despite generative AI ranking as the #1 priority for 2025, 72% of Australian CDAOs say AI has not met ROI expectations. This sentiment is consistent across sectors—83% in healthcare, 73% in education, and 70% in retail report ROI shortfalls.

Notably, smaller and mid-sized firms are struggling the most, with over 80% of small corporates and 71% of mid-market organisations saying their AI investments have underperformed. These figures point to a structural misalignment between AI ambition and value delivery across the ecosystem.

While budgets have swelled, averaging $28 million across AI and data platforms, less than 24% of surveyed leaders believe their data is "AI-ready". Modernisation of architecture, implementation of controls like Zero Copy Architecture, and training of talent have not kept pace with the deployment of AI pilots. The result: high investment, low ROI.

Australian organisations are making substantial bets on AI amid economic uncertainty, sector-specific disruptions, and rising regulatory expectations. Yet they remain hamstrung by fragmented data systems, capability gaps, poor governance maturity, and a lack of industry-aligned ROI models.

Figure 1: The AI ROI Gap: High adoption, low return across industries and organisation sizes


*Source : ADAPT Data and AI Edge Survey in May 2025. Sample size : 152 Australian CDAOs*

A widening readiness gap is emerging:

- **68% of organisations** report less than partial data integration across sources to enable wider AI strategy.
- **Fewer than 6%** mandate enterprise-wide AI training.
- **Over 70%** say their AI initiatives have failed to deliver measurable business value to date.

This report highlights the disconnect between AI ambition and enterprise execution. Drawing on ADAPT's national research and frontline insights from CIOs, CDAOs, and cloud leaders, we expose the structural and operational risks posed by unchecked GenAI enthusiasm and underpowered data foundations.

To bridge this readiness gap, Australian enterprises must rebalance their approach. They should strengthen architectural investments, clarify governance models, embed data literacy, and connect AI outputs to commercial outcomes.

One organisation successfully plugging the gap between AI ambition and execution is Australia's largest telecommunications provider, Telstra. Generative AI is playing a measurable role at the telco, to help improve customer and employee experiences.

The telco uses a single tool to analyse customer notes, interactions and transactions, providing a summary of each customer's recent history and status. This reduces the need for customers to repeat information to contact centre agents, saving time for both parties.

Another tool enables workers to search the telco's internal knowledge base for information and provides AI-generated response to their queries. The tool is being used by 8000 frontline staff working in contact centre and store teams.

Former Telstra CIO, Kieran O'Meara, told ADAPT last October that the telco is now replicating this internally across its software engineering and HR groups to improve compliance and operational efficiencies. These tools are also helping automate architecture and solution design, compliance processes, and API generation.

## The macro landscape: Australia's AI tipping point

Australian organisations are accelerating AI deployments across core operations, from intelligent document summarisation and fraud detection to customer service automation and predictive maintenance. GenAI pilots are now live in both public and private sectors, and AI is fast becoming a boardroom conversation. Yet beneath this momentum lies mounting structural tension.

Three macro forces are converging to test the scalability and governance of AI across Australian enterprises:

1. **Fragmented data ecosystems continue to inhibit performance.** Despite years of cloud migration, most organisations are still wrestling with legacy infrastructure, inconsistent taxonomies, and weak metadata practices. Without unified data models or reliable lineage, many GenAI pilots are being built on brittle foundations.

2. **Rising regulatory scrutiny is reshaping design decisions.** Updates to the Privacy Act, expansion of the OAIC's enforcement remit, and the introduction of the Digital ID Bill are tightening compliance requirements around transparency, algorithmic accountability, and consent. In parallel, the National AI Centre (NAIC) has begun pushing forward a Responsible AI framework aligned with Australia's Digital Economy Strategy.

3. **Board pressure is fuelling short-termism.** As executive enthusiasm outpaces readiness, CIOs and CDAOs report growing pressure to deliver AI-driven impact—fast. But without standardised metrics or proven ROI frameworks, many teams are struggling to justify long-term investment beyond pilot phases.

Across sectors, AI ambition is real, but execution is fragmented:

- In **financial services**, leaders such as the ASX and CBA have made public commitments to expand AI-driven automation and improve data governance. Yet, regulatory bodies like APRA and ASIC remain cautious—flagging risks around explainability, fairness, and consumer harm.
- In the **public sector**, Services Australia and the Department of Home Affairs are using AI for fraud detection, citizen engagement, and document processing. Still, most deployments remain isolated, constrained by outdated data architectures and gaps in AI-specific governance.
- The **technology startup ecosystem** is gaining ground. In 2025 alone, over AU$60 million was invested in Australian AI startups including Hivery (retail analytics), Kasada (AI-driven bot defence), and Faethm (workforce analytics). However, enterprise adoption of these niche tools remains limited by integration and trust hurdles.
- Internationally, Australia's approach is under scrutiny. As countries like Singapore (with its AI Verify framework) and the UK (via the Office for AI) build structured oversight models, Australian CIOs are participating in—but not yet shaping—global governance dialogues. Cross-border alignment remains low, and the lack of harmonised standards is creating compliance friction for multinational enterprises.

The outcome is clear: Australia's AI ambition is advancing, but success is being throttled by fragmented architecture, uneven governance, and intensifying delivery pressure.

# Key insights

## 1. Data governance: A structural weakness in AI strategy

As AI ambitions grow across Australian enterprises, governance remains their Achilles' heel. Despite board-level urgency and rising external scrutiny, few organisations have built the foundational policies and oversight structures needed to safely scale AI.

ADAPT's 2025 CDAO and CIO Edge Surveys reveal a striking disconnect: while 78% of organisations classify AI as a board-level priority, fewer than 26% report having formal AI ethics structures in place. Moreover, over 70% of leaders reported that they have less than partial integration of data sources to support AI foundations. This leaves most enterprises deploying AI without clarity on who owns the data, how decisions are being made, or whether models are operating as intended.

In many cases, Chief Data & Analytics Officers (CDAOs) report influencing AI strategy, but not owning it. Without cross-functional accountability or enterprise-wide enforcement, governance remains siloed, inconsistently applied, and reactive at best.

Common breakdowns include missing data ownership roles, weak audit trails for AI-assisted decisions, and the absence of model validation or explainability frameworks—particularly in high-risk sectors such as healthcare, finance, and public services. These are not just technical gaps; they are strategic risks that undermine trust, compliance, and the credibility of AI investments.

**Case in point:**

In 2024, I-MED Radiology came under investigation after it shared de-identified patient X-rays with an AI partner without explicit patient consent. While no breach was confirmed, the case exposed governance blind spots—highlighting the need for stronger consent frameworks, oversight on data sharing, and alignment with public expectations. It served as a wake-up call across the sector, reinforcing the importance of embedding ethical guardrails before scaling GenAI deployments. (Source)

Some organisations are moving ahead.

**Case in point:**

The University of Technology Sydney (UTS) introduced a comprehensive enterprise Data Governance Policy in 2024 that assigns data stewards, codifies ownership structures, and integrates metadata cataloguing into its operations. Designed to enhance auditability and decision-making, UTS's policy is now being used as a blueprint by other institutions looking to uplift their AI readiness. (Source)

Meanwhile, in the public sector,

**Case in point:**

The Victorian Department of Transport and Planning launched an AI Governance Board in 2025. Its role: to review model fairness, ensure data lineage, and assess risk across its mobility analytics programs. This marks one of Australia's first attempts at institutionalising AI oversight in a sector-wide capacity. (Source)

On the regulatory front,

**Case in point:**

The Australian Human Rights Commission has proposed stronger guidelines for algorithmic transparency. Their recent recommendations include mandatory impact assessments for high-risk AI systems—those used in decisions around healthcare, credit, employment, and citizen services. (Sources)

As these public and regulatory frameworks evolve, the burden now shifts to private enterprises. AI governance must move from policy discussion to execution. This means defining ownership, embedding audit trails and explainability protocols, and ensuring that governance scales in parallel with AI deployment.

Governance is not a barrier to innovation; it's what allows innovation to be sustained. Without it, even the most ambitious AI roadmaps will falter under scrutiny or risk.

Australian enterprises can no longer afford to treat governance as an afterthought. It's the control plane for AI risk, and its absence is becoming a defining vulnerability in the next phase of digital transformation.

For City of Casey, one of Victoria's largest municipalities serving over 415,000 people, AI governance is a tough nut to crack, according to its CIO, Clint Allsop. He says it involves more than just creating a policy or governance group.

> *"We've got a strategic direction and governance of it [AI]. We've got great awareness and understanding and education across our organisation of…the risks of the technology and how we apply it,"* he says.

The council has created a working group with a 'cadence' to develop AI policy and governance, which Allsop believes will be key to growing its AI capabilities.

## 2. Data readiness: Foundational maturity is receding

Despite record spending on infrastructure and AI platforms, the underlying data foundations in many Australian organisations are weakening. ADAPT's latest CDAO Edge Survey shows year-on-year declines across critical data maturity indicators:

- **A 10% drop** in overall data quality maturity.
- **A 30% reduction** in organisations reporting monetisation capability.
- **A 15% fall** in delivery confidence tied to their data strategies.

This erosion of data fundamentals is compounding the challenges of AI execution. Many AI projects falter not because of algorithmic failure, but because of fragmented, siloed, or low-integrity inputs. In effect, platform investments are outpacing structural reform, leaving enterprises with modern tooling but legacy limitations.

More than 60% of CDAOs surveyed report their teams are unaware of or have not explored Zero Copy Architecture (ZCA)—a foundational capability for enabling secure, real-time AI workloads in hybrid and multi-cloud environments. This signals a growing disconnect between IT ambitions and data architecture preparedness.

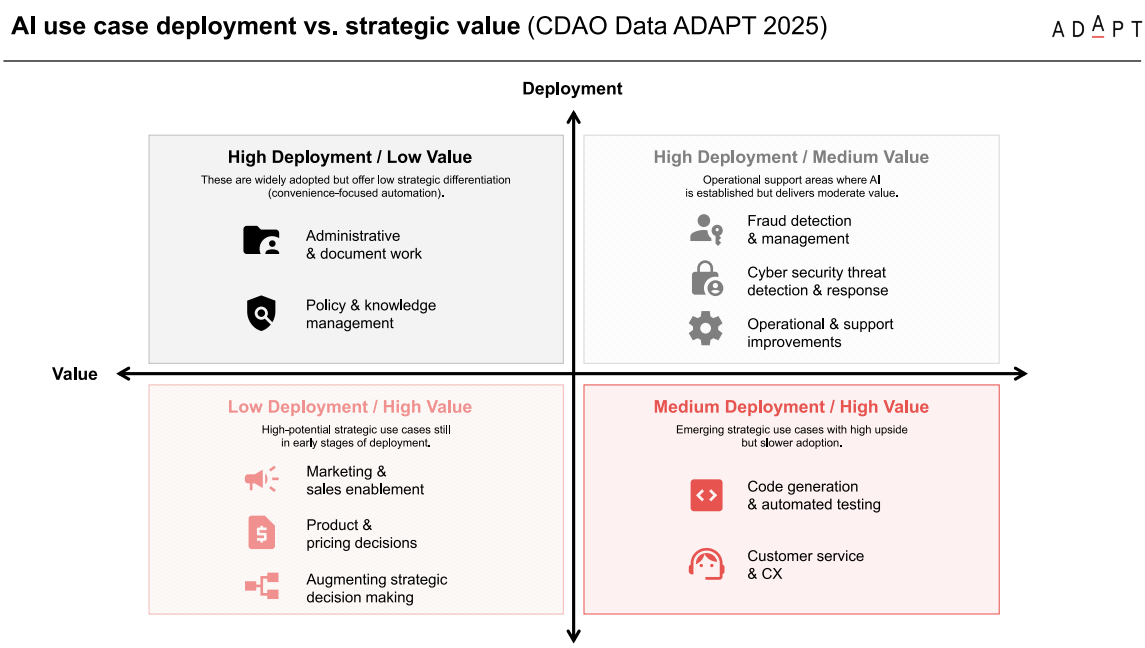
**Case in point:**

Air Canada chat bot failure: A similar breakdown occurred in 2024 when Air Canada's GenAI-powered chatbot advised a customer they could retroactively claim bereavement fares. This inaccurate guidance, based on outdated or poorly structured policy data, led to legal action—and the court held Air Canada accountable for its AI's output. The incident illustrates that without rigorous data curation and validation; even simple AI tools can expose organisations to reputational and regulatory risk. It underscores why data readiness is not just a backend issue—it's a frontline imperative. (Source)

While some organisations are proactively addressing this maturity gap by deploying semantic layers, knowledge graphs, and federated data platforms, these are still exceptions. Leading firms like Woolworths and Origin Energy are piloting cloud-native architectures to enable real-time, cross-domain analytics and AI pipelines—but broad adoption remains uneven.

## 3. AI use cases and risk: Widespread adoption, fragmented value

Figure 2: AI use case deployment vs. strategic value




GenAI adoption is no longer hypothetical in Australia, it's happening across sectors and functions. According to ADAPT's 2025 CDAO Edge Survey, the most deployed use cases include:

1. **High deployment, low value (bottom right)**: Use cases like *Administrative & document work* and *policy & knowledge management* show the highest deployment rates (~15% and 13%) but offer lower strategic differentiation—indicating automation convenience over innovation.

2. **Low deployment, high value (top left)**: Strategic decision making, *product & pricing decisions*, and *marketing & sales enablement* are the most value-driving use cases, but they are among the least deployed (under 10% deployment maturity). This represents a critical opportunity gap.

3. **Middle zone**: Use cases like *Customer Service & CX*, *Code Generation*, and *Cyber security Threat Detection* sit in the mid-tier—emerging as high-interest, yet still under-deployed strategic levers.

This alignment between usage and risk tolerance is expected. Many enterprises are beginning with AI deployments that can deliver incremental productivity gains without requiring deep integration into mission-critical or customer-facing systems. These low-hanging use cases require fewer data dependencies, lighter compliance obligations, and typically avoid reputational risk if they fail.

However, the real concern lies in the slow maturation of high impact use cases. Use cases such as code generation and testing (9% deployed), customer experience (9%), marketing enablement (8%), and strategic decision-making (4%) remain stuck in pilot mode. These are precisely the domains where AI could deliver competitive advantage—yet maturity is lacking.

Cricket Australia is one organisation that has moved beyond pilot mode in using AI to deliver a better customer experience. Its AI Insights feature, part of the Live app, delivers value by providing personalised content to cricket fans based on their preferences. The solution was launched earlier this year during a Women's Ashes match between Australia and New Zealand at the Melbourne Cricket Ground.

Cricket Australia's Head of Technology Strategy & Data, Damien Thompson, says the organisation will build on AI Insights to create a more bi-directional relationship with customers. It will provide highlights and a match summary at the end of each game, relevant to the person interacting with the app.

Thompson says there are two streams to AI: every day and transformative.

Everyday AI provides value by streamlining how teams work, accelerating content creation and helping people move away from mundane tasks, says Thompson.

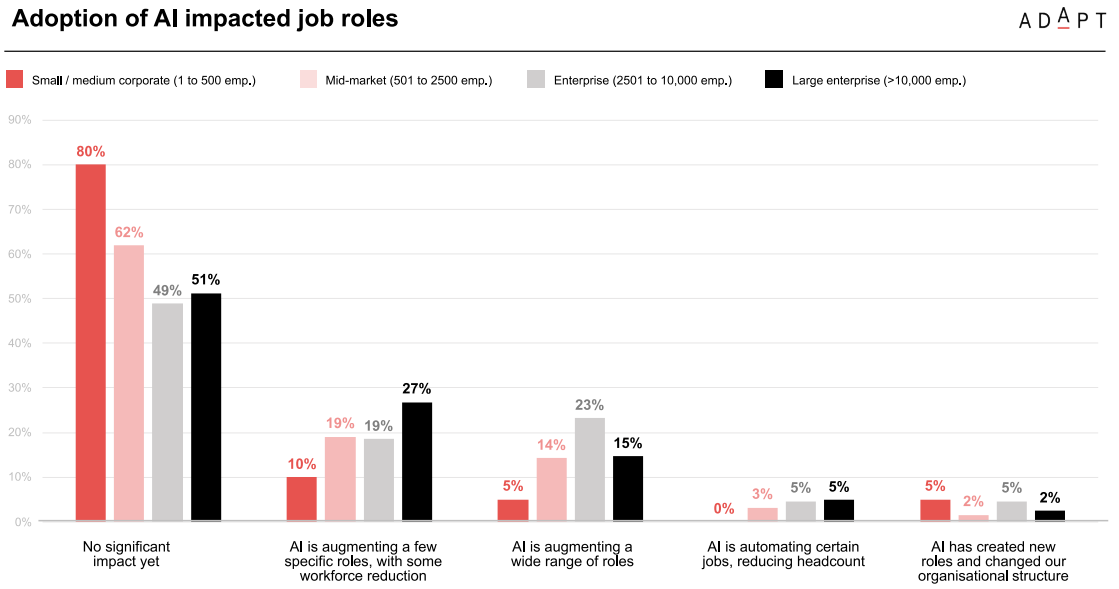
> *"The transformative AI is more of an interesting space. What we've seen is a lot of people jumping in just to do something in AI. There's a lot you can learn by doing that, but you have to be mindful that the wrong bet can be quite expensive,"* he says.
>
> Thompson says Cricket Australia is clear about how it captures value from AI initiatives.
>
> *"If you are really clear about that, spend more time on it now before you start playing with the tools. Just because it's fast to spin up something in AI, doesn't mean it's going to get you the outcomes that you want,"* he says.

### 4. People and capability: AI's workforce impact is real but uneven: Augmentation outpaces structural overhaul

While AI is beginning to impact workforce structures, many Australian organisations are still in the early stages of transformation. Across small to large enterprises, 49–80% report **"no significant impact yet"** from AI on job roles.

However, signs of disruption are emerging. **Up to 27% of large enterprises** say AI is already augmenting specific roles with some workforce reduction, while **23% of mid-sized enterprises** report broader role augmentation underway. Despite media narratives of widespread job displacement, structural transformation and AI-driven role creation remain limited. This highlights a slow, uneven shift in how organisations are preparing their people for AI-infused operations.

Figure 3: Adoption of AI impacted job roles

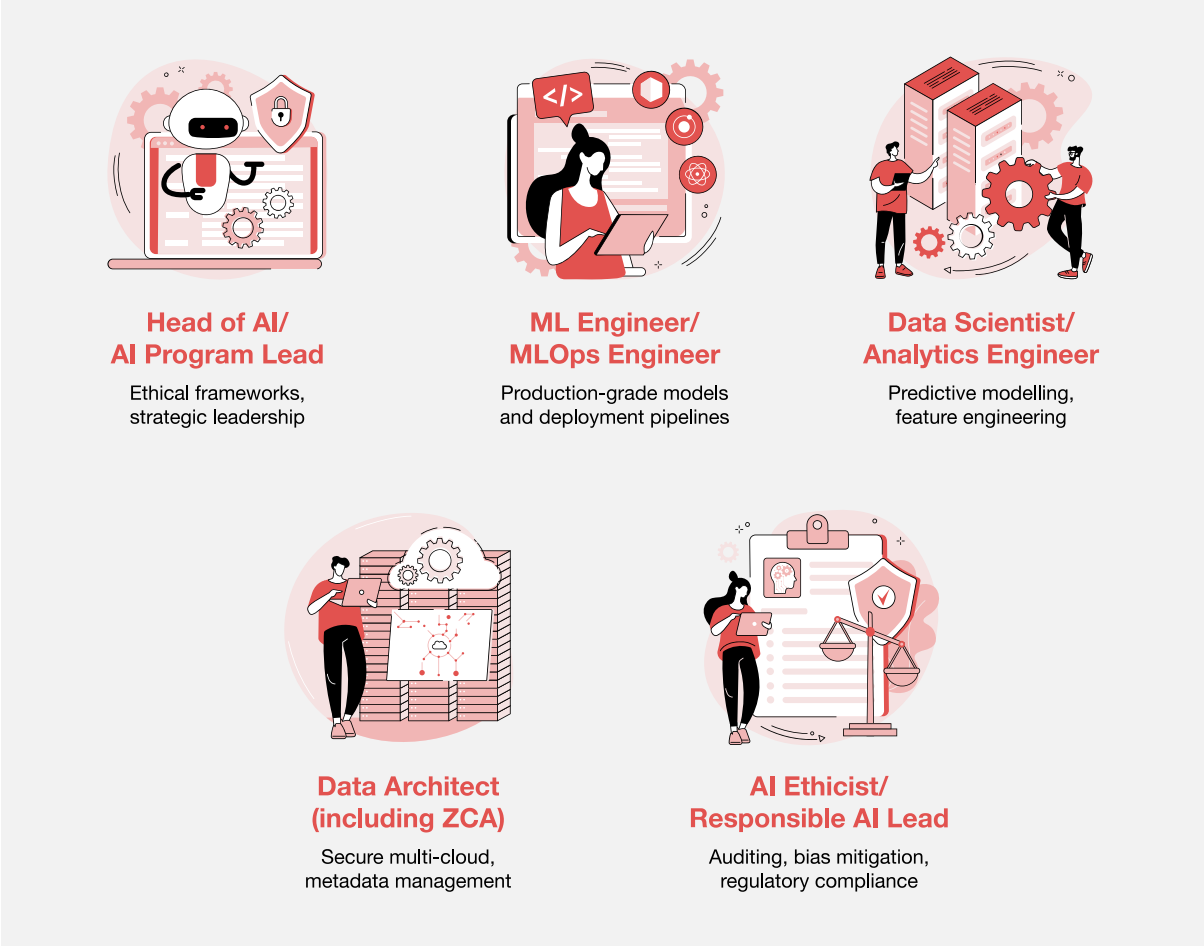



*Source : ADAPT Data and AI Edge Survey in May 2025. Sample size: 167 Australian CDAOs*

This skills shortfall is now the **single greatest barrier** to value realisation from deployed AI systems. While infrastructure and tooling investments have surged, talent transformation has failed to keep pace, leaving organisations with powerful models but few people equipped to drive outcomes or manage risks.

- In 2025, only **6%** of enterprises have mandated enterprise-wide AI training, and nearly a **quarter (23%)** report having **no structured workforce preparation plan.**
- Microsoft, SAS, Macquarie University, and UTS recently launched a 10-week AI upskilling course—an "AI Academy"—targeted at business users across Australia Post, NAB, and others. This initiative prioritises practical, cross-functional fluency rather than siloed technical training. (Source)
- At a national level, we're seeing school-level partnerships like the CSIRO's curriculum pilots with UNSW. These programs are helping embed AI and data awareness early, but broader system-wide integration is still nascent.

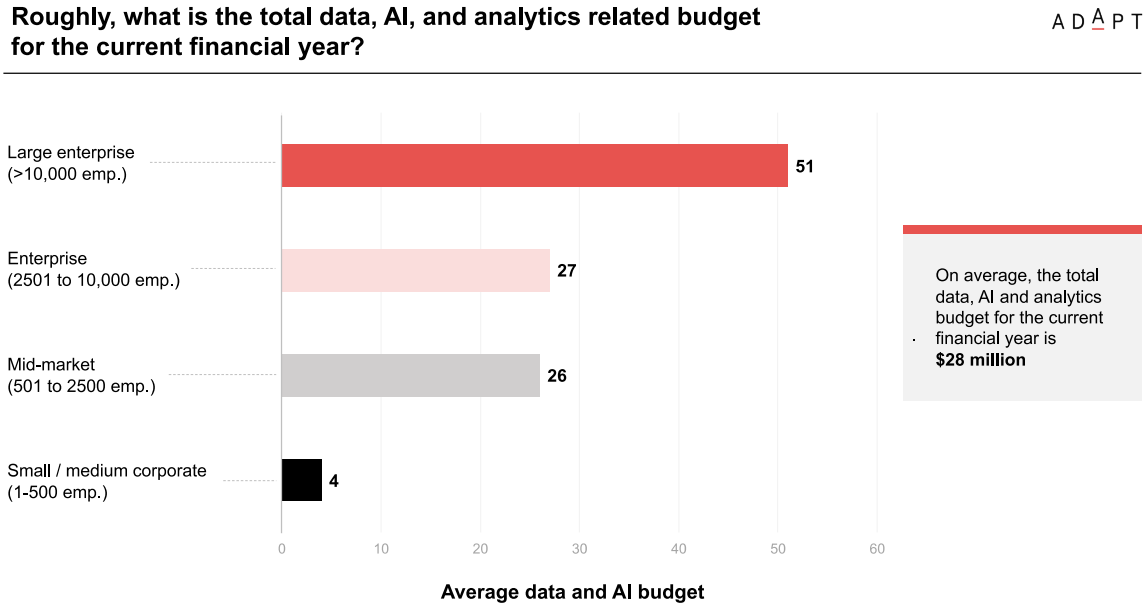
Top in-demand roles in Australia right now:




## 5. Budget, ROI and investment: Capital without coherence

Australian organisations are investing heavily in Data, AI, and Analytics, averaging $28 million annually, with large enterprises allocating over $50 million on average. Yet this investment is not translating into measurable business value. According to ADAPT's 2025 survey, many data and AI leaders report that AI has not yet met their ROI expectations. This trend is consistent across industries and organisational sizes.

Figure 4: Total data, AI, and analytics related budget for the current financial year




*Source : ADAPT Data and AI Edge Survey in May 2025. Sample size : 89 Australian CDAOs*

Spending patterns reveal a fundamental misalignment: budgets are expanding in technical areas, but lag in enablement and capability building. For instance, 43% of organisations plan to increase spend on enterprise AI platforms, and 41% will increase budgets for data security and compliance tools. This reflects a growing urgency to secure expanding AI footprints and meet regulatory obligations amid rising privacy risks and model governance concerns.

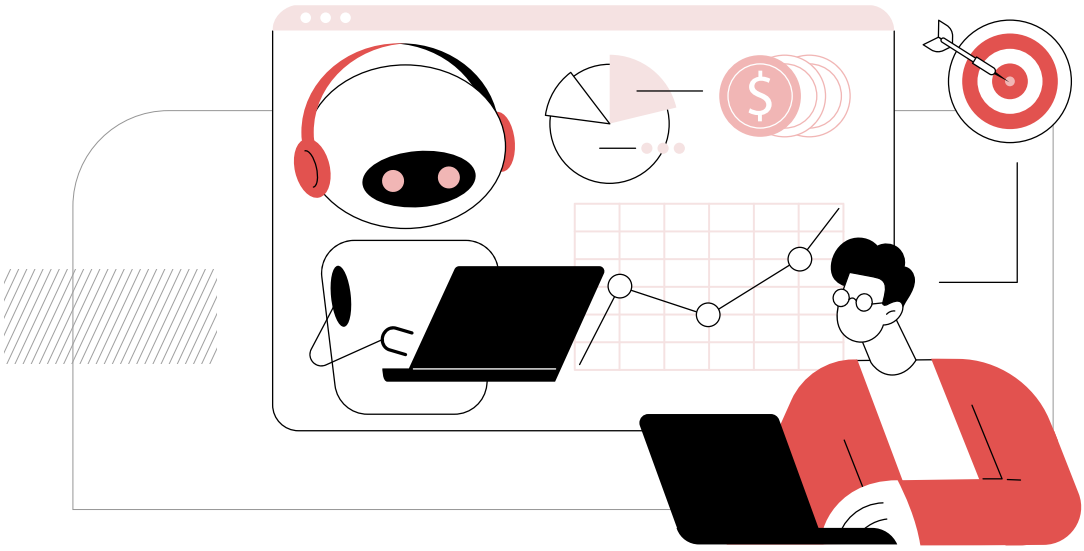
In contrast, areas like data team and talent development (28%) and data literacy programs (33%) see more modest increases, despite being foundational to long-term value realisation. Alarmingly, 24% are still cutting investment in data team and talent, and 18% are cutting data literacy programs. This is a sign that enablement is being deprioritised by economic pressure. Similarly, only 34% plan to increase spending on data discovery tools, despite growing demand for self-service analytics and decentralised insights.

This mismatch is contributing to a persistent execution gap: AI tools are being implemented faster than the people and processes needed to operationalise them. Technical ROI measures (such as speed and accuracy) are being tracked, but business KPIs like cost savings, compliance uplift, or customer experience improvement remain poorly defined or absent.

Boards and CFOs are beginning to respond. Leading CIOs and CDAOs are being asked tougher questions—not just about deployment timelines, but about long-term value and AI sustainability. In response, a handful of mature organisations are shifting toward outcome-based KPIs such as:

- cost avoidance through automation
- reduction in processing time
- customer satisfaction or NPS improvement
- improved risk mitigation or compliance assurance.

Until these practices become widespread, Australian enterprises risk continuing the cycle of high capital, low coherence, where AI ambition is high, but execution maturity is shallow.



## What next: Five strategic priorities for closing the readiness gap

1. **Institutionalise end-to-end AI governance**
   Establish formalised governance frameworks that span the full AI lifecycle—from data sourcing and model development to deployment and monitoring. Prioritise risk controls, ownership structures, and traceability in high-impact use cases to meet rising regulatory and societal expectations.

2. **Modernise data architecture to enable scalable AI**
   Shift focus from infrastructure accumulation to architectural coherence. Invest in Zero Copy Architecture, data lineage tools, and semantic layers to unify fragmented ecosystems and enable secure, real-time AI workloads across cloud and hybrid environments.

3. **Accelerate enterprise-wide capability uplift**
   Embed role-specific upskilling across the organisation, with a focus on operationalising AI fluency. Equip business leaders with prompt engineering and model evaluation skills, while building ethical AI and data literacy into all layers of the workforce.

4. **Anchor AI investments in business-centric KPIs**
   Redefine success beyond technical throughput. Tie AI performance to measurable business value, such as operational efficiency, customer experience, regulatory compliance, and cost-to-serve improvements. Develop shared scorecards across IT, data and finance.

5. **Establish joint accountability across technology and business leaders**
   Empower CDAOs to act as orchestrators across CIOs, CFOs, and line-of-business executives. Create cross-functional delivery units to align AI initiatives with enterprise strategy, ensuring coordinated execution, sustained funding, and enterprise-level impact.

# Conclusion and call to action

To close the readiness gap and translate investment into impact, AI and data leaders must act decisively.

**Shift from pilots to platforms:** Prioritise scalable architecture over isolated deployments.

**Elevate governance from policy to practice:** Build cross-functional oversight that can withstand public and regulatory scrutiny.

**Operationalise value:** Redefine AI success using business-relevant outcomes, not technical metrics alone.

**Champion workforce transformation:** Lead the cultural and capability shift required to make AI adoption sustainable.

**Forge public-private alignment:** Engage with peers, regulators, and policymakers to shape AI maturity frameworks that are contextually Australian—but globally competitive.

The next 12 months will define whether Australian organisations become AI-ready or fall behind more disciplined digital economies. The time to close the gap is now.

Australia's AI evolution is at risk of becoming a tale of two realities: bold vision but brittle execution. Without immediate intervention, organisations will continue to invest heavily in capabilities they cannot scale, govern, or extract value from.

To reverse this trend, leaders must shift from opportunistic experimentation to structured delivery. That means enabling CDAOs to act as enterprise orchestrators—owning data strategy, embedding responsible governance, and mobilising talent across functions.

## Written by

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Pooja is a trusted advisor to government agencies, public health providers, utilities, and pharmaceutical organisations, specialising in AI, data analytics, and emerging technologies to accelerate digital transformation, operational resilience, and citizen-centric service delivery. She enables organisations to modernise government functions, enhance healthcare accessibility, and optimise infrastructure operations through strategic technology adoption.

Her expertise spans AI-driven diagnostics, cloud platforms for healthcare and utilities, and data integration frameworks — guiding C-suite executives and product leaders in navigating compliance, digital maturity, and investment decisions. Pooja works closely with leaders to assess digital readiness, embed AI into mission-critical workflows, and improve citizen and patient experiences through scalable, inclusive digital strategies.

With a background in biotech engineering and an MBA from Johns Hopkins University, where she specialised in government technology innovation and leadership, Pooja has developed deep expertise in both the Australian and U.S. public sector landscapes. Her experience includes advising global enterprises at Bain & Company and serving as a principal analyst at Gartner, delivering strategic insights on AI adoption, digital infrastructure, and the future of public sector innovation.

Beyond her professional work, Pooja drives social impact through pro-bono consulting — supporting women's health, sustainability initiatives, and digital inclusion across underserved communities. Her recent initiative focused on destigmatising women's sexual and reproductive health conversations in the Indian community.

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