

# NEW SOLUTIONS TO OLD PROBLEMS: GOVERNMENT AI READINESS AND PRIORITISATION AT THE CUTTING- EDGE OF TECHNOLOGY

RESEARCH INNOVATION COUNCIL ANZ BRIEF | VOL.17 | GRIFFITH UNIVERSITY

## EXECUTIVE SUMMARY

A cross-sectoral roundtable convened to explore the challenges and enablers of emerging technology adoption in the public sector, with a particular focus on AI, digital governance, legacy decommissioning, and cultural transformation. Participants from government, academia, and strategic design consultancies highlighted a central tension: while emerging technologies such as generative AI, blockchain, and predictive analytics present immense promise, systemic barriers within government often delay or dilute their effective implementation.

The conversation illuminated six interlinked themes: legacy infrastructure constraints, the limits of traditional governance models, persistent cultural inertia, fragmented investment approaches, low organisational readiness for AI, and the critical need for sustained partnerships with academia and industry. Several agencies are pursuing successful transformations through portfolio-based and product-oriented operating models, but these remain the exception rather than the rule.

Participants called for a paradigm shift—one that integrates operational agility, trusted AI governance, and structural reform to enable continuous innovation. Recommendations centred on redefining governance to support agility, investing in cross-sector capability uplift, and creating safe environments for experimentation. A strong consensus emerged around the need to rethink procurement models, enable cross-agency knowledge sharing, and embed human-centred, evidence-based practices as standard for future-facing public sector transformation.

## FUTURE RESEARCH AND DISCUSSION

### **Structural and Financial Reform for Innovation:**

There is strong demand for structural changes to how innovation is funded and managed. Roundtables could explore:

- Operating models that support continuous funding for evolving technology
- How to embed innovation into operational expenditure rather than project budgets
- Cross-departmental investment mechanisms and co-ownership models

### **Building a Product-Based Public Sector:**

Future sessions should explore the practical transition from project-based to product-based delivery across departments. Areas of focus could include:

- Change management models for transitioning workforce roles
- End-to-end service accountability
- Shared platforms and modular infrastructure

### **Future-Ready Workforce and Capability Uplift:**

The workforce challenge is dual-pronged: bridging existing skill gaps while anticipating emerging roles. Suggested topics:

- AI literacy across all tiers of government
- Human-AI collaboration roles (e.g., prompt engineer, AI ethicist)
- Modernising job design and classification frameworks to match digital capabilities

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## KEY THEMES AND INSIGHTS

### PERSISTENCE OF LEGACY SYSTEMS:

Many agencies continue to operate core systems built in the 1970s or earlier, using outdated languages such as COBOL on pre-relational databases. These systems often support mission-critical functions and are deeply embedded in service delivery. Participants stressed that technical debt isn't only a technical issue—it also poses a barrier to new policy, digital service delivery, and AI integration.

Several agencies shared experiences of modernisation programs requiring years of effort just to migrate away from Excel-based processes. One department decommissioned over a dozen legacy applications and is nearing completion of a multi-year overhaul. Still, these initiatives often struggle against entrenched funding models and structural siloes.

### CULTURAL INERTIA AND THE 'PERMAFROST' MIDDLE

Cultural resistance emerged as a core impediment. While executive-level innovation strategies and frontline enthusiasm are often strong, middle layers of management—described by one participant as the "permafrost"—can unintentionally stifle change. Legacy mindsets, rigid roles, and fear of disruption inhibit experimentation and make it difficult to adopt product-oriented or agile delivery models.

Participants noted that many boards and senior decision-makers continue to view technology investment through a narrow benefits realisation lens: "What's the immediate saving?" This constrains innovation, particularly in areas where outcomes are distributed across departments, timelines are long, and value is intangible or preventative (e.g., ethical AI or future-state interoperability).

### AI HYPE VS. READINESS: A MISMATCH IN CAPACITY

Generative AI has created a surge in organisational interest, but most agencies are not AI-ready. Only 28% of organisations surveyed by Boston Consulting Group in 2023 felt prepared for enterprise AI adoption. Participants described a disconnect between senior enthusiasm for AI and the foundational gaps in data governance, process redesign, and workforce readiness.

AI use in the public sector often lacks formalisation. Staff use tools like ChatGPT in an ad hoc manner, with little guidance or oversight. Without clear governance, this experimentation creates risks around data sovereignty, explainability, and long-term trust. "We have to program trust into the lifecycle from day one," one academic noted.

### GOVERNANCE ISN'T COMPLIANCE: RETHINKING RISK, ACCOUNTABILITY, AND ADAPTABILITY

Traditional governance frameworks—designed for high-certainty, low-change environments—struggle to accommodate emerging technology. Over-governance was cited repeatedly as a reason why projects fail to scale, with some agencies reporting a 50:1 ratio of governance staff to developers. Several participants called for more adaptive, risk-proportional models, including Agile Governance and dual-track assurance.

One organisation conducted a proof-of-concept AI trial to evaluate risk dimensions before enterprise deployment. This allowed phased investment while surfacing organisational blind spots around data quality, ethical boundaries, and accountability.

# KEY THEMES AND INSIGHTS

## THE POWER AND FRAGILITY OF DISTRIBUTED INNOVATION

Multiple departments reported pockets of innovation happening in isolation. While this enabled speed, it created duplication, integration challenges, and missed opportunities to scale. One example highlighted a department advancing a digital licence program without central coordination, missing potential synergies with other digital identity initiatives.

Participants stressed the need for structured collaboration across agencies. Central agencies were encouraged to convene cross-departmental showcases or innovation clearinghouses. However, lack of funding alignment and cultural reluctance continue to undermine shared progress.

## CHALLENGES AND BARRIERS

### Structural Funding Models Discourage Long-Term Innovation:

Participants described a funding environment that privileges short-term capital projects over continuous investment. Project-based funding cycles (often annualised) are ill-suited for evolving technologies that require ongoing adaptation, maintenance, and workforce development. Agencies reported difficulties in transitioning innovation pilots into sustainable operational capability due to lack of committed operational funding.

### Misaligned Accountability Structures:

Ministerial silos and portfolio responsibilities create fragmentation. One example cited was digital identity, where implementation is led by one agency, but the benefits accrue to others. Without shared accountability or whole-of-government investment mechanisms, large-scale transformation is difficult to justify or sustain.

### Workforce Capability and Trust Gaps:

Despite enthusiasm for emerging technologies, many staff lack the training, permission, or support to use them effectively. One example described frontline teams wanting to apply AI tools but lacking a safe environment to experiment without fear of failure. This results in a shadow innovation economy: people use tools like ChatGPT informally, but without organisational backing or risk management.

Moreover, change management and project delivery roles are still seen as temporary, contract-based functions. Once innovation initiatives conclude, institutional knowledge is lost, and transformation momentum dissipates.

### Compliance-Heavy Governance Models:

Conflating governance with compliance was seen as a major impediment. “Governance should be an artform—it’s about wisdom and judgment, not just tick-boxing,” one participant noted. Inflexible procurement policies and risk-averse approval chains often lead to project stagnation. Government needs to move from a culture of compliance to one of empowered accountability.

### Procurement Bottlenecks:

Current procurement practices were described as a brake on innovation. Even when promising technologies are identified—particularly from startups or external innovators—complex processes, misaligned incentives, and unclear ownership prevent adoption. One participant remarked, “By the time governance approves a new tool, the product’s entire innovation cycle may be over.”



# INNOVATIVE IDEAS AND CASE STUDIES

## 1. PORTFOLIO-BASED TRANSFORMATION WITH AGILE GOVERNANCE

One agency nearing completion of a multi-year transformation program shared a robust model for legacy decommissioning. The approach used enterprise architecture mapping and risk-based prioritisation to shift from a project to a portfolio mindset. Agile governance enabled continuous iteration, with digital delivery embedded across all business lines. Notably, the agency designed its operating model to eliminate the need for a digital portfolio office—digital became business-as-usual.

## 2. HUMAN-CENTRED AI TRIALS IN LICENSING

A state regulator trialled an AI-powered licensing chatbot to understand the risks and readiness levels associated with customer-facing automation. The trial surfaced data quality issues and ethical considerations (e.g., transparency in decision-making), which helped shape a risk-managed roadmap. The trial also influenced procurement strategy, creating a template for future AI use cases.

## 3. EDUCATION SECTOR INNOVATION: CONTROLLED AI DEPLOYMENT

A pilot in Queensland’s education sector deployed an AI chatbot (“Corella”) for middle-school students to safely engage with generative AI within a closed ecosystem. This trial was backed by robust monitoring, teacher involvement, and iterative design. Participants cited this as a model for risk-managed AI experimentation, demonstrating that appetite for responsible innovation can be met when safety and trust are embedded.

## 4. PARTNERSHIP MODELS WITH UNIVERSITIES

Academics highlighted a “living lab” model: a long-term partnership where universities co-design interventions with government, evaluate implementation in real time, and feed insights back into policy, teaching, and capability development. One example included using fetal heart rate monitoring data to train deep learning models for healthcare decision support, while maintaining strong ethical oversight.

## 5. PRODUCT-BASED OPERATING MODELS

Shifting to a product-based operating model—where services are managed as evolving products rather than fixed functions—emerged as a powerful enabler of innovation. In one case, a regulator restructured teams to include product owners with end-to-end accountability. This change forced conversations around strategy, customer experience, and continuous delivery, breaking down legacy functional silos.



# STRATEGIC OUTCOMES AND RECOMMENDATIONS

## IMMEDIATE ACTIONS

- **Enable Safe Experimentation Environments:** Create designated ‘innovation sandboxes’ within departments, governed by lightweight, risk-managed frameworks to trial emerging technologies in real-world contexts.
- **Clarify Use of Generative AI in the Workplace:** Establish clear organisational guidelines on when and how staff can use tools like ChatGPT. Include acceptable use policies, data handling protocols, and training on responsible AI use.
- **Deploy Cross-Sector Capability Building:** Launch short courses in partnership with universities on AI literacy, digital ethics, Agile governance, and human-centred design. Target middle management and cross-functional teams.
- **Capture and Share Internal Case Studies:** Mandate post-implementation reviews of transformation projects, including lessons learned, procurement models used, and benefit outcomes. Disseminate through a central digital transformation office or cross-agency showcase.

## MEDIUM-TERM GOALS

- **Adopt Product-Based Operating Models:** Encourage departments to transition from functional hierarchies to product-based teams with end-to-end ownership. Provide implementation playbooks and coaching support.
- **Institutionalise Agile Governance:** Reform enterprise governance to support incremental delivery, adaptive assurance, and decentralised decision-making. This requires upskilling boards and assurance bodies.
- **Procurement Reform for Innovation Enablement:** Redesign procurement processes to include pathways for startup engagement, multi-agency purchasing, and outcome-based contracting.
- **Embed AI into Workforce Planning:** Include AI literacy, risk governance, and ethics in workforce capability frameworks. Identify emerging roles (e.g., AI ethics lead, prompt engineer) and begin succession planning.

## LONG-TERM VISION

- **Establish a Queensland Government Innovation Hub:** A permanent, cross-agency structure co-managed with academia and industry to accelerate the adoption of frontier technologies, support interoperability, and provide shared infrastructure for experimentation.
- **Shift from Siloed to Systems Thinking:** Build investment frameworks that reflect citizen experience rather than agency function. Fund initiatives that deliver outcomes across multiple departments, with shared metrics and cross-portfolio accountability.
- **Formalise Long-Term University Partnerships:** Move from ad hoc engagements to structured, multi-year partnerships. Use “living lab” models to test, evaluate, and refine innovations over time.
- **Normalise Continuous Transformation:** Embed continuous delivery into budgeting and operations. Treat digital capabilities as enduring public infrastructure—not as projects with a fixed end date.

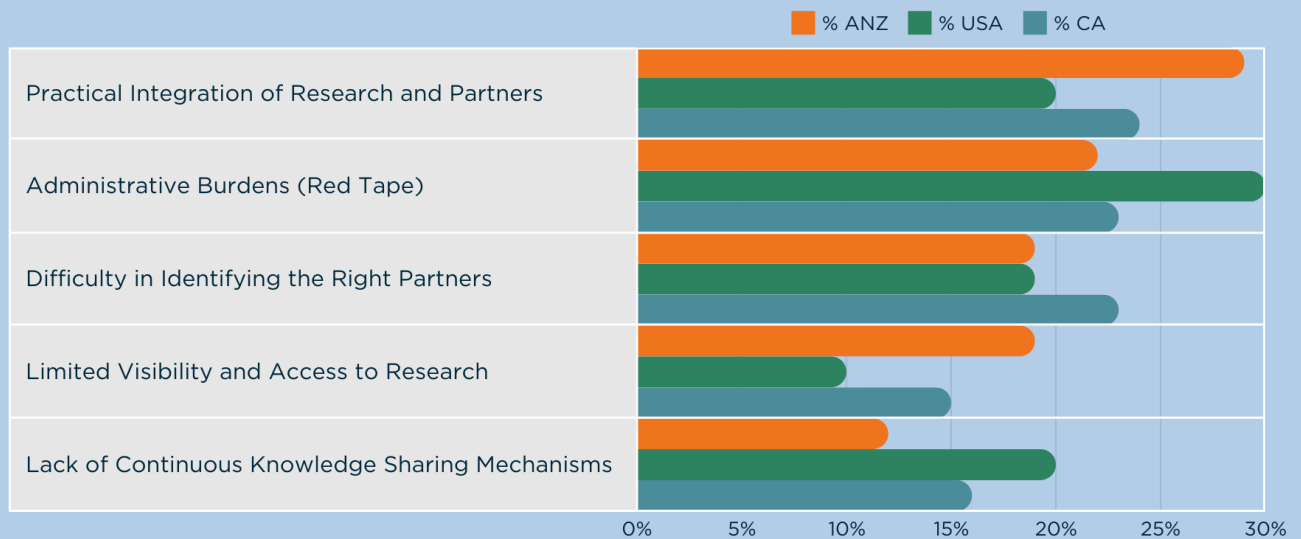
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Our program offers senior executives a unique opportunity to gather monthly for PSN-facilitated roundtable sessions with colleagues, academics, and technologists. We run the program at no cost to government executives or academics, and provide attendees a private online group on our global insights exchange platform, access to research briefs, and expert engagement with PSN analysts and facilitators.



## Greatest challenge partnering with Academia or Industry



Source: PSN Research Innovation Council Survey 2024. Total Sample Size: 188 ANZ/ 83 USA/ 80 CA Gov Executives

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PSN's growing community spans across federal, state, and local government departments, healthcare, and education, allowing members to share information, access the latest in government innovation, and engage with other like-minded individuals on a secure and closed-door network.

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