

HARNESSING RESPONSIBLE AI: COLLABORATIVE PATHWAYS FOR NZ PUBLIC SECTOR INNOVATION

RESEARCH INNOVATION COUNCIL ANZ BRIEF | VOL.12

EXECUTIVE SUMMARY

The second round of the Research Integration Council initiative in Wellington convened a diverse group of public sector leaders, technologists, and academics to explore the opportunities, challenges, and strategic imperatives around the adoption of responsible artificial intelligence (AI) in government.

Key insights emerged around collaborative frameworks, cost-benefit considerations, the ethical use of AI, and the urgency of embedding AI literacy across public sector agencies. Participants shared experiences, highlighted the importance of cross-agency collaboration, and debated the role of policy and regulation in fostering innovation while mitigating risks.

Central themes included the need for shared platforms to accelerate AI adoption, the role of leadership in navigating resistance and driving adoption, and the criticality of public trust through ethical and transparent AI use. Discussions also emphasised practical pathways for integrating AI into operations, from efficiency improvements to decision support systems. These insights underscore the transformative potential of AI for public sector innovation, provided a balanced approach is adopted to address structural, cultural, and technical barriers.

FUTURE RESEARCH AND DISCUSSION

AI Literacy and Upskilling: Uncover training and education programs required to improve alignment to the latest frameworks for responsible AI adoption and deployment.

Cross-Agency Collaboration and Knowledge Sharing: The need for facilitated forums for agencies to share use cases, best practices, and lessons learned around AI implementation, including a centralised repository of AI-related resources, case studies, and guidance.

Sectoral Approaches to AI: Convene break out working groups focused on specific sectors to explore AI applications and challenges and identify opportunities for shared AI capabilities.

Policy, Governance and Ethical Considerations: Explore ethical frameworks and data privacy implications of AI-powered decision making.

AI-Enabled Service Delivery: Examine how generative AI and other AI tools can enhance citizen-centric service delivery. - Identify use cases and best practices for integrating AI into public service operations.

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KEY THEMES AND INSIGHTS

ETHICS AND GOVERNANCE: SETTING GUARDRAILS

- **Why It Matters:** Responsible AI implementation requires robust governance frameworks to ensure ethical use, especially in areas involving sensitive personal data.
- **Illustrative Example:** Participants cited Oranga Tamariki's emphasis on data sovereignty and cultural biases, reflecting the broader need to align AI practices with Te Ao Māori principles.
- **Actionable Insights:** Develop centralised AI governance frameworks, such as responsible AI libraries or shared policy hubs, to standardise practices across agencies.

COLLABORATION AND RESOURCE SHARING

- **Why It Matters:** Individual agencies face resource constraints and expertise gaps, leading to inefficiencies and siloed progress.
- **Illustrative Example:** Cross-agency sharing of frameworks, such as a proposed sovereign large language model (LLM), could address New Zealand-specific use cases while preserving data sovereignty.
- **Actionable Insights:** Establish sector-specific working groups and centralised procurement models to reduce redundancies and encourage collective learning.

AI LITERACY AND WORKFORCE DEVELOPMENT

- **Why It Matters:** The gap in technical expertise among senior leaders and staff inhibits effective decision-making and adoption of AI tools.
- **Illustrative Example:** Agencies like MSD have implemented phased AI literacy programs, introducing co-pilot tools incrementally to build comfort and understanding.
- **Actionable Insights:** Develop national AI literacy programs for public sector employees, focusing on practical use cases, ethical considerations, and critical evaluation skills.

CHALLENGES AND BARRIERS

DATA QUALITY AND BIAS

- Historical data often contains biases that can perpetuate inequities if used uncritically.
- Examples of a case management system included decades of culturally biased data, highlighting the need for rigorous audits.
- **Pathway:** Implement bias detection tools and adjust models to reflect evolving societal norms and values.

COST AND RESOURCE CONSTRAINTS

- Agencies voiced concerns about high cost of internal AI development and dependence on external GPUs and token-based pricing models, limiting adoption.
- **Pathway:** Promote investment in shared infrastructure, such as on-premises AI capabilities, to reduce recurring costs.

INNOVATIVE IDEAS AND CASE STUDIES

1. SOVEREIGN LARGE LANGUAGE MODELS (LLMS)

- **Concept:** Agencies like ESR and Health NZ discussed creating in-country LLMs tailored to New Zealand's unique datasets, such as population health or environmental impacts.
- **Case Study:** ESR's synthetic population model, used to simulate pandemic spread, offers a template for leveraging AI to inform targeted policy decisions.

2. SHARED AI LIBRARIES AND USE CASES

- **Concept:** Developing a centralised repository of AI use cases, frameworks, and templates for public sector agencies.
- **Case Study:** Australia's policy-driven approach to sharing AI frameworks offers a potential model for New Zealand, emphasising the role of cross-agency alignment.

3. DECISION-SUPPORT TOOLS

- **Concept:** Employ AI as a decision-support mechanism rather than an autonomous decision-maker.
- **Case Study:** The Natural Hazards Commission's use of AI for data aggregation and risk assessment demonstrates the value of augmenting human judgment with AI insights.

STRATEGIC OUTCOMES AND RECOMMENDATIONS

IMMEDIATE ACTIONS

- Convene a national AI literacy task force to create training modules for public sector employees.
- Launch pilot projects in low-risk areas, such as internal process automation or data aggregation, to build confidence and showcase benefits.

MEDIUM-TERM GOALS

- Develop a centralised AI governance framework, including ethical guidelines and procurement policies.
- Expand cross-agency working groups to tackle sector-specific challenges collaboratively.

LONG-TERM VISION

- Position New Zealand as a leader in responsible AI by developing a sovereign LLM tailored to the country's unique needs.
- Foster public-private-academic partnerships to drive innovation and ensure public trust.

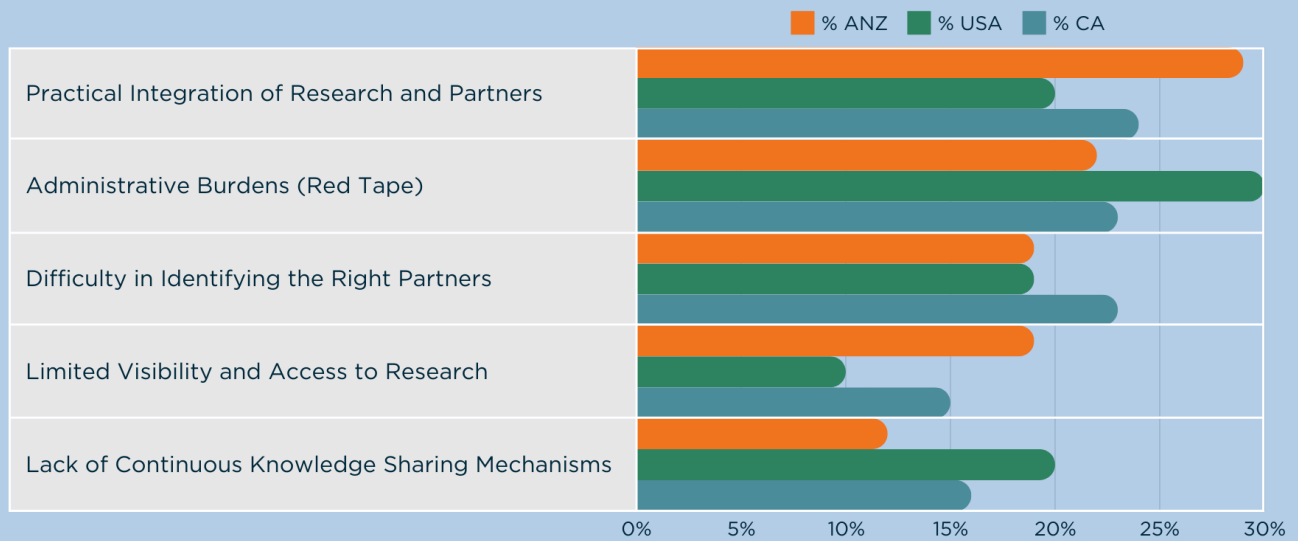
ABOUT THE RESEARCH INNOVATION COUNCIL

Connecting government, industry and academia: we've been able to engineer a new program antithetical to the classical red tape, administration, and risk-aversion that impedes innovation.

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

ABOUT PUBLIC SECTOR NETWORK

Public Sector Network is a research company that represents public sector professionals across Australia, Canada, New Zealand, and the USA. It develops roundtables, seminars, and conferences to suit current areas of interest to government agencies and their suppliers.

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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