



THE REAL WORK OF DIGITAL: EMBEDDING AI, DATA QUALITY AND CAPABILITY WHERE IT COUNTS

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IN BRIEF

The latest convening of public sector leaders, technologists, and academic collaborators provided a rigorous exploration of digital innovation across government. Anchored by the GX5 framework, the roundtable centred on operationalising AI, overcoming data and infrastructure bottlenecks, and the cultural and structural shifts required to enable meaningful transformation. Participants engaged under Chatham House Rule to openly share implementation experiences, with service delivery, education, and environment-related agencies offering particularly illuminating perspectives.

Key insights highlighted the sector's uneven digital maturity, with leaders citing successful deployments of conversational AI, agentic systems, and targeted data automation pilots. Foundational challenges remain: fragmented data governance, misaligned procurement processes, and skill gaps in both executive leadership and technical domains. Yet, a clear throughline emerged—governments must prioritise incremental, outcomes-driven innovation supported by robust data quality efforts, shared infrastructure, and cross-sector collaboration.

Future opportunities include embedding AI into decision support systems, enhancing public trust through explainability, and shifting from project-based to capability-based investment. Roundtable participants emphasised that enduring reform requires not just new tools, but cultural rewiring: digital enablement must be a shared responsibility, not a delegated function.

By **Patrick Joy** | Head of Research & Analysis | [Public Sector Network](#)



KEY THEMES AND INSIGHTS

AI AMBITION MEETS OPERATIONAL REALITY

While AI experimentation is accelerating, most use cases remain confined to pilot phases or internal tooling. The deployment of conversational AI exemplifies how chatbots are evolving into agentic systems capable of supporting frontline staff with real-time decision-making. Yet, participants noted that AI's promise often collides with practical barriers—unclean data, opaque systems, and fragmented infrastructure.

AI's utility is most tangible when solving discrete operational problems. For example, validating residency documentation for disaster relief or sending geolocated notifications based on user profiles are seen as viable, high-value applications. However, scaling these tools requires governance frameworks that delineate between policy-aligned outputs and hallucinated content.

FROM LEGACY CONSTRAINTS TO FOUNDATIONAL ENABLERS

Multiple agencies acknowledged infrastructure as both a foundational enabler and a significant constraint. Departments continue to operate on ageing mainframes or fragmented cloud environments. Participants argued persuasively that digital maturity is inseparable from robust infrastructure and secure, unified data environments.

Education agencies, for instance, are migrating legacy warehouses into centralised cloud environments, recognising this as a precondition for leveraging AI. Others underscored the complexities of shared corporate service models, which often inhibit independent action and create ambiguity over data custodianship.

CLARITY OVER BOLDNESS: THE IMPORTANCE OF DIGITAL VISION

A compelling theme was the need for clear, rather than necessarily bold, digital visions. Agencies lacking articulated strategies or a shared vocabulary struggle to move beyond piecemeal solutions. Participants noted that "just-in-time" procurement and fragmented funding mechanisms stifle innovation, particularly in agencies without mature digital capabilities.

Embedding digital enablement into executive KPIs emerged as a promising strategy. One department now mandates digital objectives in all performance plans—an initiative that participants described as foundational to driving systemic change.

PROCUREMENT AS ENABLER, NOT BARRIER

Procurement remains a friction point. While new frameworks support outcome-oriented contracting, implementation remains bound by legacy mindsets. Vendors and agency leaders alike called for a shift from process compliance to intent-led procurement: "Buy expertise, not artefacts."

One case example featured a department specifying only outcomes—e.g., eliminating single points of failure in networks—while leaving solution design to vendors. This model fosters innovation while maintaining accountability, but as one participant noted,

"Even when it works, if it didn't tick every box, it'll still haunt you at budget estimates."

CHALLENGES AND BARRIERS

FRAGMENTED DATA AND INFRASTRUCTURE ECOSYSTEMS

Participants repeatedly emphasised data quality and infrastructure fragmentation as inhibitors. Many agencies lack a system-wide view of data assets, with datasets often siloed, undocumented, or in bespoke systems.

While some jurisdictions pursue data fabric models to unify access across agencies, others expressed caution. Past big data projects—particularly in the US—have shown that without a clear problem focus, such initiatives flounder.

DIGITAL LITERACY GAP IN EXECUTIVES

A core cultural barrier identified was the limited understanding of digital operations among senior executives. Many decision-makers, particularly from policy backgrounds, lack the foundational digital literacy to interpret or champion technical advice. This results in underinvestment, risk aversion, and misaligned incentives.

Some participants argued for rotating leaders across operational and digital portfolios, while others stressed the need to elevate specialist expertise within agency hierarchies, challenging the dominance of generalist career paths.

RIGID PROCUREMENT OR SHORT-TERMISM

Public sector procurement processes often emphasise compliance over outcomes. Participants described internal cultures focused on “ticking 29 boxes” rather than problem-solving. This rigidity undermines efforts to adopt modern procurement models.

The four-year political cycle further constrains long-term planning. Attendees highlighted the difficulty of building data governance systems that require 5–10 years to mature.

FUTURE FOCUS AREAS

DATA STEWARDSHIP AS A SHARED CAPABILITY

Future roundtables could explore how to embed shared data governance and stewardship practices across clusters. Agencies underscored the complexities of managing custodianship in environments where data must flow across organisational boundaries. Establishing common metadata standards and investing in role-based access systems may enable more scalable cross-agency solutions.

AI LITERACY AND EXECUTIVE ENABLEMENT

Participants identified a pressing need for digital and AI capability building at senior leadership levels. Future capability programs could focus on interpreting AI use cases, evaluating ethical implications, and linking digital strategies to service outcomes. Developing a public sector-specific AI playbook could support this effort.

EXPERIMENTATION AT SCALE

Innovation labs and structured hackathons were cited as powerful enablers of internal transformation. Participants called for the establishment of shared experimentation environments—“safe spaces” with vendor partnerships and low-risk funding models—to enable early-stage prototyping of AI and automation tools across agencies.

“We’re already sharing data—federally, across agencies, and with central departments. What’s missing isn’t willingness, it’s alignment. Metadata, custodianship, and standards are the next frontier.”

INNOVATIVE IDEAS AND CASE STUDIES

1. CONVERSATIONAL AI AGENTS

A key service agency is developing a next-generation conversational AI system, transitioning from a chatbot into a digital agent capable of replicating human-level support across channels. Initially deployed to support frontline staff in accessing cross-agency knowledge, the tool reduces call handling times and internal inefficiencies.

The agency is also exploring AI-assisted identity verification to support disaster recovery grants. By validating both address authenticity and document provenance, the tool aims to mitigate fraud risk and improve grant delivery speed. Early trials include using geolocated data to send speed camera notifications—demonstrating tangible user-centric applications.

2. DEPARTMENT OF EDUCATION'S EDUCHAT AND POLICY BOT

The department's rollout of an AI assistant for teachers—EduChat—marks a significant investment in generative AI. Deployed across select schools with plans for broader adoption, the system enables task automation and access to curricular resources. A complementary policy chatbot has been developed to differentiate between policy guidance and general advice, minimising hallucination risks.

An ethical assessment of third-party tools is underway to ensure compliance, with results feeding into a growing use-case library to support classroom integration. The approach demonstrates how AI can be embedded responsibly in sensitive domains.

3. AI HACKATHONS AS ACCELERATORS

A department-led AI hackathon, in collaboration with AWS, curated real-world business problems and invited cross-functional teams to develop solutions over two days. Outcomes included 18 viable AI initiatives—ranging from ServiceNow incident analysis to frontline enablement tools—which were integrated into the agency's business improvement pipeline. This approach demonstrated how structured innovation events can generate actionable pilots while improving cross-divisional digital literacy.



STRATEGIC OUTCOMES AND RECOMMENDATIONS

IMMEDIATE ACTIONS

- **Launch Internal Ideation Forums:** Agencies should establish recurring cross-functional forums to surface frontline pain points and map them to emerging digital solutions. These should prioritise low-risk experimentation aligned to operational needs.
- **Audit Data Assets:** Begin or accelerate the cataloguing of existing data systems, including documentation, governance status, and custodianship models. Use this to baseline digital maturity.
- **Reframe Procurement Conversations:** Initiate internal workshops to educate teams on intent-led procurement, focusing on outcomes over compliance. Use real examples (e.g. Service NSW's mesh network procurement) to illustrate modern approaches.

MEDIUM-TERM GOALS

- **Establish AI Literacy Programs for Executives:** Develop and mandate AI and digital enablement modules for SES-level public servants. Topics should include AI assurance, ethics, and practical implementation strategies.
- **Institutionalise Innovation Labs:** Formalise innovation programs that enable sandbox experimentation, with dedicated vendor support, data access pathways, and simplified funding mechanisms.
- **Standardise Metadata and Sharing Protocols:** Drive inter-agency alignment on metadata schemas, access protocols, and cloud infrastructure standards to facilitate future cross-agency data use.

LONG-TERM VISION

- **Create a Unified Digital Asset Register:** Develop a whole-of-government catalogue of digital assets—akin to physical infrastructure planning—to prioritise maintenance, modernisation, and risk management.
- **Embed Digital into Policy Windows:** Train policy leaders in identifying digital opportunities within emerging policy agendas. Encourage hybrid policy-digital roles to bridge the cultural and technical divide.
- **Champion Outcome-Focused Funding Models:** Encourage Treasury and central agencies to pilot new funding mechanisms—such as “efficiency-backed reinvestment” or “outcomes-based budgeting”—for digital transformation.

ABOUT THE FUTURE GOVERNMENT INSTITUTE (FGI) RESEARCH COUNCIL

We've been able to engineer a new program antithetical to the classical red tape, administration, and risk-aversion that impedes innovation.

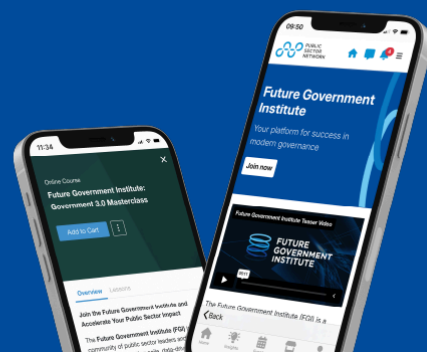
Public Sector Network has recently launched The Future Government Institute (FGI), a global hub for forward-thinking public sector leaders, innovators, and practitioners dedicated to shaping the next era of governance.

Our mission is to empower government professionals with the tools, insights, and networks needed to drive meaningful transformation - <https://publicsectornetwork.com/future-government-institute/>

Leveraging our extensive connections, we are uniting the sharpest minds from government, academia, and industry via monthly research-driven roundtables, hosted at esteemed national centres of research, courtesy of university partners across Australia and New Zealand.



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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.

AUSTRALIA / NEW ZEALAND

P +61 2 9057 9070

E INFO@PUBLICSECTORNETWORK.COM.AU

USA

P +1 (647) 969 4509

E HELLO@PUBLICSECTORNETWORK.COM

CANADA

P +1 (647) 459 8904

E CONTACT@PUBLICSECTORNETWORK.CO

Public Sector Network (Australia) Pty Ltd

ABN - 46 617 870 872 20-40

Meagher Street, Chippendale, Sydney NSW
2008, Australia