Australian Institute for Commercialisation
ideas → opportunities → outcomes

AIC's Response to Public Sector Innovation Committee

1. Some potential barriers to innovation in the public sector are identified in the discussion paper and on the website. Can you identify particular barriers to innovation in the public sector and suggest what can be done to address them?

AIC's work in, and observations of, various elements of the Queensland public sector over the last five years appear broadly consistent with the Discussion Paper's findings. Where public service innovation does not occur, AIC believes organisational disincentives to innovate prevail, specifically:

1. Where there is insufficient (or completely absent) reward/recognition to take risk – no or low reward or return on effort, means taking no or low risk;
2. The hierarchical nature of government administration and general bureaucracy;
3. The frequent rotation of personnel results in short-lived attempts to engender creativity and innovation;
4. Where entrenched and vested organisational interests strive to maintain the *status quo*;
5. Short-termism, linked to achieving or meeting political priorities and administrative goals, rapidly and cost-effectively;
6. Poor communication between people, organisational sub-units, management and executive;
7. Where demonstrating the efficient use of scarce resources is a high priority, given the intensity of competition for public funding allocations; and
8. In procurement, where the drive for least risk, low cost, and rapidity ensure that the development of bespoke innovative solutions is all but impossible.

In our view many of these disincentives are manifestations of the lack of a whole-of-government strategy that aspires to achieve innovation in the public service – there is no overarching vision and objective driving what will be achieved from 'innovation'. An element of this strategy must include an endorsed rewards and recognition policy that appropriately celebrates and rewards the achievement of outcomes, at the individual, group and organisational level.

For example, in 2007 the Queensland Government created a policy of this kind to regulate the rewarding of benefits and proceeds with staff that created innovations in the conduct of their employment with the State that had successful commercial application. See: http://www.psier.qld.gov.au/direct/docs/2007/no02-07.pdf. While in our view it has certain weaknesses in implementation and management, the presence of the policy represents an exciting opportunity that will directly benefit Queensland public officers, and by extension Queensland's citizenry. Furthermore, most Australian Universities have similar policies in place that regulate the sharing of proceeds, though they tend to be more generous to the beneficiaries. Nevertheless, both of these represent successful mechanisms for employees and work units of public institutions to be rewarded and recognised for their efforts to successfully deploy new ideas and innovate.

2. How can the APS build a culture that takes a responsible but bold approach to risk, and a culture that accepts that there will be failures?

Based on its work in the broader national innovation eco-system, AIC believes some examples and successes that can be applied to the APS environment would include:

1. Incentivise leadership by imposing responsible but bold performance measurement on executive management to achieve innovation outcomes/indicators, with appropriate resources to enable implementation and deployment;
2. Cascade the incentive/s to achieve performance outcome/s to line personnel, allocating resources to realise the outcome/s;
3. Implement appropriate metrics to calibrate performance and determine the appropriate level of incentives

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4. Mobilise resources and tools toward measures that simulate and encourage organisational ideation and creative-thinking processes, such as idea capturing repositories and ideas management platforms, general creativity skills development; and management endorsed evaluation and implementation processes/guidelines to enable ideas to come to fruition;
5. Incubate and support creative thinkers widely throughout the organisation employing structured professional development, including education, training and awareness of the value of creativity and its link to innovation;
6. Encourage bottom-up, early-adopter behaviour through selecting and incentivising groups or functional areas willing to trial innovations, experiment and test their logic and reflect and feedback performance, with an overriding acceptance and tolerance of potential failure;
7. Rather than surrender to it, demonstrate a preparedness to share risk (and therefore reward) with external third-parties, where the pure risk of failure is perceived too great to independently tolerate, but the benefits of potential success are so compelling to justify collaboration; and
8. Revamp the procurement process to ensure innovation is factored into procurement decisions, and to encourage collaborations to form in sufficient time to respond to tenders

3. There is a range of possible mechanisms that could be used to assist innovation in the public sector, some of which are identified in this discussion paper (at Appendix 2). Do you have any comment on the suitability or priority of these or other mechanisms?

One element missing from the Discussion Paper's range of possible mechanisms to assist public sector innovation are models that encourage collaboration and connectivity with external parties, whether R&D parties or private sector firms. In response to this demand in Queensland, the AIC has developed and deployed government-endorsed management frameworks and business processes to enable government to *achieve* innovation via sharing and collaboration. Through independently managed frameworks and facilitated external collaboration, the AIC intermediates at arms-length the third-party engagement of potential partners, on behalf of agencies, in a manner conforming to government standards of transparency, due process and probity.

As it relates to the issue of appropriately sharing risk and reward in government settings, the AIC has been actively advancing two change agendas in the Queensland Government, firstly targeting pilots and experimentation as part of latter-stage technology and service development initiatives in pre-procurement scenarios, and, secondly, through the sharing of government knowledge and intellectual assets via commercial pathways and via inter-jurisdictional information sharing frameworks.

Late stage development in pre-procurement scenarios

One of the features of the traditional procurement process across government is that it provides very little flexibility to address innovation, particularly in relation to projects with higher than normal technical risk. While agencies will often enter into research and development projects with public sector research organisations, typically to foster research outcomes for industry, such activity is often totally distinct from leveraging collaborative research activity to address short term operational needs of the agency itself, often necessary where technical risk is present. As a result, projects involving future investment often stall because they can neither overcome these technical hurdles nor clarify the project specification or requirement for procurement in the market. At the same time, if such projects are considered in the context of the traditional procurement process, agencies tend not to adequately engage with industry to seek novel solutions (often to technical problems already solved) because of the sensitivities around probity standards and equitable treatment of private sector firms.

To address this challenge, some agencies (such as Queensland Health) are now embracing an approach that fosters the adoption of the AIC's Collaborative Research & Development Framework – adopting principles of shared risk, joint knowledge and IP contributions, co-ownership of outcomes and co-investment, to pursue a prescribed research and development collaboration to create innovative, proof-of-concept pilot projects. Importantly, such an approach is one that implements principles of flexibility and rapidity to find solutions (or validate failures) with business owners which can directly inform (but is external and separate to) the agency procurement process. This approach essentially delivers one of two outcomes for the agency:

i. The pilot project outcome essentially fails, but nevertheless has been critical in identifying and addressing all or some of the technical problems that are barriers to progression– and as a

result, accelerating the project by informing the downstream procurement process and enabling the clarification of project specifications and requirements with the validated and proven knowledge of what works (or doesn't); or

ii. The pilot project outcomes are a success in delivering real, quantifiable and measurable business benefits for the agency. In this scenario, if the new knowledge in the outcomes created through the research activity is at least partly owned by government, then a justification exists to move straight into deployment. However, it should also be noted that there should not be any obligation to do so and that if it is deemed appropriate to still go to tender, the agency is free to do so.

The AIC's Collaborative R&D Framework provides the legal framework and business processes to satisfy priority requirements and reduce the associated risks, by fostering proof-of-concept activity external to the procurement process. This process requires more risk to be taken by industry and as a consequence requires less time in the eventual purchasing process by government. It is worth noting that the collaborative R&D process is completed within a 12 month period, and has the flexibility to address both short to medium term procurement needs of government. A longer R&D process is applied to broader strategic blue-sky procurement outcomes that are usually associated with longer-term needs such as climate change technology. In this case the AIC R&D Technology Clinic process can be used and engages government, industry and the research/university sectors to meet more challenging procurement needs.

Sharing of government knowledge and intellectual assets via commercial pathways and inter-jurisdictional information sharing frameworks

The AIC is tasked with delivering the Queensland Government ICT Commercialisation Strategy. Since 2006, over 60 ICT projects from within government have been commercialised to industry, for industry to further develop and market, resulting in substantial savings to government and unlocking hidden value from its assets to a value of over $6M. Participating departments have included Health, Emergency Services, Police, Communities, Shared Services, and others. This approach has improved innovation within government because industry is able to more effectively maintain and improve support systems than government, thus enabling government to better deliver its core services more efficiently.

Furthermore, enabling the sharing of knowledge and intellectual assets between jurisdictions, and within other government agencies, on the basis that sharing can reduce duplication, reduce cost to government, and lead to innovation that follows closer collaboration. Furthermore, the sharing of ideas to create new intellectual assets can result in improved value in the delivery of government services. There is no doubt that potential benefits from information sharing have already been identified across government. The idea is not new. Sharing knowledge and intellectual assets can reduce duplication and costs, reduce risk, enhance functionality, and improve service delivery by agencies. It is evident; however, that in practice it rarely happens.

For example, each state continues to develop its own systems for driver's licences or e-Government systems and platforms, and every public hospital across Australia will have more than one unique IT system that it has developed in isolation. Sharing information is considered either too difficult or not a priority.

A National Information Sharing Strategy (NISS) has been endorsed by the federal and state governments through the Online Communication Council and is driven by the Australian Government Information Management Office (AGIMO). The NISS has as its aim the effective sharing of information across agencies and jurisdictions. The primary focus of the NISS activity is centred on spatial data and interoperability between disparate systems. While geographical data exchange is critical to many industries and as a consequence, to government service outcomes, the identification, discovery and sharing of additional intellectual assets related to service delivery programs takes the innovation in government opportunity further.

Information is data put into context, and knowledge is information applied. Innovation results from the application of knowledge, not simply data. Understanding what applied knowledge resides within government is the first step to enabling a more rapid exchange of critical content, instead of a focus on technical interoperability that may prevent effective information sharing on the basis that two systems are not or may not be the same. The AIC has identified a number of barriers that need to be

addressed before effective information sharing, and therefore reduced inter-jurisdictional duplication, can occur. These barriers are:

1. **Problems of discovery**. Unlike traditional knowledge management and IP auditing processes, a discovery process is required to uncover value that can not be readily and easily identified. Importantly, this process needs to be undertaken by a trusted, neutral third party organisation in order to be effective.
2. **Knowledge and IP Repository.** Once knowledge and IP has been identified and captured it needs to be recorded in a centrally accessible repository for ease of searching across all government participants.
3. **Ownership reviews.** Once knowledge and IP is identified a review needs to be performed to ensure that the IP being made available for sharing is in fact owned by Government.
4. **Requirement for a common, easy to use and readily accepted sharing regime across all jurisdictions in government.** The situation at present is that to share knowledge and IP, jurisdictions either need to enter into a project-specific licensing agreement representing significant investment in time and cost for the agencies involved, or worse, the provision of IP with no license (imposing substantially new levels of risk and liability).
5. **Awareness and education**. One of the critical success factors for effective knowledge and IP sharing is educating government personnel on how theses should be managed as an asset class. More importantly however, education is also needed in order to shift perceptions from one where knowledge and IP management is an operational burden to one that can deliver real, tangible operational benefits to government.

Because it has successfully worked with nearly ten government agencies to commercialise and share their knowledge and intellectual assets, the AIC has developed proven frameworks and tools to overcome these barriers. These solutions can also improve the sharing of intellectual assets between governments and improve their innovation performance and efficiency gains. However, to be truly successful, such solutions require whole-of-government leadership, internal champions who remain in place for substantive periods of time, and proper resourcing and funding to be truly effective.

4. Innovations in the public sector can bring significant consequences, both positive and negative. The public sector must to be able to know, as early as possible, whether the innovation will impact positively on productivity, the client experience, and intended outcomes. How can we measure, and how soon after implementation, the indications of success or failure?

The AIC has enabled government to optimise return on their investments by unlocking hidden value in knowledge, processes, technologies and assets created during core agency business. While these assets have both real and perceived value that have been shared for external gain, the overriding drivers for government in AIC's experience have been the realisation of one or more of the following benefits to its business settings:

1. Reduced service delivery or support costs,
2. Created business process efficiencies and productivity improvements,
3. Better purchasing decisions from pre-procurement collaboration with external organisations,
4. Received revenue returns, and
5. Enhanced service delivery for public value and improved community outcomes.

These can all be measured and as a consequence, the level of success determined (bearing in mind that innovation is inherently risky, and that failure for the right reasons is an opportunity for future learning).

5. Can you identify exceptional or innovative approaches in the areas of policy development, program development or service delivery where you work or interact with the public sector? Should they be applied more broadly? Please explain your view.

The AIC's approaches have been described above, and to our knowledge, are the first attempts in Australia to foster innovation and commercialisation on a holistic basis.

An example of an innovation system is that previously used and developed by Queensland Health, the Innov8 Ideas Management System. This system improved the capture; identification and evaluation of proposed opportunities to innovate health service delivery and improve patient outcomes. Innov8 successfully engaged staff and fostered a culture that encouraged the sharing of good ideas, rewarded and recognised staff, and supported learning and improvement.

The platform provided tools and methodologies for staff to capture additional value from business level and clinical investments that, if effectively managed, would enable Queensland Health the enhanced opportunity to amplify its return on investment in targeted areas. The system also increased effective resource management accountability, and reduced risk and exposure to enable a more effective management of its innovation processes, IP and intellectual assets and collaborative activities with external parties, while simultaneously engaging workforce participation throughout the process.

6. We are particularly interested in how the public sector can work better with, and respond to the needs of, citizens and how it can work across the different tiers of government and across the boundaries between different departments. Can you provide suggestions for how this could be achieved?

Reducing the incidence of process and service duplication, reducing red-tape and improving streamlined interactions with government service providers is at the core of the Inter-jurisdictional Information Sharing Framework described above.

7. There are many ways innovation can be fostered or embedded in the public sector. Resources, however, are always limited. Attention must be given to those that will achieve the most and with as little cost as possible. What are your top three priorities for making the Australian Public Service more innovative?

The AIC believes, based on its experience working with government and observing the value its government clients derive from the mechanisms described here that implementing the following three priority principles will make a substantial impact on stimulating greater public service innovation, in a rapid manner and at very reasonable cost:

1. Implement a process and methodology to learn from previous success and don't make the same mistake twice: Resource efforts to enable reflection and critical analysis on current or recent innovation success stories based on the demonstrated accomplishment of what has been proven to already work. Where possible and appropriate replicate the learning's, the successes, remove any identified weaknesses and resolve any identified problems;

2. Revamp procurement: share before you build, create or buy: Encourage the managed and regulated sharing of knowledge and intellectual assets that may already exist. If the desire to innovate is a response to wanting to resolve a problem, there is a reasonably good chance that another tier of government has either investigated a solution; has completely solved the problem; or has made an unsuccessful attempt to do so, the knowledge gained from either scenarios would benefit similar approaches; and

3. Collaborate to share risk and reward: Before considering an immediate demand or need to procure or otherwise unilaterally transact a solution, if the risks are high or ambiguous, consider experimenting and testing principles jointly with research, development or industry partners first, so your next move is a much better informed one. (For an example, the AIC runs successful "Collaboration Bootcamps" for research organisations, to achieve the same outcomes in their partnerships with industry.)