

UNCLASSIFIED

Digital Transformation Agency Submission in Response to the APS Review

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Digital Transformation Agency



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Digital Transformation Agency Response

Organisations worldwide are rethinking how they operate, respond to, and take advantage of, the opportunities presented by digital transformation. Banks are using virtual reality to overcome the barriers of distance. Airlines have moved from providing flights alone, to helping customers have a seamless, end-to-end travel experience. Even households are smarter thanks to digital advancements that let them save energy, improve convenience, and be more secure. Across all domains, digital and data are helping to improve the convenience and quality of our interactions with the world.

Governments are rethinking how they work to improve outcomes for people and businesses, and seizing opportunities presented by digital transformation. There are successes in the APS' digital transformation journey, however there are structural improvements needed for the APS to forecast, and respond to, the rapid changes in society and the economy. The APS needs to evolve to accommodate the different collaboration techniques, engagement practices and overall approach to business in the digital world. Creating an APS that is fit for the digital age will require a fresh look at current settings. It will also require new skills, processes and culture that accounts for a digital-age public service.

This submission demonstrates the sound footing for digital transformation in the APS, the close alignment between the APS Review and the Digital Transformation Agency's (DTA)'s objectives, and the DTA's key recommendations to allow the Australian Government to cement itself as a global digital leader.

1 Solid foundations – recent successes and the role of the Digital Transformation Agency

The Australian Government, among its international peers, is delivering on the promise of digital transformation to make more informed policy decisions, to engage users in program design, and to deliver more streamlined, tailored services.

There are many examples of digital transformation successes in the APS: The Business Registration Service streamlines and reduces the time it takes to register a new business. Very soon, the myGovID pilot will reduce the time taken to get a tax file number from one month down to just a few minutes.

These are just a handful of the dozens of projects being delivered each year to improve outcomes for Australians.

Australia is among world-leaders in the digital transformation of government. We consistently rank near the top in international reviews, from major public institutions, such as the United Nations' (UN) E-Government Survey (United Nations, 2018), to multi-national consulting firms, as in Boston Consulting Group's Digital Government Services report (Boston Consulting Group, 2017). As a result, our advice is regularly sought by our international peers.

The DTA is driving change that is resulting in services that are simpler, clearer and faster. We place Australians at the centre of all that we do, delivering services – and helping government agencies to deliver services – that are designed around the needs of those who use them. The DTA is delivering major improvements through digital transformation in the APS, including:

- Leading changes to platforms such as myGov and the recently-announced myGovID – that will make it easier for citizens and businesses to engage with government.
- Delivering quality advice to government on the digital investment portfolio, based on data and oversight that has not existed previously.
- Capability programs that lift digital capacity and capability at all levels of the APS.
- ICT procurement reforms that open billions of dollars' worth of government business to small and medium enterprises (SMEs), and deliver better value from arrangements with larger suppliers.

For a full explanation of the DTA's role in government, please refer to the DTA's most recent corporate plan (Digital Transformation Agency, 2017).

The DTA is well-placed to help the APS address the challenges and opportunities ahead. This submission identifies some of the immediate challenges for the APS to respond to today's digital transformations, the implications of digital transformation into the future, and the DTA's recommendations to affect change in these areas.

2 The APS Review and the Digital Transformation Agency - working towards common goals

Ingrained into the DTA's ethos is an unwavering commitment to people using government services. Our products and whole-of-government approaches help prime the APS to make the most of digital and data. The DTA's ongoing work will improve outcomes for people and businesses, with line-of-sight to the objectives of the APS Review:

The challenge:	APS Review objective:	The DTA:	Future work will:
Digital transformation is creating new markets and new ways to deliver services; often displacing those we know.	Driving innovation and productivity in the economy.	 Is driving innovation in the economy through procurement reforms, opening government ICT expenditure to smaller businesses while deriving better value from the APS' relationships with big vendors. Hosts the Digital Marketplace that, since its launch in August 2016, has contracted \$206m, around 70% of this to SMEs. 	 Encourage the APS to look at new ways of designing services in partnership with industry and the not-for-profit sector, underpinned by digital and data. Take procurement reforms further, lifting participation with industry – particularly SMEs – other governments and academia.
Digital and data transformation create opportunities for the public service to develop more robust evidence and make better informed decisions.	Delivering high quality policy advice, regulatory oversight, programs and services.	 Through data.gov.au, is opening access to data held by governments at all levels, providing more robust evidence for government decision makers and the community. Through its capability programs is helping leaders in the APS to better understand how digital transformation can help to meet government's policy objectives. 	 Drive the underlying systems and capability that will empower the APS to make better-informed, data-driven decisions. Take a fresh look at how the APS makes decisions around digital and ICT, including how to fund projects.

The challenge:	APS Review objective:	The DTA:	Future work will:
Digital transformation creates opportunities, and expectations, for better services through democratic engagement.	Tackling complex, multi-sectoral challenges in collaboration with the community, business and citizens.	 Runs the Digital Service Standard, mandated for use across ICT projects, that requires agencies to collaborate with people and businesses to design services. Conducts user research to find key pain points when people interact with government (such as through our GovX initiative). 	 Open up engagement with people, businesses, academia, industry and other governments – locally and internationally. Help break down barriers between agencies through life event journeys, showing how services need to connect to improve outcomes.
Cyber security enables trust and is central to any digital and data transformation. High levels of trust create more opportunities for citizen engagement, international collaboration and trade.	Ensuring our domestic, foreign, trade and security interests are coordinated and well managed.	In partnership with the Australian Cyber Security Centre, and the Australian Signals Directors, encourages good cyber security practice from the outset through guidance on digital projects across the APS.	Build trust into government systems, through engagement, transparency and strong cyber security.

The challenge:	APS Review objective:	The DTA:	Future work will:
Private companies compete for market share by offering services that are more convenient, more accessible and better value through digital transformation. This drives people's expectations for their dealings with government; and governments face ongoing pressure to reduce the burden on people.	Improving citizens' experience of government and delivering fair outcomes for them.	 Pioneered the Digital Service Standard, now mandated across government ICT projects that encourage co-design with citizens and businesses to ensure services are designed around peoples' needs. Leads implementation of whole-of-government platforms, such as myGovID digital identity, to streamline peoples' experiences with government. 	Break down barriers between agencies through life event journeys that clearly show how services will connect to improve outcomes.
The pace of change in technology creates new policy opportunities and challenges. Staff need to know how to take advantage of these, including how to marshal or develop new and rapidly-changing technical skills.	Acquiring and maintaining the necessary skills and expertise to fulfil its responsibilities.	 Runs the Building Digital Capability program (in partnership with the APS Commission) to lift the number of people with digital skills in the APS – at all levels. Hosts communities of practice, and runs training, for APS staff to share knowledge and build on their existing digital skills. 	 Equip the APS to attract and develop enough digital talent to embrace new policy opportunities. Challenge current ways of thinking that can relegate technology to a back-office function, rather than having a transformative impact.

3 We're making progress, but there are big challenges ahead

The APS Review's terms of reference reiterate the major influence of digital transformation in society and the economy. Positioning the public service to respond will take determination and renewed focus on transformation across the spectrum of public service activity – including policy advice, regulatory oversight, and program and service delivery.

Changing some current settings will allow for a more contemporary, digital public sector into the future.

3.1 Changes to current settings

Set a clear and ambitious direction for digital transformation in the APS

The Digital Transformation Agenda, delivered by the DTA, has resulted in significant improvements in the APS' digital capabilities, when compared to its starting point three years ago:

- Foundational platforms are being developed.
- A more complete view across the ICT portfolio exists where it did not previously.
- ICT procurement reforms are improving value-for-money and making it easier for SMEs to compete for government business.

It is timely to review the Agenda and set an updated direction for the future. The DTA is developing a digital transformation strategy that is closely aligned to the goals of the APS Review.

McKinsey & Company's research points to strategy as the first foundational pillar of successful digital transformation in government (Corydon, Ganesan, & Lundqvist, 2016). This is clear in the results of the international benchmarks, with all of the top 10 countries in the UN E-Government Index having robust and ambitious digital strategies (United Nations, 2018).

Budget processes to respond to the changing landscape

Deciding where to invest is a challenging task with many perspectives to consider. Current budgeting processes respond to many of these perspectives, though digital initiatives add new considerations and complexity. Budgeting processes should recognise the fast pace of change in technology, where the best solution to a problem today may be obsolete in just a few years' time. Similarly, budgeting processes should support new models of working in the digital age, such as incremental, agile

approaches to delivery or cloud-based solutions that are purchased more like a utility than owned as an asset.

Future budgeting processes could help government make more frequent, smaller-scale decisions, helping to adapt to new technologies sooner. This would allow the APS to respond to emerging risks and changes in the policy context. It would also help ensure that budget decisions – at the time they are made – are still relevant in the current context.

Incentives for whole-of-government change

Digital transformation (and indeed, service design more broadly) cuts across government portfolios. The hierarchical and policy-portfolio structures of government, while necessary for efficiency and policy leadership, do not always correlate to the way people engage with government. These structures also create complex management and approval processes, amidst competing priorities, that often succumb to the status quo.

The APS Review should examine where structural incentives could be tweaked to improve collaboration – including accountability, incentives to share investments or partner with agencies, or work together to address funding or technological barriers. Critics note the "competitiveness amongst some agencies" that "hamper[s] the speed of digital adoption, typically at the expense of customers" (Australian Information Industry Association, 2017). Project assurance is one such example. There are some views that the DTA should be involved in governing individual projects, however this is resulting in blurred accountability in an area where the DTA has little direct control over a project's success. Governance over whole of government change is one aspect that could be reviewed.

By extension, the Review could consider how the APS might better partner with state and territory governments, civil society and the private sector to deliver more effective outcomes (refer, for instance, to Mr Brightwell's example for more effective and efficient elections in his submission (Brightwell, 2017)). Digital transformation is a global challenge, with other countries setting the pace and standards. The APS needs to engage internationally with the same enthusiasm and priority as its local engagement to ensure Australia's interests are represented, and that collaboration with international peers is promoted.

A fresh look at risk

Digital transformation requires a renewed appetite for risk. There is an opportunity to revise the current tolerance for risk, through public discourse, to enable more ambitious innovation. Research published by the Australian Institute of Company Directors notes that the public service "adopts the risk appetite of its stakeholders – the public" and that, "broadly speaking, their risk appetite is close to zero" (Kay & Goldspink, 2016). Innovation, by definition, increases the risk of failure. Mr Ian Brightwell's submission (Brightwell, 2017) presented to the recent Senate inquiry into

the Digital Delivery of Government Services suggests that the APS does not manage expectations by addressing this "inevitability". The submission goes on to suggest consensus is required to determine what constitutes "acceptable failure". Digital transformation requires a discussion on what constitutes acceptable risk (with a view to moving away from zero-tolerance), and the change through innovation that is both expected and acceptable within these bounds of acceptable risk.

Setting a frame in which to innovate, where a certain amount of risk is tolerated by the APS' key stakeholders, will encourage agencies to explore newer and better ways of delivering services. The process of learning from innovation is of equal value to the deliverable itself. When captured succinctly and shared openly, these learnings become a catalyst for further innovation.

3.2 New settings to account for a digital age public sector

Research of the future paints a picture of a world that is more connected, more productive and more efficient – driven extensively by digital transformation (Innovation and Science Australia, 2017; CSIRO, 2016). The research notes the economic prosperity driven by the mining boom now receding and making way for a knowledge-based economy (citing Australia's strength in artificial intelligence and medical technology as examples). It also emphasises the need for Australia to escalate its innovation efforts – lest we fall behind our international peers who are investing more in research and development – and seizing the opportunities of digital transformation faster.

This creates a dual challenge for a digital-age public service. It needs to become a data- and digital-native organisation to improve its own efficiency and effectiveness – this includes leadership, willingness to innovate and embracing risk. At the same time, public servants need a thorough grasp of how digital transformation changes the fabric of society, so they may design policies, programs and regulation that are relevant in a digital world.

Data- and digital-native organisations

Disruption through digital and data creates new opportunities – and expectations – for organisations to recalibrate themselves. Forecasts suggest that, by 2030, Australia will face a shortage of full time workers; a deficit in productivity that needs to be filled by automation through digital technologies (Innovation and Science Australia, 2017). Becoming digital-native will not only help the APS to deliver better outcomes, but also make sure it can fulfil its core obligations to the public it serves.

The APS is making inroads through technologies that improve the customer experience and reduce the cost of service delivery. For instance:

The Australian Taxation Office and IP Australia created "Alex", a virtual
assistant which, through artificial intelligence, can respond to first-line queries
that would otherwise need to go through a call centre.

- Enhancements under the Welfare Payment Infrastructure Transformation Program are leading to substantially reduced times to process claims for income support.
- The Data Integration Partnership for Australia is giving new policy insights by connecting Commonwealth-held datasets, leading to improved policy advice and better-targeted service delivery.

These achievements are a significant first step, and they show a willingness to harness new ways of working. Broadly consistent with thinking by McKinsey & Company (Corydon, Ganesan, & Lundqvist, 2016), two further significant steps are needed for the APS to remain a contemporary digital organisation over the next decade.

The first step is to develop a culture of "digital by default" in all pockets of the APS, so that digital delivery and thinking becomes the norm. Denmark's "digital first" approach legally mandates electronic interactions (United Nations, 2018), with offline alternatives for those who cannot access digital versions. Denmark's pursuit of this goal coincides with the country's rise to first place in the UN's E-Government Index 2018.

The second step is to better harness technology to improve effectiveness and efficiency. Increasingly, the technology services used by the public service can be standardised, or even commoditised, so that APS employees can focus on the core business that makes their agencies unique. We see this already in the increasing array of cloud services that can provide cost savings and performance improvements over on premise installations; a concept that will grow in scope and impact over the coming decade (Innovation and Science Australia, 2017).

In this time, the APS will need to be prepared to automate parts, or all, of many roles that are integral to how the APS operates today. Consider, for instance, how artificial intelligence could process a set of rules or legislation to lay the foundations for legal advice. How machine learning, combined with a broad array of sensors and data inputs, can evaluate the effects of policies and programs in real-time and forecast changes well in advance of field work or clinical trials. How an open and well-connected data infrastructure with plain English querying could compensate for the current shortage of data analysts and lead to better-informed policy. As well as these, there will be many technologies that emerge in the years ahead. The overriding principle is that the APS needs to be able to respond quickly to these opportunities.

Public engagement and user-driven approaches

Digital transformation starts and ends with people. The CSIRO (2016) observes the megatrends that will shape the world over the next 15 years, many of which point to changes in what people expect from their government services.

Rising wealth leads to rising expectations for services and experiences (as opposed to products). Increasing globalisation means people and businesses expect to deal with international counterparts with the same agility and fluidity as they would with locals. So too do the boundaries between private and public services begin to blur. For example, in the transition from school to work, a person typically deals with a state-based education department, a federal government employment service, the tax office, and outside the APS, a bank or superannuation provider. With better user-centred design, the APS could feasibly and within the next few years create a seamless experience that helps reduce downtime between school and work.

Understanding peoples' needs and involving them early in the design process leads to government services that are more likely to be successful. A new public engagement model, where ideas around service design can be openly discussed before being decided, can help increase innovation in the APS. Democratic engagement and consultation of this nature also increases the likelihood of success in implementation and the ongoing use of the service. This understanding will help to define the standards for success, allowing for more tangible and robust assessments of the value delivered by digital solutions. As people become more digitally-connected over the coming decade, the APS will have new opportunities – and expectations upon it – to connect with those who use its services, and harness this relationship to continually and regularly improve the quality of its services.

Building and Maintaining Trust

Digital transformation creates global challenges that can build, and break, public trust. The Edelman Trust Barometer (Edelman, 2018) shows the technology sector is the most trusted of all business sectors, however recent breaches of individuals' privacy could quickly undercut this trust.

Building and maintaining public trust requires government to show continued vigilance and commitment to engagement, transparency, privacy and cyber security.

As the world becomes more connected, and the breadth and depth of information grows exponentially, cyber security threats become more complex and sophisticated. Through sound analysis and understanding of these risks, and using forecasting to minimise the effects of such risks, the APS can maintain the trust it is granted to protect the information it holds on behalf of people using its services. Good cyber security design and effective responses to emerging risks help to engender trust in government's ability to provide services. The CSIRO (2014) presents plausible scenarios over the next 10 years that show the potential damage of unforeseen cyber security breaches. It also suggests collaborative investment and action to strengthen cyber security in Australia, with engagement across governments and the private sector.

Australia's own data reforms will serve to increase peoples' trust through greater control and transparency, with protection of privacy and security at the core.

Agile and iterative service design

New technologies are being adopted so quickly that the APS cannot afford lengthy, bureaucratic processes that delay time-to-market for new solutions. Consider that it took radio 38 years to attract an audience of 50 million people, television took 13 years and the Internet only three years (Innovation and Science Australia, 2017). By the time the next project is scoped, costed, budgeted, planned, developed, tested and then rolled out, it is foreseeable that a new technology could have come along to replace it.

By contrast, agile and iterative approaches to designing and implementing services help organisations respond to changes in context, learn from failures and limit risk by scaling down the size of the investment. Agile approaches are supported by an increasing body of literature (for instance, Serrador & Pinto, 2015) and international best practice (for instance, OECD, 2014). The Global Centre for Digital Business Transformation highlights many organisations that have responded to demand and mitigated risk by allowing 'fast execution' - the shortest time possible between concept and minimum viable product (Bradley, Loucks, Macaulay, Noronha, & Wade, 2015). By taking a large problem and breaking it down into smaller pieces, government can begin delivering solutions faster. Starting with a small and guick solution reduces cost and risk to the immediate challenge ahead. Delivering a working solution faster – even if it is for the smallest, most essential need (or 'minimum viable product') – allows society to start harnessing the benefits of the solution sooner, and allows government to respond quickly to feedback and risk. These approaches apply equally to digital services, as they do more broadly to policy and program design. In fact, such approaches have been applied in these latter domains for some time, for example, by rolling out programs to selected communities first. Embracing these methods more fully, including by structuring governance processes to support them, will help government deliver value faster and reduce risk.

Building capability

Given the pace of change in technology, digital capabilities will never remain static. Understanding the transformative impact of digital and data, and being able to turn this into better policies, programs and services, is a necessary skillset ubiquitous across all levels and roles of the public service – it is not simply limited to the technology arms of public service agencies.

Building strong digital skills across the public service is a worldwide challenge, – for instance, as described in the United Kingdom's Government Transformation Strategy (Government Digital Service, 2017). The first step is to build an understanding of digital technologies and how to deliver outcomes through digital projects, as per the Building Digital Capability initiative under development at the DTA and the Australian Public Service Commission (APSC). However, future capability across the APS needs to empower public servants to better understand the impact of digital transformation on society, so they may create policies, programs and regulation that are relevant for

the time. For instance, the CSIRO's 'Porous boundaries' megatrend (2016) indicates a rise in the peer-to-peer economy. We see this already in the growth of ride-sharing services, or peer-to-peer lending, or 'gigs' for small tasks. These digitally-enabled peer-to-peer interactions make it much harder for government to regulate services, such as ensuring protection of workers who are not contractually employed. These services can also gain and lose market share very quickly; potentially at a faster pace than the current processes for implementing regulation can keep up with. Being able to forecast these types of trends, and develop solutions that are flexible into the future is the major digital capability challenge over the next decade.

The private sector will always be in a position to offer to offer a fresh perspective when it comes to digital transformation. The APS works closely with private sector providers to elevate digital skills, and assist in policy and program design through digital transformation. As technology evolves, it will become clearer which specialist skills will be required (for instance, capabilities in using augmented reality to assist in better service delivery), and there will be a need to build – or transition – skills in APS staff around these specialist areas. There will be new roles that may best be delivered in partnership with the private sector or with academia. The impact of digital transformation is set to grow, and amidst ongoing competition for skilled workers (Innovation and Science Australia, 2017), it may also be necessary to increase the proportion of the permanent workforce in the APS that work in digital- or data-heavy roles. In short, digital transformation in the APS will be best served by harnessing a diversity of skills across public and private sectors, academia, different tiers of government and the people who use government services. The key is to ensure the public service builds the capabilities that allow it to deliver on its core business and partner externally where it does not make sense to maintain those skills in-house. The ability to partner externally in an effective way is itself a unique skillset to be recognised and developed in order for the APS to make best use of the breadth of skills in the market.

4 It's a bright future ahead

The DTA is well-placed to deliver on the objectives of the APS Review. Our goals are clearly aligned.

As the agency leading digital transformation across government, the DTA has created a solid foundation to help the APS respond to change, including recommendations to come from the APS Review. Our work is helping to address the challenges ahead. Our digital identity platform is creating a backbone to join up digital initiatives across government. Our capability programs are building digital skills in the APS. Our procurement reforms are delivering better value for money and creating the space for the APS to partner with industry and innovate. Future work on platforms, such as Tell Us Once, will build on the core infrastructure needed for holistic improvements to the experience of people using government services.

The DTA looks forward to working closely with the APS Review team, and continuing its leadership across government to make services simpler, clearer and faster.

References

- Accenture. (2018). *Banking Technology Vision 2018*. Retrieved July 1, 2018, from https://www.accenture.com/us-en/insights/banking/technology-vision-banking-2018
- Accenture. (2018). *Digital readiness for cusotmer experience in the airline industry*. Retrieved July 1, 2018, from https://www.accenture.com/us-en/insight-airline-survey
- Agency for Digitisation Denmark. (2016). A Stronger and More Secure Digital Denmark. Copenhagen: Agency for Digitisation.
- Australian Information Industry Association. (2017). AIIA Response to Finance and Administration Reference Committee Inquiry. Canberra: AIIA.
- Australian Information Industry Association. (2017). Digital Delivery of Government Services AllA Response to Finance and Administration Reference Committee Inquiry. Canberra: Australian Parliament House.
- Boston Consulting Group. (2017). *Digital Government Services by the Numbers*. Retrieved July 1, 2018, from https://www.bcg.com/publications/2017/government-digital-services-by-numbers.aspx
- Bradley, J., Loucks, J., Macaulay, J., Noronha, A., & Wade, M. (2015). *Disruptor and Disrupted Strategy in the Digital Vortex* (1st ed.). Switzerland: IMD.
- Brightwell, I. (2017). Submission to the Federal Senate Standing Committees on Finance and Public Administration Digital Delivery of Government Services. Canberra: Australian Parliament House.
- Corydon, B., Ganesan, V., & Lundqvist, M. (2016). *Digital by Default: A guide to transforming government*. Stockholm: McKinsey Centre for Government.
- CSIRO. (2014). Enabling Australia's Digital Future. Canberra: Australian Government.
- CSIRO. (2016). *Australia 2030: navigating our uncertain future.* Canberra: Australian Government.

- Digital Transformation Agency. (2017). *Corporate Plan 2017-2021*. Retrieved July 1, 2018, from https://www.dta.gov.au/who-we-are/corporate/plan/
- Edelman. (2018). Edelman Trust Barometer. Chicago: Edelman.
- Government Digital Service. (2017). *Government Transformation Strategy*. Retrieved July 1, 2018, from https://www.gov.uk/government/publications/government-transformation-strategy-2017-to-2020/government-transformation-strategy#build-better-tools-processes-and-governance-for-civil-servants
- Innovation and Science Australia. (2017). *Australia 2030: prosperity through innovation*. Canberra: Australian Government.
- Kay, R., & Goldspink, C. (2016). *Public sector innovation: why it's different.* Sydney: Australian Institute of Company Directors.
- McKinsey & Company. (2016). *McKinsey Connected Homes*. Retrieved July 1, 2018, from https://www.mckinsey.com/spContent/connected_homes/index.html
- OECD. (2014). Recommendation on Digital Government Strategies. Paris: OECD, Public Governance and Territorial Directorate.
- SA, H., A, R., L, R., A, B., L, H., C, M., & N, B. (2016). *Tomorrow's Digitally Enabled Workforce: Megatrends and scenarios for jobs and employment in Australia over the coming twenty years.* Brisbane: CSIRO.
- Serrador, P., & Pinto, J. (2015). Does Agile work? A quantitative analysis of agile project success. *International Journal of Project Management, 33*(5), 1040-1051.
- United Nations. (2016). *UN E-Government Survey 2016*. Retrieved July 1, 2018, from https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2016
- United Nations. (2018). E-Government Survey 2018. New York: United Nations.