Australian Public Service

Innovation
Sampler 2018-19

Contact us

Public Sector Innovation Network

Website: https://innovation.govspace.gov.au/

Email: psi@industry.gov.au

Acknowledgement

The Public Sector Innovation Network team would like to thank the following departments
for assisting in drafting the APS Innovation Sampler:

- Department of Prime Minister and Cabinet
- Department of the Environment and Energy
- Australian Taxation Office.

Contents

Introduction

Welcome to the *APS Innovation Sampler!*

Here we capture some of the initiatives of the Australian public sector from 2018-19 through a new lens of public sector innovation.

The Australian Public Service (APS) has been on an innovation journey for more than a decade. Our learnings in that time are priming us to tackle new and entrenched challenges and opportunities.

From an ageing population to a whole raft of lifestyle diseases putting pressure on our services, we have to think creatively to find new solutions.

Add to that, declining trust in traditional institutions, rising citizen expectations, geopolitical shifts, and a technological revolution fundamentally changing our economy and the way we live.

Agencies are responding—and we're seeing a step-change right across government.

Innovation labs are springing up in many portfolios, grassroots networks are forming and teams are experimenting with new ways to tackle issues. There's also an APS reform agenda and a significant APS-wide review of how we can be fit-for purpose in 2030 and beyond.

At the heart of all this reform is a driving commitment to pursue change that outperforms the norm. And this is a great definition of innovation.

This snapshot aims to capture some of this innovation. It highlights the diversity of innovative work within the APS, and it's by no means a complete list.

New public sector innovation lens

Facets of public sector innovation—seeing all of the elephant

Too often, the description of innovation in the public sector feels a little like the ancient Indian parable about a group of blind men describing an elephant; no one description is necessarily wrong, but it's hard to get the whole picture.

In 2018, the Observatory of Public Sector Innovation (OPSI)—within the Organisation for Economic Cooperation and Development—gave us a new tool to describe and classify innovation in the public sector: the OPSI Facets of Public Sector Innovation.

The OPSI facets model can be used to ensure the public service is engaging with innovation in a deliberate, considered way. The facets let us pull apart innovation, understand the short term and long term drivers, and apply resources and effort in a balanced and strategic way.

OPSI Facets of Public Sector Innovation

OPSI Observatory of
Public Sector Innovation

OPSI's tool splits innovation into four drivers, all of which are equally important:

DIRECTED
Shaping / Top-down

Mission-oriented innovation

Sustaining change

Transformative change

CERTAINTY
Exploiting / Incremental

Enhancement-oriented innovation

Anticipatory innovation

UNCERTAINTY
Exploring / Radical

Optimizing change

Disruptive change

Adaptive innovation

UNDIRECTED
Responding / Bottom-Up
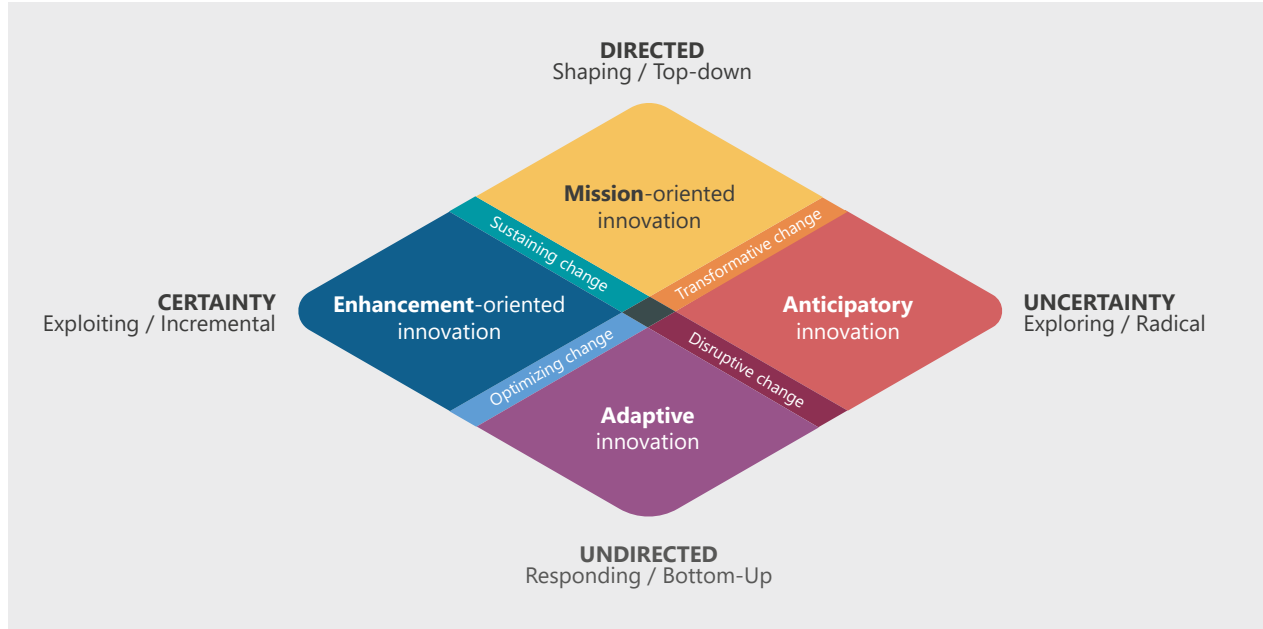
Mission-oriented

Top-down directives to solve challenges.

For example, switching to sustainable energy to counter climate change.

Anticipatory

Exploring and influencing emergent issues.

For example, setting ethical and technological boundaries for artificial intelligence.

Adaptive

Bottom-up innovation to discover what's possible in a changing environment.

For example, seeking opportunities for citizens to interact with government via social media.

Enhancement-oriented (business as usual)

Upgrading practices to achieve efficiencies and better results.

For example, using behavioural insights to get people to pay their taxes on time.

See

New changes at the edges

The OPSI model also describes the sort of change you get when two of the drivers meet.

Transformative change (between mission and anticipatory)

Substantial change to a system is driven by the executive or ministerial mission.

An example is Estonia's e-residency program which offers anyone in the world the opportunity to start and manage a global business in the European Union.

Disruptive change (between anticipatory and adaptive)

Challenges how things have been done and has come from a bottom-up source. Disruptive change can become transformative change if the executive buys into it. But this type of change can also face resistance from the organisation if this doesn't happen.

An example is Canada's Talent Cloud experiment featuring a new hiring model for project-based or 'gig' employment.

Optimising change (between adaptive and enhancement)

Change where government learns what is working, what isn't, and adjusts accordingly.

An example is the www.fixmystreet.com service in the UK which allows people to report problems with local roads.

Sustaining change (between mission and enhancement)

Change that is likely to sustain and extend existing models, practices and ways of thinking.

An example is the introduction of energy rating labels in Australia which aims to create a demand for more energy efficient appliances through better information.

Australian public sector reform

The APS is dabbling in all facets of the OPSI innovation model.

In light of the fundamental shifts in the environment, we're on a mission to reform. The Secretaries APS Reform Committee is driving the shorter term agenda to ensure the public sector is positioned to address the challenges and harness the opportunities ahead.

Modernising and integrating systems, processes and services are at the heart of the reform. So is the focus on a culture of innovation and excellence. Many initiatives are underway, such as the release of the online digital collaboration tool, GovTeams, and streamlining the grants processes through Grants Hubs.

The Committee is working closely with the independent panel reviewing the APS to make it fit-for-purpose for the coming decades.

Given the APS is largely shaped by the 1974-1976 Royal Commission on Australian Government Administration, it makes sense to take another look at how we do things now and how our practices should change.

The Independent Review of the APS is asking what capability, culture and operating model will improve citizens' experience of government and deliver better services in the future. And what about the APS itself—how can we attract and nurture great talent and be at the forefront of innovation and best-practice?

The review is playing in the space of anticipatory innovation—researching the megatrends that will most influence the future to guide recommendations on how best to capitalise and respond to whatever comes our way. Stay tuned for the panel's report to the government in 2019.

Clearly, this is a major opportunity to put innovation at the heart of APS culture.

Attitudes to innovation in the APS

The APS has a long history of innovation but it's only recently that we've been measuring public servants' attitudes and experience of innovation, through the annual APS Employee Census.

The census results, published in the *State of the Service Report 2017-18*, show some encouraging signs about the shifting culture of innovation. Compared with previous years, staff are more willing and able to innovate and the culture is more conducive to trying new approaches. However, there is more work agencies could do to inspire staff and support them in their quest for improvements.

Staff feel driven to come up with new ideas. Over 80 per cent of staff reported feeling responsible for looking for new ways to improve the way they work. Two thirds of these innovations are reported as being process improvements which, in the OPSI facets model, fall into enhancement-oriented innovation.

Figure 1: APS employee perceptions of innovation in their agency
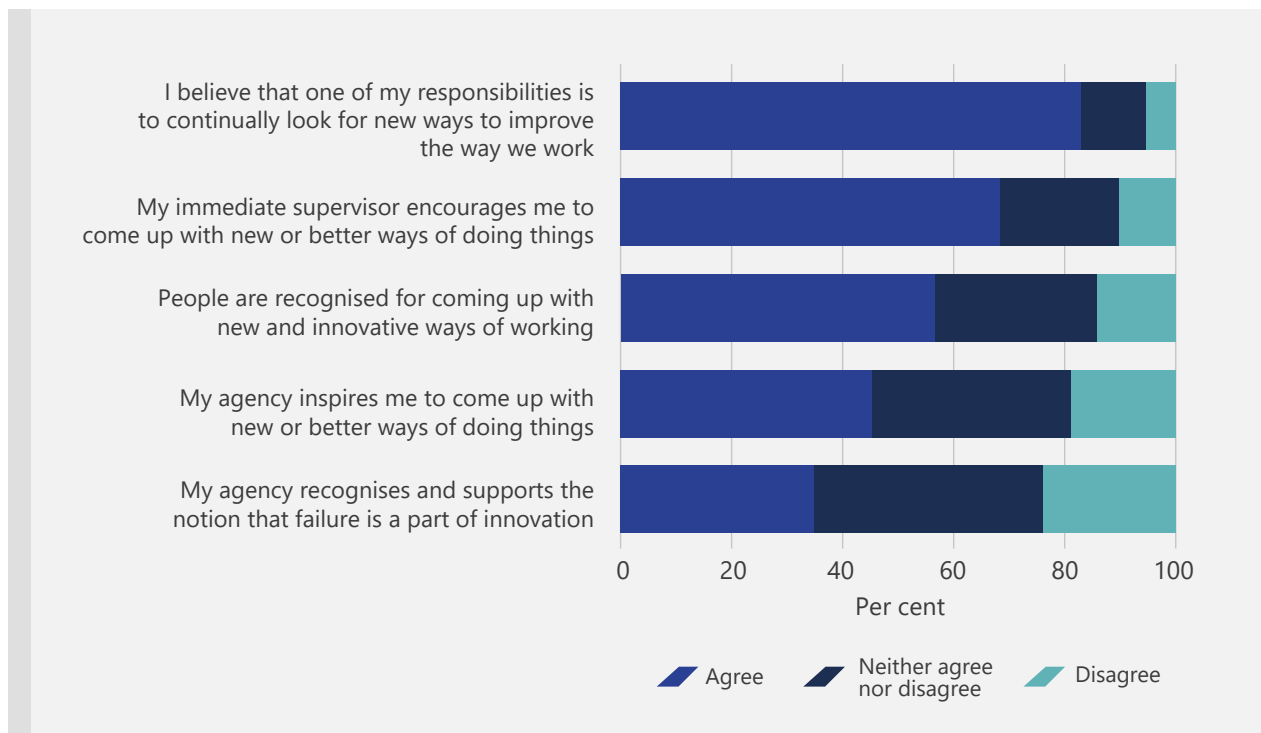
Source: Australian Public Service Commission, State of the Service Report 2017–18.

Senior leadership is key to driving positive attitudes to innovation. There's a strong correlation between senior leaders' actions and staff perceptions of their agency's innovation culture. Staff who are encouraged to make suggestions and feel valued for their contribution have more positive perceptions about innovation. Over 70 per cent of staff reported that their immediate supervisor encouraged suggestions and invited a range of views, including views different from their supervisor.

Agencies assessed as doing better with innovation are also perceived as having high quality senior executives. If senior executives set strategic direction and manage organisational change effectively, staff feel more positive about innovation.

Measuring attitudes to innovation can be difficult, as the term is very broad and often misunderstood. There's an opportunity to create a clear understanding of innovation and a shared language around it, and to measure innovation in a more nuanced and holistic way. That way everyone would be reporting on the same elephant and the results could be of better use in driving reform.

Rise of innovation labs

Another measure of innovation is the rise of innovation labs across the APS—teams tasked with innovation work or applying innovation methodology to government problems.

There's now a proliferation of these labs across many agencies which are all at various levels of maturity and are applying different methods and tools to diverse issues. To get a more holistic view of the innovation landscape, these capabilities are being mapped by the Innovation Leaders Network— a group of like-minded innovation specialists within the APS.

In 2018, the Melbourne Policy Lab from Melbourne University also conducted research into innovation labs, identifying 52 in Australia and New Zealand. (Since the findings were published, this number has grown.) Half the labs were inside agencies at various levels of government. The other 26 are comprised of non-government or mixed-organisations that worked on public sector problems with an innovation lens, such as The Australian Centre for Social Innovation.

The labs are focused on three domains of innovation: policy development and reform; evaluation and systems improvement; and user and customer-experience.

The researchers found that half of government innovation labs were relatively small, with five or less staff, and many relied on external expertise to carry out work. There is an opportunity to build and scale innovation capability internally to grow corporate knowledge and practices.

The labs may also provide the lever to build coordinated, cross-agency approaches to innovation

New coLab at the DTA in Canberra

BizLab Academy in action

Busting silos and building capabilities

Networks

Taking on the challenge of bringing the innovation labs together is the Innovation Leaders Network.

The Innovation Leaders Network informally got together in 2016—under the name Heads of Labs—but formalised in 2018 to collectively build capabilities, collaborate on shared initiatives, and advocate for, and influence, whole-of-government innovation activities. Its self-imposed mission is to enable the APS to design and deliver a better future. Network members meet each quarter to discuss their activities and future opportunities.

But this network isn't the only one smashing silos across the APS—a whole raft of cross-departmental networks organically sprang up in 2018, driven by passionate, 'can do' staff.

Their grassroots, democratic approach is also busting traditional hierarchy. They're driving cultural change from the bottom up—they determine their own missions and take on initiatives on top of their day-to-day work.

Networks are formed around a diverse range of fields, from facilitation to foresighting.

Some have been given the mandate from senior executives to drive change. Take, for example, the Graduate Data Network. Encouraged by the Secretaries Data Group to build data culture and capability within the APS, graduates from several departments formed a steering committee, held an ideation workshop and split into working groups to tackle four projects: hosting data forums; coordinating data mentoring; developing a data starter pack; and researching the graduate demographic over time. Their network is now bursting at the seams with 200 graduates from 23 agencies.

Other networks are improving the experience of interacting with government. In 2018, the Digital Transformation Agency (DTA) created the first Life Event Communities from a mix of the public and private sectors. They're looking at how to reduce stress for citizens during major life events, such as giving birth or losing a loved one, by bringing together government services. This work means that people won't have the stress of dealing with 15 forms from 10 agencies while coping with a major change.

And there's the 3,500 member-strong Public Sector Innovation Network. It's not new but it's being reinvigorated to bring more value to the APS. Based on user research gathered in 2018, the network will sport a new name and focus in 2019—our game is to nurture and accelerate open innovation in the public sector. Stay tuned to the website for details.

Centres of excellence

Other groups are also equipping staff with skills, spreading knowledge and building a culture of learning, curiosity and experimentation across the public sector.

New centres of excellence for data, citizen-centricity, behavioural insights, and digital and policy development are sharing their expertise far and wide. There's a great deal of work being done to embed these skills into policymaking and foster a culture of collaboration across agencies.

Bizlab Academy

This academy, within the Department of Industry, Innovation and Science, is a hub for all things human-centred design—a discipline championing evidence-based policy and qualitative analysis. It offers regular and rigorous training and has upskilled over 235 people since launching in June 2018. Ongoing support and collaboration is offered through its alumni program.

BETA

The Behavioural Economics Team of the Australian Government—BETA for short—is the government's central unit applying behavioural insights (BI) to public policy. BI is all about understanding real human decision-making and putting it at the centre of policy design. BETA created a series of networks to encourage the uptake of this discipline right across the APS, starting with the BI Champion's Network opening up in 2018. These 60 influential BI enthusiasts from 40 different agencies are charged with spreading the word about BI. They complement the existing BI Practitioners' Network made up of people working in BI in the APS, who share knowledge, problem-solve and collaborate on challenges.

DTA training

The DTA has a huge job in improving the government's digital capability and services. That's why the DTA expanded its training options in 2018. It joined forces with the Australian Public Service Commission to create the Leading Digital Transformation Program—a short course in key digital capabilities for senior executives. It also released the Digital Training Marketplace where agencies can find courses and providers. Backing up the training are a range of new Learning Design Standards outlining the fundamental areas that should be addressed in the courses. DTA's new co-Lab in Canberra was completed and is now the site where much of the digital training, residencies, workshops, meet-ups and clinics take place.

GovTeams

To spark innovation we also need the systems to support it. GovTeams is a new platform to encourage agile teams right across government—allowing people to create digital spaces to work effectively across locations, systems and agencies.

Collaborative events 2018

A common theme emerging in the public sector is the desire to collaborate and learn from each other. Cross-sectoral events are springing up and gathering force, a selection of which are detailed here.

Mobilisation Design Jam

Exploring multi-disciplinary partnerships to prepare for global catastrophic risks

Hosted by the Department of Defence

16 Organisations

41 Participants

03 Idea clusters

Jedi Hackathon

Integrating jobs and education data

Organised by the Department of Jobs and Small Business

10 Organisations

06 Challenges

60 Participants

GovHack

Unlocking the value of open government data

Sponsored annually by the public, private and academic sectors

19 Sponsors

27 Locations

1,500 Participants

2018

30 MAY

02–31 JUL

12–13 JUL

23 JUL

07–09 SEP

Innovation Month

Showcasing new ideas and practices within, and for, the public sector

Coordinated annually by the Public Sector Innovation Network

21 Organisations

130 Events

7,000 Attendees

Public Sector Innovation Awards 2018

Recognising innovators across the APS

Hosted annually by the Public Sector Innovation Network and Institute of Public Administration Australia

51 Nominations

12 Finalists

04 Winners

Innovation case studies

___

The Public Sector Innovation Network partners with the Institute of Public Administration Australia to bring you the Public Sector Innovation Awards each year.

These Awards recognise the resilience, perseverance and hard work of the motivated employees who drive change.

In 2018, the awards attracted 51 high calibre nominations across three categories: citizen-centred innovation; culture and capability; digital and data. Twelve finalists battled it out in front of a 'shark tank' of judges.

And the winning initiatives were:

- **Australian Marriage Law Postal Survey** - Australian Bureau of Statistics' national survey to gauge support for legalising same-sex marriage in Australia.

- **ASEAN-Australia Codeathon** - Australian Transaction Reports and Analysis Centre's (AUSTRAC) novel approach to generating solutions to Australia's most complex law enforcement and financial intelligence problems.

- **Tupaia** - Department of Foreign Affairs and Trade's digital tool to improve medical and healthcare facilities in developing countries across the Pacific.

- **Outgoing Passenger Card** - Department of Home Affairs took home the judges award for its work to remove the outgoing passenger card for travellers leaving Australia.

Want to see what they're up to now? Check out the short videos on YouTube: http://bit.ly/PSIawards2018

BETA

Behavioural Economics Team of the Australian Government

Department of the Prime Minister and Cabinet

It might not come as a surprise that people are not perfectly rational creatures and often use 'rules of thumb' to make decisions—we prefer the present over the future, have limits on information we can process and we care about what others are doing.

BETA puts human behaviour at the heart of Australian public policy and they're on a mission to build behavioural insights capability across the APS.

They've been busy educating, experimenting and building partnerships with APS agencies, academics and the private sector. More than 1,800 APS officers are now trained in the fundamentals of behavioural insights and randomised controlled trials, and 15 secondees have had on-the-job experience with the team. In addition, the team has built supporting tools, guidance notes, and an e-learning module for the APS.

Illustrating the power of behavioural insights is the successful nudge to reduce prescriptions for antibiotics.

Antimicrobial resistance is a global health problem, already killing over 700,000 people every year. A UK government report estimates if we do nothing, this number will rise to 10 million people every year, with a cost to the global economy of up to USD$100 trillion by 2050. It's fuelled in part by misuse of antibiotics—so it's critical they are prescribed only when needed.

To help address this problem, BETA partnered with the Behavioural Economics and Research Team at the Department of Health to use behavioural insights to test novel ways of bringing these rates down. In 2018, the Chief Medical Officer sent behaviourally informed letters to 5,311 general practitioners whose antibiotic prescribing rates were in the top 30 per cent of their geographic region.

The most effective letter compared the doctor's prescribing behaviour to their peers, and resulted in a 12.3 per cent reduction in prescriptions over six months. It's estimated the trial resulted in around 126,000 fewer scripts over a six-month period.

Alex: the Australian Government's First Integrated Virtual Assistant

IP Australia

IP Australia has enlisted an 'unreal' new assistant who's making life much easier for customers.

Meet Alex. Alex is the Australian Government's first ever integrated virtual assistant with live chat. She leverages artificial intelligence capabilities to answer customer enquiries—combining natural language processing, advanced machine learning technology, and tailored conversation dialogue with knowledge content. And to top it all off, Alex will keep learning and adapting from her conversations with customers.

Alex is part of IP Australia's digital future where customers will be able to serve themselves to intellectual property information through digital channels at any time that suits them—no more waiting for opening hours.

Alex has assisted with customer uptake of digital channels, up from 12 per cent in 2014 to 99.6 per cent in 2018. Thanks in part to this new assistant, 88 per cent of customers are highly satisfied! She now resolves close to 40 per cent of all of IP Australia's incoming queries and has been a foundation piece in reducing contact centre service delivery costs by 66 per cent. By engaging customers directly on IP Australia's website and Facebook page, Alex helps reduce pain points when finding information.

This provides a powerful digital platform that positions IP Australia to be the first fully digital Australian Government service delivery agency.

Extended Throughcare

*ACT Corrective Services, Justice
and Community Safety Directorate*

Breaking the cycle of reoffending is a tough nut to crack. The ACT Corrective Services rose to the challenge and introduced a holistic and extended care program for sentenced detainees to integrate them back into the community.

The Extended Throughcare Program manages the behaviours of individual offenders throughout their time in custody and provides services for 12 months after they're released.

This joint community/government initiative aims to identify the issues and needs of detainees early, upon arrival in custody. From that point, the detainees' health, education and rehabilitation needs can be addressed throughout their time in prison, rather than leaving it until they are expecting to leave.

This practice of extended care goes beyond what is traditionally provided by government

in other jurisdictions. They've taken the existing internationally-accepted concept of Throughcare and prolonged it.

The unique model provides a single point of service coordination and personalised support for 12 months after release, regardless of post-custody supervision arrangements.

The model is flexible, with extensive collaboration among the individual, government and community service providers to support the specific needs of the person to ease them back into the community.

Moving Sentinel Hotspots to the Cloud

Geoscience Australia

GeoScience Australia greatly improved tracking of bushfires in Australia by moving its Sentinel Hotspots service to the Cloud.

Bushfires are part of life in Australia but it's a challenge to manage them. Our emergency services use ground based detection systems but these can't always achieve the coverage required to effectively detect and control the fires. So, they also use

Geoscience Australia's Sentinel Hotspots service which provides the location data of potential fires every 10 minutes across the entire continent. With this information, they can plan a course of action and prioritise resources.

While the Sentinel Hotspots service is great, until recently it was plagued with outages and system failures because it was supported on expensive, 'research grade' infrastructure.

Geoscience Australia fixed the issue by moving the service to the Cloud—no mean feat. Sentinel Hotspots set the benchmark in cyber security for the development of mission critical systems. Geoscience Australia took an agile approach to software development, with regular testing, and worked closely with the business owner and engineers to make it happen.

The results? It's now 100 per cent reliable and secure, with no interruption to the service in the past two fire seasons! Additionally, the ongoing maintenance costs have plummeted by 85 per cent.
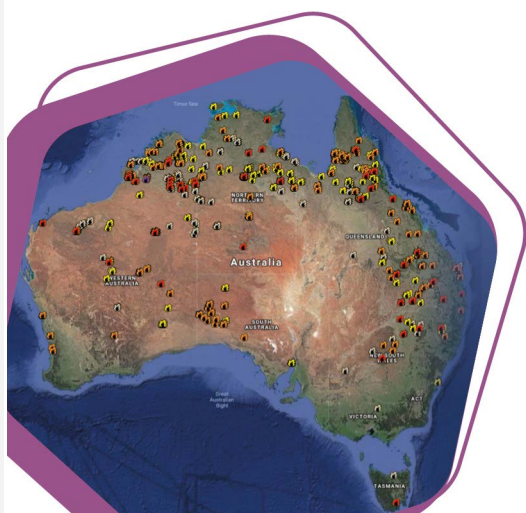
Solar Panel Validation Pilot

Clean Energy Regulator

The problem of unapproved and potentially poor quality solar panels being installed on Australian homes and businesses is being tackled by a joint initiative between the Clean Energy Regulator and the solar industry.

Thanks to the Solar Panel Validation Initiative, proving the legitimacy of solar panels—and hence eligibility for Commonwealth entitlements in the Small-scale Renewable Energy Scheme—is now as simple as scanning serial numbers on a mobile device.
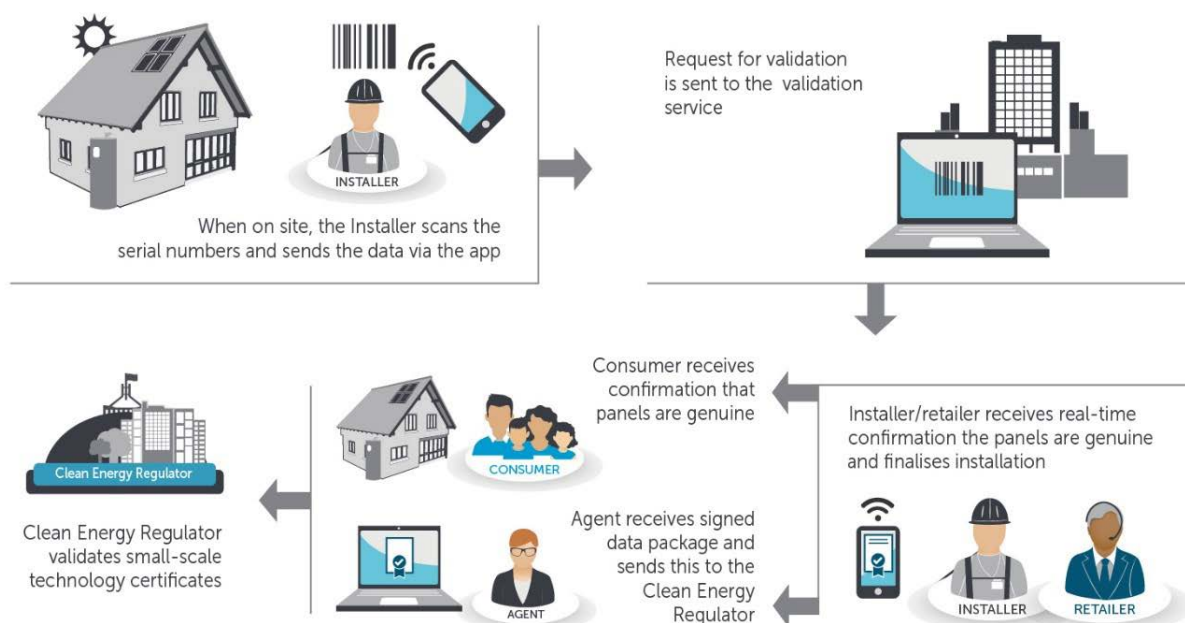
Solar panel validation is made up of two parts—an app for installers to use on a mobile device and a database of verified serial numbers for solar panels received directly from manufacturers. Installers use the app to scan solar panel serial numbers, which are then checked against a database to ensure they are genuine and approved. Customers are provided with evidence that their solar panels are genuine. The diagram below shows how it all works.

The initiative has already proven its worth with compliance costs for industry falling, customer awareness increasing and certificates being validated within hours rather than weeks. It was also done without any additional cost to government nor a legislative change and the innovation has the support of Choice and the Australian Competition and Consumer Commission.

The future is bright for the initiative—it's on track to validate more than 6 million solar panels each year, it's being extended to other solar components such as batteries, and other government agencies are seeking to use the innovation for other products.

SOLAR PANEL VALIDATION - HOW IT WORKS

INSTALLER

When on site, the Installer scans the serial numbers and sends the data via the app

Request for validation is sent to the validation service

Consumer receives confirmation that panels are genuine

CONSUMER

Installer/retailer receives real-time confirmation the panels are genuine and finalises installation

Agent receives signed data package and sends this to the Clean Energy Regulator

AGENT

INSTALLER   RETAILER

Clean Energy Regulator

Clean Energy Regulator validates small-scale technology certificates

Digitising the National Library infrastructure

*National Library of Australia*

The National Library of Australia is now a 21st Century operation and up to 70,000 users per day are enjoying its upgraded online services.

The five year Digital Library Infrastructure Replacement Program upgraded outdated infrastructure and ageing systems with much more sophisticated technologies.

Users now have access to more than triple the amount of digitised information previously available. Thanks to the opening up of bulk channels for public deposit, creators are uploading hundreds of thousands of items.

Behind the scenes, life for staff is much easier as the speed of digitisation has increased five-fold, workflows have been automated and business processes simplified. The library also understands its users much better as they can now draw out data about who is using the digital content, how they're using it and why.

Central to the success of the program was the collaboration between the Library's IT division and collection domain experts. Also, the library delivered a working product with regular production releases, which reduced risk, enabled agility and allowed for systems to mature with evolving requirements.
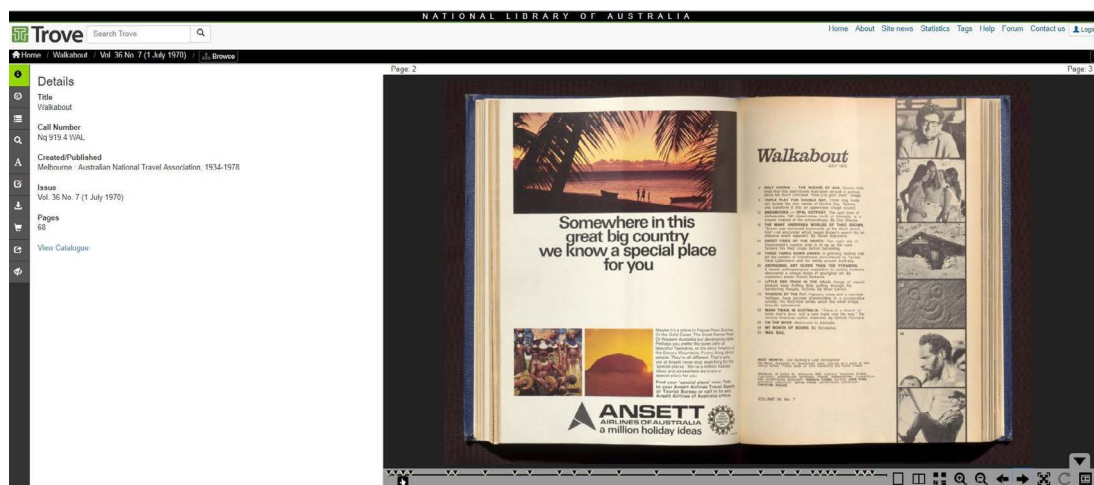
Simplified GST for Non-Residents

Australian Taxation Office

Non-residents selling goods or services to Australia are finding it easier to meet their Australian Goods and Services Tax (GST) obligations through a new reporting and payment system, built especially for them.

Keeping the user in mind, the Australian Taxation Office (ATO) built the new GST system to be secure, easily accessible and resistant to refund fraud. Simplified GST allows non-resident businesses and their tax agents to register for GST, report and pay their GST, check their financial transactions and maintain their accounts.

The system was developed using extensive user research and feedback from international taxpayers, tax agents and businesses. The ATO also worked closely with international organisations, such as

the Organisation for Economic Co-operation and Development (OECD) and various international tax authorities.

Since its release, the system has seen registrations and revenue exceed initial projections, reflecting the great response and uptake by clients abroad.

Cultural change that sticks!

Department of Industry, Innovation and Science

In 2018, questioning the status quo became a daily habit in one area of the Department of Industry, Innovation and Science.

The Single Business Service Program team had a vision. They wanted to simplify and streamline governments services to business so that customers would receive the right information and support, when they wanted it and the way they wanted it.

The team put themselves in the shoes of the customers and embraced dynamic, adaptive, collaborative and innovative work practices. They were encouraged to question old practices and their new mantra became 'no stupid rules'. Continuous improvement was embedded in their day-to-day business.

Changing things up so dramatically was considered a risky approach as the program was complex, the budget was sizeable, and it carried a legacy of deeply engrained behaviours and procedures.

But the new approach worked on all fronts. The program exceeded expected benefits and the new work practices are being used as a vehicle to create an enviable organisational culture of innovation. Indeed, the program area received an innovation index score 20 per cent higher than the broader APS in the 2018 APS Employee Census.

Future focus

The APS is at a watershed moment with innovation.

The overarching need to innovate is being driven by external global forces and citizen expectations of government in a changing world. The APS is responding by experimenting with new initiatives and spearheading a reform agenda, which is set to shake up structural barriers to innovation and provide the mandate for cultural change.

Worldwide research is leading to a better understanding of what innovation means in the public sector. The OPSI facets model provides a new lens through which to view public sector innovation. It helps to determine the different types of innovation, based on the core features of how directed and how uncertain it is.

And innovation capability in the APS is growing in both spread and maturity, with new training and more innovation teams and cross government networks working on real projects and changes.

The relaunch of the Public Sector Innovation Network will form a key part of this puzzle. The refreshed network will nurture and accelerate a culture of open innovation by giving people the stories, connections and confidence to try new approaches and drive new initiatives.

While it's clear there is still work to be done, the future of innovation in the APS is bright.