

# DATA AND DIGITAL GOVERNMENT STRATEGY

The data and digital vision for a world-class APS to 2030



# Acknowledgement

The Australian Government gratefully acknowledges the advice, input and support of the many organisations and individuals who contributed to developing the Data and Digital Government Strategy (the Strategy).

This Strategy was developed with the assistance of the public, community and advocacy groups, academia, industry, state and territory governments and the Australian Public Service. Consultations on the draft Strategy were held in-person and online with people and organisations to hear their ideas and thoughts on the future of data and digital services across government and through submissions. We thank participants for their enthusiasm in engaging with us and for sharing their ideas and feedback, which has helped to guide the delivery of the final Strategy.



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Version: 1.0

First published: 15 December 2023

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# Minister's foreword

The Australian Government is committed to a modern public service that puts people and business at the centre of its data and digital transformation.

In 2023, it is difficult to think of aspects of our life that aren't touched in some way by digital technologies.

Australians increasingly take up technology to do everything from banking to accessing support payments to seeing a doctor. It is clear that the Australian Government has the opportunity to use data and digital technologies to improve our service delivery and decision-making, with a goal of better outcomes for all people and business.

This is why we have developed the Data and Digital Government Strategy (the Strategy), the first combined data and digital strategy for the Australian Government, as a blueprint for the use and management of data and digital technologies through to 2030.

The Strategy sets out the Australian Government's vision to deliver simple, secure and connected public services for all people and business, through world-class data and digital capabilities. It is supported by an Implementation Plan (the Plan) which sets out how we will achieve this.

This Strategy and the Plan is a call to action for the Australian Public Service (APS). As Minister responsible for the APS and whole-of-government data and digital policy, I am committed to putting people and business at the centre of our efforts, ensuring everyone's experience with the Australian Government is inclusive, accessible, responsive to their needs and meets expectations.



Senator the Hon Katy Gallagher Minister for Finance Minister for Women Minister for the Public Service

We spoke to people, community and advocacy groups, academia, industry, state and territory governments and the APS, so that we could be sure this Strategy focuses on the things that make a difference to people and business. We heard about the challenges people face in accessing government services and the impact this has on their lives. We heard that people don't want to be left behind as services increasingly move online. We heard a strong desire for the Australian Government to partner more closely with people, the community, industry and other governments, sharing ideas and co-designing policies and services. Partnering with industry to drive opportunities, develop common standards and increase transparency was also a feature of our consultations, and aligns well with our commitments as part of the Buy Australian Plan. We also heard about the opportunities innovation and emerging technologies bring for better service delivery in an increasingly digital world.

I thank everyone who shared their views as part of this consultation. Your feedback has been used to finalise the Strategy and prioritise actions we will take to achieve the vision of simple, secure and connected public services for all people and business, through world-class data and digital capabilities.

# 2030 vision

The Australian Government will deliver simple, secure and connected public services, for all people and business, through world class data and digital capabilities.

## In this document



The Australian Government will deliver simple, secure and connected public services, for all people and business, through world class data and digital capabilities.

## **Missions**

All government entities will align their own strategies to the missions and their outcomes.



Delivering for all people and business

- Embed co-design
- · Embed inclusion and accessibility
- Strengthen partnerships
- · Maximise value from data



Simple and seamless services

- Be digital by design
- · Deploy scalable and secure architecture
- Tell us once



Government for the future

- Adopt emerging technologies
- Modernise investment approaches



Trusted and secure

- Build and maintain trust
- Modernise legislation
- · Connect data, digital and cyber security



Data and digital foundations

- Manage data as a valuable national asset
- Build a data and digital-capable APS
- Grow APS maturity



People capability
Governance

Cyber security
Investment

These enablers underpin the Government's means of achieving each mission's outcomes.

## Current state

The Australian Government is committed to continuing its reform of the Australian Public Service (APS).

It recognises the significant work required to address nearly a decade of underinvestment in and outsourcing of capabilities, while keeping pace with rapidly developing technologies and public expectations related to data and digital.

The Government is already delivering on this commitment. It's providing better services to people and business by improving legacy ICT systems, including a re-invigorated <a href="mayGov">myGov</a> and expansion of the <a href="Digital ID">Digital ID</a> system. It's recognising data as a shared national asset by strengthening data sharing practices, including the first accreditations under the <a href="Data Availability and Transparency Act 2022">Data Availability and Transparency Act 2022</a> (DATA) Scheme and a review of the <a href="Intergovernmental Agreement on Data Sharing">Intergovernmental Agreement on Data Sharing</a>. It's positioning Australia to respond to opportunities, threats and emerging technologies, including the creation of a National Cyber Security Coordinator and the release of the <a href="2023-2030 Australian Cyber Security Strategy">2023-2030 Australian Cyber Security Strategy</a>.

Trust in Australian public services has steadily increased since 2019, with 61% of survey respondents in 2022 saying they trusted the Government's services (<u>Department of Prime Minister and Cabinet</u>, 2022).

Further work, however, is required to achieve this Strategy's vision.

In 2022, Australia's ranking on the <u>United Nations E-Government</u>

<u>Development Index</u> (EGDI) dropped to 7th – its lowest ranking in a decade.

While digital inclusion in Australia continues to improve, with an index score of 73.2 (<u>Australian Digital Inclusion Index</u>, 2023), there remains a persistent digital divide for Aboriginal and Torres Strait Islander people, older Australians, people from lower social-economic backgrounds, and those living in regional and remote areas. Consultations on the initial Strategy confirmed that those most in need of government services can often feel left behind by the shift towards digital technology.

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Achieving this Strategy's 2030 vision will require significant improvement in inclusion and accessibility of data and digital government services.

The Cyber Threat Report shows the Government's critical infrastructure, businesses and households continue to be targeted by malicious state and non-state actors (Australian Signals Directorate (ASD), 2023). Feedback from consultation on the Strategy emphasised how important trust and security are to Australians. Government systems are also targets for cyber-attacks, and while improvements have been made, the cyber security maturity of Government entities remains low (ASD, 2022).

Current digital transformation methods and investment models do not reflect contemporary procurement practices. This reduces the Government's ability to respond and innovate. New and updated frameworks like the <u>Digital and ICT Investment Oversight Framework</u> (IOF) supports the Government to manage its digital and ICT investments and manage delivery risks by providing governance, contestability, delivery and assurance activities across the entire project lifecycle.

Building a data-driven, digitally enabled Government depends on the expertise within the APS, yet years of outsourcing have increased the APS' reliance on external capability. In 2021, almost half of its digital and ICT workforce were contractors, service providers and consultants (<u>Digital Transformation Agency</u>, 2021); an annual cost of \$2.1 billion, \$1.1 billion and \$200 million respectively.

A diverse and inclusive data and digital workforce enables greater innovation, understanding and effective decision making. In 2022, however, only 41% of the APS's data and digital roles were performed by women (Australian Public Service Commission, 2022).

Rebuilding the APS's data and digital workforce requires striking a balance when engaging external capability, tapping into its existing talent and better supporting those who are under-represented in these roles, including women, people with disability and culturally and linguistically diverse people. This will be key to future proofing the APS with the skills and resources needed to achieve the Strategy's 2030 vision.

## **Opportunities**

Data and digital technologies are critical to the Australian Government's activities. Continued commitment to improving how the APS adopts and uses data and digital technologies will lead to even more progress.

- Growing maturity will improve service delivery, enhance evidence-based decision-making, policy and program evaluation, and increase the public's trust in the Government's handling of their information.
- Advancing interoperability will remove silos, reduce the number
  of times Government collects the same information and make it easier
  to design and deliver services around people, rather than around
  how Government is structured.
- Strengthening oversight and advice functions and providing visibility
  of other commitments at the time decisions on data and digital
  investments are made will lead to more efficient and effective spending.
- Replacing outdated technologies will improve functionality and productivity and address cyber security vulnerabilities.
- Reducing storage of the same data across multiple systems will make it easier to manage, reducing the risk and impacts of data breaches and other cyber security incidents.
- Updating legislation, standards and policies will allow Government to harness data and digital technologies safely, easily and while maintaining public trust.
- Leading by example will help build the public's trust and respect in the APS and encourage broader adoption of emerging technologies and their safe and responsible adoption in the broader economy.

## Measuring success

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The Strategy is accompanied by an Implementation Plan (the Plan).

The Plan details where we are starting from and the actions the Australian Government will take to achieve the Strategy's 2030 vision. The initiatives included highlight activities of national importance delivering substantial outcomes for the Australian public and the APS, through significant innovation, large-scale reform, and service uplift that support the Strategy's missions. The Plan will be updated each year.

The Plan also includes metrics to track progress against the Strategy and provide a transparent scorecard of progress towards the Strategy's vision of simple, secure and connected public services, for all people and business, through world class data and digital capabilities.



# What success looks like

- Government services are safe, inclusive, accessible and digital by design
- integrity and transparency in service delivery increase trust in the Government

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- · cyber secure government systems
- APS data and digital activities are underpinned by a commitment to privacy, security and ethical use
- increased evidence-based policy and decision making
- greater value from public and private sector data
- greater usability and availability of government-held data
- increased intergovernmental collaboration
- interoperable architecture
- investments in data and digital technologies are effective, advance digital capability and maturity, and are best value for money
- increased data and digital literacy, competency and professional capability and capacity for a diverse and innovative APS workforce.

# Missions

The Strategy describes 5 missions to realise the 2030 vision. Government entities will align their individual strategies to these missions, which are dependent on the 4 enablers discussed later in this document.



Delivering for all people and business



Simple and seamless services



Government for the future



Trusted and secure



Data and digital foundations











## Delivering for all people and business

By 2030, the Australian Government will use data and digital technologies to deliver connected, accessible services which are centred around the needs of people and business.

Consultations on the initial Strategy demonstrated clear expectation for Government to coordinate improvement to digital inclusion, accessibility and engagement with those impacted by the digital divide. Stakeholders called for existing frameworks and standards to better integrate 'digital by design' principles and for the Government to drive co-design with the wider community.

The Government will continue to support connectivity, digital literacy and service design, and data sharing to address the digital divide, especially for those living in regional and remote communities, and further progress on the Government's Closing the Gap commitments.

The Government will invest in and integrate the data it holds to improve decision making, service delivery and performance assessment in a manner inclusive of all Australians. It will collaborate with state and territory governments to break down the legislative, cultural and technical barriers to cross-jurisdictional data sharing. It will partner domestically and globally to strengthen and promote standards for better problem solving and outcomes.

By making data more accessible to people, businesses and academia, the Government will enable greater innovation and effective work throughout Australia.

## Embed co-design

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The public expects the Government to be proactive and co-design data and digital solutions that meet peoples' and businesses' needs. The purpose of co-design is to discover perspectives through collaboration and to include user opinions in key decisions. By understanding the needs of people and business impacted by change, the Government will ensure that digital services are designed to meet their needs and support them to achieve their goals.

Significant progress has already been made through the <u>Digital Service Standard</u> to support a collaborative, human-centred design methodology. A recent review of and update to the Digital Service Standard underpins design that leaves nobody behind.



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The Government will embed co-design in its data collection, use and governance activities. Delivering a Framework for the Governance of Indigenous Data will help formalise arrangements for providing Aboriginal and Torres Strait Islander people greater agency over how their data is governed within the APS, so government-held data better reflects their priorities and aspirations. This and future work will support efforts to close the gap, consistent with Priority Reforms 3 and 4 of the National Agreement on Closing the Gap.

#### The Australian Government commits to:

- partnering with Aboriginal and Torres Strait Islander people at all stages of the data lifecycle to reflect their priorities about their communities
- building towards organisational and cultural change in the APS to support inclusion of Aboriginal and Torres Strait Islander people in data governance
- embedding co-design in the Government's data collection, use and governance activities.

## Embed inclusion and accessibility

As noted in Australia's Disability Strategy 2021-2031, there are considerable benefits to a more inclusive Australia where everyone has the same opportunity to participate – both socially and economically. Some individuals and community groups still have very limited or no access to the internet or are excluded because of a lack of availability, affordability, poor design or digital ability. It is crucial the Government delivers services in a way that recognises these accessibility issues and still meets the needs of their diverse users.

Through consultations, community and advocacy groups, and those who they represent, expressed that they want the Government to deliver safe, inclusive and accessible services which are intuitive and easy to use. The Government will ensure everyone, whether they are living with disability, live in remote and regional communities, are culturally or linguistically diverse, have limited digital ability, or otherwise, can access and engage with the government services and programs they need.

### To ensure all people can access and benefit from its services, the Australian Government commits to:

- providing omni-channel service delivery to ensure digitally delivered services are accessible over the phone or face to face
- ensuring all websites and services meet the latest Web Content Accessibility Guidelines
- implementing the <u>Digital Service Standard</u> to embed best-practice service design and accessibility across the APS
- embracing new technologies and leveraging data and insights to increase empathetic service design (e.g., natural language processing to enhance services for non-English speakers).











## Strengthen partnerships

Partnerships help build collective expertise, develop new ways of using data and digital technologies and find solutions to problems facing society. The Government is committed to building greater partnerships between the Government, private, research and community sectors.

Engagements with community and advocacy groups, academia and industry highlighted the importance of strong partnerships to drive positive change and work together to co-design solutions that meet the needs of all people and business.

The Government will develop, strengthen and align the frameworks and tools needed to improve partnerships and promote collaborative problem solving.

The Data and Digital Ministers Meeting (DDMM) is a cross-jurisdictional group working to drive cooperation on data and digital policies and services across Australia, to ensure smarter service delivery and improved outcomes. The Government will continue its strong engagement with states and territories through the DDMM on national issues like data sharing, delivering a seamless digital ID experience, improving digital inclusion, and emerging technologies.

Several initiatives are already helping, or will help, the Government to improve data sharing partnerships, including the Intergovernmental Agreement on Data Sharing, the Data Exchange and the National Disability Data Asset. Improved data sharing partnerships result in better outcomes for people and business, from more targeted and intuitive services to policies informed by sound evidence. They also maximise the value of government-held data and support our partners achieve their objectives more efficiently.

The Government spends on average around \$70 billion each year on procurement activities, helping to driving economic, social and sustainability outcomes for Australia. This includes procuring a significant range of data and digital products, services and support from industry – everything from software and hardware, corporate systems, analytics tools and cloud services. This represents an opportunity to partner with industry, through the Commonwealth Procurement Framework, to identify the best solutions to deliver government services. The Framework also helps the Government to take advantage of industry innovations, and seek industry's support to solve emerging problems, through mechanisms like requests for information.













The Government's <u>Buy Australian Plan</u> is helping to maximise opportunities for Australian businesses in major projects, create local jobs including for Aboriginal and Torres Strait Islanders, and open the door to more government work for small and medium businesses by simplifying procurement processes.

The Government already leverages industry innovations, and seeks industry's support to solve emerging problems, through initiatives like the Department of Industry, Science and Resources' <a href="Business Research and Innovation Initiative">Business Research and Innovation Initiative</a> (BRII). The BRII is a challenge-based innovation program which supports startups and SMEs to undertake research and development on new-to-market technologies in partnership with the APS to solve public policy and service delivery challenges.

#### The Australian Government commits to:

- working with the private sector to improve sourcing and sharing of private sector data to reduce duplication and generate greater insights and serve the needs of people and business
- support more opportunities for small to medium business and Australian businesses to sell to Government as part of the <u>Buy Australian Plan</u>.
- a Charter of Partnerships and Engagement to guide engagement with people and business, including by highlighting co-design as a pillar of APS engagement, ensuring it remains a trusted partner.
   The Charter builds on the APS Framework for Engagement and Participation
- continue strong engagement with state and territory governments through the DDMM and Intergovernmental Agreement on Data Sharing.

### Maximise value from data

Data and analytics create value for all people and business and help respond to the priority issues they face. Value is also created by sharing and re-using data, particularly government-held data.

The Productivity Commission's inquiry on <u>Data</u>
Availability and <u>Use</u>, identified barriers to sharing and releasing data which limit the use and value of Australia's data. The report recommended moving from a risk-averse approach to one based on transparency and treating data as an asset.

Progress has been made to overcome these barriers, however significant opportunity remains to improve how the Government uses and shares the vast amount of data it has access to and manages.

Some data, including personal and sensitive information, must be closely held and only shared where necessary, appropriate and lawful. Meanwhile, other data may be underused or siloed due to a lack of awareness of its existence, a lack of access to the right analytical tools or capabilities, or legislative and other barriers. The Government is removing these barriers to encourage greater data use and sharing in ethical, secure and transparent ways to maximise its value, including through the establishment of the <u>Data Availability</u> and <u>Transparency Act 2022 (DATA) Scheme</u>.

Making data accessible to the right people and optimising its use through integration, analytics and broad capability uplift will be critical to achieving the Strategy's vision. Better use of government-held data will generate benefits through developing evidence-based policy, designing and administering policies and programs, and performing more effective research and evaluation to assess the effectiveness of the Government's programs and policies.

The Australian Centre for Evaluation will help entities generate these benefits by integrating high-quality evaluation into all aspects of program and policy development.











The Government has used integrated data to conduct research, inform decisions and design services for years. Examples include the <u>Business Longitudinal Analysis Data Environment</u> (BLADE), and the <u>Person Level Integrated Data Asset</u> (PLIDA, formerly MADIP). In addition, the online geospatial platform, <u>Digital Atlas of Australia</u>, brings together national location-based data to support place-based analytics and insights.

The National Disability Data Asset will be Australia's most comprehensive disability data asset, connecting existing de-identified information from different government agencies. This new way to connect information will allow governments to improve programs and services and better measure, track and report on outcomes for people with disability. The National Disability Data Asset represents a step change in efforts to establish a scalable platform for creating high-value national data integration assets to support data analytics across a range of public policy areas. The National Disability Data Asset and its platform also highlights the importance of partnering with states and territories and the community to develop solutions to issues affecting the entire nation. Future partnerships including those with industry, communities and academia will be key to continuing to unlock the value of the data held by the government.

Government-held data has value outside the APS and entities already make some data publicly available by default through platforms such as <u>data.gov.au</u>. Making government-held data more accessible to people and business will help them achieve their own objectives, be it in their local communities, in their organisations or as individuals.

#### The Australian Government commits to:

- collecting and analysing data to assess whether policies and services are achieving their intended purpose and are being implemented in the best possible way
- harnessing analytical tools and techniques (including machine learning and artificial intelligence) to predict service needs, improve user experience, support evidence-based decisions and gain efficiencies in agency operations
- requiring all government entities
  to make non-sensitive data open
  by default in compliance with relevant
  laws and appropriate privacy, security
  and ethical controls for sharing sensitive data
- developing the <u>Australian National Data</u> Integration Infrastructure in collaboration with the states and territories to support data sharing, integration and national linkage for the National Disability Data Asset
- continuing to invest in new enabling technologies and streamlining governance and data sharing processes to allow greater access to timely and accurate data
- encouraging all entities to build partnerships and share data across the APS and with state and territory governments, the private sector and non-government organisations
- fostering a culture of data innovation.











## Simple and seamless services

By 2030, the APS will work as a single, unified enterprise. It will use technology, data and analytics to deliver simple, accessible services for people and business.

Consultations on the initial Strategy highlighted the need for cross-jurisdictional collaboration on data and digital transformation, improving peoples' experience of government. Stakeholders supported unified service delivery, such as 'tell us once' and life events, while state and territory governments called for stronger progress on a national digital ID system.

The Australian Government will organise and tailor policies and public services to individuals' circumstances, on an opt-in basis, while the APS will use data and analytics to predict when and where its services are needed.

## Be digital by design

As use of digital technologies has grown over recent years, people and business expect more from government. Public consultation highlighted the expectation that the Government's digital services engage people proactively and guide them to the services they might need. To meet this expectation, the Government will embed a digital by design approach. A nationally consistent approach to <a href="Digital ID">Digital ID</a> and identity resilience will also support voluntary, secure, convenient and inclusive access to the Government's services online.

The Government's design approach will adapt to technological changes. Findings from the Royal Commission into the Robodebt Scheme highlight the need to be adaptive in the design and use of digital systems, with greater oversight of automated decision making and data-matching programs. The Government will also focus on the next generation of risk management tools and guidance for emerging technologies.

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#### The Australian Government commits to:

- expanding the Government's Digital ID system to help keep Australians' information safe when they are accessing services online
- establishing the foundations to make myGov the primary digital front door for individuals, with a focus on new services, content and account management in addition to scaling the adoption of existing capabilities.











## Deploy scalable and secure architecture

Parts of the Government's data and digital ecosystem are constrained by outdated systems, bespoke technologies and architecture solutions designed to solve common issues, rather than address whole-of-government needs. The Government will apply a considered and consistent approach to its digital landscape and support entities to align to the Government's investment direction and resolve legacy platform issues.

The <u>Australian Government Architecture</u> (AGA) is supporting the Government's digital transformation by bringing together guidance materials to help entities deliver capabilities faster and in a way that is consistent, interoperable, promotes reuse, reduces risk and maximises value for money.

For the Government's digital ecosystem to be truly flexible and resilient, systems and services must be aligned to agreed foundational infrastructure. This includes a consistent approach to adopting emerging technologies. This will allow the Government to be more adaptable and responsive to changing priorities and support a national approach to developing data assets.

Interoperable platforms and use of standards unlock opportunities for easy data sharing, integration, collaboration and reuse across the APS. They also ensure hardware and software can work together seamlessly. The Government is committed to common data and digital standards and will continue establishing and growing international partnerships. It will focus on adopting and leading implementation of international standards to facilitate cross border data flows that are safe, secure, lawful and ethical.

#### The Australian Government commits to:

- ensuring technology is scalable, secure, resilient and interoperable, with new systems and infrastructure that supports data access and discoverability
- adopting existing and developing new data and digital standards to improve interoperability and encourage innovation.











### Tell us once

Australians expect personalised, integrated and easy to use services from government. When people need to advise the Government about changes to their personal circumstances, they often find the experience time consuming and repetitive. The Survey of Trust in Australian Public Services 2022 found around two-thirds of people surveyed would often have to provide the same information to different government services multiple times. The Government will strengthen its use of data and digital technologies and capabilities to enable a 'tell us once' approach. Joining up information collected from stakeholders and making it available across the APS and implementing a national Digital ID system will reduce the administrative burden people and business face when engaging with different parts of the Government. Having key milestones such as the birth of a child, captured on government services through life events mapping will allow the Government to work with partners across entities, jurisdictions and third parties to better align government services to an individual's needs and circumstances.

The Government will strengthen its processes to enable informed consent when personal information is collected and provide strong safeguards around storing, sharing and using personal information held by the Government.

Once information is collected, the Government will apply strong and secure data sharing practices, supported by the <u>DATA Scheme</u>, to reduce the need to collect the same information multiple times. The Government will support these data sharing practices by connecting the Government's digital platforms under the <u>Digital Service Standard</u>, making it easy, secure and consistent for people and business to provide information once when dealing with different parts of the Government.

#### The Australian Government commits to:

- strengthening the use of data and digital technologies and capabilities to enable a 'tell us once' approach for people and business
- implementing a national Digital ID system to enable identity verification across government, state, and territory and private sector services.













## Government for the future

By 2030, the Australian Government will use data and digital technologies in innovative ways.

Consultations on the initial Strategy demonstrated support for improving service delivery by using emerging technologies, in a safe and responsible manner. Stakeholders recognised the need for the Government to explore new ways to invest in data and digital technologies to achieve the Strategy's vision.

The Government will take advantage of opportunities, respond to emerging priorities and promote new funding models to deliver secure, ethical and modern data and digital technologies.

## Adopt emerging technologies

The rapid development of data and digital technologies creates significant opportunities to improve APS processes. They also create risks, and ethical and strategic challenges. Without appropriate human oversight, reliance on technology can cause issues, and impact government policies and services. The APS must monitor and actively manage opportunities, risks and impacts of emerging technologies it chooses to use.

The Government will be transparent in how it explores and uses new technologies. It will also equip entities to safely engage with emerging data and digital technologies, such as artificial intelligence, quantum computing and digital twins, as part of their operations, including releasing guidance for entities on government use of generative AI platforms. The Government will work closely with industry to develop digital solutions and leverage the best of industry innovation to solve common problems.

New technologies will be deployed in a safe and responsible manner, supported by best practice processes and advice functions.

One example is the <u>List of Critical Technologies</u> in the National Interest, which outlines the technologies that can impact Australia's national interest. This list supports entities to engage appropriately with critical technology fields, including AI, advanced ICT and quantum technologies.

The Government will continue to use its procurement profile (approximately \$9 billion per annum) to better position entities to adopt critical and emerging technologies whilst contributing to the broader digital economy and supporting the 2023 - 2030 Australian Cyber Security Strategy. Investments in research and development will continue to support the growth of government capability in critical technologies, ensuring they remain contemporary while boosting activity in the broader economy. Building APS data and digital capability complements these efforts, including work in areas such as skills, support for research and development and targeted industry support programs.

#### The Australian Government commits to:

- developing whole-of-government policies and frameworks to guide government entities on how to safely engage with emerging data and digital technologies
- fostering a culture of data and digital innovation.











## Modernise investment approaches

Increasing the Government's use of new and emerging data and digital technologies requires smart and sustainable investments.

The Government will explore new data and digital funding models and strengthen oversight and contestability during development and implementation. It will increase cross-agency collaboration, assurance, benefits management, prototyping and experimentation practices. This will enable phased delivery to provide opportunities for new ideas and feedback to inform project changes mid-flight. Allowing entities to explore interoperability with other APS platforms and adjustments and improvements to systems will minimise the impact of technical debt and reduce the risk of technology becoming obsolete once operational.

The Government is committed to finding new ways to ensure decision makers have the right information and advice when considering new data and digital investments for the APS.

The Government will strengthen data and digital investment advice and governance in the APS, including through the <u>Digital and ICT Investment</u> Oversight Framework (IOF), to inform consideration of investment proposals and assurance of projects.

The Government will use its data and digital investments to support its broad national policy objectives and deliver better outcomes for people and business.

This includes a focus on the achievement of value for money as required by the <u>Commonwealth</u>

<u>Procurement Framework</u>. Value for money is not simply a consideration of price, it includes consideration of quality, fit-for-purpose, a supplier's experience and performance, and environmental sustainability amongst other things. The Government's <u>Buy Australian Plan</u> includes a commitment to boosting the procurement and contracting capability of the APS to better engage with industry, including Australian businesses, and deliver value-for-money procurements.

<u>BuylCT.gov.au</u> provides a direct platform for industry to showcase products and services, bid for projects and find government clients. It allows Government entities and businesses to partner to develop innovative solutions to problems and help build industry capability.

Better data and digital investments can also support progress towards the Government's Net Zero 2050 plan. The Data Centre Panel will support the Government's move towards net zero by strengthening the measures for data centre providers to manage and reduce their greenhouse gas emissions.

#### The Australian Government commits to:

- exploring new data and digital funding models to support the APS's data and digital transformation
- requiring all government entities to develop and submit digital and ICT plans as part of the IOF process, to further improve long-term strategic planning and investment outcomes.

















## Trusted and secure

By 2030, the Australian Government will partner with people and business to make decisions and deliver services which are trusted, transparent and ethical, and support people's choices when engaging with public services. Robust privacy and security settings and a culture of integrity and accountability will give people and business confidence their data is safe.

Through consultation on the initial Strategy, stakeholders recognised the importance of the Government having the right frameworks, accountabilities, and culture in place to support trust, privacy, and security. Community stakeholders were particularly interested in the Government being more transparent about data collection and use, and improving the ways people can give and withdraw consent. APS stakeholders considered public trust the most important factor for the Strategy's success and emphasised the Government's role in being an exemplar in data use and management.

### **Build and maintain trust**

Digital services are increasingly the face of modern government. When done well, they build public trust in government. When they fail, frustrate, exclude people or put them or their information at risk, that trust is eroded. This can also have significant impacts on people's safety and wellbeing.

The Government's <u>Survey of Trust in Australian Public Services</u> provides transparency of people's experiences and interactions with the APS. Survey results guide digital service delivery by identifying the types of services and interactions that work and the weak points in trust and customer experience. The APS can use those results to make changes to existing digital services and design new ones.

People trust government to collect, manage and use their data well. Providing people and businesses with more control over how their data is used and being transparent in how the Government uses the data it collects, is critical to building and maintaining public trust.

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The <u>Building Trust in the Public Record policy</u> helps entities manage their information assets to better support, protect and serve the community. The <u>DATA Scheme</u> delivers strong arrangements to build trust and transparency when sharing data. Commitment to the <u>Open Government Partnership</u> will support new ways to engage with the Government and promote accountability using data and digital technologies.

The public expects personal information collected by the Government and other organisations to be kept safe and secure by appropriate and enforceable protections. Privacy and cyber security breaches damage trust that organisations, including the APS, can adequately manage and secure personal information.











The Government has made significant investments to safeguard the security and privacy of government-held data. Cornerstones of this investment include the secure environment of data centres and associated infrastructure that provide hosting services for entities. The Hosting Certification Framework helps entities identify and source hosting services that meet enhanced privacy, sovereignty and security requirements, including by requiring sensitive information to be stored within Australian borders. The Government is also investing in the Notifiable Data Breaches Scheme to ensure greater responsiveness, transparency and accountability when data breach incidents occur.

The 2023-2030 Australian Cyber Security Strategy, the appointment of a dedicated Minister for Cyber Security and the creation of a National Coordinator for Cyber Security, will further improve Australia's national resilience to cyber threats as well as responses to cyber incidents. The Online Safety Act 2021 strengthens and expands existing laws for online safety, making internet service providers more accountable for the safety of their users.

By setting a best practice example, the Government can support public trust in emerging technologies and their safe and responsible adoption in the broader economy.

The Australian Government commits to improving and maintaining trust in its use of data and digital technologies through:

- adopting a whole-of-government Data Ethics Framework
- adopting robust and appropriate privacy and security settings to keep peoples' information safe
- securing networks, systems and hardware
- engaging transparently and meaningfully on government data collection and use
- supporting the APS to embody best practice engagement by putting in place the right settings and infrastructure to build and maintain public trust, and embedding safety by design
- developing common data and metadata standards and data structures
- adopting AI technologies in safe, ethical and responsible ways.













## Modernise legislation

Australia's legislation and regulations have not always kept pace with data and digital technologies and their uses. This is partly because legislative reform requires time and consideration and because data and digital issues develop rapidly and are complex. They can cross traditional legislative and jurisdictional boundaries, particularly as they relate to privacy.

The Government is committed to ensuring legislation is fit-for-purpose, can appropriately protect the public from emerging cyber and other threats, and allow for the effective use of data and digital technologies. The Government will continue to review and update relevant legislation to respond appropriately to data and digital developments. Several recent reviews, including the Review of the Privacy Act 1988 (Privacy Act), the Royal Commission into the Robodebt Scheme, the 2023 myGov User Audit and the Tune Review, have recommended potential reforms to laws related to privacy, data sharing, data security, digital ID and information management.

At the Commonwealth level, rules relating to use, sharing and management of information largely stem from the <u>Archives Act 1983</u>, the <u>Freedom of Information Act 1982</u>, the <u>Public Governance</u>.

<u>Performance and Accountability Act 2013</u> (PGPA Act) and, most recently, the <u>Data Availability and Transparency Act 2022</u> (the DAT Act).

Government entities are also subject to a range of legislation that govern their data collection, use and sharing. The Government's <u>Protective Security Policy Framework</u> (PSPF) helps entities protect their people, information and assets, both at home and overseas. The PSPF is regularly reviewed with updated guidance for entities to meet their public data stewardship responsibilities under the PGPA Act.

A range of Commonwealth, state and territory laws combine to create a set of privacy rights for Australians and obligations for those who hold personal information. The Privacy Act is the principal Commonwealth legislation governing the protection of personal information. The Review of the Privacy Act released in 2023 prompted reforms to strengthen the act's principles-based approach to protecting personal information. These reforms will help Australia to line up with international data protection standards such as the European Union's General Data Protection Regulation. The Government will also engage with the states and territories to work towards harmonising key elements of Commonwealth, state and territory privacy laws.

The DAT Act, establishes a new, best practice scheme for sharing Government data underpinned by strong safeguards and efficient processes, including in-built process requiring periodic reviews, with the first review scheduled to start in 2025. These reviews will support the Government to ensure the DAT Act remains fit-for-purpose and will provide opportunities to refine the <u>DATA Scheme's</u> scope and operation to best serve the public interest by promoting better and simpler availability of government-held data.

The Government will also explore opportunities and challenges of emerging data and digital technologies, including artificial intelligence, through its legislative and regulatory frameworks to ensure Australians continue to have confidence in the Government's use of data and digital technologies.

#### The Australian Government commits to:

- responding to the recommendations of the Review of the Privacy Act to strengthen the protection of Australians' personal information
- periodically reviewing the operation of the DAT Act to ensure the DAT Act remains fit-for-purpose.











## Connect data, digital and cyber security

Data, digital and cyber security are closely intertwined. The Government must foster a culture of privacy, security, and proactive monitoring across the APS, including for partners that operate within and access the Government's data and digital ecosystem. Entities must collaborate and share information and expertise to actively manage the privacy and security of the ecosystem (including with industry partners) to support alignment and consistency, reduce unnecessary duplication, and protect the community from inappropriate access or use of their personal information.

The Australian Signals Directorate's <u>Annual Cyber Threat</u> reports acknowledge the increasingly contested cyber environment and the need to build national cyber resilience. Monitoring and acting on security threats and challenges to protect the community requires collective cyber uplift effort from all entities.

While focusing on improvements in the APS, the Government has an equally important role to play in raising awareness about the need for improved cyber security practices and habits in the community. ASD's <u>Australian Cyber Security Centre</u> provides advice and information to help people and business protect themselves online. ASD also works with business, government and academic partners and experts in Australia and overseas to investigate and develop solutions to cyber security threats.

The 2023-2030 Australian Cyber Security Strategy will help the Government achieve its vision to be a world leading cyber secure and resilient nation by 2030. It will be accompanied by a Commonwealth Cyber Security Uplift Plan which will drive a strategic and pragmatic approach to enhancing collective cyber resilience, building capabilities and lifting cyber security to help Australian people and business with cyber incidents.

This Strategy aligns with the Cyber Security Strategy by improving Australia's digital inclusion, and ensuring all people have access to the information and tools they need to stay safe online and protect their private data.

The Government's work to expand and legislate the <u>Digital ID</u> system will help to improve cyber enabled ID fraud and privacy protections, including for people accessing government services online. Digital ID protects Australians online, reduces the amount of personal information Australians need to share to access services and helps businesses keep their customers' data safe.

The Government is also improving cyber security and privacy protections by strengthening investigation and enforcement actions under the Notifiable Data Breaches Scheme, supporting the establishment of the National Anti-Scam Centre, launching the National Strategy for Identity Resilience and ongoing rollout of the Hosting Certification Framework and the PSPF.

### The Australian Government commits to:

- continuing to protect individual privacy and maintain security of sensitive information when expanding data capability and sharing
- incorporating secure-by-design principles in APS technological solutions
- expanding the digital ID system and enshrining it in legislation to improve cyber enabled ID fraud and privacy protections.











## Data and digital foundations

By 2030, the APS will adopt the right capabilities, practices, standards and culture and make effective use of data and digital technologies to operate as a seamless government. The APS will measure and track the data and digital maturity of entities and the workforce, and use this information to drive continuous improvement.

Through consultation on the initial Strategy, stakeholders called for the Australian Government to lead by example on transparency, management and governance of data and digital systems. State and territory governments supported national systems and platforms that can be used by all jurisdictions to deliver services. Stakeholders called for an uplift of APS data and digital capabilities.

## Manage data as a valuable national asset

Data is one of the most valuable assets the Government holds and must be managed like other high value assets. The Government expects entities to establish and invest in appropriate mechanisms, infrastructure and practices to support data curation, storage, protection and use. Treating data as an asset will require entities to recognise its value and importance to their operations, devote suitable resources to its collection, maintenance and use, and unlock its full potential, including by making data-driven decisions.

The Government is continually improving how it manages its data, including building the <u>Australian Government Data Catalogue</u>, ensuring inventory completeness and compliance with agreed metadata standards, reusing existing infrastructure and capabilities, and strengthening governance arrangements with state and territory jurisdictions.

The Government will also develop a whole-of-government data governance framework for consistent data management across the APS.

The <u>DATA Scheme</u> expands use of the Government's data, with eligible entities expected to participate as much as possible. Participants and the public will be able to use the <u>Australian Government Data</u>
<u>Catalogue</u> and <u>Dataplace</u> to learn what data is held, who holds it and how to access it.

## The Australian Government commits that all government entities will:

- appoint an appropriate senior leader to be responsible for the organisation's data
- educate their staff on the importance and appropriate use of data











- adopt best practice data collection and use to create data assets that support policy development and decision making; for example, the use of gender-disaggregated data collection and analysis to support the Government's gender equality priorities
- adopt an organisation specific plan for using data, including identification of data assets, to achieve their organisational objectives
- incorporate appropriate data management and stewardship approaches, including identifying roles with specific responsibilities for these functions
- embed data standards into all data asset management functions, focusing on data quality: accuracy, completeness, auditability, consistency, and timeliness
- embed infrastructure maintenance plans into ICT schedules, to ensure the integrity and protection of data.

## Build a data and digital-capable APS

Further investments in the capability of the APS are essential to achieving the Government's ambitions and commitments in this Strategy.

The Government recognises the need for a variety of skills and capabilities to support the implementation of data and digital technologies across the APS.

Leaders and champions need to build technical learning expertise but also foster and develop core soft skills such as communication, co-design and embedding of inclusion and accessibility to operate as a government of the future in line with the APS Reform agenda.

Recent reviews, including the 2023 myGov User Audit, acknowledge the record high demand for digital capabilities. However, a highly competitive labour market, a history of outsourcing and the size of the existing data and digital skills gap make meeting this demand difficult. The APS Audit of Employment will help the Government's efforts to reduce reliance on a contingent workforce while sourcing niche capabilities where appropriate.

The Government will continue to build and uplift data and digital expertise of the APS leadership and workforce to ensure the APS attracts, engages, develops and retains people with the necessary skills. To support this, the Government has established the APS Data and Digital Professions to focus on increasing workforce data and digital capabilities.













Success will rely on improving the gender balance in the APS data and digital workforce. In 2022, only 41% of APS employees working in data and digital job roles were women (Australian Public Service Commission, December 2022). Capability uplift driven under this Strategy will build on existing efforts to strengthen gender representation in STEM through the Australian Public Service Gender Equality Strategy 2021-26, and Women in STEM Decadal Plan, and the Pathway to Diversity in STEM Review.

To attract and retain people with the right skills and remain adaptable and flexible in a data and digital age, the Australian Government commits to:

- uplifting APS capability to ensure staff can effectively engage with data and digital technologies to produce useful insights, advice and operate more productively
- increasing the gender diversity of those working in digital and ICT roles in the APS
- developing a whole-of-APS Digital Workforce Plan
- improving pathways for entities to share technical expertise
- engaging with industry and global experts to stay informed of the latest tools, technologies and methodologies in data and digital capability development
- ensuring further development of data and digital skills.

## **Grow APS maturity**

Data and digital maturity vary between entities, slowing the standardisation of platforms and services, and the delivery of outcomes.

A standardised approach to tracking maturity delivers upon the intent of the <u>Independent</u>

Review of the Australian Public Service, to better monitor maturity and progress toward a digitally enabled Australian Government by 2030.

The Government will develop maturity assessment tools for entities to help them understand their data and digital management and use practices, identify capability gaps and better target investments.

To help uplift APS maturity, the Office of the National Data Commissioner is developing education and materials to support best practice data handling and sharing under the <u>DATA Scheme</u>. The <u>Australian Centre for Evaluation's</u> work to integrate high-quality evaluation into all aspects of program and policy development will support and build on efforts to grow APS data and digital maturity.

#### The Australian Government commits to:

- growing data and digital maturity of APS entities
- developing tools to measure and report on the data maturity of entities and the APS as a whole.

# Enablers

The enablers are the building blocks underpinning the Strategy's success and are essential to achieving its vision.

People capability

Governance

Cyber security

Investment



## People capability

The APS needs the right people, with the right skills, at the right time, for the right job to achieve the Strategy's vision.

The Australian Government recognises the importance of building broad data and digital literacy across the APS workforce. Understanding how to embed data and digital capabilities in all APS roles will be important for accelerating uptake and building expertise. It is also important to build data and digital capabilities in leadership to foster a culture of innovation and appropriate risk management.

#### Governance

The Australian Government has strong mechanisms to coordinate efforts between entities, such as the <u>Secretaries' Digital</u> and <u>Data Committee</u>, and partnerships with states and territories, such as the <u>Data and Digital Ministers Meeting</u>.

These and other governance mechanisms will work to ensure data and digital investments alignment to the Strategy and its missions.

## Cyber security

The Australian Government ensures the safety and security of its operations to remain a trusted custodian of sensitive information.

It will continue to maintain the safe, secure operation of government systems and technology through the effective implementation of the Information Security Manual, Protective Security Policy Framework, the Essential Eight Mitigations, and by increasingly adopting secure-by-design and secure-by-default principles and tactics.

### Investment

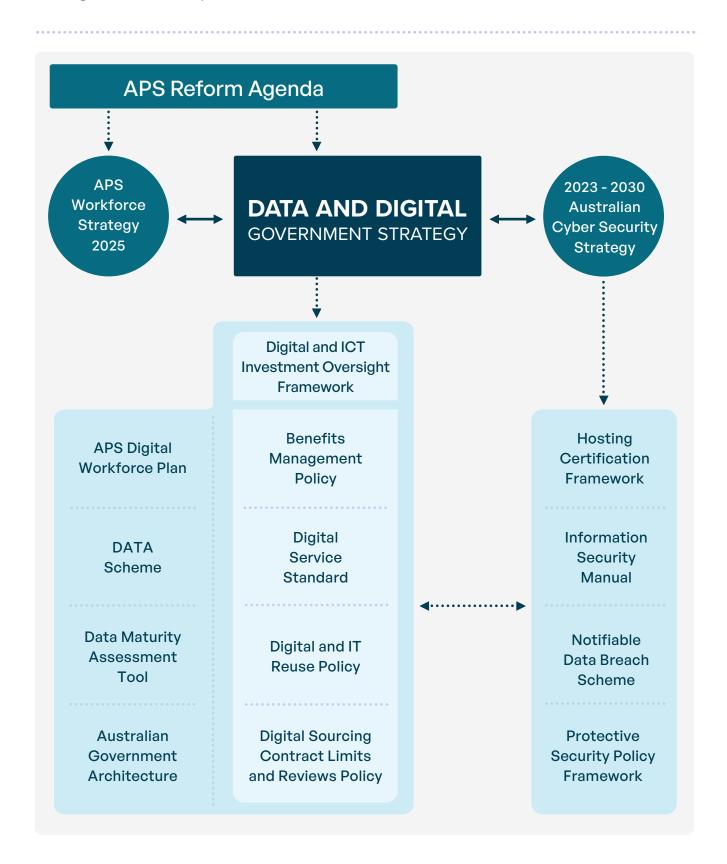
The Australian Government has made significant investments into the APS's data and digital technologies and capabilities. That said, ongoing investment is required to keep pace with evolving technologies and the expectations of people and business.

The Government will use its advice and governance mechanisms, including the <u>Digital and ICT Investment</u> Oversight Framework (IOF) and the <u>Australian</u> Government Architecture (AGA), to ensure data and digital investment decisions are led by quality investment principles and practices such as strategic planning, contestability and assurance.

It will also work closely with state and territory governments to drive more efficient investment in cross-jurisdictional priorities, such as digital ID.

## APS data and digital landscape

Depicts the relationships between data, digital and cyber related whole-of-government strategies and related policies, frameworks, standards and schemes.



## Glossary

**Accredited Data Users:** Commonwealth, state and territory government bodies, and Australian universities who are accredited to obtain and use Australian Government data under the <u>DATA Scheme</u>.

**Accredited Data Service Provider:** an organisation or individual with technical expertise who can offer complex data integration services and/or data sharing on behalf of a Data Custodian.

**Artificial Intelligence (AI):** an engineered system that generates predictive outputs such as content, forecasts, recommendations or decisions for a given set of human-defined objectives or parameters without explicit programming. All systems are designed to operate with varying levels of automation.

**Australian Government Architecture (AGA):** a collection of digital artefacts and guidance materials that can be used as a guide to inform its users on how to align to the digital direction of government.

**Australian Public Service (APS):** comprises entities that employ their staff under the *Public Service Act 1999*; includes all departments of state and some other entities.

**<u>Automated Decision Making (ADM):</u>** An automated system that builds on or around an administrative decision-making process.

<u>Co-design:</u> the active involvement of a diverse range of participants in exploring, developing and testing responses to shared challenges. A simple way to understand co-design is to break it down into its parts. The 'co' is typically considered an abbreviation for 'cooperative' or 'collaborative' design while 'design' draws on the discipline of industrial design.

<u>Critical technologies:</u> technologies that can impact Australia's national interest, including our economic prosperity, national security and social cohesion.

**Data:** any information in a form capable of being communicated, analysed or processed (whether by an individual or by computer or other automated means).

**<u>Data analytics:</u>** describes processes or activities designed to obtain and evaluate data to extract useful information.

**Data asset:** a structured collection of data developed for a purpose.

Data breach: when personal information is accessed or disclosed without authorisation or is lost.

**<u>Data integration:</u>** the process of combining data from two or more sources at the unit level (e.g. person and/or business).

<u>Data-matching:</u> the process of bringing together data from different sources and comparing it. Entities that carry out data-matching must comply with the <u>Privacy Act 1988</u>.

Data maturity: a measure of an organisation's current data management capabilities and capacity.

<u>DATA Scheme:</u> a scheme for sharing Australian Government data, underpinned by strong safeguards and consistent, efficient processes, and focused on increasing the availability and use of Australian Government data to deliver government services, inform better government policies and programs, and support world-leading research and development.

<u>Digital by design:</u> the principle by which digital technologies and data are used to rethink and re-engineer public processes, simplify procedures and create new channels of communication and engagement with public stakeholder.

<u>Digital government:</u> the use of digital technologies as an integrated part of governments' modernisation strategies to create public value.

<u>Digital ID:</u> of an individual means a distinct electronic representation of the individual that enables the individual to be sufficiently distinguished when interacting online with services.

<u>Digital and ICT Investment Oversight Framework (IOF):</u> a six-state, end-to-end framework providing a way for the Government to manage digital investments across the entire project lifecycle.

<u>Digital Service Standard:</u> a set of best-practice principles for designing and delivering government services. It helps digital teams to build services that are user-friendly, inclusive, adaptable, and measurable.

**Entities:** in accordance with section 10 of the PGPA Act and includes Australian Government departments of state, bodies corporate and others.

**Interoperability:** the ability to transfer and use information in a uniform and efficient manner across multiple organisations and information technology systems.

**<u>Legacy technology:</u>** an information system that may be based on outdated technologies but is critical to day-to-day operations.

**Life event:** an event (planned or unplanned) in a person's life where they experience a major change; for example, the birth of a child.

**Machine learning:** a branch of artificial intelligence (AI) and computer science which focuses on the use of data and algorithms to imitate the way humans learn.

Metadata: the information that defines and describes the data.

Omni-channel: the ability for users to switch service channels part way through a transaction.

<u>Online services:</u> a digital service that facilitates interactions between two or more distinct but interdependent sets of users (whether firms or individuals) who interact through the service via the internet.

**Open by Default:** when organisations make government data and policy-making processes available to the public, within the limits of existing legislation and in balance with national and public interest.

<u>Personal information</u>: information or an opinion about an identified individual, or an individual who is reasonably identifiable:

- · whether the information or opinion is true or not; and
- whether the information or opinion is recorded in a material form or not.

**Request for information (RFI):** is an approach to market to seek information from registered sellers. This approach is used when requirements are not clear or well defined.

Sensitive data: personal information that includes information or an opinion about an individual's:

- · racial or ethnic origin
- political opinions or associations
- religious or philosophical beliefs
- trade union membership or associations
- sexual orientation or practices
- criminal record
- health or genetic information
- some aspects of biometric information.

**Technical debt:** is a broad term associated with the additional "owed" effort required to rework customised solutions, normally delivered off pattern to meet deadlines, or where there have been significant delays to maintenance of systems that are required to maintain stability and integrity.

<u>Tell us once:</u> allows members of the public, if they choose, to tell government quickly and easily about a change in their details just once, saving time and expense for both them and the Government. This approach relies on secure data sharing with relevant government entities to ensure individuals do not have to provide the same information multiple times to different entities.

<u>Value for money:</u> the use of public resources in an efficient, effective, ethical and economical manner. Value for money includes considering the financial and non-financial costs and benefits in the use of public resources.

