MANDALA

Assessing the benefits of accelerated digital delivery of government services

This report estimates the benefits of accelerating the shift of government services to digital channels

- This report estimates the benefits of accelerating the adoption of digital transactions by shifting government transactions from traditional channels (in-person, mail and phone) to digital channels.
- To estimate the benefits of accelerated adoption, two scenarios are constructed based on available data: (i) a counterfactual 'delayed' adoption scenario which is reflects Australia's current digital adoption trajectory, and (ii) an 'accelerated' adoption scenario, which is constructed based on adoption data from best-practice government services.
- Estimated benefits of accelerated adoption are the difference in outcomes between the 'accelerated' and 'delayed' adoption scenarios.
- While this transition is essential to unlocking the additional benefits of a full digital transformation, including increased digital health, digital identification and/or digital education service delivery, the benefits of full digital transformation are not estimated in this report.
- Details of the methodology can be found in the Appendix.

Note: All dollar figures are Australian dollars unless indicated otherwise

Executive summary

Successful design and execution of digital services is critical to accelerating adoption

Over 90% of Australians prefer to interact with government digitally. However, the government has not kept pace with user demand, with only 79% of federal government interactions occurring digitally in 2023.

There are four attributes that drive faster digital adoption:

- **Efficiency**: It is quick and easy for users to interact with government.
- **Accessibility**: Services are available in multiple languages and are easy for all citizens to understand.
- **Reliability**: Services work well on all devices, even when there is high user demand.
- **Security**: Digital infrastructure is designed to protect privacy and improve cyber resilience.

Services that exhibit these attributes achieve greater adoption. Service NSW, which provides efficient, accessible and secure services, generates almost twice as many monthly visits per person for NSW government websites compared to federal government websites.

Accelerating digital adoption generates savings for governments and improves outcomes for all citizens

The federal government faces two future pathways:

- Delayed adoption, where digital service delivery continues along its current trajectory.
- Accelerated adoption, where the government ensures its digital services are efficient, accessible, reliable and secure; thus encouraging adoption.

Compared to delayed adoption, accelerated adoption generates benefits for both governments and citizens which include:

- **$12 billion saved** by governments over 10 years in service delivery costs, which could be reinvested to facilitate the equivalent of 70 million additional in-person, phone or postal services per year to give greater support to the most vulnerable Australians.
- **$3 billion saved** by governments over 10 years due to improved cyber security.
- **800 million hours saved** by citizens over 10 years in seeking and accessing government services. This is worth $19 billion to the Australian economy.

Accelerated adoption can be achieved through best practice governance, finance and delivery

Leading digital governments globally apply best practice governance, finance and delivery approaches to their local contexts:

- **Governance:** A government body (or a network of agencies) should have designated responsibility for the overall citizen experience of interacting with government.
- **Finance:** The financing model should ensure that digital infrastructure has ongoing funding for sustainment and incentivises iterative delivery.
- **Delivery:** Project teams should adopt innovative and lean approaches which involve experimentation, testing, feedback and rescoping.

Australia must overcome governance, finance and delivery challenges before it can achieve accelerated adoption. Governance is fragmented, finance is irregular and delivery does not occur in the iterative and incremental patterns needed to accelerate digital adoption. To achieve this, the federal government should start by setting a clear policy priority to deliver world-class digital services.

Accelerated digital adoption delivers substantial benefits for governments and citizens, and can be realised through mirroring best practice governance, finance & delivery

Successful design of digital services is critical to accelerating adoption

Citizens want digital

with 90% preferring to interact with government through digital channels

Four key attributes

of digital government drive faster adoption: efficiency, accessibility, reliability and security

Twice as many visits

per citizen per month to leading digital services compared to federal government services

Accelerated adoption generates benefits for governments and citizens

Great services for all

with all Australians having access to high quality services regardless of their needs or choice of delivery channel

$11.9 billion saved

in transaction costs over 10 years, which could be redirected to improve service delivery for vulnerable Australians

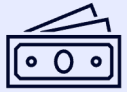
800 million hours saved

(or $19 billion) by citizens over 10 years who are seeking and accessing government services

Accelerated adoption can be achieved through best practice

Governance

should involve a government body that is responsible for the overall citizen experience



Finance

should be structured to allow sustained investment and to incentivise iterative delivery

Delivery

should adopt flexible and iterative methods to ensure projects use the best technology and respond to user needs

Source: Mandala analysis.

1 **Successful design and execution of digital services is critical to accelerating adoption**

2 Accelerating digital adoption generates savings for governments and improves outcomes for all citizens

3 This can be achieved by applying best practice finance, delivery, and governance approaches

4 Appendix

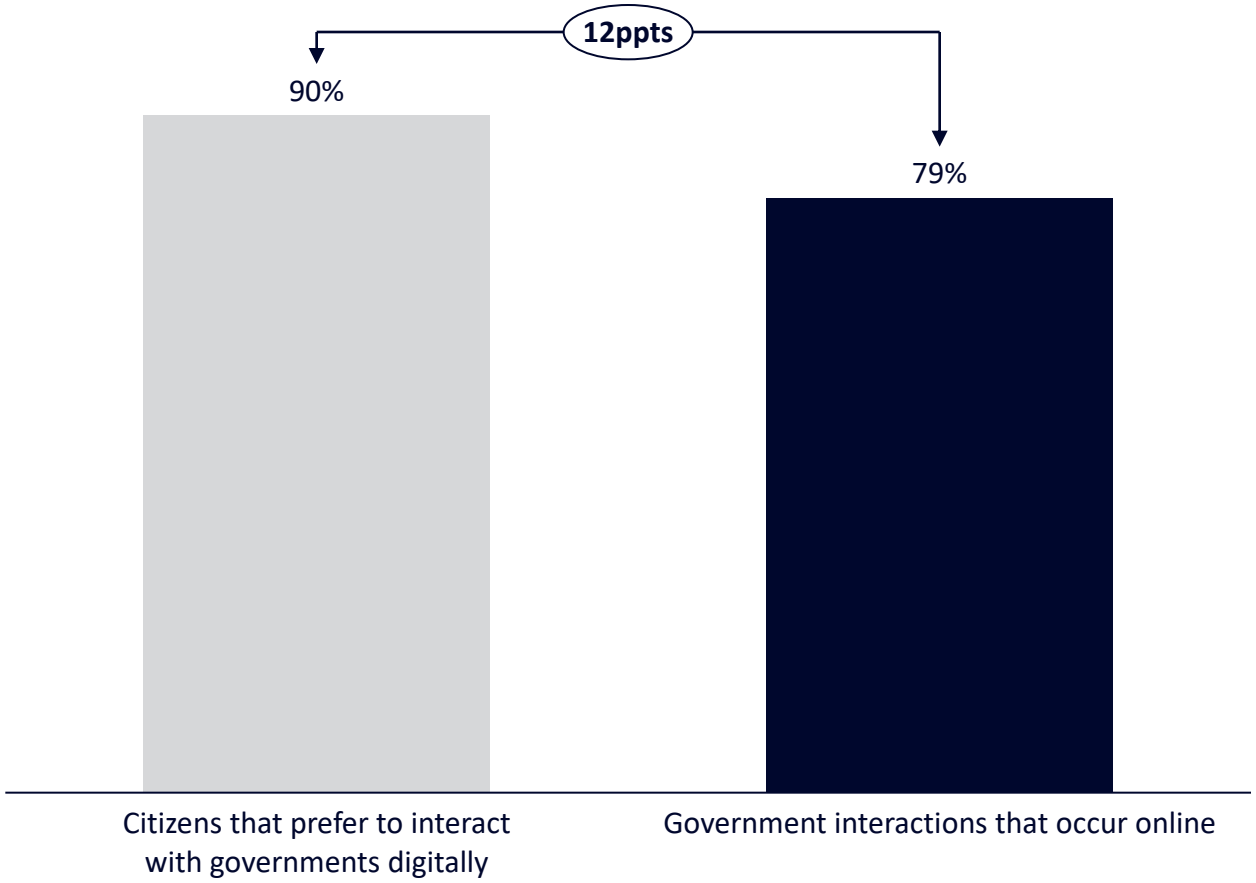
Australians increasingly want digital services, however digital delivery lags citizen expectations

Most citizens (90%) now prefer to interact with government through digital channels. This preference has strengthened since 2017, when only about 60% of citizens preferred digital. Growing demand for online government services reflects broader shifts in the way we live over the past decade:

- 94% of citizens now use mobile phones to go online, compared to 84% in 2017.
- Online shopping now represents 11% of retail trade, compared to less than 5% in 2017.
- The volume of digital banking transactions has increased by 26% over the last three years, while the volume of in-person banking transactions has declined by 46%.

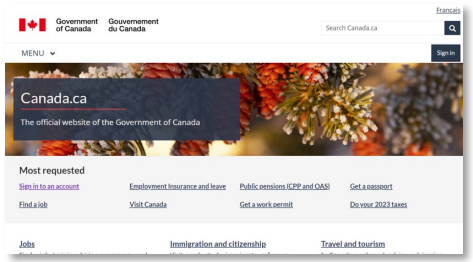
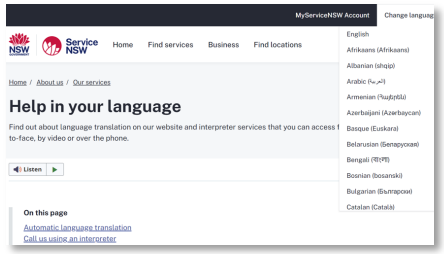
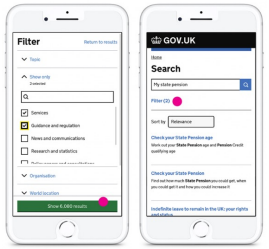
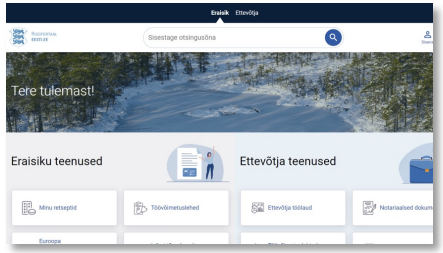
The COVID-19 pandemic has only accelerated citizens' demand for efficient digital services. However, citizens are not adopting government digital services as fast as they would like, with only 79% of government interactions occurring online.

Citizen preferences for digital services vs services delivered digitally
%, 2023



Sources: Australian Bureau of Statistics (2024); Canberra Times (2024); Adobe (2023); Australian Banking Association (2023); Australian Communications and Media Authority (2022); Mandala analysis.

Four attributes are integral to driving adoption of digital government services

Best practice attributes	1. Efficiency	2. Accessibility	3. Reliability	4. Security
Common features	• Consistent design and patterns of interaction across government services • Time-saving features such as 'tell us once' and pre-populated forms • Consolidation into a single 'front door' to help citizens find what they are looking for	• Availability in multiple languages • Content that is easy to read to ensure that all citizens, including 40%+ of adults with low literacy, can engage with government • Adherence to accessibility guidelines	• Webpages are easy to use on mobile devices, to ensure digital services reach the almost 3m citizens who are mobile-only. • Fast load speeds for citizens with limited broadband connectivity • Services are reliable and remain available at times of high demand	• Privacy protections are designed into the digital architecture to promote citizen trust • Data handling is transparent and citizens can make enquiries about their data • Digital infrastructure is designed to promote cyber resilience
Exemplar government services	 Canada consolidates all government services into a single 'front door'.	 New South Wales provides digital services in 68 languages.	 The United Kingdom's services perform well on mobile devices.	 Estonia uses a distributed data architecture to improve cyber security.

Sources: myGov User Audit (2023); Australian Digital Inclusion Index (2023); Digital.NSW (2022); Accenture (2022); Gov.UK (2018); Medium (2017); Mandala analysis.

Services with these attributes experience greater adoption, with NSW seeing twice as many online visits per citizen as the federal government

New South Wales (NSW) has achieved faster digital adoption than the federal government by demonstrating three of the four best practice attributes for digital service delivery.

Service NSW and myGov are the two most visited digital portals in Australia and were launched only a year apart. In 2023, NSW government services, which are almost all accessible through Service NSW, saw 4 visits per citizen. This is double the number of visits received by federal government services in 2023, with many of these services being inaccessible through myGov.

NSW's faster rate of digital adoption has been driven by its superior efficiency, accessibility and security. NSW excels at making it easy for citizens to find what they are looking for online – Service NSW consolidates 340 services from over 70 government agencies, while myGov only offers 76 services from 15 agencies.

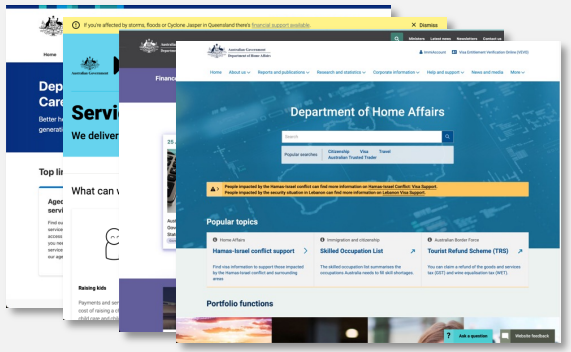
While federal services, such as taxation and disability support, may be more complex than state services, the comparison of Service NSW and myGov shows how best practice attributes can drive greater adoption.

Strength of attribute *Lower* *Higher*

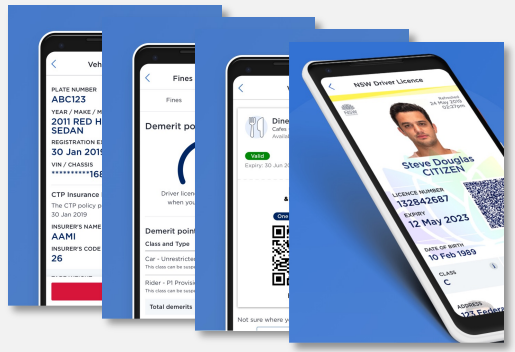
Best practice attribute	Features	Federal government[2]	NSW government
	Monthly online visits per citizen (2023)[1]	**2.2**	**4.0**
1. Efficiency	Customer experience score[3]	65	70
	Consistent design across services	No	Yes
	Services offered by central portal	76	340
2. Accessibility	Languages offered[3]	12	68
	Digital social equity score[3]	79	86
3. Reliability	Mobile performance[4]	43	34
	Desktop performance[5]	78	58
4. Security	'Privacy by design' in design guidelines[3]	No	Yes
	Cryptographic technology[3]	Yes	Yes

NSW offers a more consistent digital experience across services, making it easier for citizens to navigate

Federal government



NSW government



Notes: 1. Average monthly visits from October to December 2023. Government websites included in monthly online visits calculations are included in the appendix. 2. Average of the following federal government services and platforms: myGov, Services Australia, NDIS, Department of Health and Aged Care, ATO, Department of Veterans' Affairs. 3. Availability on central government portals. 4. Global Government Digital Performance and Inclusion Benchmark 2023. 5. Tested using PageSpeed Insights in February 2024. Sources: Similarweb; myGov (2024); Service NSW (2024); myGov User Audit (2023); Digital.NSW (2022); Mandala analysis.

New South Wales government services are accessible and navigable

Service NSW ranks among the best digital government services for accessibility and citizen experience.

Service NSW's digital channels are available in over 68 languages. This ensures that government services are accessible to the more than 400,000 people in NSW (5% of the population) with low English proficiency. It is also navigable and efficient, consolidating 340 services from 70 agencies into a single front door of government to make services easy to navigate.

New South Wales is the top-rated Australian state for:

Digital social equity, due to the readability and accessibility of its digital services.

Customer experience, with its tailored digital self-service offerings.

Primary attributes:

- Efficiency
- Accessibility
- Security

Sources: Adobe (2023); NSW Behavioural Insights Team (2022); Transcultural Mental Health Centre (2022); Digital.NSW (2021). Notes: New South Wales is the top-rated state in the 2023 Digital Government and Inclusion Benchmark.

New South Wales

Top-rated state for digital government service delivery

Parliament of NSW, Sydney

Legacy systems mean that common government services take much longer and cost much more than they need to

Illustrative citizen experience: It takes Angie 10 hours of effort to organise a passport for her 6-month-old daughter…

Navigating — 1 hr

Angie visits six different webpages to understand how to apply for a passport.

Printing — 1 hr

The application form is not linked to myGov and must be completed manually. She spends her Friday afternoon printing the paper form at the library.

Collating — 1 hr

Angie searches for and collates paper originals of her daughter's birth certificate and other documents.

Photographing — 2 hrs

Angie takes half a day off work to drive to the post office to get her daughter's passport photo taken. She wastes time driving to and from the post office, and waiting for the photo to be taken and processed.

Endorsing — 2 hrs

She arranges a time for one of her neighbours to act as a guarantor. Her neighbour must sight the passport photo and endorse it in ink.

Completing — 1 hr

She spends more time to complete the form. The instructions on the form and online are not written in a way that is easy for her to understand.

Submitting — 2 hrs

Angie takes another half day off work to submit her forms at the post office. She spends more time travelling, waiting to be served, and having her details verified before she can submit.

> DFAT has not been efficiently delivering passport services… The department's approach is not customer-focused.
>
> *- ANAO*

Source: Auditor-General Report on the Efficiency of the Australian Passport Office (2024); Adobe analysis of user interactions; user interviews; Mandala analysis.

1 Successful design and execution of digital services is critical to accelerating adoption

2 **Accelerating digital adoption generates savings for governments and improves outcomes for all citizens**

3 This can be achieved by applying best practice finance, delivery, and governance approaches

4 Appendix

Accelerated digital adoption generates benefits for both governments and citizens, including cost and time savings

	Benefits of accelerated digital adoption	Size of the benefit[1]
Benefits to governments of accelerated adoption	Decreased cost of providing services	**$12 billion saved** over 10 years
	Improved cyber resilience	**$3 billion saved** over 10 years
	Better compliance	**$2.6 billion saved** over 10 years
Benefits to citizens of accelerated adoption	Saved time and effort	**800 million hours** ($19 billion) saved over 10 years
	Increased citizen satisfaction	**10 percentage point increase** in the proportion of satisfied citizens
	Greater accessibility	**4 index point increase** in the Digital Social Equity Index
	Improved trust in government	**14 percentage point increase** in citizen confidence in government

Notes: 1. Benefits are compared to the 'delayed adoption' scenario. Source: Mandala analysis.

How we estimate the benefits of accelerated digital adoption

To estimate the benefits of accelerated adoption, we model future adoption paths for myGov based on historical adoption data. Drawing upon literature on technology adoption, myGov's adoption path follows an S-shaped curve as the adoption level increases from 0.0 (no adoption) to 1.0 (saturation).

The current myGov adoption level is 0.57. From 2024, we model two future myGov adoption paths:

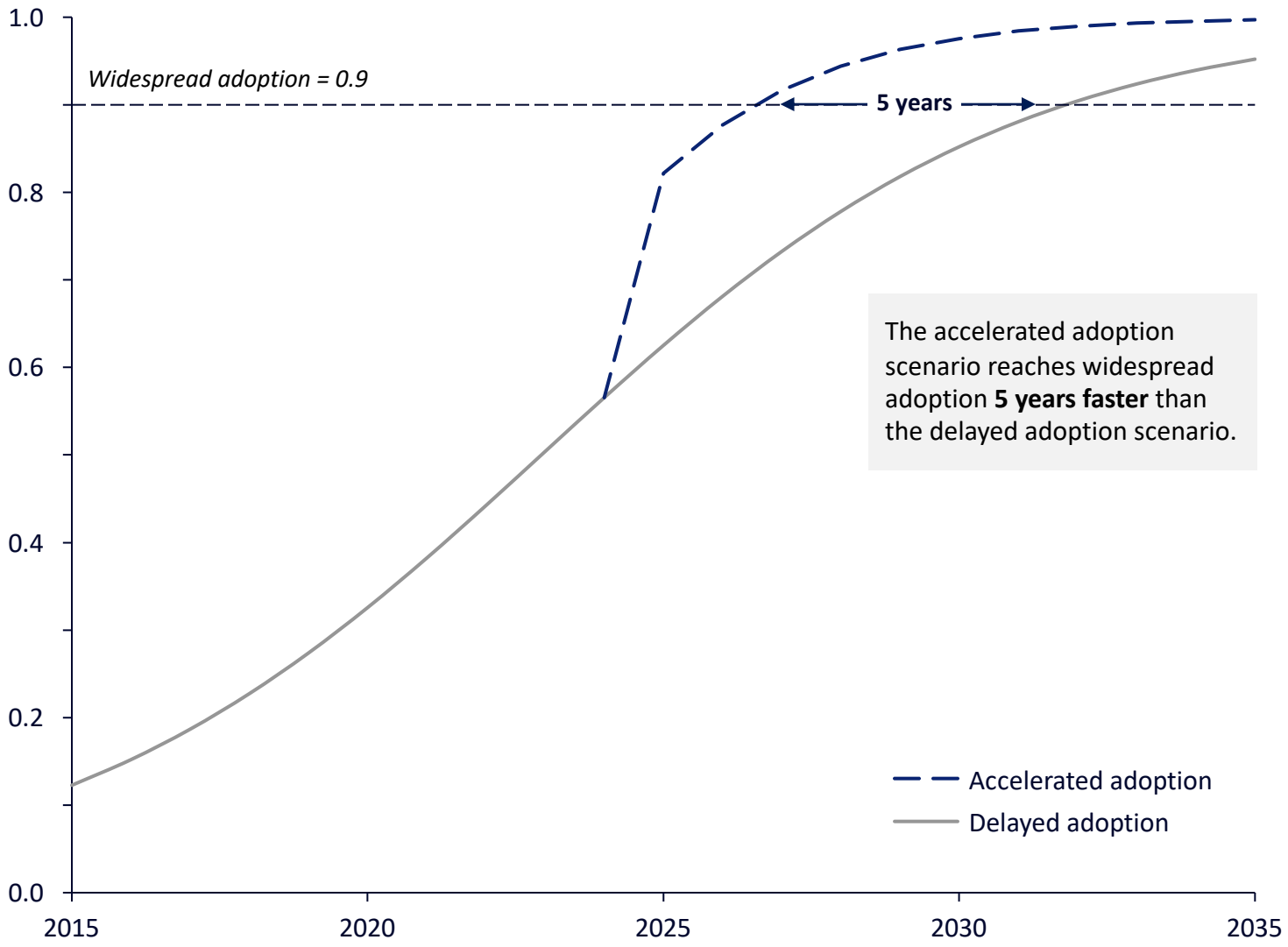
- **Delayed adoption**, where the development of digital government services continues along its current path.
- **Accelerated adoption**, where the government invests in transforming myGov into a leading central government portal which exhibits best practice attributes. This drives faster myGov adoption. The accelerated adoption path is calculated based on the adoption paths of best practice services like Service NSW and Gov.uk.

The cost and time saving benefits of accelerated adoption compared to delayed adoption are largely driven by the higher myGov adoption levels (and a higher number of transactions) under the accelerated adoption scenario.

Accelerating the digital adoption of services has significant benefits for both governments and citizens, including cost and time savings. Delivering world-class digital government services and accelerating adoption means that these benefits are realised sooner, allowing governments and citizens to enjoy these benefits for longer.

Modelled myGov delayed and accelerated adoption paths

Adoption level (1.0 = maximum adoption)



Notes: A detailed methodology on adoption level calculations is in the appendix. Sources: Semrush; Mandala analysis.

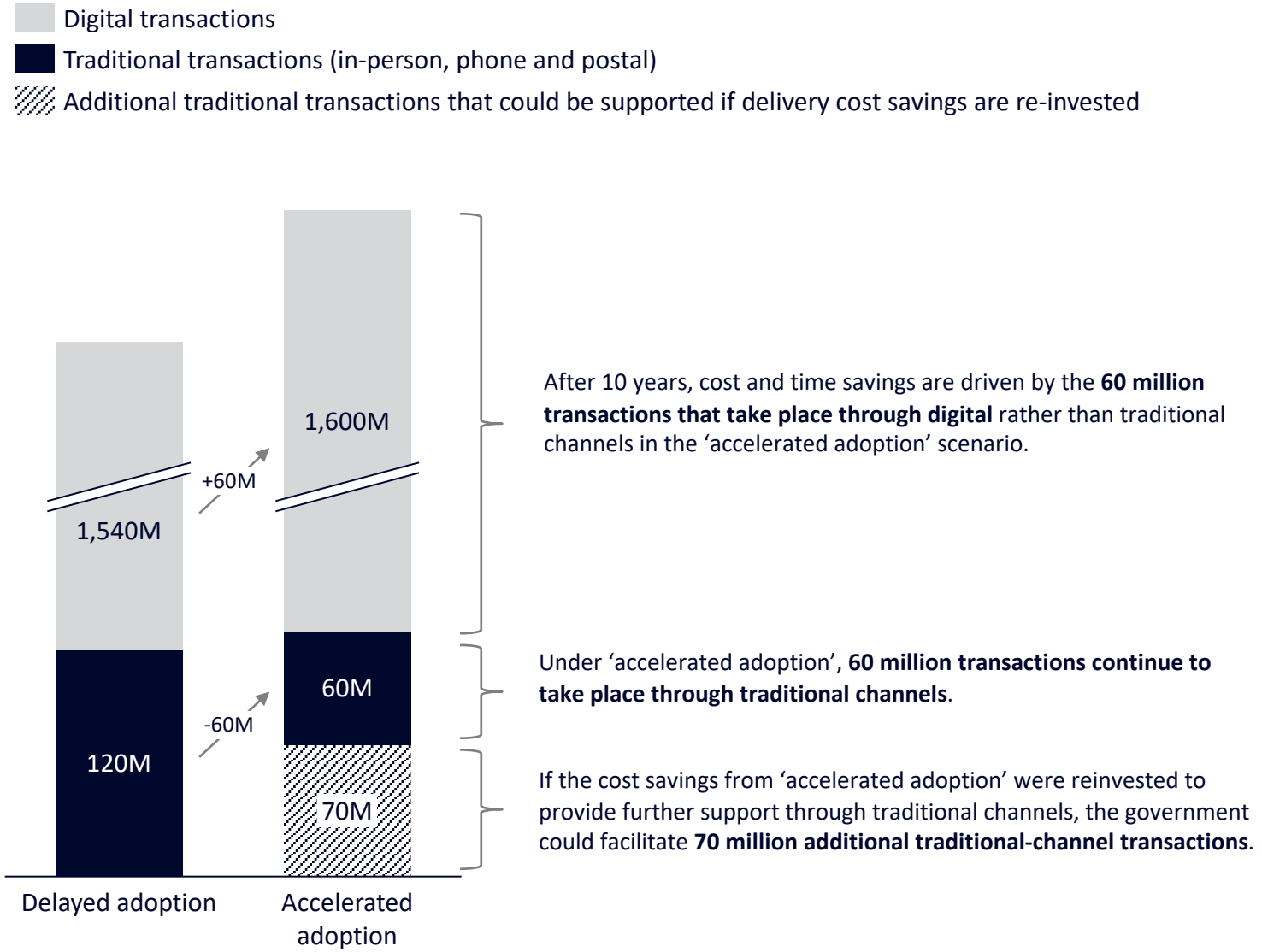
Modelled cost and time savings are largely driven by the 60 million additional transactions that shift from traditional to digital channels under accelerated adoption

Accelerated digital adoption means that all Australians will have access to quality digital services, regardless of their needs or choice of service channel.

Accelerated adoption means that an additional 60 million transactions take place through efficient and user-centric digital channels rather than traditional channels. Many citizens benefit from the convenience and accessibility of these digital services.

Vulnerable citizens, including the 2.5 million Australians who are considered 'highly digitally excluded' will not be left behind under accelerated adoption. Under this scenario, citizens continue to access 60 million in-person, phone and postal transactions. Further, accelerated digital adoption frees up resources which could be reinvested to improve the quality of in-person, phone and postal services. Cost savings from digital adoption could facilitate the equivalent of 70 million additional traditional-channel transactions.

Modelled number of transactions per year by channel
Number, 2034



Sources: Australian Digital Inclusion Index (2023); Mandala analysis.

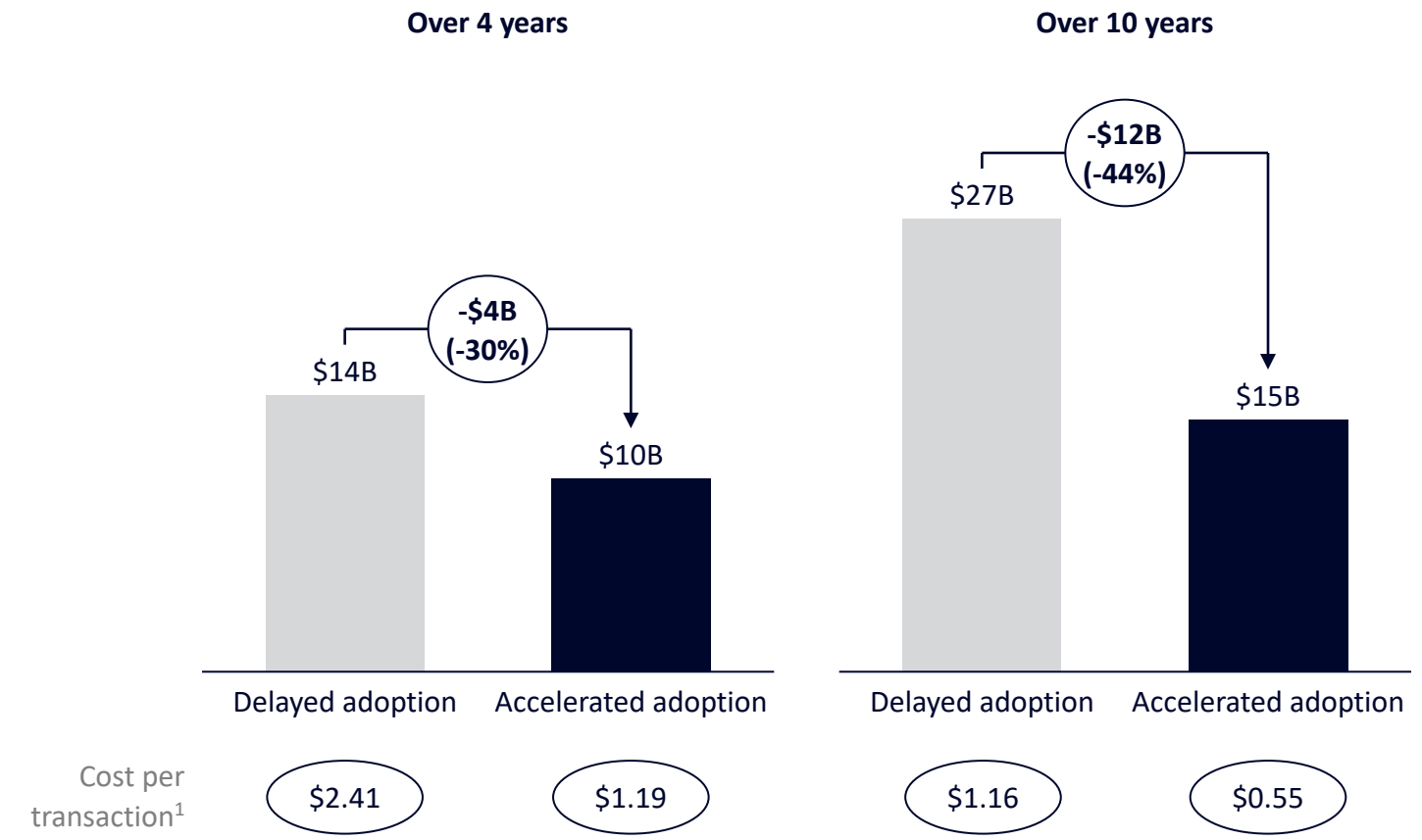
Accelerating digital adoption could reduce delivery costs by $12 billion over 10 years, which could be redirected to support citizens with complex needs

The government will deliver over 15 billion transactions over the next decade. Even small savings in per transaction costs can drive large savings for the government. Yet the differences in the cost of delivery between traditional and digital channels is significant – compared to digital, phone transactions cost over 15 times as much, and in-person transactions cost over 40 times as much.

Many simple services are currently delivered through traditional channels because there is no user-friendly digital option. By accelerating digital adoption, the government can deliver 60 million additional services per year through digital rather than traditional channels, realising a saving of $12 billion over 10 years. This saving could be redirected towards supporting citizens with high-touch needs by facilitating the equivalent of 70 million additional traditional transactions.

There are additional financial benefits to government that have not been quantified here. By bringing together over 3,000 government websites into a common digital architecture, the government also realises greater efficiencies through reduced duplication, lower administrative costs and errors, and fewer password resets.

Total cost of service delivery over 4 and 10 years
$A, 2023 dollars, 7% discount rate



Cost savings can be redirected to provide further support to citizens who need to access in-person, phone or postal services. It could be used to invest in service quality or facilitate the equivalent of **70 million additional traditional-channel transactions.**

Sources: Deloitte (2019); ANAO (2017); Mandala analysis. Notes: 1. Refers to cost per transaction in Year 4 and Year 10.

Accelerated digital adoption benefits both users of digital services and people who require in-person or phone services

Illustrative citizen experiences under delayed and accelerated digital adoption

Citizen	Experience with delayed digital services	Experience with accelerated digital services
 **Marie** • Wants to apply for financial assistance • Has mobile-only internet access	**Marie is unable to find what she needs online.** The government website is slow and hard to use on her phone. Marie must catch the bus 40 minutes to her nearest service centre and wait 30 minutes to be served.	**Marie can easily find what she needs on her phone** and can apply for financial assistance in minutes.
 **Jan** • Needs frequent in-person support for a complex disability assistance claim	**Jan must wait for up to 60 minutes**, three times per week, to be served at the government service centre. Service is often rushed as staff struggle with customer volumes.	**Jan is now receiving more personalised in-person support** as the government service centre has more capacity. Wait times are much shorter, as many citizens now find what they need online.

Source: Mandala analysis.

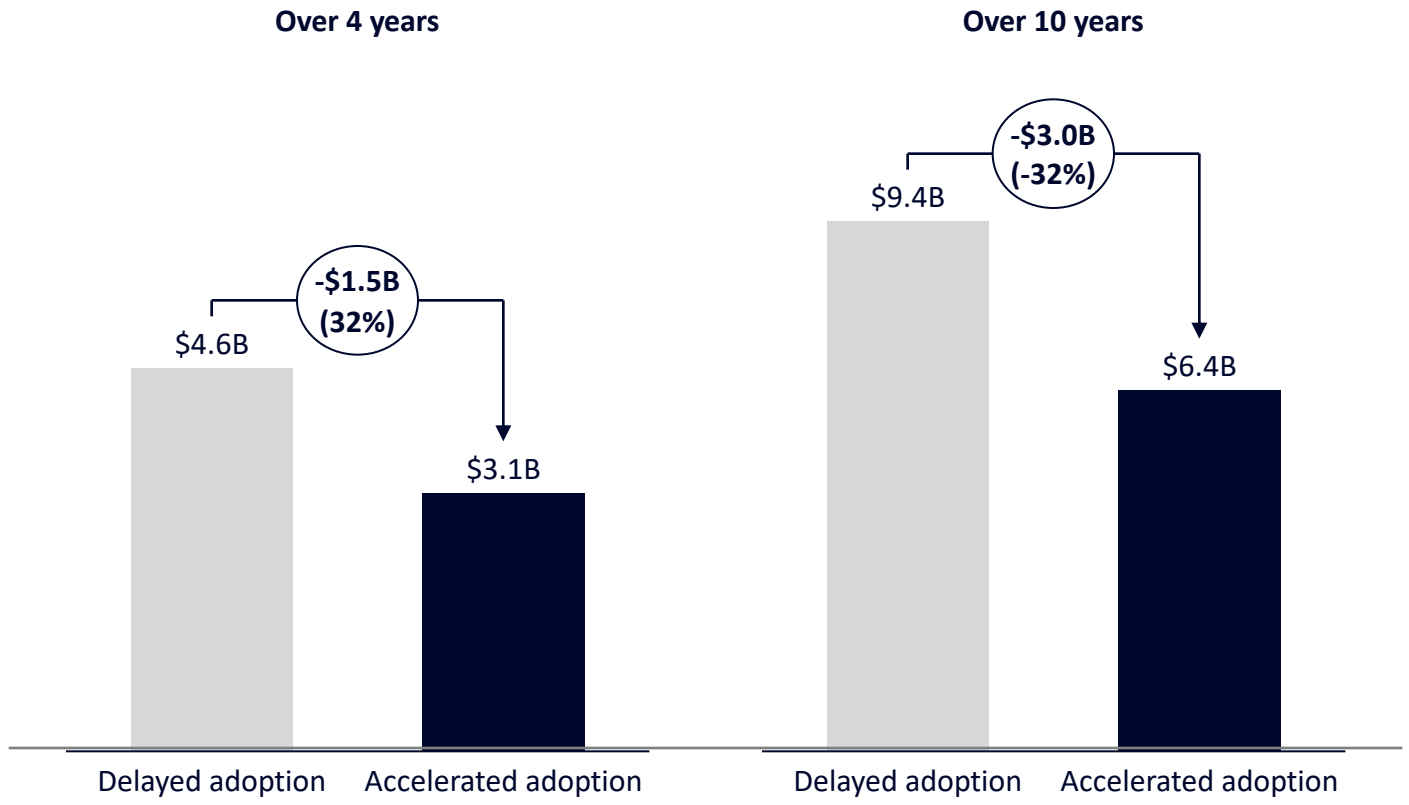
Achieving best practice digital service delivery could reduce the cost of government cyber attacks by $3 billion over 10 years

In 2022-23, the federal government reported over 300 cyber incidents, with each incident costing the government $4 million on average. Government systems are particularly attractive targets for cyberattacks due to the highly sensitive nature of the information they hold, including taxation data and health records.

Organisations that invest more in digital government services and apply the best cybersecurity practices experience fewer, and less severe, cybersecurity breaches. For example, reducing system complexity reduces the cost of cyber breaches by 9%.

Best practice governments improve digital adoption by investing in digital security. They do this by eliminating duplicated systems and investing in security technologies such as AI, encryption and advanced data security software. For example, Estonia uses distributed data management software which eliminates data duplication and improves security by requiring a cyber attacker to penetrate seven digital environments simultaneously.

Cost of government cyber incidents over 4 and 10 years
$A, 2023 dollars, 7% discount rate



Accelerated digital adoption also lays the foundations for digital solutions that can reduce identity crime and misuse, which costs Australians over $3 billion per year.

Sources: IBM (2023); Australian Signals Directorate (2023); IT News (2023); CSO (2023); Australian Institute of Criminology (2020); Mandala analysis.

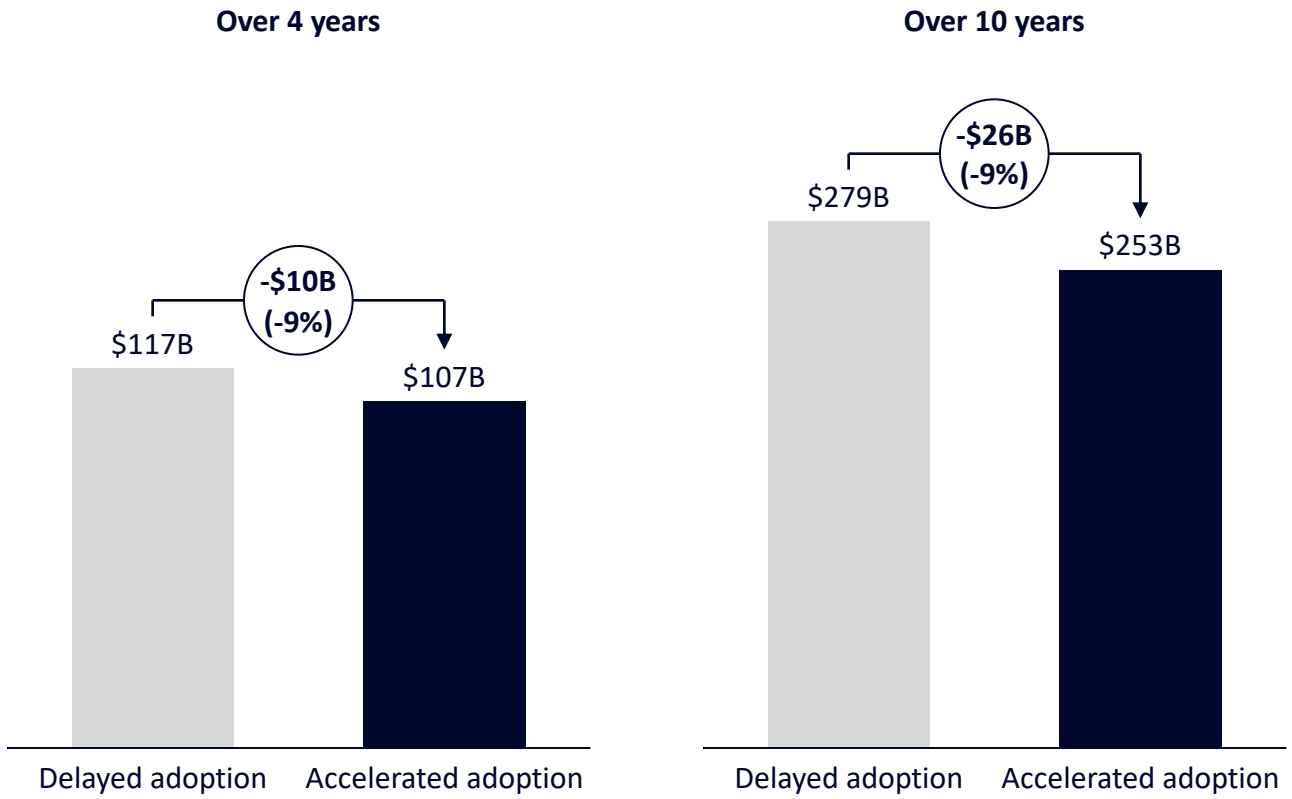
Accelerated digital adoption could improve citizen compliance rates, saving the government $26 billion over 10 years

Across the Australian Taxation Office, Medicare and Centrelink, citizen compliance issues cost the government over $30 billion per year in direct costs, plus additional administrative and compliance costs.

By offering high-quality digital services, the government can improve citizen compliance rates by enabling people to more easily and accurately provide information. Governments that pre-fill forms with accurate information can increase compliance rates by up to 15 percentage points. They can also improve compliance by minimising the number of forms for citizens to complete, by applying 'tell us once' practices and by facilitating efficient and accurate data sharing between agencies.

The accelerated digitisation of government services has the potential to significantly reduce the costs associated with non-compliance. For example, while pre-filling is available for some parts of individual tax returns, over 15% are lodged late. In Estonia, where citizens can lodge tax returns with a single click, only 5% are lodged late. The Estonian tax authority is also able to collected a greater proportion of expected revenues (see the case study on page 18).

Cost of non-compliance over 4 and 10 years
$A, 2023 dollars, 7% discount rate



Citizen compliance issues in relation to the ATO, Medicare and Centrelink alone cost the government at least $30 billion per year.

Sources: Fochmann, Müller and Overesch (2018); Mandala analysis. Notes: ATO (2023); Department of Health and Aged Care (2023); Redmond and Praino (2016). 2. Academic literature suggests that user-centric technologies like pre-filled forms improve tax compliance rates to a statistically significant extent. However, it is difficult to forecast how introducing these initiatives will improve compliance rates across all government services. For this analysis, we assume that under the accelerated adoption scenario, the non-compliance rate for digital services falls by 10%.

Estonia's world-leading digital government infrastructure makes tax compliance easy

Estonians can file their income tax declarations in just 3 minutes.

Estonia's e-tax system allows citizens to easily complete their annual personal income tax declarations by accurately pre-filling almost all necessary data from third-party sources. Not only does Estonia's e-tax system pre-fill income information, it also pre-fills most expense information including training and mortgage costs. Most citizens can simply approve the calculated result with a single click.

This has allowed Estonia to achieve a high rate of citizen compliance, with:

A **6% personal income tax gap**,[1] 3 percentage points lower than in Australia.

95% of income tax declarations submitted on time, 10 percentage points higher than Australia.

Primary benefits:

- Improved compliance
- Saved time and effort

Sources: OECD.Stat (2024); OECD (2023a; 2023b); Australian Tax Office (2023); Invest in Estonia (2021); International Monetary Fund (2014). Notes: 1. This is the gap between what the government actually collects in tax and what it would collect if all tax declarations were accurate. Estonian personal income tax gap is for 2012, calculated from available data.

Estonia

Offers over 2,600 government services through its secure digital platform

Estonian parliament building, Tallinn

Accelerating adoption could save Australians 800 million hours ($19 billion) over 10 years in time spent engaging with government services

Accelerated digital adoption will save citizens 800 million hours over 10 years. This saved citizen time is worth $19 billion to the Australian economy.

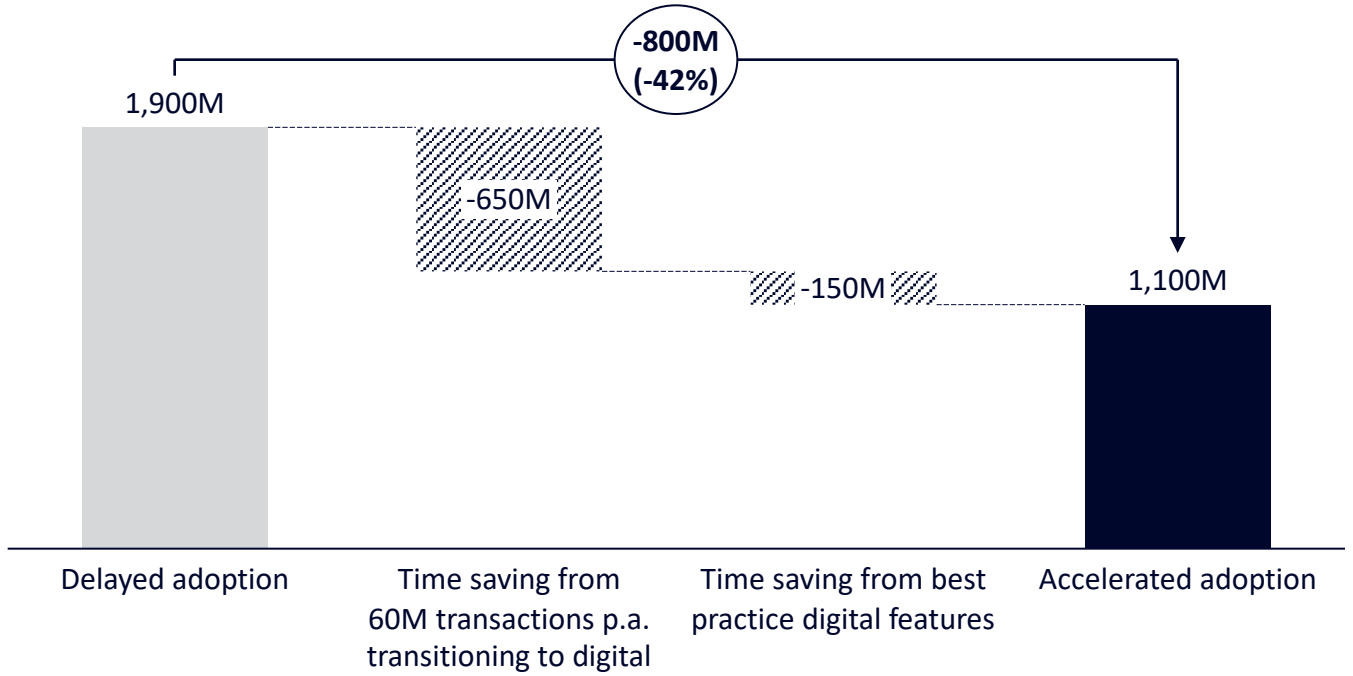
By 2034, accelerated adoption will enable 60 million transactions per year to transition from traditional to time-efficient digital channels. This channel shift saves citizens 650 million hours over 10 years, before accounting for any efficiency enhancements to digital services. It also frees up capacity for more complex transactions to be served in-person or via phone or post. On average, citizens spend:

- 3 minutes per digital transaction
- 15 minutes per phone transaction
- 30 minutes per postal transaction
- 60 minutes per in-person transaction, including travel time

Citizens also save 150 million hours over 10 years with the introduction of best practice features to digital services. These features include pre-filling forms, further consolidating government websites and ensuring that webpages are easy to navigate.

Citizen time spent accessing government services over 10 years
Hours

Over 10 years, citizens save 800 million hours, which is worth **$19 billion** to the Australian economy.



Accelerated digital delivery also lays the foundations for the expansion of additional digital services such as telehealth, which have the potential to save citizens significant travel time while improving access to essential government services.[1]

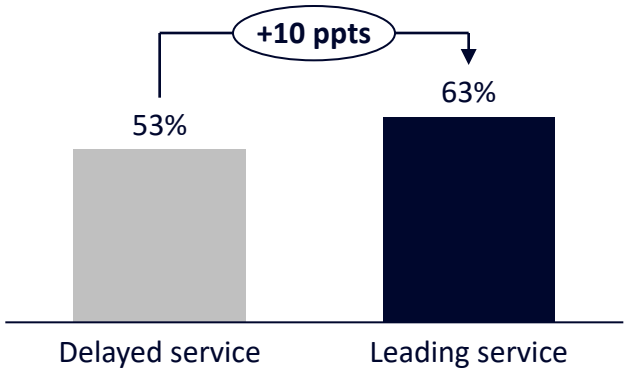
Sources: MyGov User Audit (2023); Le and Aggarwal (2021) Mandala analysis. Notes: 1. For example, Le and Aggarwal (2021) found that telehealth consultations with a small group of remote and rural Australians with chronic neurological conditions saved patients an average of $550 in travel costs. The time and cost savings of expanded digital services (e.g., telehealth) are not included in the estimated benefits in this report.

By accelerating adoption, citizens could enjoy 10 ppt greater satisfaction, 4 index points higher accessibility and 14 ppt higher trust in government

Benefits to citizens of delivering world-leading digital services

Satisfaction

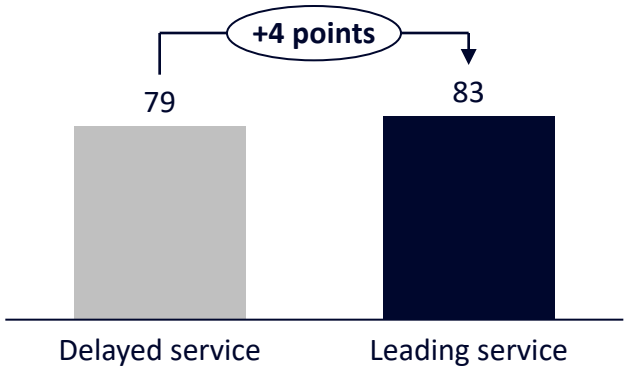
Satisfaction with government services
Proportion of citizens satisfied with government services, 2021



Only 53% of Australians are satisfied with government services. Low satisfaction rates are driven by services like the Department of Veterans Affairs and the Department of Health and Aged Care. By investing in best practice digital services, Australia could raise satisfaction rates by 10 percentage points.

Accessibility

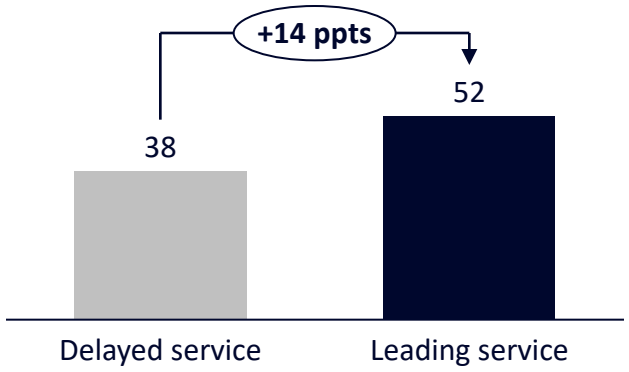
Accessibility of government services
Digital Social Equity Index, 2023



Accessibility varies across government services, with the Department of Veterans Affairs significantly lagging due to poor readability. By consolidating government services, Australia could improve accessibility by 4 index points.

Trust

Trust in government
Percentage of citizens that express confidence in government, 2021



Citizens place greater trust in governments that provide high quality digital services. They are also less likely to rely on (and pay for) third party-services to interact with government. Best practice digital adoption could raise trust in government by 14 percentage points.

Notes: Satisfaction based on OECD assessment for Australia (delayed adoption) and average of best practice countries (accelerated adoption). Accessibility based on average digital equity index scores in the Adobe Digital Government Performance and Inclusion Index report: delayed adoption is calculated as the average of Australian federal government services and accelerated adoption is based on MyGov, as digital services would be consolidated and standardised under a single accessible government front door under this scenario. Sources: Adobe (2023); OECD (2023); OECD (2021).

Canada has invested in site consistency and site performance, improving citizen trust

Canada.ca is a fast and reliable digital 'front door' to over 70 government services.

Canada.ca consolidates over 70 government services, each with a consistent design and pattern of interaction, to make it easy for users to find what they need. Service Canada has recently uplifted Canada.ca's site performance – in 2020, it improved site speed by 55% and ensured that the website could support billions of visits with 100% uptime.[1]

Canada.ca now enjoys a high level of citizen satisfaction and trust with:

An 85% satisfaction rate, one of the highest digital government satisfaction rates in the world.

80% of visitors trusting Canada.ca to be a reliable and authoritative source of information.

Primary benefits:

- Increased citizen satisfaction
- Improved trust in government

Sources: BCG (2023); Adobe (2020); Mandala analysis. Notes: Data available for the first 7 months of 2020.

1 Successful design and execution of digital services is critical to accelerating adoption

2 Accelerating digital adoption generates savings for governments and improves outcomes for all citizens

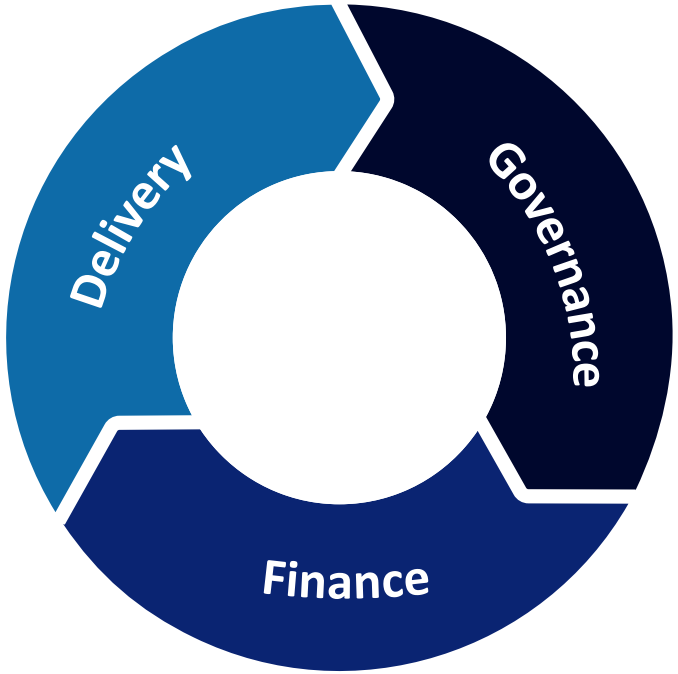
3 **This can be achieved by applying best practice finance, delivery, and governance approaches**

4 Appendix

Leading digital governments follow three best practice principles for governance, finance and delivery, catalysed by strong policy priorities

Best practice principles for delivering world-leading government services

Governments that set **world-leading digital delivery as a policy priority** catalyse and accelerate the cycle of best practice



Governance

A government body (or network of agencies) should have designated responsibility for the overall citizen experience of interacting with government.

Finance

The financing model should ensure that digital infrastructure has ongoing funding for sustainment and incentivises incremental and iterative delivery.

Delivery

Project teams should adopt innovative and lean approaches which involve experimentation, testing, feedback and rescoping.

Sources: Mandala analysis.

Best practice governments have used different combinations of governance, finance and delivery models to accelerate digital adoption

Impact of factor in driving increased adoption

Best practice government	Governance	Finance	Delivery	Example of best practice that has driven increased adoption	Increase in adoption (2019 – 2023)	Relevance to Australian context[1]
New South Wales				**Finance:** NSW's Digital Restart Fund approves small increments of funding in response to 'Lean Business Cases', with further funding tied to demonstrated progress towards specified objectives.	**115%**[2]	High
Estonia				**Delivery:** Estonia enables both the private and public sector to develop high quality digital government projects, ensuring that citizens have access to the best services at the lowest price.	**65%**[4]	Medium
Canada				**Governance:** Canada's digital delivery is coordinated through its Office of the Chief Information Officer and Service Canada, which develop whole-of-government priorities for digital services.	**93%**[3]	Medium
United States				**Finance:** The Technology Modernization Fund provides government agencies with the flexibility to access and repay loans outside traditional budget cycles, ensuring that they can quickly respond to user needs.	**13%**[3]	Medium
Denmark				**Governance**: Denmark has legislated interoperability between government services and web accessibility standards for government websites.	**75%**[3]	Low
United Kingdom				**Delivery**: The UK's 'Digital by Default' strategy and Digital Service Standard codifies iterative and experimental ways of working across government, including incremental delivery and 'failing fast'.	**13%**[5]	Low

Notes: 1. Based on links to the Australian federal government, reputation for leadership and similarity with Australian government arrangements. 2. Based on app adoption. 3. Based on e-government traffic. 4. Government portal logins, 2013 – 2017. 5. Estimated based on available e-government traffic data. Sources: myGov User Audit (2023); UK Cabinet Office (2023); Riigiportaal (2022); Government Digital Service (2015); Semrush; Mandala analysis.

Best practice principles have been challenging to adopt, leading to poor outcomes for citizens

Best practice principle	Challenge in Australia	Outcome for citizens
Governance	• There is **no organisation that prioritises the overall citizen experience** of interacting with government. • Portfolios deliver services that may meet the needs of their users, but **not the overall citizen experience**. • MyGov member services have **independent governance arrangements** which may not align with myGov priorities.	Citizens are left with a **fragmented user experience**. 37% find it hard to locate what they are looking for online.
Finance	• **Funding is irregular** for sustaining and incrementally enhancing digital government infrastructure. • As standard, myGov charges member services for the use of its platform, **disincentivising agencies from integrating** with myGov.	**Digital infrastructure is often neglected**, and services fall behind the digital delivery standards set by the private sector.
Delivery	• Many projects receive **one off, 'big-bang' funding for multi-year projects** which often attempt to replace entire systems, rather than make incremental improvements. • Teams are **discouraged from applying the innovative and iterative practices** needed to keep up with changing citizen needs and technologies.	Digital service projects frequently **fail to deliver a good user experience** and often exceed cost estimates.

> It is hard to find all the relevant information on a service or topic.
>
> *- myGov User Audit*

> [myGov is] something that you need to take a long-term perspective on, and you need to fund and commit to.
>
> *- David Thodey AO*

> You need to have some areas inside a government that are prepared to sandbox and do some edgy things.
>
> *- The Hon Victor Dominello*

Source: Australian Financial Review (2024); myGov User Audit (2023); United States Studies Centre (2023); Minister for the Department of Social Services (2023); Noun Project; Mandala analysis.

To accelerate digital adoption, the federal government should start by setting a clear policy priority to deliver world-class digital government services

Policy priorities for government

Horizon 1: Short term priorities

Governance

Establish or identify a government organisation that is responsible for the whole-of-government user experience.

Finance

Commit to ongoing appropriation funding for digital infrastructure sustainment and enhancements in place of multiple Budget proposals.

Delivery

Services Australia should actively promote their service delivery capabilities throughout the government to expand its community of member services and support more standardised delivery.

Horizon 2: Long term goals

Governance

Work with states and territories to make it easy for people to access services across all levels of government.

Finance

Adopt a funding model that encourages agencies to onboard their services onto a centralised platform.

Delivery

Require that government services apply the Australian Government Architecture to ensure that all services are developed using consistent, iterative approaches.

Source: myGov User Audit (2023). Notes: Supported by the findings of the myGov User Audit (2023).

1. Successful design and execution of digital services is critical to accelerating adoption

2. Accelerating digital adoption generates savings for governments and improves outcomes for all citizens

3. This can be achieved by applying best practice finance, delivery, and governance approaches

4. **Appendix**

Appendix A:

Case studies of best practice digital services

Service NSW is a world-leader in digital government services delivery

In 2019, the NSW Government established the Department of Customer Service (DCS) as a key governance structure to centralise and improve the delivery of user-centric government services. DCS administers the Digital Restart Fund which is designed to accelerate the delivery of digital projects.

Simultaneously, the NSW Government also transformed its finance model with the introduction of its Digital Restart Fund (DRF), which has now delivered over $2 billion in project finance. The DRF centralised funding that was previously siloed in government departments, and housed this funding within the DCS. To access DRF funding, departments now need to present 'Lean Business Cases' to the DCS to demonstrate that the project aligned with DRF goals. This change in finance model ensures cohesive digital project delivery across departments, uplifting citizens' overall experience of interacting with government.

The DRF also facilitates rapid and iterative delivery, as small increments of funding are approved in response to 'Lean Business Cases', with additional finance conditional on progress towards project outcomes. This encourages project teams to develop a recursive approach to delivery and ensures that projects provide the best experience for users. Notably, the fund has contributed to the creation of customer-centred services like the Digital Driver Licence and Digital Vehicle Registration.

Case Study: New South Wales and Service NSW

Relevance to Australian context: High

Key achievements:

- **76%** have a Digital Drivers Licence
- **77%** find it easy to interact with government
- **Top-ranked** Australian state for e-government[2]
- Increase in users[1] **+115%**

ADOPTION OF BEST PRACTICE

Governance — Impact:

NSW's governance model ensures that every digital project considers the overall citizen experience. To access NSW's multibillion dollar Digital Restart Fund, project sponsors must engage the Department of Customer Services and its customer delivery teams to access digital project funding.

Finance — Impact:

The finance model encourages project teams to move quickly and accelerate delivery. The Fund approves small increments of funding in response to 'Lean Business Cases', with further funding tied to demonstrated progress towards specified objectives. Because the Fund is set up as a Special Deposits Account, funding can be approved quickly (four times per year), instead of annually through the budget cycle.

Delivery — Impact:

Project delivery teams are incentivised to adopt flexible and iterative delivery. As funding is released in increments and tied to demonstrated outcomes, project teams are incentivised to adopt flexible delivery practices, including prototyping, customer testing and rescoping.

Notes: 1. Increase in Service NSW app users from 2019 to 2023. 2. Global Digital Performance and Inclusion Index. Sources: Digital.NSW (2023); myGov User Audit (2023); Semrush; Mandala analysis.

Estonia enables citizens to file their tax return in 3 minutes

Estonia began its journey to becoming an e-government world leader in 2002 with the introduction of a mandatory digital identity (e-ID). A denial-of-service attack in 2007 supercharged Estonia's commitment to pioneering its delivery of government services.

From this point onwards, the Estonian government invested heavily in its digital capacity and now hosts NATO's cyber war games each year. Use of distributed ledger technology (X-Road) allows for seamless and secure communication between different arms of government. As a result, Estonian users consistently report higher levels of satisfaction with using e-government services than countries such as Australia, the UK, USA and Canada. More than 2,600 government services can be accessed via eesti.ee and the X-Road technology has been exported to Finland and Iceland.

99% of government services are available online. The time-efficiency of Estonia's digital services is exemplified through its e-tax system. As all income tax information is pre-filled, citizens take only three minutes on average to review and submit their income tax declarations. 95% of personal income tax declarations are submitted on time, compared to only 85% in Australia.

Case Study: Estonia and eesti.ee

Relevance to Australian context: Medium

Key achievements:

- **99%** of government services available online
- **99%** of Estonians have an e-ID
- **91%** satisfaction rate for filing tax return
- Increase in users[1] **+65%**

ADOPTION OF BEST PRACTICE

Governance Impact:

Estonia's Information System Authority centrally coordinates the development of national data infrastructure to ensure a cohesive customer experience across government services.

Finance Impact:

Project finance and digital procurement is conducted centrally through the Ministry of Economic Affairs. This ensures that digital projects align with the government's overall digital infrastructure.

Delivery Impact:

Estonia enables both the private and public sector to develop high quality digital government projects. The government may then purchase the digital solution from the private sector. This approach promotes competition in the development of digital government services to ensure that citizens have access to the best services at the lowest price.

Notes: 1. Increase in eesti.ee portal logins from 2013 to 2017. Sources: OECD (2023a; 2023b); Australian Tax Office (2023); IT News (2023); e-Estonia (2023, 2022); Invest in Estonia (2021); Clarke (2019); Mandala analysis.

Canada has seen a 93% increase in digital government visits since 2019

In 2013, the government launched Canada.ca. Through its secure online portal – My Service Canada Account – citizens can now access more than 70 government services including passports, taxes and financial assistance. These government services display a consistent design and pattern of user interaction to make it easy for citizens to find what they are looking for.

In 2017, the Canadian Digital Service (CDS) was established and signified the ongoing commitment of Canada to the digital delivery of government services. The CDS collaborates with government departments, including Health Canada and Employment and Social Development Canada, to accelerate digital project delivery and improve the online citizen experience. It has launched several digital products to embed and standardise digital best practice across government services. These include GC Forms (which helps government departments build consistent and accessible forms) and GC Notify (a standardised system through which departments can send email and text notifications to citizens).

Canada's investment in site performance and user experience was exhibited during the COVID-19 pandemic. Canada.ca could facilitate frequent changes to published information, and support billions of user visits, while maintaining 100% availability.[2]

Case Study: Canada and Canada.ca

Relevance to Australian context: Medium

Key achievements:

- **70+** services accessible through Canada.ca
- **85%** satisfaction rate with Canada.ca
- **100%** uptime in 2020, supporting billions of visits[2]
- Increase in users[1] **+93%**

ADOPTION OF BEST PRACTICE

Governance — Impact:

Canada's digital delivery is coordinated through its Office of the Chief Information Officer and Service Canada. These organisations develop whole-of-government priorities for digital services and coordinate resources across government agencies. This has allowed it to develop an integrated government 'front door' where users can access more than 70 services.

Finance — Impact:

The Canadian government funds Service Canada as a central agency which acts as the service delivery partner with government departments from all levels of government. This incentivises agencies to work with Service Canada to develop digital services.

Delivery — Impact:

The Canadian Citizen Service implements a flexible and innovative approach to digital delivery which focuses on incremental improvements. It has built cross-governmental products such as accessible online forms, to help improve the user experience.

Notes: 1. Increase in canada.ca visits from 2019 to 2023. 2. Data available for the first seven months of 2020.
Sources: BCG (2023); Government of Canada (2021); Adobe (2020); Kumar, Mukerji & Butt (2007); Mandala analysis.

The US continues to innovate in the delivery of e-government

The United States ranks in the top 10 of the UN's e-Government Development Index. In 2017, the US congress legislated the creation of the Technology Modernization Fund (TMF) to accelerate the delivery of efficient digital public services.

$1 billion has been allocated to the TMF. Agencies apply for funding for specific, short-term projects to iteratively transition to online service delivery. This funding model encourages innovation and reduces financial risk. The TMF has now received over 100 project proposals.

The US government has also been successful in digital delivery. In 2020, it delivered the Census online in 59 languages. Users were able to complete the census from anywhere, on their schedule and via the device of their choice. Not only did this improve the citizen experience, online delivery saved the Federal budget $1.4 billion USD.

Login.gov continues to be the central portal for online delivery of government services. To encourage government agencies to transition their services to login.gov, 'sandbox' accounts can be established on the platform which allows agencies to troubleshoot service delivery before the program becomes live.

Case Study: United States

Relevance to Australian context: Medium

Key achievements:

- **$1.4 billion saved** from the online delivery of the 2020 Census.
- **Facial login** available to verify ID from 2024.
- **$1 billion USD** of funding available to modernise digital delivery.
- Increase in users[1] **+13%**

ADOPTION OF BEST PRACTICE

Governance — Impact:

The Technology Modernization Fund (TMF) and login.gov is managed centrally by the US General Services Administration (GSA). The GSA is responsible for the allocation of nearly $700 million USD in funds across 22 federal agencies.

Finance — Impact:

The TMF provides government agencies with the flexibility to access and repay loans outside traditional budget cycles. This ensures that agencies can respond quickly to changing user needs and adopt the best technologies and practices over time.

Delivery — Impact:

Application for TMF funding is done online. Project applications are reviewed by the TMF Board and milestone updates are input through an online portal. Login.gov provides users with one account that gives them access to services from 30 different government agencies.

Notes: Increase in usa.gov visits from 2019 to 2023. Sources: BCG (2021); myGov User Audit (2023); US GSA (2023); Government Accountability Office (2020); Mandala analysis.

91% of citizens are satisfied with Denmark's digital government services

From 2001, the Danish government began prioritising the implementation of e-government. It first started with a national electronic identity for its citizens (NemID), followed by the creation of a digital post system which has culminated in its consolidated e-government service delivery interface: borger.dk.

Denmark is committed to maintaining excellence in e-government. Funding for the digitisation of government services and the adoption of novel e-service delivery modes is coordinated through annual budget agreements between the national government, regional governments and local governments. Cooperation across government has driven its sustained success. In 2020, the three levels of government committed to an increase of annual funding from $31.5 million to $55 million (AUD).

Borger.dk has achieved high rates of citizen satisfaction (91%). This has translated to strong trust in government, with 81% of citizens trusting the government to handle their personal information responsibly.

Case Study: Denmark and borger.dk

Relevance to Australian context: Low

Key achievements:

- **2000+** services available through borger.dk
- **91%** of citizens are satisfied with borger.dk
- **Top-ranked** government in the UN's index since 2018
- Increase in users[1] **+75%**

ADOPTION OF BEST PRACTICE

Governance Impact:

Denmark has legislated for digitisation across government. It mandates interoperability between government digital platforms, requires governments to use digital channels for most of their communications, and mandates a web accessibility standard for all government websites.

Finance Impact:

Borger.dk is Denmark's digital government front door which integrates about 2,000 government services. It is jointly funded by all levels of government, incentivising collaboration between governments to create a seamless user experience across different services.

Delivery Impact:

The Agency for Digital Government applies flexible and iterative project delivery practices. Its project development process prioritises user experience and continuous improvement.

Notes: 1. Increase in borger.dk portal logins from 2019 to 2023. Sources: Queue.it (2023); Agency for Digital Government (2023, 2020); Mandala analysis.

The UK's Government Digital Service has accelerated digital adoption

In 2010, the UK government established the Government Digital Service (GDS) to improve citizens' digital experience of interacting with government.

The GDS transformed the UK's approach to digital project delivery. Instead of relying on protracted business cases to secure one-off funding for large digital projects, the GDS was instead allocated funding which it could use as it saw appropriate to improve government services. It has also established cross-departmental 'communities of practice' which work with government agencies to improve digital skills and accelerate service delivery.

Flexible and incremental approaches to project delivery are codified in the GDS's Digital Service Standard and are key to its success. It developed and launched an 'alpha' version of Gov.uk, a central portal to replace over 2,000 legacy government websites, in 12 weeks. It has since refined the portal by optimising mobile performance, improving search functionality and introducing whole-of-government services like One Login to help users interact with government more easily.

The GDS saved the British government over £4 billion by accelerating digital adoption. In 2016, the UK ranked first in the United Nation's E-Government Development Index.

Case Study: United Kingdom and GOV.uk

Relevance to Australian context: Low

Key achievements:

- **Over 1 billion** transactions facilitated through Gov.uk per year
- **Top-ranked** government in the UN's index in 2016
- **Over £4 billion in savings** to the UK government
- Increase in users[1] **+13%**

ADOPTION OF BEST PRACTICE

Governance — Impact:

The UK's Government Digital Service (GDS) was established in 2010 to improve the quality of government services. GDS maintains multi-disciplinary 'communities of practice' that work across government departments and agencies to uplift digital skills across government and encourage consistency in project delivery.

Finance — Impact:

The GDS and Treasury developed a streamlined funding approvals process for lean digital projects. This allowed the GDS and government agencies to move faster by relying on user testing and prototypes, rather than complex business cases, to justify further funding.

Delivery — Impact:

The GDS developed the 'Digital by Default' strategy and Digital Service Standard which codifies flexible approaches to project delivery across government, including iterative delivery and 'failing fast'.

Notes: 1. Increase in gov.uk visits from 2019 to 2023, estimated based on available e-government traffic data. Sources: Cabinet Office Annual Report (2023); GOV.uk (2022); BCG (2021); Cabinet Office (2019); Public Digital (2019); Eaves & Goldberg (2017); United Nations (2016); UK Authority (2016); Mandala analysis.

Appendix B:

Methodology

Overview of methodology

Steps	Description
1. Forecast digital government service adoption	We estimate the adoption curves for federal digital government services under both the 'delayed adoption' and 'accelerated adoption' scenarios.
2. Forecast the number of transactions under each channel	Based on the adoption forecasts in Step 1, we estimate the number of federal government transactions that will take place under the 'delayed adoption' and 'accelerated adoption' scenario for each channel (myGov, non-myGov digital, in-person, phone and postal).
3. Estimate per-transaction benefits	Based on the forecast number of transactions per channel in Step 2, we estimate the difference between the 'delayed adoption' and 'accelerated adoption' scenarios in terms of delivery costs, compliance costs to government, and citizen time to access services.
4. Estimate other benefits	We estimate the benefits of adopting best practice in digital service delivery in terms of improved cyber security, increased citizen satisfaction, increased accessibility, and improved trust in government.

1. Forecast digital government service adoption (1/2)

1.1 Estimating the S-curve for government services

Extensive literature shows that the adoption of technologies follows an S-shaped pattern.[1] Adoption is initially slow, then speeds up as the majority of users adopt the technology, and then slows again as the technology approaches full adoption.

For digital government services, we represent the S-shaped adoption as a logistic function:

$$A(t) = \frac{1}{1 + e^{-k(t-t_0)}}$$

Where:
- $A(t)$ is the adoption rate, t years after the service is introduced
- k is the logistic growth rate of the curve
- t_0 is the inflection point, which is where the curve is the steepest

We estimate the parameters k and t_0, which uniquely define an adoption curve for a particular government service.

1.1.1 Defining 'adoption rate' for digital government services

Unlike other technologies, where adoption is understood as 'binary' (i.e., a person adopts a technology if they use it), for digital government services, the average frequency of usage is also relevant to adoption. That is, a government service should have a higher adoption rate if each citizen is using the service more often, up to a maximum rate of usage for an efficient service. We therefore define the adoption rate as the number of annual visits per person to a government service as a proportion of the maximum number of annual visits per person that a service would have if it were optimised (see Section 1.1.2).[2]

1.1.2 Assumptions for the maximum number of visits

For myGov, we assume that the maximum number of annual visits is 31.4 visits per Australian. This assumption is the sum of the following components:

Component	Max annual visits	Rationale
Centrelink	9.2	Assumes that 95% of all Centrelink interactions occur online.
Australian Tax Office	8.1	Assumes that the proportion of citizens that use tax agents falls to 10%, and that citizens that do not use tax agents have twice as many interactions as those who do.
General information	3.2	Assumes that 95% of interactions from people seeking general information about government are digital, and that the number of interactions seeking general information doubles as it becomes easier for citizens to find information online.
Medicare	2.7	Assumes the same number of digital patient claims per person as in 2022-23.
Passport Office	1.1	Assumes that 95% of passport interactions occur online.
Child Support	0.8	Assumes that 95% of child support interactions occur online.
Other	6.3	Other myGov visits assumed to represent 20% of all visits, as other government services are on-boarded to myGov.

Notes: 1. The literature is long-standing and dates back to Rogers (1962) *Diffusion of innovations* and Bass (1969) *A Product Growth for Model Consumer Durables*. 2. Data on digital service visits sourced from Semrush.

1. Forecast digital government service adoption (2/2)

1.1 Estimating the S-curve for government services (cont'd)

1.1.2 Assumptions for the maximum number of visits (cont'd)

For best practice services (see page 25), we assume that the highest number of annual visits per person to date represents 90% of the maximum number of annual visits per person.

1.1.3 Estimating adoption curve parameters

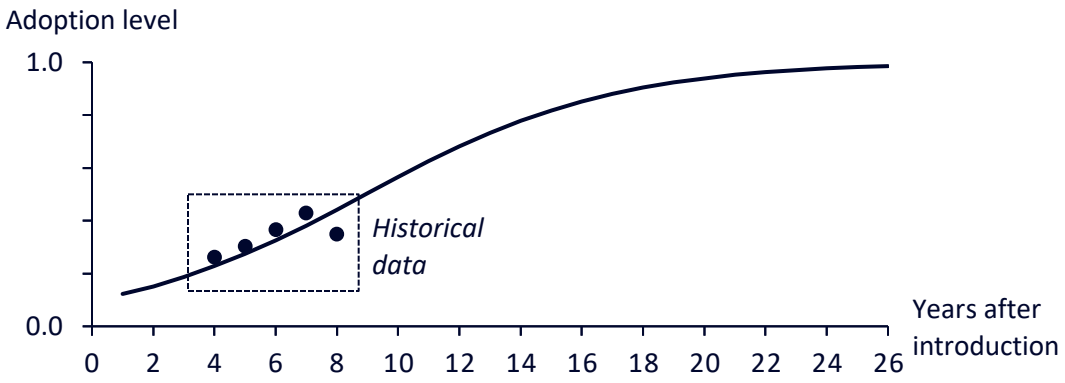
We calculate historical adoption rates using data on annual visits per person. We then use a least-squares regression to estimate the parameters k and t_0 which uniquely define the curve. This curve represents the 'delayed adoption' scenario for myGov.

1.2 Estimating the accelerated adoption curve for myGov

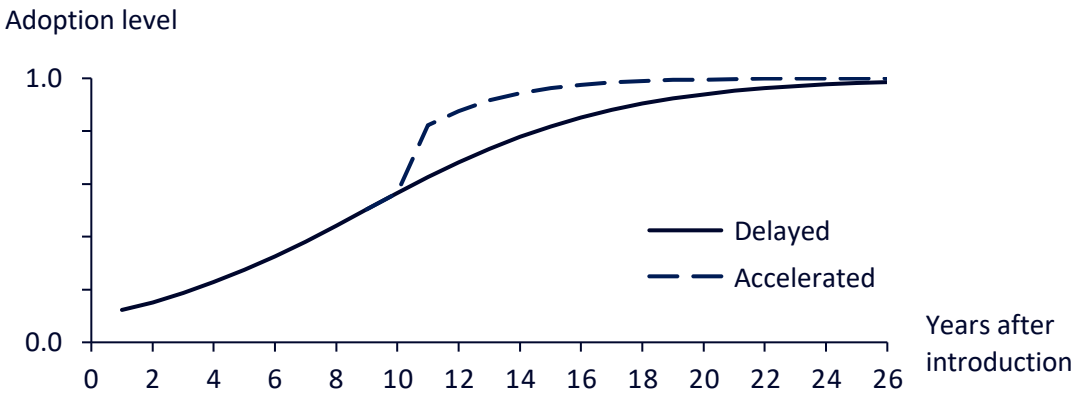
We estimate the accelerated adoption curve for myGov through the following process:

1. Estimate the adoption curve for the best practice services, where there is available data. We estimated adoption curves for UK.gov and Service NSW.
2. Calculate the best practice adoption parameters as the average of the parameters k and t_0 for these best practice adoption curves.
3. Model the 'accelerated adoption' curve for myGov, which shows how the myGov adoption path would continue if it adopted the best practice adoption parameters from 2024.

Modelled 'delayed adoption' curve for myGov



Modelled 'accelerated adoption' curve for myGov



2. Forecast the number of transactions under each channel

Component	Calculations and assumptions	Source or rationale
2.1 Number of transactions by channel in 2023	Calculation: Total transactions = [myGov] + [Digital non-myGov] + [Phone] + [In-person] + [Postal]	
	• myGov: We assume 75% of Services Australia transactions are myGov. • Digital non-myGov: We assume 25% of Services Australia transactions are digital non-myGov.	Services Australia (2023)
	Phone, in-person and postal: Calculate the growth rate of phone, in-person and postal services from 2014 to 2018, and use these growth rates to estimate the number of transactions by channel in 2023.	Deloitte (2019)
2.2 Total number of transactions per year	We assume that the total number of transactions grows as the same rate as Australian population growth from 2009 to 2019.	Australian Bureau of Statistics (2023)
2.3 Channel mix under the 'delayed adoption' scenario	myGov: We assume the share of all transactions that are myGov transactions to follows the same shape as the myGov 'delayed' adoption curve (see appendix section 1).	The number of digital transactions are assumed to be proportional to digital visits.
	Digital non-myGov: We assume 80% of the increase in myGov transactions are transactions that transition from digital non-myGov to myGov. We cap digital non-myGov transactions such that total digital transactions (myGov and digital non-myGov) do not exceed 97% to account for traditional transactions that will continue to exist.	• As there is limited uplift in digital capabilities under the 'delayed adoption' scenario, we expect that fewer transactions will transition from traditional to digital channels. • We expect some users to continue to use traditional channels, even when the digital channel is mature. This reflects the experience in the banking sector, where over 1% of transactions occur in-person or via the phone despite a mature digital alternative: Australian Banking Association (2022).
	Phone, in-person and postal: The number of traditional transactions = (total number of transactions) – (myGov) – (digital non-myGov). We assume the split of traditional transactions into phone, in-person and postal remains the same as in 2023.	
2.4 Channel mix under the 'accelerated adoption' scenario	myGov: We assume the share of all transactions that are myGov transactions follows the same shape as the myGov 'accelerated' adoption curve (see appendix section 1).	As there is significant uplift in digital capabilities under the 'accelerated adoption' scenario, we expect that more transactions will transition from traditional to digital channels.
	Digital non-myGov: We assume the share of digital non-myGov transactions is the same as in 2023, but is capped such that total digital transactions do not exceed 97% to account for traditional transactions that will continue to exist.	
	Phone, in-person and postal: The number of traditional transactions = (total number of transactions) – (myGov) – (digital non-myGov). We assume the split of traditional transactions into phone, in-person and postal remains the same as in 2023.	

3. Estimate per-transaction benefits (1/2)

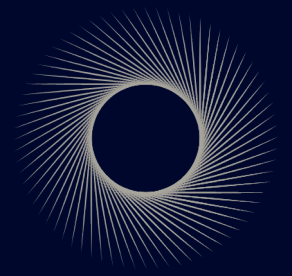
Component	Calculations and assumptions	Source or rationale
Monetary assumptions	• Discount rate of 7% • Historical figures are converted to 2023 Australian dollars using the Consumer Price Index and Department of Finance standard parameters	• Australian Bureau of Statistics (2024) • Department of Finance (2023) • Department of Prime Minister and Cabinet (2022)
3.1 Improved cost of providing services	Calculation: Total cost per channel per year = [Number of transactions per channel per year] * [Cost of per transaction per channel]	
	Number of transactions per channel per year: We calculate per appendix section 2.	See appendix section 2.
	Cost of per transaction per channel: The cost per transaction per channel is: myGov and digital non-myGov: $0.50, phone: $8.21, postal: $15.91, in-person: $21.02.	Deloitte (2015), converted to 2023 dollars
3.2 Improved cyber security	Calculation: • Cost of cyber breaches per year (delayed adoption) = [number of federal cyber breaches per year] * [cost per cyber breach] • Cost of cyber breaches per year (accelerated adoption) = [Cost of cyber breaches per year (delayed adoption)] * [1 – [% reduction in cost of cyber breaches from accelerated adoption]]	
	Number of federal cyber breaches per year: [number of reported cyber breaches in 2022-23] * [% of cyber breaches reported by the federal government]	• Australian Signals Directorate (2023) • CSO Online (2023)
	Cost per cyber breach: Cost of cybercrime per incident to the public sector	IBM (2023)
	% reduction in cost of cyber breaches from accelerated adoption: Sum of [Impact of key factors on total cost of a data breach] / [average cost of a data breach] for each of: AI machine learning insights, encryption, data security and protection software, and reduced security system complexity	IBM (2023)

3. Estimate per-transaction benefits (2/2)

Component	Calculations and assumptions	Source or rationale
3.3 Improved compliance	Calculation: • Total cost of non-compliance (delayed adoption) = Sum of annual cost of non-compliance to ATO, Centrelink and Medicare. • Total cost of non-compliance (accelerated adoption) = Total cost of non-compliance (delayed adoption) * [1 – [% reduction in costs due to accelerated adoption]]	
	Annual cost of non-compliance to ATO, Centrelink and Medicare: Drawn from various sources	• ATO (2023) • Department of Health and Aged Care (2023) • Redmond and Praino (2016)
	% reduction in costs due to accelerated adoption: Assumed to be 10%.	Academic literature suggests that user-centric technologies like pre-filled forms and improved data sharing between government agencies improve tax compliance rates to a statistically significant extent. It is difficult to forecast how introducing these initiatives will improve compliance rates across all government services. For this analysis, we assume that under the accelerated adoption scenario, the non-compliance rate for digital services falls by 10%.
3.4 Saved time and effort	Calculation: • Total citizen time per year = [Number of transactions per channel per year] * [Time per transaction per channel] – [Time savings due to digital enhancements ('accelerated adoption' only)] • Cost of citizen time to the economy = [Total citizen time per year (hours)] * [Value of an hour of citizen time]	
	Number of transactions per channel per year: Calculated per appendix section 2.	See appendix section 2.
	Time per transaction per channel: We assume the cost per transaction per channel is: Digital: 3 minutes, Phone: 15 minutes, Mail: 30 minutes; In-person: 60 minutes (including travel time)	• myGov User Audit (2023) • Deloitte (2019)
	Time savings due to digital enhancements: We assume that time saving due to digital enhancements is equivalent to: [Citizen hours spent on digital] * [50% of total time spent on filling forms] * [80% of forms that are not already pre-filled] * [50% time saving from pre-filling and data sharing between agencies]	Academic literature notes that pre-filling forms saves citizens time, for example Evans and Tran Nam (2011).

4. Estimate other benefits

Component	Calculations and assumptions	Source or rationale
4.1 Increased satisfaction	Delayed adoption: Proportion of citizens satisfied with government services in Australia	OECD (2021)
	Accelerated adoption: Proportion of citizens satisfied with government services, OECD average	
4.2 Increased accessibility	Delayed adoption: Average digital social equity index for federal government services: myGov, Services Australia, NDIS, Department of Health and Aged Care, ATO, and Department of Veterans' Affairs.	Adobe (2023). Under the delayed adoption scenario digital services would be consolidated and standardised under a single accessible government front door (e.g., myGov).
	Accelerated adoption: Digital social equity index for myGov.	
4.3 Improved trust in government	Delayed adoption: Proportion of respondents who indicate high or moderately high trust in their national government.	OECD (2021)
	Accelerated adoption: Estimated the increase in trust associated with an increase in satisfaction with public services using a simple linear regression estimated by the OECD.	OECD (2017)



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