



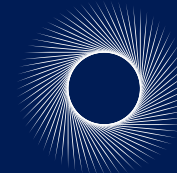
Advancing innovation and productivity in the care sector

Kismet Healthcare

NOVEMBER 2025

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Executive summary

Australia's care system is facing significant structural challenges and solving them is essential for long-term economic performance.

There is rising demand from an ageing population with a higher chronic disease burden. There is also a drive to lift the quality of care for the disability, aged, and early childhood sectors to improve outcomes.

To meet demand and deliver improved outcomes, the care sector will continue to grow to become an increasingly larger share of the national economy. Its performance therefore matters greatly: an under-performing sector risks undermining national economic growth over the long term.

But care sector productivity has been stagnant for the past two decades and must improve to address rising prices, lengthening wait times, and low satisfaction rates among consumers.

Improving sector productivity is a key priority for policymakers because it is essential to the Australian system's ability to deliver world-leading outcomes.

Tech innovation offers substantial productivity improvements in specific segments of the care sector.

The digitisation of the Australian economy has yielded vast benefits, but this has not been evenly spread across all sectors. Tech innovation in the care sector remains limited.

There are opportunities to further digitise many procedures and tasks in care that can lift its performance through greater productivity and effectiveness, while strengthening the integrity and accessibility of the system.

Digitisation can solve many of the sector's operational challenges. Care work involves large amounts of administration and coordination, and much of this is done manually. Matching consumers to the right providers also occurs suboptimally, depriving consumers of choice.

Consumer care data is fragmented across their providers and frequently not owned by them. In health, patient information is often not uploaded online to their electronic medical records. This means that care providers often do not have all the records and data that they could have about a client. This may result in less effective care plans, duplicative testing, and less informed providers.

Here, we analyse five segments of the care sector to identify specific opportunities for technology to improve sector performance.

This report seeks to study specific and tangible opportunities that can be implemented today to boost sectoral performance. It aims to complement other studies on tech innovation in care by studying the concrete opportunities that are available now.

To identify the most promising high-impact, low-risk opportunities in the sector, we systematically studied the different segments of the care sector's value chain.

We find four high-impact, low-risk tech opportunities that could generate over \$2 billion in productivity gains in the NDIS alone, or over \$13 billion if rolled out across the care sector.

We focused on four innovations in the NDIS that are feasible today, impactful, and able to safeguard against downside harm risks:

- *Optimising NDIS matching and scheduling* through digital care marketplaces, to make it easier for participants to get the care they need
- *Automated NDIS invoice generation and processing*, to help service providers generate invoices and plan managers process invoices faster
- *Streamlining NDIS specialist and allied health referral pathways* through a specialist platform, to improve the efficiency of connections between primary and secondary care
- *Improving the efficiency of data exchange between NDIS service providers* to make it easier for providers to communicate and reduce the burden on participants in retelling their story

Executive summary

To realise these opportunities, governments must take the lead in establishing a suitable policy and regulatory environment to nurture a strong digital care ecosystem.

Such an environment can encourage innovations to be introduced in a safe, productivity-enhancing way that benefits consumers, providers, and the care system at large. Governments must also put in place appropriate safeguards to protect the integrity of the system and continually incentivise the effective pursuit of strong outcomes and high-integrity practices.

This is a matter of urgency. There has been some progress to date on developing a suitable policy and regulatory environment – but efforts have been unfocused and too slow. The sooner that ideal conditions are introduced, the sooner that tech innovations can be co-developed with the sector and the benefits flow.

Achieving this mission will require governments to develop four strong pillars in the care sector:

- *Reliable digital infrastructure* will provide the foundations on which providers can build innovative consumer-facing products that improve care outcomes
- *An ingrained culture of innovation* in care will create the comfort and social license for providers to introduce new digital tools into care settings

- *Coordination between actors*, including governments, innovators, care providers, community partners, and educators, to ensure alignment in priorities and actions across the sector
- *Sophisticated public sector capability*, to ensure the public sector has the skills and resources to deliver on the mission.

Within these four pillars are 14 specific priorities that governments can pursue.

Key priorities for governments include:

- Building and expanding data exchange systems and enabling developers to build innovative applications on top of the underlying digital infrastructure
- Designing market structures that reward innovation
- Enabling care recipients to manage how their data is used or shared, to promote person-centred care across the ecosystem
- Convening forums to facilitate collaboration between different actors in the care sector
- Building capability and leadership in the public sector

Achieving these priorities will promote much-needed innovation at scale, helping the sector to meet Australia's evolving care needs.





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Targeted technological innovation can lift care sector productivity, effectiveness, accessibility, and integrity

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Appendix

Australians will increasingly rely on a high-performing care sector as we age and our care needs become more complex

Australians will require a high-performing care system to support growing and more complex needs.

17% of the current population is aged 65 or over. By 2063, 21% of Australians – or 5.5 million more people than today – will be aged over 65.¹

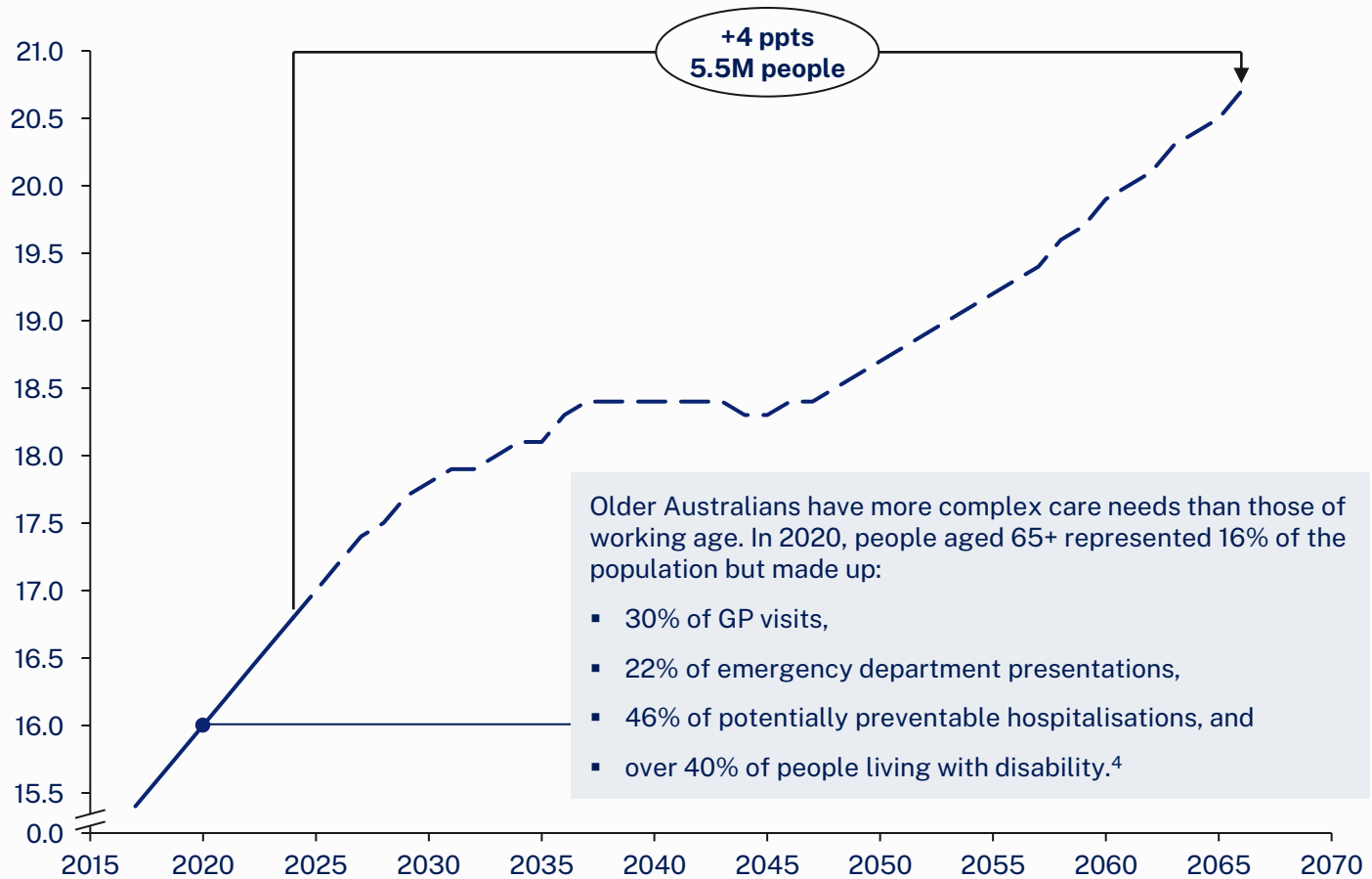
Incidence of disability and lifestyle-related illness rises with age. People aged 65 and over account for a disproportionate percentage of General Practitioner (GP) visits, emergency department presentations, and people living with disability. In 2020, while people aged 65 and over represented 16% of the population, they accounted for over 40% of people living with disability.²

Chronic disease continues to rise across all age groups of the Australian demographic. In 2022, four in ten Australians lived with multimorbidity (i.e., multiple chronic diseases) – an increase of 33% from 2008.³

1 ABS (2018) *Population Projections*; 2 ABS (2024) *Disability, Ageing and Carers, Australia: Summary of Findings*; 3 AIHW (2024) *The Ongoing Challenge of Chronic Conditions in Australia*.

Proportion of population aged 65 and over

%, 2017 – 2066, Australia



Note: The ABS has not collected data on the representation of older Australians among those living with disability in 2020. This report assumes people aged 65+ represented over 40% of people with disability in 2020, based on 2018 and 2022 figures (44.5% and 41.7% respectively).
4 AIHW (2024) *Older Australians: Health – Service Use*; ABS (2024) *Disability, Ageing and Carers, Australia: Summary of Findings*.
Source: ABS (2018) *Population Projections*; Mandala analysis.

The care sector is a significant part of the national economy, and will grow to over 16% of GDP by 2063

The performance of the care sector, as Australia’s second-largest sector and largest employing sector, has a significant impact on broader economic performance.

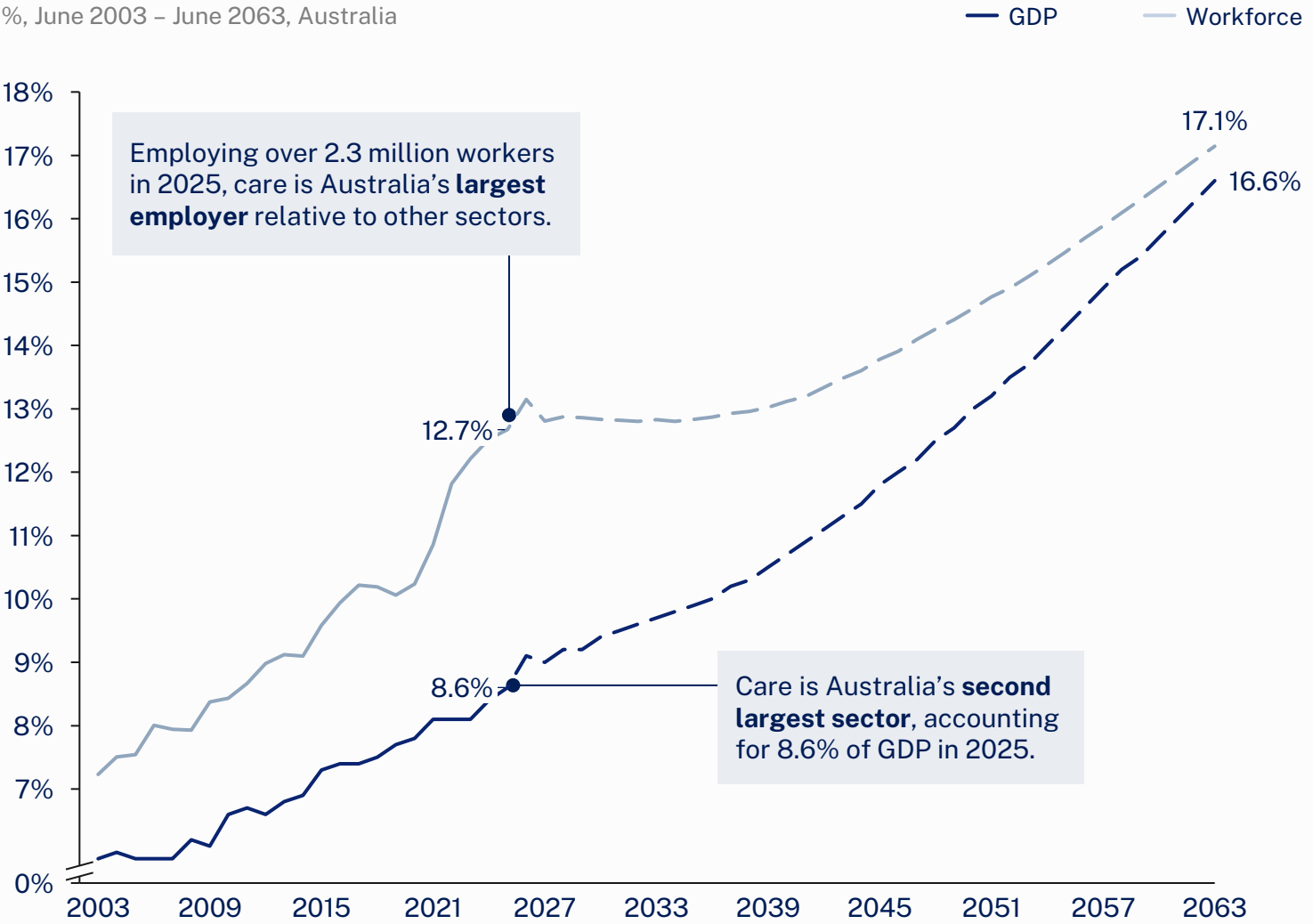
The importance of the care sector to the economy is set to grow. From 2025 to 2063, the care sector will increase from 8.6% to 16.6% of economic output, and from 12.7% to 17.1% of the workforce.

Robust care sector performance lifts the health of the broader workforce, enabling it to better support economic prosperity. In the past century, improved health accounted for approximately one-third of growth in GDP per capita across developed nations.

Note: For the purposes of this slide, the care sector is defined as ANZSIC Division Q, Health Care and Social Assistance.

Source: ABS (2025) Australian National Accounts: National Income, Expenditure and Product; Jobs and Skills Australia (2025) Health Care and Social Assistance; Arora (2001) Health, Human Productivity, and Long-Term Economic Growth.

Care sector share of GDP and the workforce



Productivity in the care sector is down 5% over the last 20 years, while it grew 20% across the economy

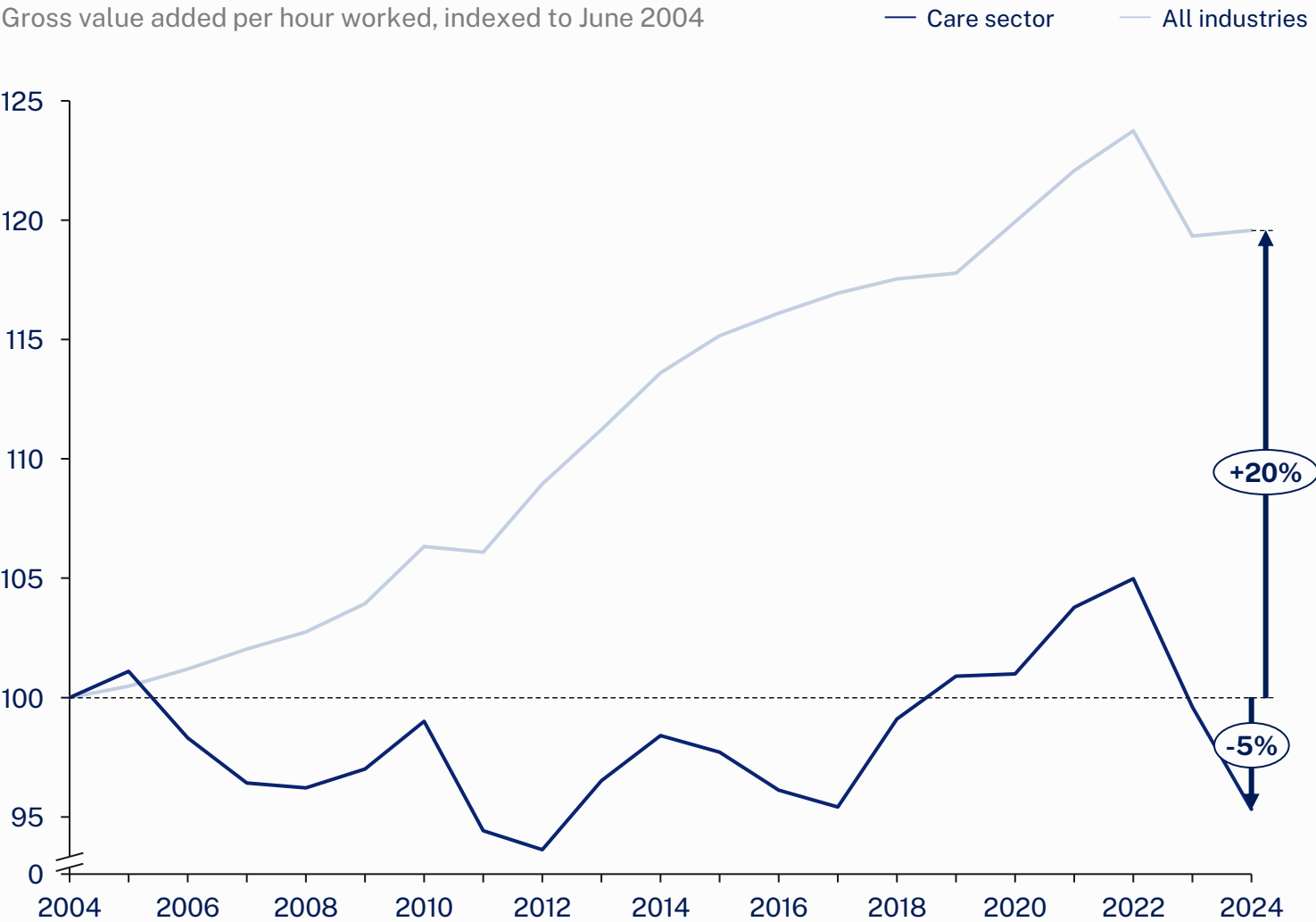
Productivity in the care sector has declined 5% since 2004. The decline occurred despite a short-lived spike in care sector productivity during the COVID-19 pandemic.

A key driver of output growth, productivity is critical to the sustainability of the care sector. 80% of growth in real GDP per person over the last 40 years is attributed to productivity gains.¹

With Australia’s care needs growing in volume and complexity, care sector output must likewise increase. To date, the challenge of meeting demand has primarily been met by workforce expansion. Without complementary investment, innovation, and adoption of new technology, productivity has stagnated, and output growth has been constrained.

¹ Treasury (2023) *Intergenerational Report*.
Source: National Skills Commission (2023) *Care Workforce Labour Market Study*.

Labour productivity in the last 20 years



Source: ABS (2024) *Australian System of National Accounts*; Mandala analysis.

Low productivity growth in an environment of rising demand for care services results in longer wait times, higher prices, and larger unmet need

Consequences of low care sector productivity growth

Consequence	Description	Indicators
 Longer wait times	Reduced service throughput gives rise to longer wait times.	▪ 29% of medical specialist patients report wait times longer than they feel acceptable.¹
 Higher prices	Increasing wages amid low productivity growth in the labour-intensive care sector places inflationary pressure on the cost of care.	▪ The Consumer Price Index health group rose 45% across the decade leading to June 2025.² ▪ Australian Government health spending relative to GDP rose 14% from 2003 to 2023.³
 Unmet need	With suppliers of care struggling to meet demand, health needs are not being met. Exacerbating this, overcrowding and inefficiency can lead to lower clinical accuracy.	▪ 50% of people living with disability report unmet needs.⁴ ▪ Only 71% of Australians are satisfied with the availability of quality healthcare.⁵

1 ABS (2024) Patient Experiences; 3 ABS (2025) Consumer Price Index, Australia; 3 Treasury (2023) Intergenerational Report 2023; 4 ABS (2024) Access to Care and Support Services; 5 OECD (2023) Health at a Glance 2023.
Source: Mandala analysis.

Tech innovation has immense potential to lift productivity in care while enhancing the sector’s effectiveness, accessibility, and integrity...

Four elements of care sector performance: productivity, effectiveness, accessibility, and integrity

	Productivity	Effectiveness	Accessibility	Integrity
 Description	Productivity is how efficiently outputs are produced.	Effectiveness is the achievement of target goals and outcomes .	Accessibility is the ability of care recipients to obtain appropriate services when and where they need them	Integrity is the maintenance of ethical and procedural standards in care service delivery.
 Examples of how digital tech can help	- Digital tools can help scale and automate processes, making workers more productive. - Electronic health records can ease inefficiencies related to information sharing, such as duplication.	- Tech-enabled analytics can track and predict care needs, ensuring that care provided is more targeted and effective. - Tech can reduce administrative burdens on carers, clearing time for higher-quality direct care.	- Digital marketplaces can connect care recipients with available providers in real-time, reducing wait times and administrative burden. - Smart matching can help recipients find providers who understand their specific goals, including cultural sensitivities and communication needs.	- Automated reporting can reduce errors and ensure care decisions are made using accurate data. - Digital rostering can improve the allocation of resources and reduce errors associated with understaffing.
This report identifies opportunities to drive productivity growth...		...that also preserve or enhance the effectiveness, accessibility, and integrity of the care sector.		

...but the care sector remains highly analogue with limited adoption of tech innovation

What we heard from care sector stakeholders

- “ We are ignoring the potential of big data in improving national health outcomes
— *Interview with industry innovator*
- “ We’re not doing the best we can on the side of prevention because we lack analytical capability
— *Interview with health insurer*
- “ Paper-based systems are outdated, inefficient, and can lead to errors¹
— *Royal Commission into Aged Care Quality and Safety*
- “ Data sharing between systems is bad; a lot of provider platforms don’t have APIs
— *Interview with advocacy body*
- “ Manual reporting needs attention
— *Interview with care provider*
- “ My Health Record is some way off from being a comprehensive source of data²
— *Productivity Commission*
- “ Without investment, My Health Record remained little more than a shoebox of PDFs³
— *Hon. Mark Butler MP, Minister for Health and Ageing, Minister for Disability and the NDIS*

1 Royal Commission into Aged Care Quality and Safety (2021) *Care, Dignity and Respect*; 2 Productivity Commission (2023) *Advancing Prosperity*; 3 Hon. Mark Butler MP (2024) *Speech*.

Adoption of tech innovation in numbers



Only 2% of documents uploaded by care providers are viewed by other care providers¹



Only 39% of aged care providers use electronic medication management systems²



Only 50% of Australian GPs can share patient clinical information outside their practices, compared to 66% in the UK and 80% in New Zealand³

1 Productivity Commission (2024) *Leveraging digital technology in healthcare*; 2 RMIT Health Transformation Lab (2022) *Transforming aged care*; 3 Commonwealth Fund (2019) *2019 Commonwealth Fund international health policy survey of primary care physicians*.
Source: Mandala analysis.



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Four promising opportunities for tech innovation in NDIS could deliver over \$2B in annual productivity benefits

Tech innovation presents a wide range of credible opportunities to improve performance across the care sector. While there is significant potential across multiple areas – such as digital consumer-facing platforms, management systems for providers, and workforce coordination tools – our analysis has focused on four high-impact, low-risk opportunities in the NDIS ecosystem.

The productivity uplift from these four tech innovation opportunities in the NDIS alone could generate over \$2 billion in annual productivity gains. This represents significant resources that could be reallocated to direct provision of care, improving participant outcomes. Optimal use of resources is key to maintaining the current effectiveness, accessibility, and integrity of the care system. If these opportunities were adopted across the entire care sector in Australia, they could deliver over \$13 billion in productivity gains.

These opportunities focus on reducing administrative burden, freeing up care workers to focus on service delivery. By targeting processes, data management, and coordination workflows, these innovations can deliver substantial productivity gains while preserving participant choice and the participant-centred approach that is central to the NDIS.

Productivity benefits from four promising tech innovations for NDIS

\$ per year

Opportunity 1:



Optimising NDIS matching and scheduling

\$1.5B

in saved resources from matching and scheduling appointments

Opportunity 2:



Automating NDIS invoice generation and processing

\$630M

in saved resources from avoided invoice generation and plan management costs

Opportunity 3:



Streamlining NDIS specialist and allied health referral pathways

\$320M

in saved resources from improving the efficiency of NDIS specialist and allied health referrals

Opportunity 4:



Improving the efficiency of data exchange between NDIS service providers

\$130M

in saved resources from improving the efficiency of data sharing between service providers

\$13B

The whole-of-care opportunity

If these opportunities are adopted across the entire care sector in Australia, they could deliver over \$13 billion in annual productivity benefits

We identified targeted, low-risk opportunities for tech innovation to lift care sector productivity in three stages

Method for identifying priority opportunities for tech innovation in the care sector

Analysing the care sector to identify tech innovation opportunities is complex. Care services are diverse and highly individualised. Identifying the most promising opportunities for tech innovation requires considering the many factors that determine care outcomes so that productive innovations also maintain or enhance system integrity and effectiveness. The interests of workers and care providers are also key.



Structured the care sector into segments

- Defined five segments of the care sector based on the type of care activity performed
- Used this segmentation to guide structured analysis of opportunities and solutions to improve care sector productivity



Identified five key productivity challenges through stakeholder interviews and literature review

- Interviewed care sector stakeholders and conducted a literature review to identify over 40 opportunities to deploy tech in the sector
- Identified major themes and shortlisted five key productivity challenges to address



Selected the most promising, low-risk opportunities to address challenges and quantified their productivity benefits

- Conducted literature reviews and interviewed stakeholders to identify credible opportunities for tech innovation to overcome identified challenges
- Quantified the potential of each solution to improve productivity in the care sector, while preserving sector effectiveness, accessibility, and integrity

We have structured the care sector into five segments to identify and evaluate productivity challenges and opportunities for tech innovation

Scale of opportunities to lift care segment productivity Size of opportunitiesLow High

Segments	 1. Funding and administration Allocation of care funding, provider registration, payment processing, and regulatory compliance	 2. Assessing care needs Professional evaluation of individual care requirements and determination of eligibility for funded support services	 3. Matching care recipient and provider Connecting recipients with suitable providers based on care goals	 4. Provider procuring resources Care providers securing the necessary staff, equipment, and infrastructure to deliver approved services	 5. Service delivery Actual delivery of care services according to approved plans, with ongoing monitoring and plan adjustments
Components	1a Allocation of resources 1b Care providers / households entering the funding universe 1c Operation of payments system 1c Compliance to ensure access to funding 1c Ensure compliance and regulatory approval	2a Conduct needs assessment 2b Determine eligibility based on criteria 2c Communicate assessment outcome	3a Match recipients to suitable provider(s) 3b Confirm provider credentials and capacity 3c Confirm appointment and inform care recipient	4a Identify and secure resources (e.g., staffing, equipment) 4b Coordinate service setup and logistics	5a Provider receives client records 5b Delivery of agreed care services 5c Monitor, update care plan, and communicate outcomes with recipient

Source: Mandala analysis.

From stakeholder interviews and literature review, we have identified five major productivity challenges in the care sector

The key opportunities for productivity improvements in the care sector Relative role for tech innovation Low   High

Segment	Challenge	Description	Relative role for tech innovation	
 Funding and administration	1 Administration burden	- Care providers spend excessive time on manual NDIS reporting and aged care compliance documentation, diverting resources from recipient care - Complex invoicing processes and plan management requirements create delays in payments and service approvals across the sector		This report focuses on four tech innovation opportunities which have a primary role in addressing the productivity challenges we have identified
 Matching	2 Search challenges	- Care recipients struggle to identify available providers in the area that align with their goals and care needs - Limited visibility of real-time provider capacity and specialisation leads to lengthy waiting periods and mismatches in services		
	3 Specialist and allied health access	- Multi-layered referral process between GPs and specialist services create bottlenecks, reduced recipient flexibility, and care delays - Poor coordination between GPs and specialists result in fragmented care pathways for complex care provision		While tech has a role to play in addressing workforce capacity challenges, the complexity of these challenges would be suitable for a separate dedicated study
 Service delivery	4 Fragmented data	- Siloed and incompatible data systems between providers prevent comprehensive care coordination - Care recipients must repeatedly provide the same information to different providers and undergo repeated testing, creating inefficiencies		
 Procurement	5 Workforce capacity	- Care providers struggle with unpredictable demand patterns and staff shortages, particularly in rural and remote areas - Limited workforce planning tools result in a mismatch of staff loading during peak times, affecting service quality		

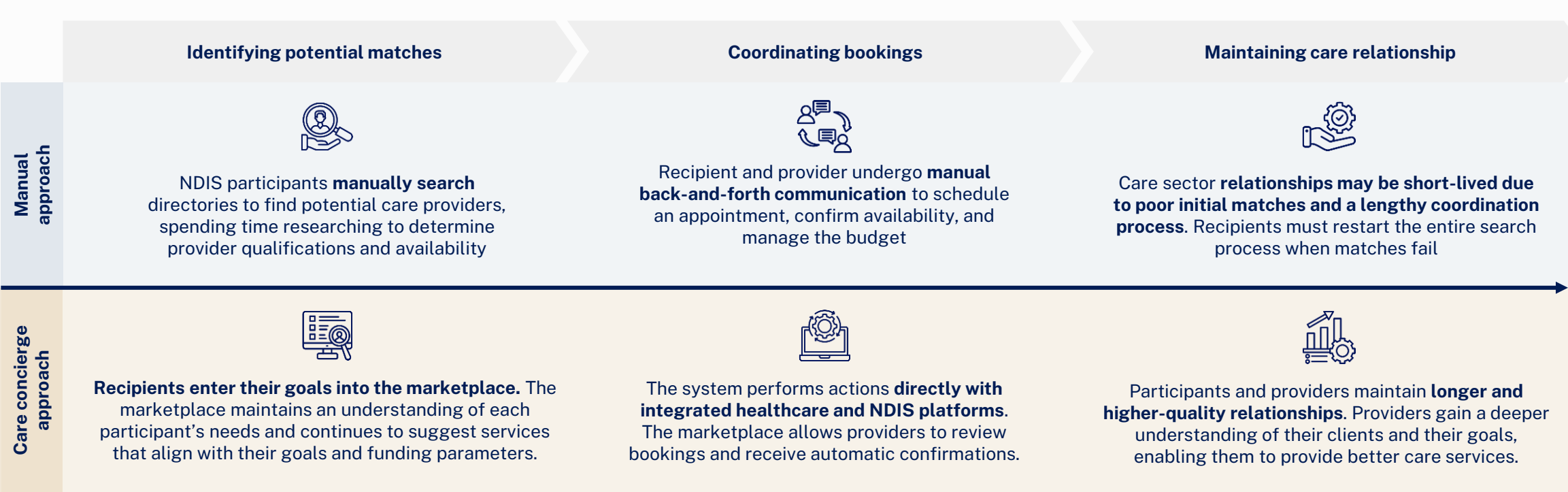
Source: Stakeholder interviews; Mandala analysis.

Digital care marketplaces can improve the efficiency and quality of the matching process between care providers and participants

How a digital care marketplace could improve matching and scheduling
A digital care marketplace connects NDIS participants with suitable providers through machine learning algorithms, geospatial mapping, and real-time availability tracking. Participants access appropriate services faster and get matched with the most suitable services to help them meet their care goals, while providers optimise capacity and reduce administrative burden.

\$1.5B
annual
productivity
gains

Manual vs care concierge approaches to matching



Source: Mandala analysis.

Optimising NDIS matching and scheduling could generate almost \$1.5B in productivity benefits

A digital care marketplace helps NDIS participants and providers match and schedule appointments more efficiently, saving participants from having to search manually.

Many participants struggle to identify available providers that match their specific needs and goals. A marketplace platform enables recipients to access effective services while providers optimise capacity utilisation and reduce administrative burden.

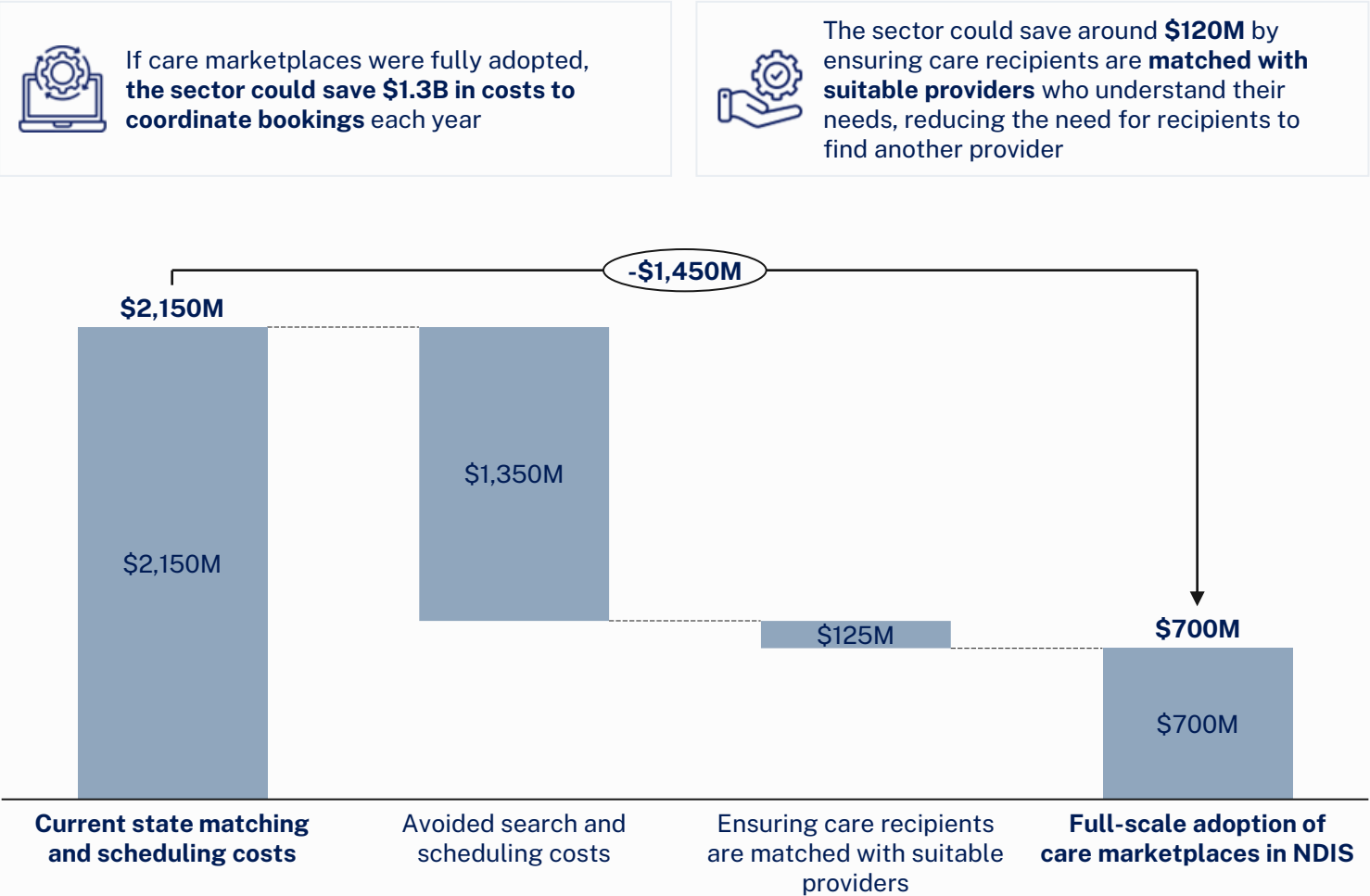
If adopted at scale, a care marketplace could generate \$1.5 billion in productivity gains in the NDIS alone. This includes:

- \$1.3 billion in resources saved from coordinating bookings
- \$120 million by ensuring care recipients are matched with suitable providers, reducing the need for recipients to find another provider

Care marketplace also strengthens the integrity of care through increased visibility on provider credentials and the effectiveness of care due to better matching algorithms. Real-time availability tracking enables more efficient capacity management across the sector, while data-driven matching ensures recipients connect with providers who align with their specific care goals.

Costs savings by optimising NDIS matching and scheduling through care marketplaces

\$ per year, 2025



Source: Mandala analysis.

Automating NDIS invoicing improves efficiency by reducing the time spent on administrative tasks

How automating NDIS invoicing can reduce the administrative burden on service providers and plan managers
Many service providers and plan managers undertake administrative tasks using manual processes. Automating administrative processes would free time and resources for direct care — for example, plan managers can apply greater focus to financial literacy education and capacity building for participants. Where processes are optimally automated, manual intervention is restricted to addressing flagged errors, review and approval of automated output, and process oversight.

\$630M
annual
productivity
gains

Illustrative manual vs automated approach to NDIS plan management

	Invoice generation	Invoice processing and NDIS claim submission	Service provider payment	Budget monitoring and spend analytics
Manual approach	Service providers manually enter support, claim, pricing, and other details in an invoice template	Plan managers manually cross-check invoices against complex NDIS criteria	Plan managers manually upload files to their internet banking platform for processing. Service providers query payment status via call	Plan managers manually update their participant portal with recent spending and budget data
Automated approach	Service provider invoices are automatically pre-filled using data from existing documentation	Invoices are scanned using OCR¹ technology and processed using software that understands the participant’s circumstances and the nuances of NDIS rules	Through integration with internet banking platforms, service provider payments are processed faster, without manual handling of transaction data	An online dashboard offers real-time comparison of budget and actual spend. Automated reporting provides personalised recommendations for plan modification

¹ Optical Character Recognition technology converts images of text into machine-readable characters.
Source: Mandala analysis.

Automating NDIS invoicing could free up to \$630 million in resources for direct care

Automating administrative tasks allows providers to allocate greater attention to caring for clients and participants.

Two major administrative tasks in the NDIS are invoice generation and plan management, estimated to cost over \$1.2 billion annually.

Automating invoice generation could save approximately \$540 million in resources across the sector, while automating invoice processing and related plan management activities could unlock a further \$90 million in productivity gains. Automated invoice processing could involve:

- processing invoices using optical character recognition (OCR) technology that reads invoices quickly and accurately
- applying intelligent claim rules – which account for the nuances of individual participant circumstances and NDIS rules – to approve invoices, with errors flagged for manual review
- processing and communicating service provider payments without manual handling of transaction data.

Alleviating administrative burden on service providers and plan managers frees up resources to improve participant outcomes, better addressing the goals of the 50% of Australians with disability who report unmet needs.¹

1 ABS (2024) Access to Care and Support Services.

Cost savings from automating NDIS invoice generation and processing

\$ per year, 2025

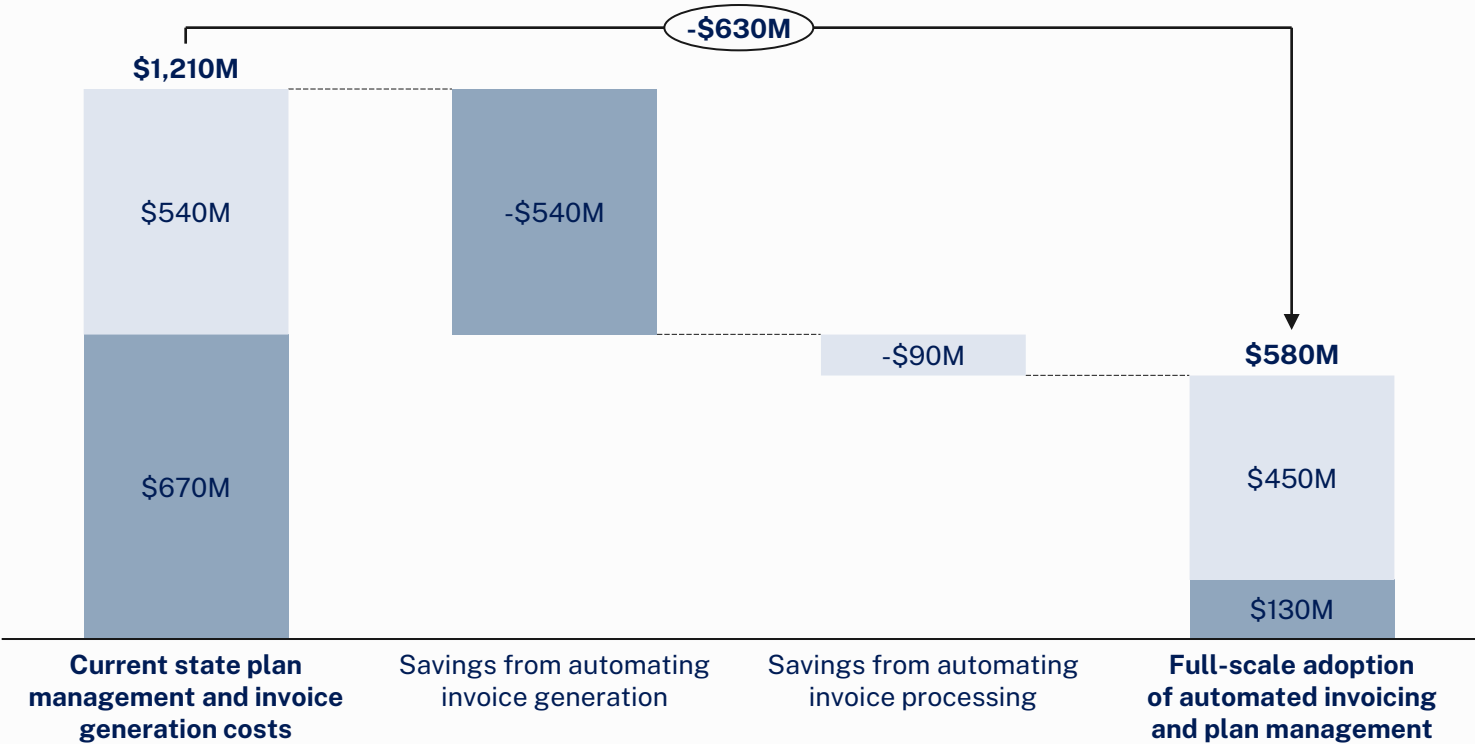
■ Invoice generation ■ Invoice processing



Disability service providers can **save \$540 million** in administration expense by automating invoice generation.



Plan managers can **save over \$90 million** by automating invoice processing, claim submission, service provider payment, and budget reporting.



Source: Mandala analysis.

Kismet’s managers can see the benefits of admin automation for participants, namely increased financial literacy and independence

Kismet’s Navigator platform automates invoice processing and claim submission for NDIS plan managers, freeing time for higher-value, direct-to-participant support. While plan managers have in past manually cross-checked all incoming invoices against complex NDIS criteria, Navigator reduces the manual processing effort to a limited number of invoices flagged for review.

For one plan manager, using Navigator has increased their invoice processing rate by 20%. The platform boosts productivity by automatically:

- scanning invoices using OCR technology
- conducting over 50 validation checks
- rejecting invoices with errors and providing instant feedback to service providers

“We are now automatically processing high volumes of invoices a day. It’s running smoothly and accurately and has freed time for supporting people instead of managing processes.”
— Plan manager

With increased invoicing efficiency comes a greater focus on strengthening participants’ financial literacy. The abovementioned plan manager has dedicated freed time to assisting participants with budget management. Participants respond to these efforts by independently monitoring their budget to prevent overspend.

“I have always had troubles with the NDIS and understanding my funding. I [started using Kismet] and for the first time in my life I am able to read and understand my budget.”
— Participant



Specialist and allied health marketplaces can be used to improve the efficiency in GPs and participants access to secondary care services

How a specialist and allied health marketplace could help address specialist access challenges

Specialist marketplaces streamline care coordination between primary care (e.g., GPs) and secondary care through digital referral systems and automated pathway management. Participants access specialised services faster while care providers collaborate more effectively with reduced administration work.

\$320M
annual
productivity
gains

Opportunities for specialist marketplace

	GP referral	Coordinating bookings	Additional requirements ¹
Traditional method	 A GP assesses participant needs and manually selects a specialist from their limited professional network. The GP writes a referral letter for the participant to provide to the specialist.	 Specialist staff manually process the referral and contact the participant to schedule an appointment. Participants must collate their referral letters and relevant medical records.	 Participants and providers manually coordinate pre-appointment requirements (blood tests, imaging). Care recipients are responsible for ensuring all documentation reaches the specialist before the appointment.
Specialist marketplace method	 GPs access an integrated marketplace showing real-time specialist availability and expertise. Digital referral systems instantly triage and match care recipient needs.	 Specialists' practices can utilise the automated platform to review bookings. Automated booking system allows care recipients to select available time slots directly and send confirmation and reminders. The marketplace transfers referrals and medical records direction within integrated platforms.	 Intelligent workflow identifies and schedules necessary pre-appointment tests and requirements. Integration with pathology and imaging services streamlines care coordination.

1. Productivity uplift from digital solution for ‘additional requirements’ captured in interoperability.
Source: Mandala analysis.

Streamlined specialist and allied health referral pathways could deliver \$320 million in value in the NDIS

A specialist and allied health marketplace could streamline referrals between primary care providers (e.g., GPs) and specialists or allied health professionals. Currently, multi-staged referral processes create bottlenecks, reduce NDIS participant flexibility, and fragment care pathways for complex care provision. A specialist platform enables participants to access specialised services faster with greater provider choice, while providers collaborate more effectively with reduced administration.

If widely adopted, a specialist marketplace would be worth \$320 million to the care sector, including:

- \$310 million in reduced time to coordinate bookings by automating referral pathways and eliminating manual coordination tasks
- \$10 million in avoided costs to conduct referrals work through the elimination of paper-based processes, manual processing, and follow-up

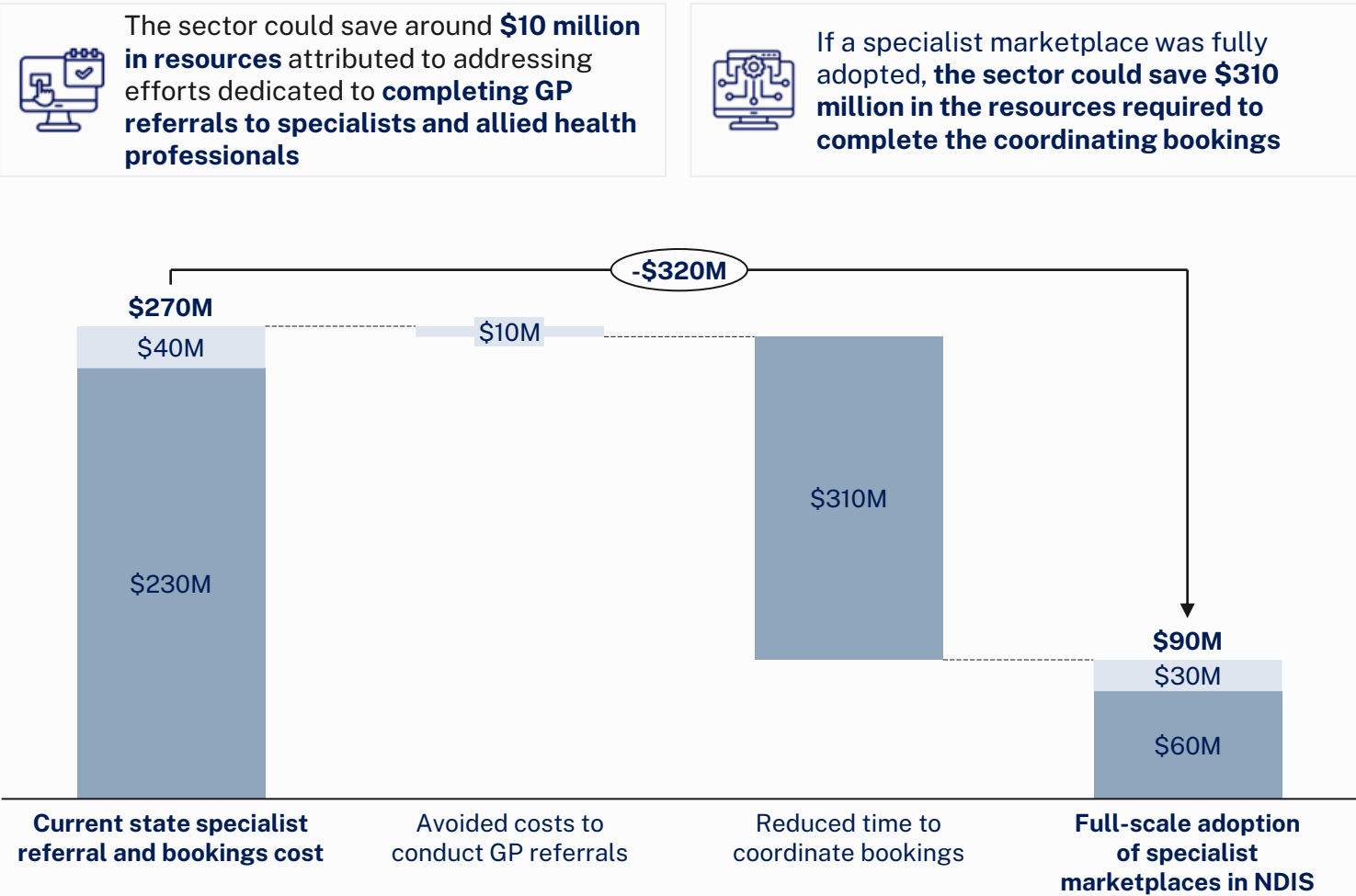
A streamlined system could also improve the effectiveness of care continuity, improve access to specialists, and enables better tracking of participant goals. At the same time, automated coordination reduces the risk of lost referrals and communication gaps between providers, ultimately improving the integrity of specialist care for NDIS participants.

Value of resources required to complete NDIS specialist and allied health referrals and bookings

\$ (millions), 2025

Time to conduct GP referrals

Admin time to coordinate bookings



Note: Assumes all specialist services and 50% of allied health services for NDIS are referred through GPs.
Source: Mandala analysis.

Data is currently fragmented, requiring participant information to be transferred manually between systems

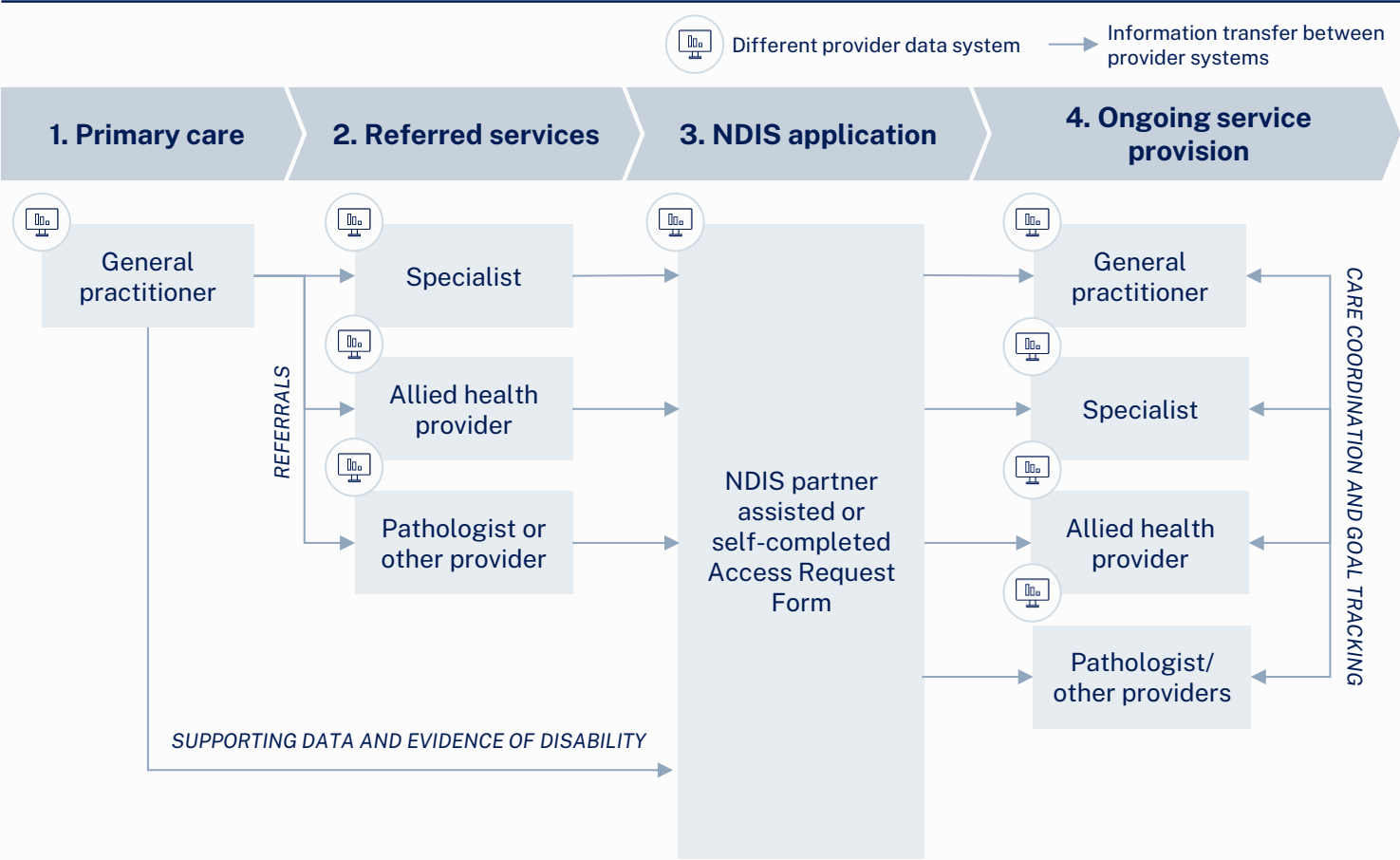
NDIS participants and providers navigate complex information transfer points throughout their care journey, from primary care to ongoing service provision. Care coordination and goal tracking are also essential to an NDIS plan, with new recipients typically attending five to ten consultations prior to application, and ongoing recipients able to access services in more than twenty categories.¹ This requires extensive communication between providers.

Each transition between services involves providers operating on different systems, creating data fragmentation and inefficiencies. For example, gathering a recipient’s comprehensive medical history and background requires recipients to retell their story each time they visit a new service. Important information and nuance may also be lost when relaying information between providers.

Furthermore, providers must search disparate systems, emails, and paper records when information is unavailable through a central system like My Health Record. Providers also risk ordering or conducting duplicate assessments due to incomplete visibility of previous testing and lost or unmatched participant records.

¹ NDIS (2025) Plan implementation directory.
Source: ACSQHC (2021) A Fragmented Healthcare System - Patients falling through the cracks; Peiris et. al. (2024) Overcoming silos in health care systems through meso-level organisations – a case study of health reforms in New South Wales, Australia; ABC (2025) Calls to ‘axe the fax machine from Australia’s ‘outdated’ medical referrals system.

Example of information flow for an NDIS care journey



Providers may use **different systems** for recipient data and records that are not interoperable. This causes data to be fragmented, requiring **inefficient manual data conversion and information transfers** such as email and fax communication throughout a recipient’s care journey.

Source: Productivity Commission (2024) Leveraging digital technology in healthcare; NDIS (2025) How to apply; NDIS (2025) Proving evidence of your disability; Mandala analysis.

A centralised data exchange platform could enable providers to efficiently store and share information

A centralised data exchange platform is a digital system that connects healthcare and NDIS providers through standardised information sharing tools and secure data storage. This facilitates secure and efficient data sharing and communication, enabling providers to view, download, upload, synchronise, and request relevant health data for care recipients.

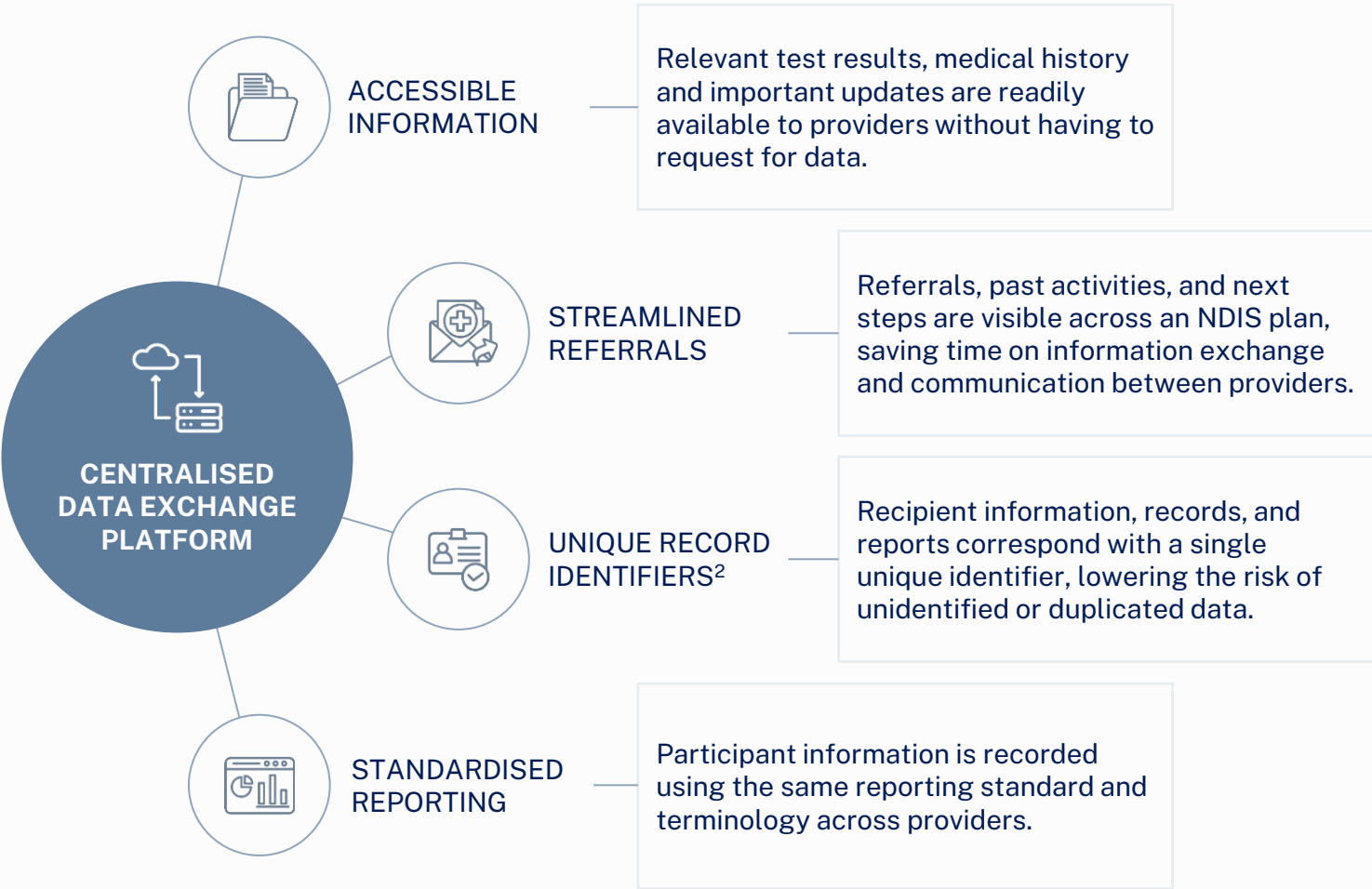
The four core features and benefits of a centralised platform are:

- **Accessible information:** providers can view relevant medical history, test results, and recipient disability or NDIS plan details
- **Streamlined referrals:** communication tasks via email, fax, or manual requests are reduced
- **Unique record identifiers:** information corresponds to a single recipient, preventing data loss or duplication
- **Standardised reporting:** terminology is consistent across providers

Existing systems like My Health Record, MyID, and Individual Healthcare Identifier leverage an interoperable system to provide streamlined and accessible services. These systems demonstrate the effectiveness of centralised platforms in improving coordination in large networks across different service sectors.¹

¹ DHDA (2025) *My Health Record*; AusGov (2025) *MyID*; DHDA (2025) *Healthcare Identifiers*; ATO (2025) *What Is a tax file number?*.

Features and benefits of a centralised data exchange platform



² Based on the benefits of existing interoperable systems summarised in ADHA (2025) *Interoperability*, and NAA (2025) *Build data interoperability*.
Source: Productivity Commission (2024) *Leveraging digital technology in healthcare*; AHDA (2023) *National Healthcare Interoperability Plan 2023-2028*; Mandala analysis.

Data exchange platforms could unlock \$130M in productivity gains to the NDIS care sector

A centralised, underlying data exchange can unlock a host of benefits for NDIS participants. Such a facility would enable providers to transfer information more seamlessly and with greater security and integrity.

It can also enable providers to have a greater understanding of participant needs, leading to improved care outcomes. For example, it can better enable the NDIS to match and deliver services to participants. It can also improve care assessment and better track outcomes through real-time progress reporting by care providers.¹

This could bring \$130 million in value to NDIS providers, including:

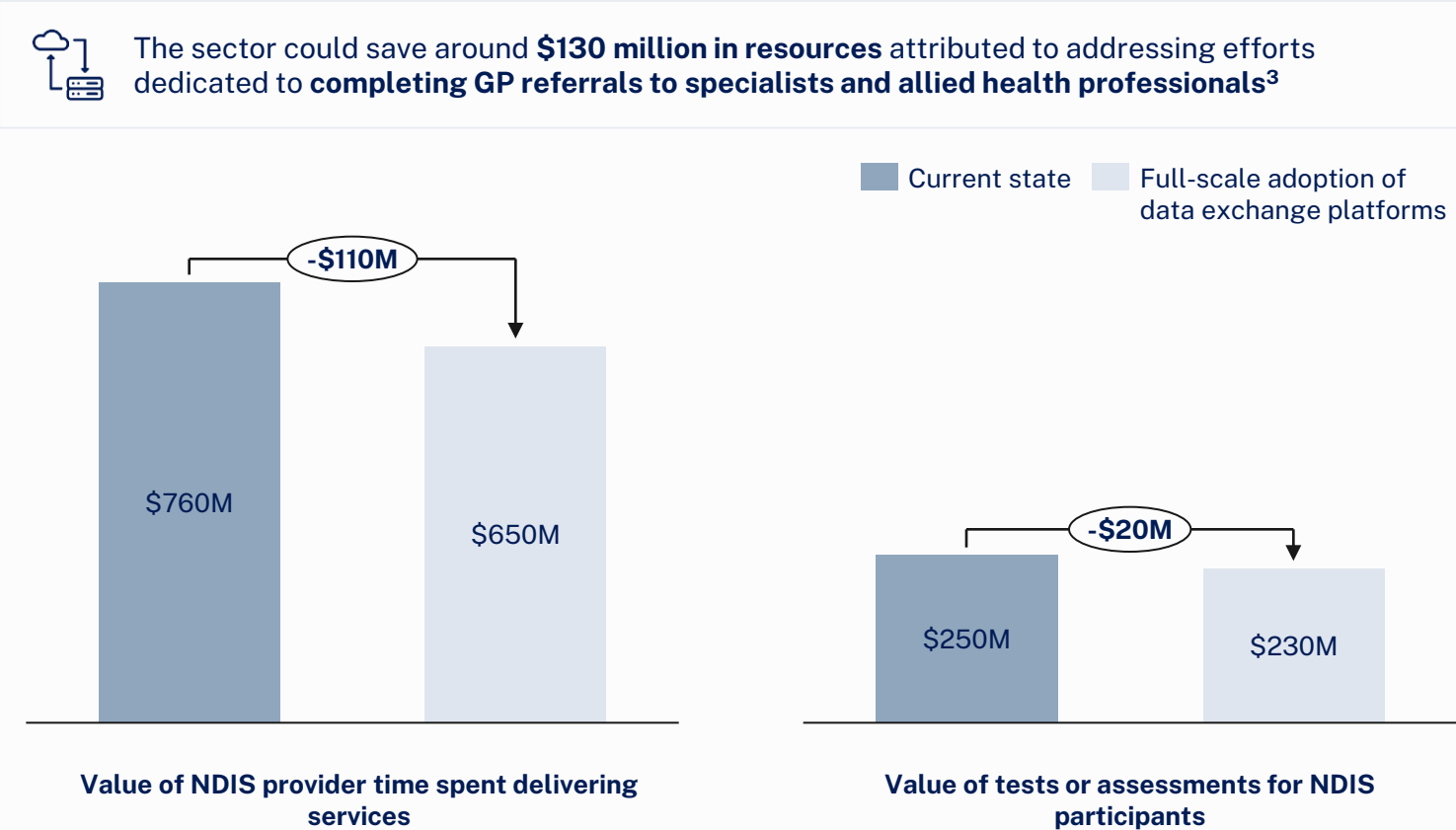
- \$110 million in time savings from reduced time spent on communication and information exchange between providers and less manual consolidation of NDIS participants’ medical histories²
- \$20 million in avoided duplicated efforts in testing and assessments through correct identification and secure storage of data

Similar solutions could be effective in aged care to conduct medication management, rostering, fall prevention, and electronic documentation. It could also enable better client data management, allowing for accurate predictive care recommendations.

¹ NDIS (2022) Reporting and participant plan reviews; ² Productivity Commission (2024) Leveraging digital technology in healthcare.

Value of benefits to NDIS providers using a centralised data exchange platform

\$ per year, 2025



³ Includes provider time spent providing services to NDIS recipients and costs associated with pathology and diagnostic tests/assessments for NDIS participant in a year.
Source: NDIS (2025) Explore data – participant data; IHACPA (2024) Annual Report; ADHA (2022) Connecting Australian Healthcare - 2022 Interoperability Benchmark Survey; Victorian Government (2020) Compendium of electronic medical record (EMR) benefit measures; AIHW (2025) General practice, allied health and other primary care services; AIHW (2024) Pathology, imaging and other diagnostic services; Mandala analysis.



1

Targeted technological innovation can lift care sector productivity, effectiveness, accessibility, and integrity

2

Four promising opportunities for technological innovation could deliver over \$2B in productivity gains in the NDIS, or over \$13B across the whole care sector

3

To realise these opportunities, governments should adopt a mission to establish a strong digital care ecosystem guided by four pillars

4

Appendix

Four pillars can help establish an environment that promotes tech innovation in the care sector, but progress towards these pillars has been limited

Pillars of establishing an environment for tech innovation in care				Progress toward pillar		Nascent	Established
Pillars	Role of government	Role of the private sector	Progress				
1 Reliable digital infrastructure	Establishing common infrastructure to store, manage, process, and disseminate care records. This creates a secure and interoperable data lake, allowing providers to construct innovative digital solutions.	Developing and deploying innovative digital tools, platforms, and services that leverage common infrastructure to deliver better outcomes for care recipients and providers.					
2 Ingrained culture of innovation in care	Embedding innovation as a priority in care policy, regulation, and workforce development initiatives. Given the highly personal, service-oriented nature of the sector, there can often be a lack of comfort and social license for introducing new digital tools into care settings.	Investing in people that have deep knowledge of both the care sector and digital technology, and creating teams that pilot, iterate, and scale digital tools. Sharing learnings and insights on the development and deployment of technology with other providers in the care sector, to build trust and capability efficiently.					
3 Coordination between actors	Coordinating among Commonwealth and state departments shared funding priorities and cooperation in implementing digital infrastructure. Creating forums for private sector stakeholders to share feedback and collaborate on policy and solutions.	Engaging with government, funders, care providers, and educators in collaborative settings. Establishing partnerships and networks that pool resources, knowledge, and effort to achieve specific innovation goals.					
4 Sophisticated public sector capacity	Setting parameters and rules on data and technology standards before innovators enter the market. This work requires deep expertise, close consultation with stakeholders, and iterative rounds of policy development.	Working with the government to provide technical insights, market knowledge, and other feedback informing policy development and evaluation.					

Source: Mandala analysis.

To accelerate tech innovation in the care sector, governments should focus on a mission to establish a strong digital care ecosystem guided by four pillars

Government actions to accelerate tech innovation in the care sector

To realise the care system’s purpose	Purpose	To ensure Australians get the timely and effective care they need			
...governments should focus on a common mission....	Mission	To establish a strong digital care ecosystem that enables best-in-class tech innovation			
...guided by four pillars and sets of priorities. <i>Across each pillar, government should work closely with care providers to ensure changes are informed by the realities of service delivery and care recipient outcomes.</i>	Pillars	1 Reliable digital infrastructure	2 Ingrained culture of innovation in care	3 Coordination between actors	4 Sophisticated public sector capacity
	Priorities	1a. Develop underlying data exchange infrastructure 1b. Develop interoperability standards	2a. Design market structures that encourage innovation 2b. Establish a regulatory architecture that embeds trust 2c. Empower recipients to direct their data 2d. Formalise a pathway to market for innovations 2e. Develop technical capability in the sector 2f. Financially support innovation	3a. Assign responsibility and accountability for delivering on the mission 3b. Convene actors across the care sector	4a. Build capability and leadership in the public sector 4b. Create structures to drive collaboration 4c. Equip the public sector with appropriate tools and systems 4d. Elevate organisational ways of working in the public sector

Source: Mandala analysis.

Governments should consider developing reliable digital infrastructure through underlying data exchange systems and alignment on interoperability standards

Pillar	1 Reliable digital infrastructure	
Priorities	 1a. Develop underlying data exchange infrastructure	 1b. Develop and promote interoperability standards
Description	Build and expand data exchange systems and enable developers to build innovative applications on top of underlying digital infrastructure.	Develop common interoperability standards and protocols for care organisations, with instruments to promote adoption of these standards.
Considerations	▪ Modernise existing infrastructure such as My Health Record, from a standalone system to foundational infrastructure that can be used across the health system. ▪ Develop the Health API Gateway as a single access point to digital health systems, allowing providers to access patient data from hospitals, clinics, labs, specialists, etc., without separate connections to each system.¹ ▪ Improve developer resources, including developer portals, service catalogues and implementation guides. Existing support includes the ADHA’s Developer Centre for clinical software and health technology developers.²	▪ Harmonise interoperability standards across jurisdictions and care sector verticals to ensure that service providers collect, store, and exchange data in a consistent manner. ▪ Design incentive mechanisms to promote compliance with interoperability standards as a requirement for specific certifications or service delivery authorisations (e.g., by making NDIS accreditation conditional on compliance) ▪ Incentivise state and federal alignment on implementing national interoperability standards (e.g., by tying state funding to implementation) ▪ Strengthen advisory guidance such as ACSQHC issuances requiring healthcare providers to implement systems that can enter clinical information into My Health Record.³

1 Identified as a priority action in ADHA (2023) *National Healthcare Interoperability Plan 2023-2028*; 2 The ADHA has established a developer resources portal and gateway: [Digital Health Developer Portal – Gateways](#); 3 ACSQHC (2024) *Advisory AS18/11: Implementing systems that can provide clinical information into the My Health Record system*.
Source: Mandala analysis.

Building the underlying data exchange infrastructure was critical to the ATO delivering the Single Touch Payroll system

The ATO Single Touch Payroll system was a landmark achievement. The Government developed an underlying data exchange infrastructure that enabled innovators to build digital products that integrated with this infrastructure. Launched in 2018, the Single Touch Payroll was built upon Standard Business Reporting,¹ a standardised framework introduced by the Government in 2010 to simplify business reporting obligations.

Rather than creating a system with consumer-facing functionality contained within a single, centralised system, the ATO strategically developed infrastructure that software vendors could integrate with, enabling around 270 Single Touch Payroll solutions to emerge in the market.²

Key features of the infrastructure approach:

- Standardised API framework established through the ATO provided digital wholesale services through Standard Business Reporting
- Interoperability standards by utilising international open standards and web services
- “Tell Us Once, Share with Many” model that allows businesses to report once while automatically distributing the same information to other relevant agencies, significantly reducing administrative burden

Single Touch Payroll builds on the Government’s investment in Standard Business Reporting and utilises the innovation of software developers to provide accounting software solutions.
— Hon. Josh Frydenberg, 2014, Assistant Treasurer



1 ATO (2024) Standard Business Reporting (SBR); 2 ATO (2019) Single Touch Payroll industry updates.
Source: ATO (2021) What STP is; Standard Business Reporting (2020) Benefits of SBR; Treasury (2014) Cutting red tape for employers through Single Touch Payroll; Mandala analysis.



To ingrain a culture of innovation in care, governments should consider a person-centred approach with safeguards for care recipient interests and preferences

Pillar	2 Ingrained culture of innovation in care	
Priorities	2a. Design market structures that reward innovation	2b. Establish a regulatory architecture that embeds trust
Description	Develop market structures which acknowledge the role of innovation in meeting the diverse needs of care recipients.	Develop safeguards for care recipient interests to promote public acceptance of technological innovation in care.
Considerations	▪ Ensure spending and pricing rules acknowledge diverse needs and provide care recipients with flexibility in their choice of supports to maximise effectiveness and accessibility. ▪ <i>Example:</i> Under current NDIS spending rules, requests for small-scale assistive technology may be rejected in favour of funding for more expensive ongoing assistance by a paid worker. Allowing participants to opt for small-scale assistive technologies would encourage consumer-focused innovation. ▪ Explore value-based care funding and pricing models. Funding models should incentivise and prioritise outcomes. Activity-based models commonly used today can reward volume over effective service delivery while hindering innovation.	▪ Develop privacy and safety standards such as the Service NSW ‘privacy by design’ process, providing guidance for staff managing personal information or data.¹ ▪ Foster data minimisation practices by requiring providers to collect and share only the minimum information necessary for identity verification and service delivery. ▪ Assess the data integrity of organisations through independent audits, ensuring the accuracy and reliability of recipient data and reducing the risk of harm. ▪ Promote technology transparency and require providers to display clear information about their use of technology in the organisation (e.g. ADHA AI Transparency Statement).²

1 Digital NSW (2025) Embed privacy from the outset; 2 ADHA (2025) Artificial Intelligence Transparency Statement,;

To ingrain a culture of innovation in care, governments should consider a person-centred approach with safeguards for care recipient interests and preferences

Pillar	2 Ingrained culture of innovation in care	
Priorities	2c. Empower care recipients to direct their data	2d. Formalise a pathway to market for innovations
Description	Enable care recipients to manage how their data is used or shared, to promote person-centred care across the ecosystem.	Establish a series of regulatory stage gates to provide certainty on how technology can go to market.
Considerations	▪ Promote transparent provider-recipient data-sharing relationships by clearly explaining how and why data is used, accessed, and shared across providers. ▪ Reinforce and promote individual data governance rights, allowing recipients to view data permissions, revoke consent, or request data deletion.¹ ▪ Develop user-friendly systems or platforms that allow recipients to have visibility and direct their own health and care data. ▪ Develop inclusive data literacy education programs for digitally inexperienced recipients and diverse groups, ensuring all recipients can easily understand their data rights.	▪ Define priority areas for innovation in the care sector to guide investment in marketable technology ▪ Establish a clear pathway to market with specific stages of development ▪ <i>Example:</i> The TGA sets out a clear 8-phase process for prescription medicines to reach the market ▪ Develop best practice guidelines, such as the NHS Health Technology Pathway Tool, to assist innovators in navigating mandatory and recommended activities across the product timeline – from creation to commissioning and adoption.

1 ADHA (2023) *The Digital Health Blueprint and Action Plan 2023-2033*.
Source: Department of Health, Disability and Ageing (2021) *Prescription medicines registration process*; NHS (2023) *Health Technology Pathway: Navigation Tool for Innovators in England*.

Building an innovation-ready care sector requires formal regulatory stage gates, coordinated investment in skills development and a supportive financial system

Pillar	2 Ingrained culture of innovation in care	
Priorities	 2e. Develop technical capability in the sector	 2f. Financially support innovation
Description	Partner with educational institutions to develop courses to upskill the care sector workforce in technology.	Develop financial supports for innovation, such as catalytic finance.
Considerations	▪ Establish digital care innovation hubs to provide shared access to emerging technologies, testing facilities, and technical expertise for care providers to trial and adopt new solutions ▪ Facilitate knowledge transfer partnerships between technology companies and care providers to build internal technical capacity and reduce reliance on legacy, siloed systems ▪ Develop a national digital care workforce strategy that identifies skill gaps and creates pathways for technology professionals to transition into care sector roles	▪ Establish dedicated innovation grants for care development with streamlined application processes and shorter approval timeframes to support rapid prototyping and pilot programs ▪ Develop venture capital partnerships specifically targeting care sector innovations, potentially through government co-investment schemes similar to those used in other industries ▪ Establish innovation procurement policies that allow government-funded care services to trial and purchase emerging technologies through simplified procurement processes, creating early market opportunities for Australian innovators

Slow adoption of My Health Record highlights the importance of phased implementation and support for adoption in driving widespread uptake of innovations in the care sector

My Health Record was launched to create a comprehensive digital health record system for all Australians. However, slow adoption by healthcare providers has significantly limited its effectiveness in improving care coordination and reducing administrative burden.

Despite widespread patient registration, only 2% of documents uploaded by care providers are viewed by other providers.¹ This reveals a gap between system availability and practical use. Limited provider engagement stems from two key barriers:

- Difficulty accessing records due to incompatible practice management systems
- Unusable information resulting from non-standardised data formats that reduce My Health Records to a “shoebox of PDFs”

The platform's inability to structure and exchange data in usable formats has prevented it from becoming foundational digital infrastructure. Rather than enabling interoperability and innovation, the system has functioned mainly as a static document repository.

This highlights the critical importance of investing in underlying data exchange infrastructure and open standards that allow developers to build innovative applications on top of foundational systems.

Success also requires deliberate, universal adoption planning through phased implementation, strong provider incentives, and targeted funding for digital literacy support.

“Widespread My Health Record use is unlikely to be achieved unless clinical sites including hospitals are incentivised, particularly given the evident limitations of existing software integration — Jillian Tomlinson (Melbourne Hand Surgery)²”

1 Productivity Commission (2024) *Leveraging digital technology in healthcare*.
2 Medical Journal of Australia (2019) *My Health Record implementation in private specialist practice*.



Governments can assign mission delivery responsibility and facilitate discussions with diverse groups to establish coordination between actors in the care sector

Pillar	3 Coordination between actors	
Priorities	 3a. Assign responsibility and accountability for mission delivery	 3b. Convene actors across the care sector
Description	Task a government minister or agency with the responsibility of establishing a strong digital care ecosystem that enables best-in-class tech innovation.	Hold forums to facilitate collaboration between different actors in the care sector (e.g., universities, innovators, community partners, providers, and government).
Considerations	Case study: Services NSW in digital government services delivery^{1,2} ▪ 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. ▪ The DCS administers the Digital Restart Fund, designed to accelerate the delivery of digital projects. ▪ Previously siloed funding is now centralised, ensuring cohesive digital project delivery across departments and uplifting citizens’ overall experience with digital government services. ▪ This demonstrates how dedicated leadership and responsibility can accelerate innovation in the care sector, especially where there are complex nuances that should be addressed effectively in the disability, health and ageing sector.	▪ Establish cross-sector working groups involving academic advisors, innovators, and community partners to review current and future national digital health frameworks and initiatives. ▪ Hold roundtable events on topical digital health challenges and innovation opportunities to catalyse innovation and development, such as the Australasian Institute of Digital Health’s roundtable discussions for health innovation.³ ▪ Support regional innovation hubs to establish connections between providers, researchers and technology innovators in [underserved] areas, such as the Melbourne Digital Health Ecosystem.⁴ ▪ Facilitate government-led consultations with care recipients, providers, state and regional governments, and stakeholders in the digital technology industry

1 NSW Government (2025) Department of Customer Service; 2 Mandala (2024) Assessing the benefits of accelerated digital delivery of government services; 3 Australasian Institute of Digital Health (2025) Roundtables; 4 RMIT University (2025) RMIT and the European Connected Health Alliance.
Source: Mandala analysis.

Building sophisticated public sector capacity requires building capability to support innovation and structures that drive cross government collaboration

Pillar	4 Sophisticated public sector capacity			
Priorities	4a. Build capability and leadership in the public sector	4b. Create structures to drive collaboration in government	4c. Equip the public sector with appropriate tools and systems	4d. Elevate organisational ways of working in the public sector
Description	Hire talent and upskill staff to develop the capabilities to understand and deliver innovation in care.	Incentivise collaboration between different parts and levels of government through formal structures.	Ensure the public sector has the tools and mechanisms to build a strong digital care ecosystem.	Continually refresh ways of working that encourage collaboration, iterative delivery at pace, and innovation.
Considerations	▪ Develop technical literacy and expertise across government departments to enable informed decision-making on care technology investments and regulatory frameworks. This includes upskilling existing staff and recruiting specialists with expertise in health technology, data analytics, and digital transformation. ▪ Establish governance bodies to strengthen whole-of-government coordination, link funding to collaboration, and remove siloed regulatory and funding barriers to align digital health strategies. ▪ Pool resources across agencies and departments to enable collective investment in system-wide digital care projects, supported by shared platforms such as the Australian National Data Integration Infrastructure. ▪ Modernise government IT by upgrading legacy systems, strengthening cybersecurity and data protection, and using collective purchasing to enable adoption of new technologies. ▪ Continue refreshing project management methods with feedback loops and a culture of trust, safety, and experimentation to support adaptive, innovative delivery. ▪ Implement risk-informed rather than risk-averse approaches to innovation adoption by developing frameworks that allow for controlled adoption and gradual scaling for proven technologies.			

A focus on collaboration, innovation, and digital modernisation has been crucial to delivering a Simplified Trade System

The Australian Government established a Simplified Trade System (STS) agenda in 2022 — a whole-of-government approach to simplifying how businesses interact with government in the trade system. It refreshed ways of working across different parts of government, driving collaboration, experimentation, and a modernisation of IT infrastructure. This agenda included:

- A **Customs Regulatory Sandbox** facilitating controlled trials for evidence-based reform of customs and border processes. Trials are proposed by users of the trade system, including industry or government, and adopt an iterative approach through monitoring and potential time extensions.
- A **Border Controls Whole-of-Government Policy Framework** which provides federal, state, and territory governments with a consistent approach to creating, implementing, and evaluating border controls. The Framework:
 - Defines roles and responsibilities of government stakeholders in establishing border controls, fostering a streamlined, collaborative approach to policy development.
 - Outlines key principles for designing border controls, notably that border controls are ‘compatible with modern and digital trade processes’ and ‘digitally focused for future reforms’.
- An **STS Implementation Taskforce** working in partnership with 32 agencies and Australian businesses to codesign and implement cross-border trade reform. The Taskforce triangulated perspectives of business and government stakeholders to provide comprehensive advice on cross-border trade reform.

Source: Australian Government (2024) *Border Controls Whole-of-Government Policy Framework*; Austrade (2025) *Simplifying Australia's trade system*; DFAT (2022) *Simplifying Australia's trade system*; STS Implementation Taskforce (2023) *Simplified Trade System: Progress and Opportunities*; Mandala analysis.



Governments can adopt a three-horizon approach to building an environment that encourages tech innovation in care

	 Reliable digital infrastructure	 Ingrained culture of innovation	 Coordination between actors	 Sophisticated public sector capacity
Horizon 1	▪ Initial data exchange systems are operational, allowing structured data sharing across networks of service providers ▪ Basic compliance frameworks in place, enabling providers to increasingly act on the value of efficient and effective data sharing	▪ Regulatory pathways provide clarity for developers, while education programs build workforce familiarity with digital tools ▪ Seed funding and pilot initiatives demonstrate the benefits of innovation, sparking action across the sector	▪ A designated government agency or person takes ownership of building a national digital care ecosystem, providing strategic direction ▪ Forums and working groups foster dialogue between sector stakeholders and identify opportunities for collaboration	▪ Agile work practices are established to enable faster, more informed decision-making with government ▪ Coordination mechanisms are established between government stakeholders to improve communication and alignment
Horizon 2	▪ Data exchange systems are standardised, with common data formats and identifiers, ensuring seamless flow of information ▪ Innovative applications are built and deployed on top of underlying data exchange infrastructure	▪ Person-centred data controls are fully operational, enabling safe and accepted technology adoption across providers and consumers ▪ Financial mechanisms scale promising innovations	▪ Cross-sector collaboration drives technological innovation ▪ Shared visions for a digital care ecosystem emerge, guiding innovation priorities and resource allocation	▪ Formal collaboration structures embed shared accountability for digital care outcomes ▪ Flexible tools and frameworks support iterative delivery, enabling agencies to co-design and scale innovations efficiently across government and with partners
Horizon 3	▪ National interoperability standards are in place and continually updated to reflect emerging technology and models of care	▪ Outcomes-focused innovation is the norm, with care providers and recipients in dialogue to shape how technology supports recipient needs ▪ A culture of continuous learning and innovation is embedded in the care workforce	▪ Coordination structures are deeply engrained, supporting rapid mobilisation and partnership formation around emerging opportunities	▪ The public sector is data-literate, tech-savvy, and capable of anticipating and shaping innovation in care ▪ Collaboration structures and agile ways of working allow government to rapidly adapt policy to evolving care sector innovation

Source: Mandala analysis.



1

Targeted technological innovation can lift care sector productivity, effectiveness, accessibility, and integrity

2

Four promising opportunities for technological innovation could deliver over \$2B in productivity gains in the NDIS, or over \$13B across the whole care sector

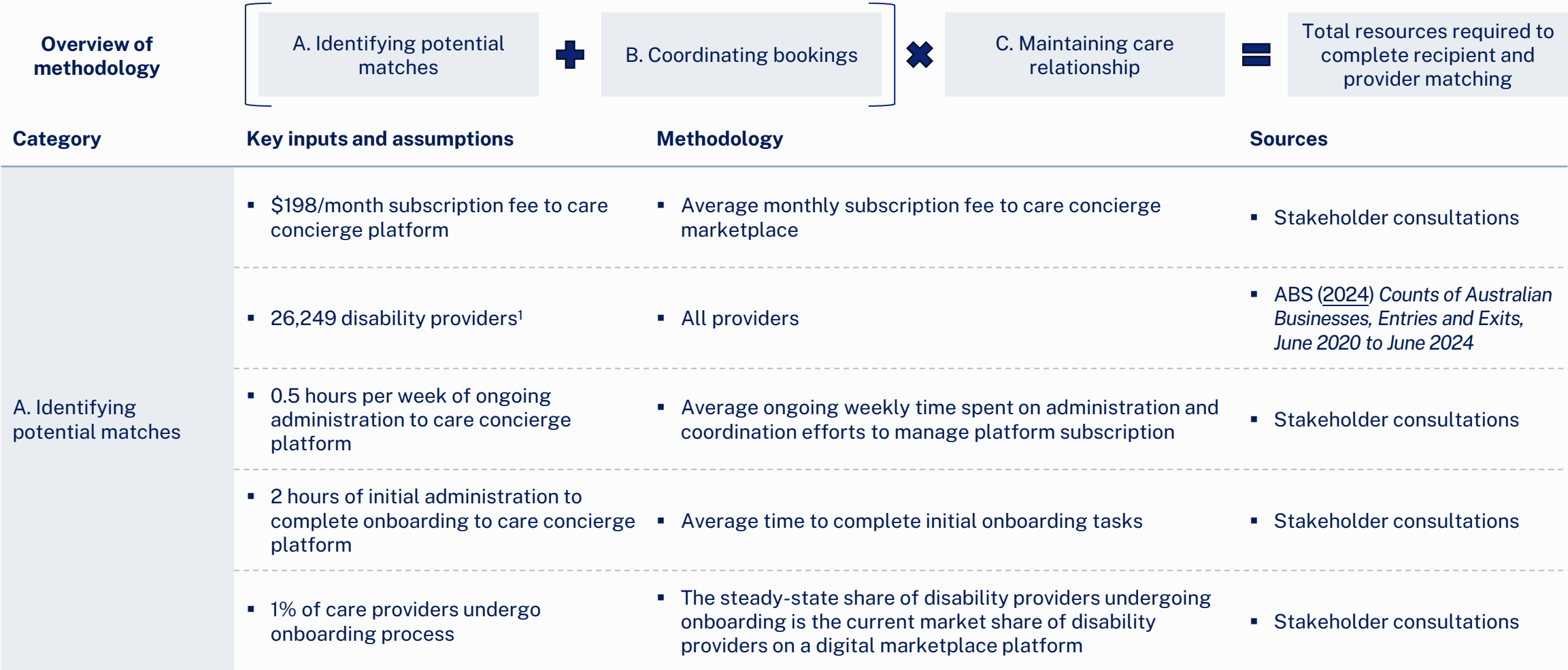
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To realise these opportunities, governments should adopt a mission to establish a strong digital care ecosystem guided by four pillars

4

Appendix

Methodology – Optimising NDIS matching and scheduling (I/III)



¹ Disability sector is categorized as the ANZSIC sectors ‘Other Residential Care Services’, ‘Social Assistance Services, nfd’, and ‘Other Social Assistance Services’. Source: Mandala analysis.

Methodology – Optimising NDIS matching and scheduling (II/III)

Overview of methodology A. Identifying potential matches + B. Coordinating bookings × C. Maintaining care relationship = Total resources required to complete recipient and provider matching			
Category	Key inputs and assumptions	Methodology	Sources
B. Coordinating booking efforts	12% of the time of those who work in the disability sector¹ is dedicated towards booking efforts	- The share of time dedicated to booking efforts is determined by ‘fuzzy matching’ the tasks of all 6-digit and 4-digit ANZSCO occupations for booking coordination key words - Assumption: each occupation spends equal time on all listed tasks - This is weighted against the number of persons who are employed in those occupations	- ABS (2021) <i>TableBuilder</i> - Jobs and Skills Australia (2025) <i>Occupations</i>
	75% reduction in administration time on care concierge platform	Administration time saved from digital scheduling tools	Shyft (2025) <i>Save Administrative Time With Digital Scheduling Tools</i>
	\$31/hour is the median hourly income for an employee in the ‘Health care and social assistance’ industry 40 hours – number of hours worked per week 48 weeks – number of working weeks per year	- Each hour saved from the adoption of digital technology solution can be reallocated to other productivity activities - Therefore, the productivity uplift is the value of resources saved from completing the same task as in the counterfactual	ABS (2024) <i>Employee earnings</i>

¹ Disability sector is categorized as the ANZSIC sectors ‘Other Residential Care Services’, ‘Social Assistance Services, nfd’, and ‘Other Social Assistance Services’. Source: Mandala analysis.

Methodology – Optimising NDIS matching and scheduling (III/III)

Overview of methodology A. Identifying potential matches + B. Coordinating bookings × C. Maintaining care relationship = Total resources required to complete recipient and provider matching				
Category	Key inputs and assumptions		Methodology	Sources
C. Maintaining care relationship	7.7% of recipients repeat the matching progress due to a poor quality match when using manual approach		The share of primary carers who received assistance from organised services were dissatisfied with the quality of service (12.2%) is weighted against the share of NDIS participants who are based in 'Greater City Centre Statistical Areas' (63.3%)	- ABS (2024) <i>Disability, Ageing and Carers, Australia: Summary of Findings</i> - NDIS (2025) <i>Participant datasets</i>
	3.8% of recipients repeat the matching process due to a poor quality match when using care concierge platform		Assumption: due to matching optimisation based on feedback and preference, a conservative 50% reduction in share of poor quality matches could occur on the concierge platform	Stakeholder consultations

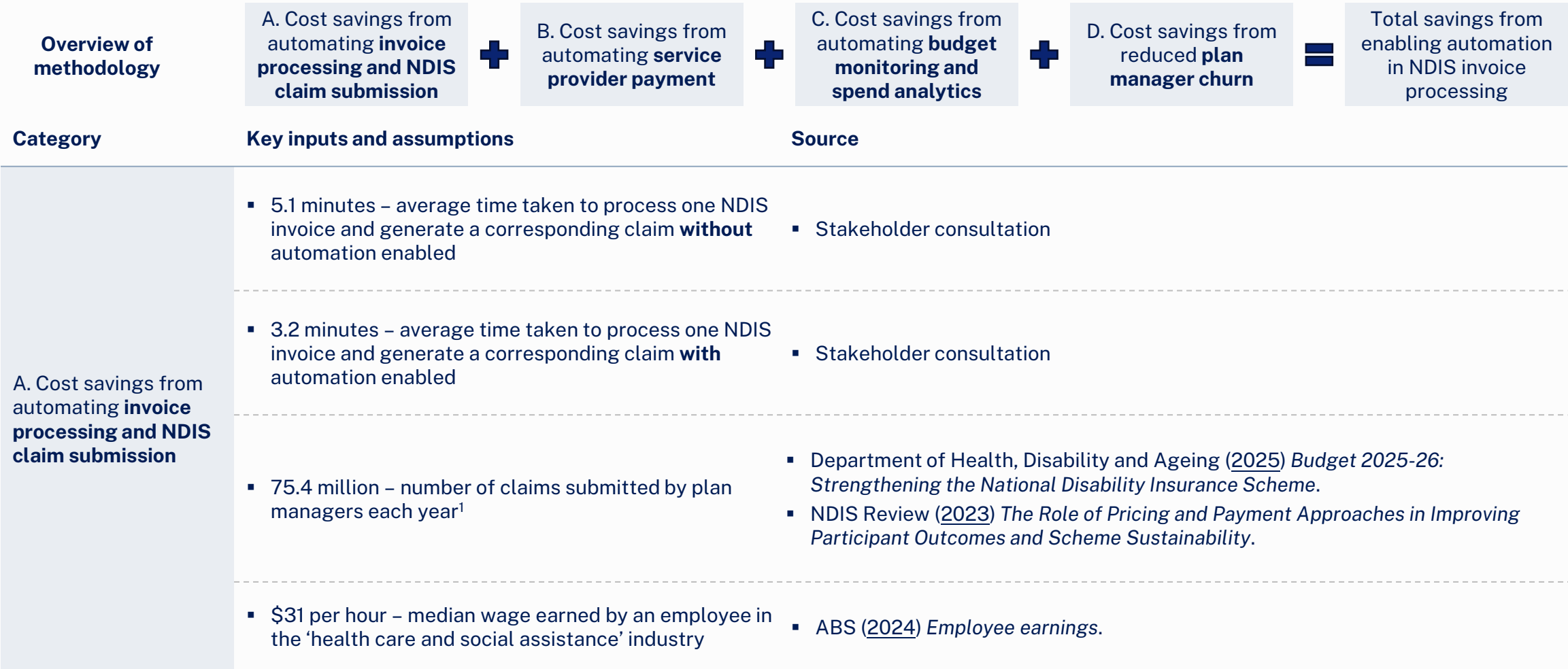
Source: Mandala analysis.

Methodology – Automating NDIS invoice generation and processing (I/V)

Overview of methodology	A. Resources currently allocated to NDIS invoice generation	—	B. Resources allocated to automated NDIS invoice generation	=	Total savings from automating NDIS invoice generation
Category	Key inputs and assumptions		Source		
A. Resources currently allocated to NDIS invoice generation	▪ 10 minutes – average time taken to generate one invoice		▪ Literature scan ▪ Stakeholder consultation		
	▪ 130 million – number of NDIS invoices generated each year ¹		▪ Department of Health, Disability and Ageing (2025) Budget 2025-26: Strengthening the National Disability Insurance Scheme.		
	▪ \$31 per hour – median wage earned by an employee in the ‘health care and social assistance’ industry		▪ ABS (2024) Employee earnings.		
B. Resources allocated to automated NDIS invoice generation	▪ 80% – average reduction in time taken to generate one invoice after deploying automation platform		▪ Literature scan ▪ Because automated invoice generation has not been deployed at large for NDIS purposes, our scan covered automated invoicing platforms for use by any industry.		
	▪ 130 million – number of NDIS invoices generated each year ¹		▪ Department of Health, Disability and Ageing (2025) Budget 2025-26: Strengthening the National Disability Insurance Scheme.		
	▪ \$31 per hour – median wage earned by an employee in the ‘health care and social assistance’ industry		▪ ABS (2024) Employee earnings.		

¹ We assume the number of NDIS invoices generated is identical to the number of NDIS claims submitted.
Source: Mandala analysis.

Methodology – Automating NDIS invoice generation and processing (II/V)



¹ We assume the average number of NDIS claims generated for a plan-managed participant is identical to the average number of claims generated for a self-managed or NDIS-managed participant. With 58% of NDIS participants plan-managed, this means that 58% of the 130 million NDIS claims submitted each year are submitted by plan managers.
Source: Mandala analysis.

Methodology – Automating NDIS invoice generation and processing (III/V)

Overview of methodology	A. Cost savings from automating invoice processing and NDIS claim submission + B. Cost savings from automating service provider payment + C. Cost savings from automating budget monitoring and spend analytics + D. Cost savings from reduced plan manager churn = Total savings from enabling automation in NDIS invoice processing				
Category	Key inputs and assumptions		Source		
B. Cost savings from automating service provider payment	▪ 0.01 minutes per participant – average time spent on payment processing each day without automation enabled		▪ Stakeholder consultation		
	▪ 0 minutes per participant – average time spent on payment processing each day with automation enabled		▪ Stakeholder consultation		
	▪ 35% – average reduction in payment status queries made by service providers after deploying automation platform		▪ Stakeholder consultation		
	▪ 4 minutes – average time spent addressing a payment status query from a service provider		▪ Stakeholder consultation		
	▪ 1.2 queries per participant – number of payment status queries made by service providers each year		▪ Stakeholder consultation		
	▪ 428,860 – number of plan-managed participants ¹		▪ NDIS (2025) <i>Participant datasets</i> . ▪ NDIS Review (2023) <i>The Role of Pricing and Payment Approaches in Improving Participant Outcomes and Scheme Sustainability</i> .		
	▪ \$31 per hour – median wage earned by an employee in the ‘health care and social assistance’ industry		▪ ABS (2024) <i>Employee earnings</i> .		

¹ 58% of NDIS participants are plan-managed. As at 30 June 2025, there were 739,414 NDIS participants.
Source: Mandala analysis.

Methodology – Automating NDIS invoice generation and processing (IV/V)

Overview of methodology	A. Cost savings from automating invoice processing and NDIS claim submission + B. Cost savings from automating service provider payment + C. Cost savings from automating budget monitoring and spend analytics + D. Cost savings from reduced plan manager churn = Total savings from enabling automation in NDIS invoice processing				
Category	Key inputs and assumptions		Source		
C. Cost savings from automating budget monitoring and spend analytics	▪ 57.6 minutes per participant – average time spent on budget monitoring and spend analytics each year without automation enabled		▪ Stakeholder consultation		
	▪ 0 minutes per participant – average time spent on budget monitoring and spend analytics each year with automation enabled		▪ Stakeholder consultation		
	▪ 428,860 – number of plan-managed participants		▪ NDIS (2025) <i>Participant datasets</i> ▪ NDIS Review (2023) <i>The Role of Pricing and Payment Approaches in Improving Participant Outcomes and Scheme Sustainability</i>		
	▪ \$31 per hour – median wage earned by an employee in the ‘health care and social assistance’ industry		▪ ABS (2024) <i>Employee earnings</i>		

Source: Mandala analysis.

Methodology – cost savings from automating NDIS plan management (V/V)

Overview of methodology	A. Cost savings from automating invoice processing and NDIS claim submission + B. Cost savings from automating service provider payment + C. Cost savings from automating budget monitoring and spend analytics + D. Cost savings from reduced plan manager churn = Total savings from enabling automation in NDIS invoice processing				
Category	Key inputs and assumptions		Source		
D. Cost savings from reduced plan manager churn ¹	▪ 8% – annual plan manager churn rate without automation enabled		▪ Stakeholder consultation		
	▪ 5% – annual plan manager churn rate with automation enabled		▪ Stakeholder consultation		
	▪ \$232.35 – cost incurred by plan manager to onboard new participant ²		▪ NDIS (2025) <i>Annual pricing review</i>		
	▪ 428,860 – number of plan-managed participants		▪ NDIS (2025) <i>Participant datasets</i> ▪ NDIS Review (2023) <i>The Role of Pricing and Payment Approaches in Improving Participant Outcomes and Scheme Sustainability</i>		

1 Plan manager churn is defined as the rate at which participants cease services from their contracted plan manager in favour of receiving services from another plan manager.
2 We assume the cost incurred by plan managers when onboarding a new participant is identical to the one-off establishment fee plan managers receive from the NDIS to onboard a new participant. We note this one-off establishment fee was slated for removal by the NDIA in their 2024-25 Annual Pricing Review.
Source: Mandala analysis.

Methodology – Streamlining NDIS specialist and allied health referral pathways (I/III)

Overview of methodology	A. GP referral	+	B. Coordinating bookings	+	C. Additional requirements	=	Total resources required to complete access to specialists and allied health services
Category	Key inputs and assumptions	Methodology			Sources		
A. GP referral	3 mins for GP to write a referral letter	Average number of minutes a GP takes to process a letter			Practice Unbound (2025) <i>Safely delegate clinical correspondence using Workflow Go</i>		
	25% reduction in time to complete a referral letter	Reduction in the average time taken to write a letter due to automated workflows			Medical Search (2025) <i>How automation is helping reduce admin overload in healthcare</i>		
	4,284,939 NDIS recipients who visited referred services	See methodology for interoperability for further detail					
	\$190/hour wage for GPs	Average salary of \$365,000 for GPs in Australia			Alecto Australia (2025) <i>GP Salary in Australia</i>		

Source: Mandala analysis.

Methodology – Streamlining NDIS specialist and allied health referral pathways (II/III)

Overview of methodology	A. GP referral	+	B. Coordinating bookings	+	C. Additional requirements	=	Total resources required to complete access to specialists and allied health services
Category	Key inputs and assumptions		Methodology		Sources		
B. Coordinating bookings	12% of the time of those who work in the disability sector¹ is dedicated towards booking efforts		- The share of time dedicated to booking efforts is determined by ‘fuzzy matching’ the tasks of all 6-digit and 4-digit ANZSCO occupations for booking coordination key words - Assumption: each occupation spends equal time on all listed tasks - This is weighted against the number of persons who are employed in those occupations		- ABS (2021) <i>TableBuilder</i> - Jobs and Skills Australia (2025) <i>Occupations</i>		
	75% reduction in administration time on care concierge platform		Administration time saved from digital scheduling tools		Shyft (2025) <i>Save Administrative Time With Digital Scheduling Tools</i>		
	\$31/hour is the median hourly income for an employee in the ‘Health care and social assistance’ industry 40 hours – number of hours worked per week 48 weeks – number of working weeks per year		- Each hour saved from the adoption of digital technology solution can be reallocated to other productivity activities - Therefore, the productivity uplift is the value of resources saved from completing the same task as in the counterfactual		ABS (2024) <i>Employee earnings</i>		

Methodology – Streamlining NDIS specialist and allied health referral pathways (III/III)

Overview of methodology	A. GP referral	+	B. Coordinating bookings	+	C. Additional requirements	=	Total resources required to complete access to specialists and allied health services
Category	Key inputs and assumptions		Methodology		Sources		
B. Coordinating bookings	▪ 33,028 specialist practices	▪ Total number of specialist practices in Australia		▪ ABS (2024) <i>Counts of Australian Businesses, Entries and Exits, June 2020 to June 2024</i>			
	▪ 27,969 allied health practices	▪ Assumption: only half of allied health practices require a GP referral letter		▪ ABS (2024) <i>Counts of Australian Businesses, Entries and Exits, June 2020 to June 2024</i>			
C. Additional requirements	▪ <i>Productivity uplift from additional requirements captured in interoperability productivity uplift</i>						

Source: Mandala analysis.

Methodology – Improving the efficiency of data exchange between NDIS service providers (I/VI)

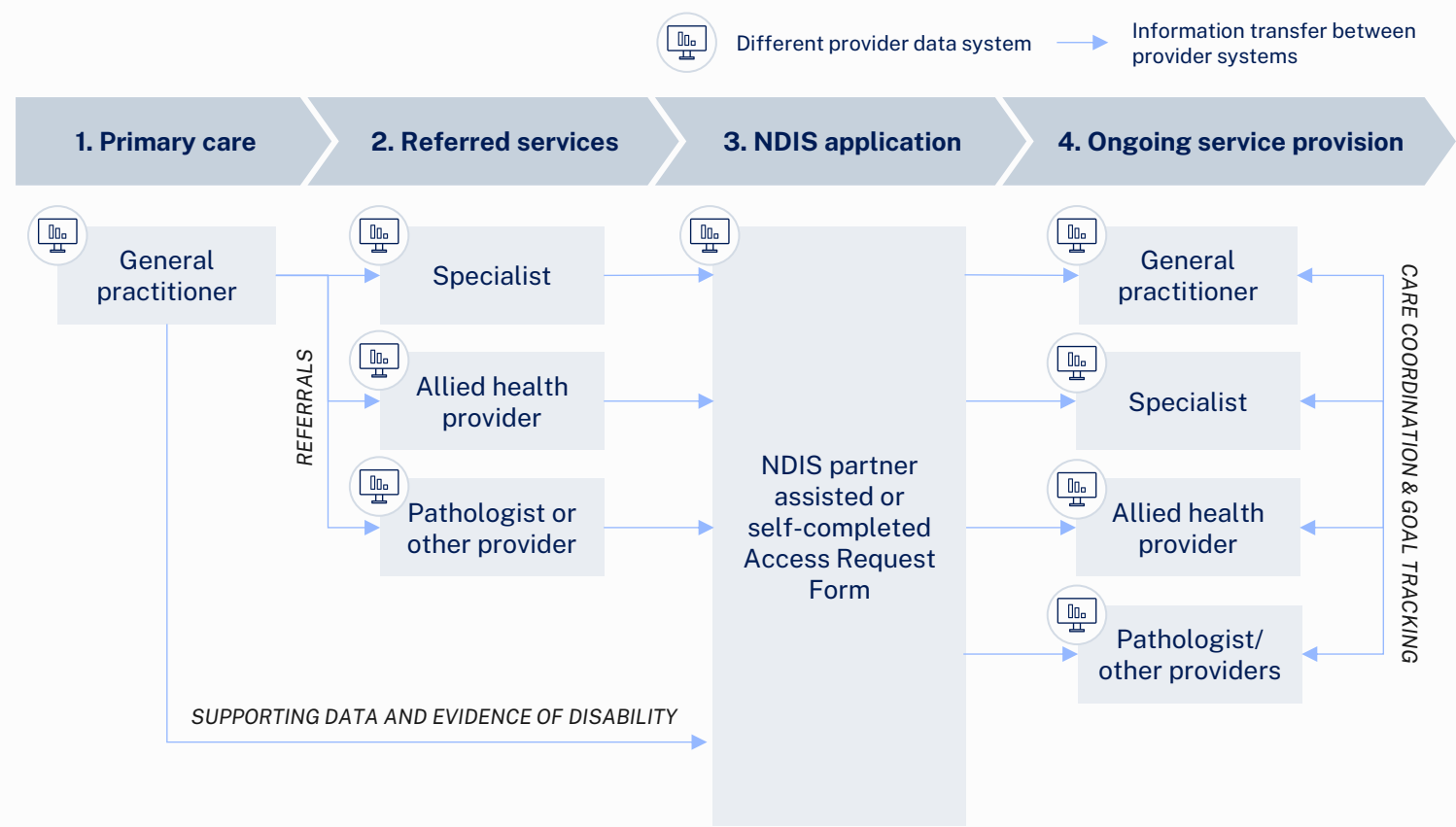
Overview of methodology:

To assess the productivity uplift from interoperability, we mapped information flows through the NDIS recipient care journey. Based on this journey mapping, we identified the following key interaction points where medical records flow between healthcare providers:

- Initial general practitioner assessment
- Referred services – specialist providers
- Referred services – allied health providers
- Referred services – pathology / diagnostic imaging
- NDIS application submission
- Ongoing medical services

For each interaction point, we analysed key metrics including median wages, service delivery times for NDIS participants, the proportion of services attributed to NDIS participants, the number of providers across Australia, and the volume of tests conducted.

The following slides detail the key input metrics used across each interaction.



Methodology – Improving the efficiency of data exchange between NDIS service providers (II/VI)

In order to map the number of provider interactions across the NDIS sector, we first established a typical journey for the largest disabilities by number of recipients. These disabilities are autism, intellectual disability, development delay, and psychosocial disability – these four primary disabilities account for around 70% of all active NDIS participants. We inferred the number of provider interactions and medical tests from the following journeys.

Primary disability	Number of active participants	Initial GP assessment	Referred services – specialists	Referred services – allied health	Referred services – pathology	NDIS application	Ongoing services
Autism	294,960	All participants undergo one initial assessment	- Developmental paediatrician - Speech pathologist - Psychologist	- Occupational therapist - Speech pathologist - Multidisciplinary autism assessment team	- Autism diagnostics (ADOS-2, ADI-R) - Sensory profiles testing	Meeting with NDIS representative to complete Access Request form	- Developmental paediatrician (annual) - Psychiatrist (biannual) - Psychologist (quarterly) - Allied health (biannual)
Intellectual disability	83,443	All participants undergo one initial assessment	- Developmental paediatrician - Clinical Psychologist (IQ testing) - Geneticist assessment	- OT - Cognitive assessments (WISC, Stanford-Binet)	- Genetic testing - Developmental screening - Brain imaging	Meeting with NDIS representative to complete Access Request form	- GP or paediatrician (annual) - Psychiatrist (biannual) - Psychologist (biannual) - Allied health (biannual)
Development delay	96,016	All participants undergo one initial assessment	- Developmental paediatrician - Clinical Psychologist	- OT - Physiotherapist - Speech pathologist - Motor assessment - Communication evaluation	- Developmental screening - MRI/brain imaging	Meeting with NDIS representative to complete Access Request form	- GP or paediatrician (annual) - Developmental paediatrician (quarterly) - Psychologist (biannual) - Allied health (quarterly)
Psychosocial disability	65,272	All participants undergo one initial assessment	- Community mental health team - Psychiatrist - Clinical Psychologist	- OT - Mental health social worker	- Psychological assessments (DASS-21, GAF) - Mental state exam	Meeting with NDIS representative to complete Access Request form	- GP (biannual) - Psychiatrist (2-monthly) - Psychologist (quarterly)
All other disabilities	199,414	All other disabilities take an average of autism, intellectual disability, development delay, and psychosocial disability					

Source: NDIS (2025) Participant datasets; Mandala analysis.

Methodology – Improving the efficiency of data exchange between NDIS service providers (III/VI)

Overview of methodology	A. Time savings	+	B. Savings from duplicated test savings	=	Productivity uplift from interoperability
Category	Key inputs and assumptions			Source	
A. Time savings	40,374 GPs ¹			▪ Department of Health, Disability and Ageing (<u>2024</u>) <i>Summary Statistics, Medical Professionals</i>	
	49,842 specialists ¹				
	100,792 allied health providers ¹				
	49,842 pathology / diagnostic providers ¹				
	2,144 plan managers			▪ NDIS Review (<u>2025</u>) <i>The Role of Pricing and Payment Approaches In Improving Participant Outcomes and Scheme Sustainability</i>	
	78,147 initial GP assessments to NDIS participants			▪ Number of services delivered to NDIS participants derived from recipient journey and number of active participants	
	228,728 referred services – specialist services delivered to NDIS participants				
	232,975 referred services – allied health services delivered to NDIS participants				
	164,225 referred services – pathology/diagnostic imaging services delivered to NDIS participants				
	5,928,603 ongoing services delivered to NDIS participants				

Methodology – Improving the efficiency of data exchange between NDIS service providers (IV/VI)

Overview of methodology	A. Time savings	+	B. Savings from duplicated test savings	=	Productivity uplift from interoperability
Category	Key inputs and assumptions			Source	
A. Time savings	\$52.50/hour median pay for health professionals			▪ ABS (2025) <i>Employee earnings</i>	
	\$39.80/hour median pay for health and welfare support workers				
	\$31.00/hour median pay for healthcare and social assistance industry				
	32% of current care providers utilising an interoperable system ¹			▪ Australian Digital Health Agency (2022) <i>2022 Interoperability Benchmark Survey</i>	
	22% time saved for care providers when using an interoperable system ²			▪ Productivity Commission (2024) <i>Leveraging digital technology in healthcare</i>	

1 Share of care providers reported using Medical Health Records (MHR) regularly or all the time; 2 Wait time reductions for medical providers using MHR used as a proxy for healthcare provider time savings.
Source: Mandala analysis.

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Methodology – Improving the efficiency of data exchange between NDIS service providers (V/VI)

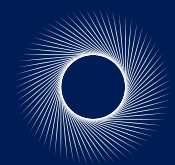
Overview of methodology	A. Time savings	+	B. Savings from duplicated test savings	=	Productivity uplift from interoperability
Category	Key inputs and assumptions		Source		
B. Savings from duplicated test savings	781,470 allied health tests currently completed for NDIS participants		▪ Number of tests currently completed for NDIS participants derived from recipient journey and number of active participants		
	390,735 basic pathology tests currently completed for NDIS participants				
	488,419 genetic pathology tests currently completed for NDIS participants				
	553,541 ongoing service tests currently completed for NDIS participants				
	\$178.45 cost of allied health test				
	\$23.75 cost of basic pathology test		▪ Australian Institute of Health and Welfare (2024) <i>Diagnostic services</i>		
	\$98.59 cost of genetic pathology test		▪ Australian Institute of Health and Welfare (2024) <i>Pathology, imaging and other diagnostic services</i>		
	\$100.26 cost of ongoing test ¹				

¹ Cost of ongoing test is the average of allied health, basic pathology, and genetic pathology tests.
Source: Mandala analysis.

Methodology – Improving the efficiency of data exchange between NDIS service providers (VI/VI)



1 Reduction of imaging tests due to EMR implementation; 2 Reduction in pathology tests from EMR implementation; 3 Weighted average of reduction in testing from EMR implementation.
Source: Mandala analysis.



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