Ovens Murray Digital Plan

2023

REGIONAL
PARTNERSHIPS
OVENS MURRAY

VICTORIA
State
Government

The Ovens Murray Regional Partnership acknowledge the traditional Aboriginal owners of country throughout the region and their ongoing connection to this land. We pay our respects to their culture and their Elders past, present and future.

Disclaimer
The Ovens Murray Digital Plan 2023 is a refresh of the 2019 Ovens Murray Digital Plan.

Because of the pace of technological change in recent years, it should be noted that the research and strategic recommendations within this Digital Plan are limited to the digital world as of December 2023, with anticipation, where possible, of likely future digital developments.

Whilst every effort has been made to ensure the currency, accuracy and completeness of the content we reserve the right to make changes as required. We encourage readers to make their own inquiries as to the appropriateness and suitability of the information provided.

The Ovens Murray Regional Partnership, authors and presenters do not accept any liability to any person for the information (or use of the information) which is provided or referred to in this plan.

Foreword

The first Ovens Murray Digital Plan (2019) gathered evidence of the region's digital landscape, technical insights and rich stakeholder engagement to generate data and insights, showing how a lack of digital inclusion (access, affordability and ability) was preventing the Ovens Murray region from fully embracing the digital economy and accessing vital services to improve the health, safety, and prosperity of its communities.

Since then, we have seen strong investment in digital connectivity across all levels of government, building network infrastructure that addresses coverage gaps. However, there is still much work to be done in delivering programs which address the ability of residents and businesses to use digital tools and services, as well as improving affordability for people on low incomes.

These efforts became critical as the region grappled with the impacts of COVID-19. Unprecedented numbers relocated to the region, taking the opportunity to work remotely, and existing businesses and residents were pushed into virtual work and commerce overnight. COVID-19 highlighted, more than ever, the challenges this region faces in connectivity and ability and the opportunities digital economies provide.

Since 2020 many regional projects have been implemented to address digital ability and support the region to embrace and accelerate digital economic opportunities. We congratulate the collaborative efforts of the Ovens Murray Digital Futures Coordination Group in leading this action.

Because of the ongoing pace of digital change and its increasing impacts on our personal and working lives, this refresh of the Ovens Murray Digital Plan is appropriate and timely, an opportunity to take stock of what has been achieved and develop strategies for what is still to come.

This Ovens Murray Digital Plan refresh is the result of significant work by diverse contributors. We acknowledge the role of the Ovens Murray Digital Futures Coordination Group, including representatives of local government and industry—health, education, tourism, business, agriculture, and telecommunications—as well as our respective Ovens Murray communities. We are also thankful for the considered insights from a diverse range of the region's digital stakeholders.

If we pause to take a moment to look around, our beautiful Ovens Murray region has become known for its rich lifestyle, varied communities,

environmental assets and diversified economies—including a thriving tourism sector. All of these are key drivers for continued population growth and the ongoing success of our regional economy, and in many ways, these drivers are increasingly dependent on the region's digital maturity.

Where are we today? The data tells us that many in our region are still not fully engaged digitally, that many have only basic skills and that others do not even have these. As workers and residents are increasingly asked to practice the efficiencies found in performing digital tasks, to go online to perform basic services and government obligations, we are faced with a difficult question: "How do we best help our residents and businesses navigate their respective digital universes?" This question is especially relevant for our most disadvantaged.

This Ovens Murray Digital Plan (2023) provides an update into the lived digital experience of those in business and our communities—what aspects they find most rewarding and what aspects are most difficult to navigate. It outlines key digital issues, identifies key areas to focus on, and highlights priority actions which will be a new starting point for regional action and advocacy by the Ovens Murray Regional Partnership and collaborators.

This refreshed plan is a vital tool to be used by the Ovens Murray Regional Partnership, the Digital Futures Coordination Group, our communities and all levels of government, to develop the region's economic, social and environmental potential. It provides a valuable evidence base for actions in infrastructure, skills and capacity development that will enable the Ovens Murray to build and strengthen our digital future.

Felicity Williams

Acting Chair
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Regional Partnership

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1. Executive summary

This is a rapidly changing world, one in which technology increasingly touches every part of our daily lives. Recently, we have experienced significant events, such as a pandemic, geopolitical shifts, economic uncertainty and natural disasters, all of which have accelerated the adoption of digital technologies across Victoria at an unprecedented rate.

This acceleration presents a number of digital challenges to residents of Victoria, but also significant opportunities to provide better outcomes, both in personal lives as well as in public service and the business world.

The Ovens Murray region is, of course, not exempt from these events, and is fully engaged in responding to these challenges and creating new digital opportunities for its residents and businesses. Our reliance on digital technology will only increase, potentially furthering the divide between regional and metropolitan populations, as well as digital natives and late adopters.

According to a recent study by PwC, enhancing connectivity will deliver $50b in economic uplift to Victoria, with $400m for North-east Victoria, through participation in the digital economy.

The Ovens Murray Digital Plan was first published in 2019 and was one of nine digital plans created in Victoria. It highlighted the metropolitan-regional digital divide and revealed that the Northern Victoria region, which includes Ovens Murray, had the lowest level of digital inclusion in Victoria. It also identified a clear digital divide, especially for several disadvantaged groups—notably First Nations people, the elderly, low-income and unemployed residents. The Plan also celebrated many of the exciting projects sparking the region, and our emerging digital leaders.

The Ovens Murray Regional Partnership now seeks to refresh the 2019 plan with the goal of continuing to enhance digital inclusion, innovation, and entrepreneurship in the region.

The lifestyle benefits we enjoy in our beautiful region form a compelling attraction for the migration of talented people from the metropolitan areas, and set a solid foundation to our desired goal of becoming a "Smart Region," connecting people,

attracting talent, encouraging innovation, and creating jobs and growth for the future.

This 2023 Ovens Murray Digital Plan is designed as an evidence-based, place-based analysis of the supply of and demand for digital services and skills, aimed at identifying current digital needs and potential solutions. The plan continues to empower advocacy and action by residents, communities and businesses in bringing about needed adaptation and change.

We have aligned this digital plan with several digital strategies that affect the Ovens Murray region, most notably *A Future Ready Victoria – Victorian Government Digital Strategy 2021-2026* and the Commonwealth Government's *Data and Digital Government Strategy – to 2030*. This new plan reflects the state of the digital world, as it affects the Ovens Murray region, as of October 2023.

The goals of this plan are quite simple and form our two strategic pathways:

1. to enable and lift regional ambition—to drive innovation, outside-the-box thinking, and entrepreneurship in the region, and
2. to reduce the digital divide in our region—especially for our most disadvantaged residents.

To arrive at this plan's recommendations, a substantial amount of digital literature from regional, state and national bodies was reviewed, as well as advice from local government, and collaboration with regional industry leaders and sector representatives from business, health, telecommunications, tourism, agriculture, and education.

The key issues observed:

- Poor awareness and confusion within our communities and businesses regarding the digital services and opportunities throughout the region, notably in where to go to get help in solving digital problems;
- Variable telecom service availability, performance and system resilience, notably in natural disasters and emergencies;
- Inadequate mobile signal performance—especially tourist areas in peak seasons;
- Increased resident fear regarding cyber security and accompanying cybercrimes: identity theft, phishing, fraud, system hacks; and
- A lack of trained digitally skilled workers and pathways for students seeking to enter digital fields.

Our Vision

The Ovens Murray Regional Partnership is committed to:

"Leading the way in digital inclusion, innovation, and entrepreneurship—creating a 'Smart Region' that connects people, attracts talent, encourages innovation, and creates jobs and growth for the 21st century."

In order to 1) enable and lift regional ambition and 2) reduce the digital divide, six pillars have been developed:

Digital Awareness

increase digital awareness amongst businesses, services, industries and community members, to assist them in finding the assistance they need, as well as to improve access to digital services, training and good digital practice.

Digital Skills

support businesses, services, industries and community members to develop the skills and aptitude needed to access digital technology and innovate through the digital economy.

Digital Safety (new)

increase measures and practices taken to protect one's personal information (or a business to protect its employee and customer information), privacy, and well-being in the online environment, as well as measures to repel incoming harm: phishing, malware, fraud, identity theft, etc.

Digital Data Use

encourage awareness about data management practices that ensure existing data is utilised to monitor, benchmark and improve good practice, including cyber security.

Digital Connectivity

enhance the inclusivity, reach, optimisation and resilience of digital services that meet current and future needs, including fixed broadband, mobile telephone and data services (4G and 5G), public WiFi and LP-WAN IoT.

Digital Governance

establish a framework for regional leadership and coordination to support initiatives that align with the region's digital priorities and oversee progress on a successful implementation of the Ovens Murray Digital Plan.

2. How does this Digital Plan work?

2.1 Background

In 2019, the Ovens Murray Digital Plan was developed, providing an important opportunity for the Ovens Murray Regional Partnership to work with the area's communities, businesses and service providers. The Plan considered available data, identified the region's digital strengths, issues, needs, and developed a set of regional priorities.

The 2019 plan identified focus areas and priority actions for advocacy, engagement, and collaboration with industry and community groups, and was instrumental in the operations of the OMRP Digital Futures Coordination Group, which actively engaged multiple stakeholders.

The 2019 Plan:

- **provided** strategic guidance and evidence for targeted local initiatives, funded in part by the Regional Digital Fund, and engaged diverse stakeholders to improve digital inclusion; and

- **revealed** regional shortfalls in access to digital services, the ability for residents and businesses to effectively use these services, and their affordability relative to their capital city counterparts.

2.2 This Plan

The Regional Partnership now seeks to refresh the 2019 plan by considering new regional data and a rapidly changing digital landscape over the past four years, with the goal of further enhancing digital inclusion, innovation, and entrepreneurship in the region.

This Ovens Murray Digital Plan 2023:

- **builds** upon our achievements over the past four years;

- **evaluates** the current digital landscape to identify gaps and opportunities;

- **facilitates** collaboration and engagement with industry and community, seeking to advocate for and take action in the digital domain;

- **provides** evidenced and place-based strategic direction to achieve the aspiration of the Ovens Murray leading the way in digital inclusion, innovation and entrepreneurship; and

- **provides a foundation** for the Ovens Murray Regional Partnership as the basis for actions and advocacy on digital issues, particularly in communicating the recommendations of the plan to relevant stakeholder groups for their consideration, action and response.

What are the economic and social benefits of this plan?

Economic benefits	Social benefits
Increased attractiveness of Ovens Murray region as a drawcard for rural migration, allowing for hybrid work arrangements.	Access to telehealth and other decentralised essential services to supplement local capacity and services
Increased local employment opportunities, specifically core digital jobs	Increased engagement and cross-fertilisation of ideas in Ovens Murray communities
Increased skills and training opportunities	Lower social isolation for digitally disadvantaged groups
Better disaster resilience and recovery	Easier movement of people and their information across government, education, health and employment platforms

Our Methodology

This digital plan broadly utilises a similar analytical framework and supporting research methodology as the 2019 Ovens Murray Digital Plan.

The specific process was as follows:

Research/Environment Scan

- Analyse more than 80 documents, studies, and presentations regarding regional and state digital ecosystems.
- Analyse this research pool to identify existing local strategies, best practice in a broad range of areas, local development priorities, existing economic initiatives, and key attributes of the current digital landscapes in the seven Ovens Murray Local Government Authorities.

Discovery 1: Collaborative stakeholder interviews

- Interview a diverse group of 35 regional stakeholders.
- Seek to identify important challenges, gaps in the regional digital ecosystem, as well as ideas for closing these gaps and areas of focus.

Discovery 2: Collaborative stakeholder workshops

- **Workshop 1: Landscape analysis** – Understand perspectives on achievements since the last plan, and, at an industry sector level, changes which should be considered for this Digital Plan, as well as information on existing gaps, areas for development, and ideas for potential projects.
- **Workshop 2: Future planning** – Develop a shared vision for the region and its digital future, to understand what needs to be done to achieve that future, including practical strategies and actions for the region.

Discovery 3: Regional business profile interviews

- Conduct interviews, across a diverse group of companies, to better understand the origins, challenges and achievements of a variety of regional businesses in Agribusiness, Telecommunications, Tourism, Education, and Community.

Analysis and design

- Systematically review and analyse government policy and programs, digital infrastructure, digital supply/demand, skills supply and other key information (analysis by Victorian government's digital plan project team).
- Ensure appropriate representation of both human and infrastructure factors in the analysis and design for this plan.

Validation with key stakeholders

- Review working observations, strategies and recommendations with project stakeholders.
- Create a draft document, and two document review cycles for comment and amendment.

Delivery and approval

- Include final comments and amendments and publish for final approval.

Project governance

- **Project Control Group**
  - Role: Project Control
  - Provide general direction, feedback and advice
  - Assist in identifying existing gaps, opportunities, and potential economic and social impacts and benefits
  - Identify opportunities for consultation with key project stakeholders
- **Digital Futures Coordination Group**
  - Role: Project Oversight
  - Provide advice on alignment with other regional and state initiatives
- **Ovens Murray Regional Partnership**
  - Role: Project Ownership

2.3 Showcase: Wangaratta Tech School

How the School originated

One of the major issues facing the Ovens Murray region is the ability to provide clear pathways for hands-on and immersive STEM learning experiences to secondary school students, sparking their aspirations to pursue future pathways and careers in STEM. Wangaratta Tech School is one of six Tech Schools (noting 'Tech' refers to 'technology' and not 'technical'—see below) funded in 2023 with $116 million to establish 6 new Tech Schools in Victoria, including $10 million to establish a Clean Energy Equipment Fund.

What the School does

The Wangaratta Tech School is planned to go live in July 2026, and will partner with local industry to expose students to real-world challenges and inspire them to pursue STEM careers in the Victorian Government's priority industries, including low-emissions manufacturing, renewable energy, health technologies, food manufacturing, defence, aerospace and digital technologies. Tech School programs complement partner schools' curricula by integrating the use of advanced technology and industry skills and will give many students a leg up in finding a career start.

These new Tech Schools are quite different from the previous technical schools/colleges whereby students enrol to undertake technical training. Students do not enrol in a Tech School—teachers from schools surrounding a Tech School book their students into programs.

They are offered free high-tech, innovative STEM teaching and learning programs (for students and teachers), including free bus transportation to and from school. Tech Schools only serve secondary education providers in their local LGAs—thereby forging strong relationships with local schools and communities.

Students will get a real world feel of a tertiary institution to build an aspiration for future careers, by being able to access after school hours and holidays programs (like STEM camps), be a part of "ambassador programs" and access master classes. Teachers benefit from being able to advance their professional learning in areas like design thinking and STEM education.

The School's 3 Year Plan

Wangaratta Tech School is in the middle of a 3-year plan to establish its operations, and is currently in the Budget and Funding phase, in which local industry and education partnerships are formed (23 are currently underway).

In 2025 the Construction and Development Phase will begin, including a curriculum design phase—this design phase will include a strong representation by local industries (including profit and not-for-profit) and local subject matter experts in the education field.

The curriculum will offer programs co-designed with schools and industry partners that include "tech tasters" and study challenges that vary from one day to multi-day programs. Wangaratta Tech School will integrate content taught in schools with the use of advanced technology, industry problems, capabilities and design thinking. It will also cater its programs to priority groups—e.g. females, First Nations students and students with disability.

What are benefits to the Region?

- Direct access to high-tech STEM teachers and associated professional development at no additional cost to schools

- Immersive programs to lift numeracy and literacy and student engagement

- Attract talent and industry partners to regions

- Identified pathways for students within tertiary institutions and future career pathways

- Additional support to help resolve system-wide issues (e.g. workforce out-of-field gaps, how to maintain continuous learning for students, improving student well-being)

3. Where are we now?

3.1 The Ovens Murray Region

Bordering the Murray River to the north and having unique access to Victoria's High Country, the Ovens Murray region is known for its lifestyle advantages and a thriving tourism sector based on cycling, snow, nature-based tourism, food, wine, craft beer and cultural heritage. The region is also strategically located on national freight and transport routes, servicing Australia's east coast and has strong manufacturing and service centres.

As a region that attracts innovators and entrepreneurs to the region and seeks to build local digital engagement, Ovens Murray is moving steadily toward its desired outcome – a 'Smart Region' that connects people, attracts talent, encourages innovation, and creates jobs and growth for the 21st Century.

The Ovens Murray region includes:

- Seven municipalities (Alpine Shire, Benalla Rural City, Indigo Shire, Mansfield Shire, Towong Shire, Wangaratta Rural City, City of Wodonga)
- Four Alpine resorts (Mount Buller, Falls Creek, Mount Hotham, Mount Stirling)
- A Gross Regional Product of $6.5 billion
- A population of 131,400
- Nearly 5 million High Country visitors a year
- $1.3 billion in-region visitor spend

Regional diversity

The Ovens Murray region is characterised by a surplus of diversities: widely divergent population densities, a variety of topographies and landscapes, a wide range of land uses and a broad spectrum of economic activities.

131,400
Population
(2020)

11.1%
Population growth
(2011–20)

$6.5B
Gross regional product
(2020)

More than half of the region's residents live in the regional centres of Wodonga, Wangaratta, and Benalla, with the remainder residing within a network of unique, vibrant towns and more remote rural districts.

The region is known for enjoying reliable water supplies, with rich, fertile lands supporting a broad range of agricultural businesses. To move high volumes of freight and goods, the Hume transport corridor provides high-quality road and rail access.

Regional industries

Whilst livestock grazing (beef/sheep/dairy) is the region's most economically significant primary production activity, the region is also recognised for its viticulture and horticultural commodities (grapes, apples, berries, nuts and hops), as well as niche crops and smaller-scale artisanal food production and value adding. The region also has a number of large food processing and distribution facilities.

Alpine resorts and other tourist destinations, offering year-round attractions, signature annual festivals and other periodic events, experience difficulties meeting digital demands during seasonal visitor peaks.

The digital connectivity needs of primary producers, manufacturers, tourism operators and visitors are increasing and also differ across locations depending on the nature of their activities.

Additionally, the region has a growing regional transport, distribution and logistics sector, all of which increasingly depend on reliable digital connectivity.

Regional digital connectivity

In the past four years, the reliability and speed of digital connectivity has improved in the Ovens Murray regional centres, and outside of these centres, access to high-speed broadband has improved. But in several areas, especially tourist destinations during peak season and during natural disasters and other emergencies, connectivity remains inconsistent in quality, with an equally inconsistent digital user experience.

In the very remote areas, a continuation of poor communications network coverage and lack of system resilience—especially during emergencies—compound the many risks associated with system faults and emergencies.

Even though Commonwealth and Victorian governments, as well as the telecommunications industry, are investing in telecommunications infrastructure improvements that will benefit the region over coming years, existing initiatives will not address all issues, and may especially disadvantage the most remote and vulnerable.

What is the Ovens Murray region's development strategy?

The five strategic directions for the Ovens Murray REDS have been identified, based on the opportunities emerging from the region's endowments, industry specialisations and socioeconomic context. These strategic directions have been refined, based on a review of local policies and strategic planning, and provide context for this digital plan.

In the context of this digital plan, the region's digital connectivity has been identified as a significant enabler for each of these strategic directions, and economic success is reliant on improvements in the digital space.

Ovens Murray's strategic directions are:

1 **Expand** business and employment opportunities in the transport, distribution, and logistics industries.

2 **Strengthen** and diversify the visitor economy through leveraging the region's nature and epicurean tourism industries.

3 **Expand** on existing strength in manufacturing to take advantage of opportunities in new industries.

4 **Support** and expand economic and employment opportunities in growing sectors (health, social services, education).

5 **Position** the region to benefit from emerging growth opportunities in natural resources.

3.2 The digital divide

The Australian Digital Inclusion Index (ADII 2023)

Digital inclusion is now considered critical in many areas of life and work, a condition underscored by the COVID-19 crisis. Only those with adequate access to the internet and requisite skills to make the most of it were able to fully participate in work, learning, telehealth, access to government information and services, and maintain connection during this time of social distancing. It is estimated that 2.5 million Australians remain offline.

The Australian Digital Inclusion Index (ADII) uses survey data to measure digital inclusion across three dimensions of Access, Affordability and Digital Ability throughout Australia. In 2020 the ADII survey tool was updated, which means that the most recent *Measuring Australia's Digital Divide* reports, published 2021 and 2023, are not directly comparable to the annual ADII reports published from 2016 to 2020. It is noted also that an additional survey was undertaken in late-2020 to establish a baseline and enable comparative scores to be presented in the 2021 ADII report.

Whilst the ADII Mapping the Digital Gap project is providing the first real insights into First Nations digital inclusion in remote communities, little is known about First Nations digital inclusion in regional and urban areas.

Why is the Index important? It allows states and regions in Australia to identify critical barriers to inclusion—networks, the costs of devices or data, or skills and literacies. Through these measures, the Index informs advocacies and initiatives to increase digital inclusion in Australia.

In summary, being "digitally included" means:

- A person has reliable **access** to high-quality internet and owns appropriate devices to utilise the internet in an accessible way, whether they are living with disability, are from culturally or linguistically diverse backgrounds, or have other needs;
- A person has the **ability**, skills and confidence to complete tasks digitally—to engage in basic online services such as MyGov, Centrelink and Medicare, as well as banking and telehealth; and
- A person has the means to **afford** a reliable internet connection and devices.

Key findings

Here are a few key findings from the 2023 ADII report, pertaining to Australia as a whole:

73.2
ADII score

Digital inclusion at the national level continues to steadily improve.

48.5
Age 75+

Digital inclusion remains closely linked to age. The gap between younger and older Australians has grown slightly, especially for Digital Ability.

7.5
First Nations digital gap

There is a considerable digital gap between First Nations and non-First Nations people in Australia.

64.9
Digital Ability score

Digital Ability has improved nationally, although not for everyone.

95.0
Affordability score

Affordability has improved at a national level since 2021; however, some groups experience much greater levels of affordability stress.

28.8
Income gap

Digital inclusion increases with education, employment, and income.

9.4%
Highly excluded

The number of Australians who are highly excluded has declined, but remains substantial.

72.0
Access score

Access scores are increasing at the national level, but these improvements are not evenly shared.

Who are the most disadvantaged groups?

ADII - National

- There continues to be a significant gap between rural and metropolitan areas, although in some cases, it is narrowing.
- Highly excluded Australians are more likely to:
  - be over 75 years of age (42.3% highly excluded).
  - have not completed secondary school (32.5% highly excluded)
  - live in public housing (28.2% highly excluded)
  - have a disability (24.5% highly excluded).

ADII - Victoria

- The 2023 ADII indicates that Victoria is currently the top performing state in Australia, with an overall ADII score second only to the ACT. Victoria is ahead of the national average for Access and Ability, and equal to the national average on the Affordability dimension.

- Similar to the national picture, Victorians at highest risk of being digitally excluded are:
  - People in regional Victoria
  - First Nations peoples
  - Senior Victorians
  - People with a disability
  - People with low educational attainment
  - Low-income and unemployed households
  - Public housing tenants

ADII - Ovens Murray

Up to 2020, ADII regional data relevant to Ovens Murray was contained in data reported for the Northern Victoria region, a large area that includes Ovens Murray and other Regional Partnership regions across northern Victoria. Instead of presenting data at the regional level, recent ADII data includes estimated ADII scores for LGAs. Further analysis with reference to the LGA data is required to enable comparison of digital inclusion in Ovens Murray with other Victorian regions and national ADII scores.

ADII Summary 2023

	Australia	Victoria	Melbourne	Outer Regional Vic	Ovens Murray
Digital Inclusion Index	73.2	74.0	80.0	66.3	**64.0**
Access	72.0	73.0	75.2	66.5	**63.4**
Affordability	95.0	95.0	95.6	93.5	**92.0**
Ability	64.9	66.0	78.0	54.6	**54.9**

The ADII shows that the Ovens Murray region's 2023 Digital Inclusion Score is lower that the Australian Digital Inclusion Score and significantly lower than the Melbourne and Victorian Digital Inclusion Scores—in all aspects of digital inclusion: access, affordability, and ability.

2021 ADII scores for Ovens Murray Local Government Areas (highest to lowest)

Note: Due to small sample size at the local level, LGA Index scores are indicative estimates based national data and ABS census weightings

LGA	Index score	Access score	Affordability score	Digital Ability score
Wodonga	69.0	66.0	92.0	62.0
Indigo	66.0	65.0	92.0	58.0
Wangaratta	65.0	64.0	92.0	57.0
Alpine	63.0	63.0	92.0	54.0
Towong	62.0	62.0	92.0	52.0
Mansfield	62.0	63.0	93.0	50.0
Benalla	61.0	61.0	91.0	51.0

The multi-layered complexity of our digital choices

Let's consider, for a few minutes, the overwhelming complexity of the digital choices people—at least those who can afford it—have to make today.

Many people, from young teenagers to the elderly, now own a smart phone, but mobile ownership is not the same as digital inclusion. In order to buy a phone, they need to decide between an Android phone and an Apple iPhone. They have to decide how much storage they need, how good their camera needs to be, whether they need 5G access, which telecommunications provider to use, which plan, and what apps they need. Some don't understand any of this.

These people, at some point, have to decide what to do with their phone and whether to trust the phone to do important things. "Is it safe to use it in public? Is it safe to use their phone to pay for things? What if someone hacks them, steals something: money, security information? Is that really the ATO asking them to verify something? Is that really their bank?"

They get a text message on their phone from a trusted company they use frequently. It has a link to confirm a refund they are due. They click the link—of course, they click the link—it looks important.

Next, how do they get their phone to work with their home computer? Again, too many

don't understand any of this, and they need help. When their phone says it needs to be upgraded to a new version of the operating system, they don't know what that means, and they need help. What do upgrades do? Who do they ask for help?

A friend says they should "back everything up to the cloud." What does "back up" mean? What's the cloud? Why do they need it? Why so many (OneDrive, Google Drive, Dropbox)?

They think "Why can't everything be simpler?"

They buy a new television, a "smart" TV. When they unbox it, it says it won't really work unless they connect it to their home WiFi network. Now they need to set up WiFi in their home, and get a plan – what does this mean? They can't remember what WiFi does, so they need more help. They

wonder: is it safe to connect to public WiFi? Will someone steal their data? What data would someone want to steal? Is their data being collected by these big companies, like Google and Facebook? What does "their data" mean? Is it important? How should they protect it?

Why do their kids keep saying they need "multi-factor authentication"? A friend sends them a message on something called 'WhatsApp'. What is WhatsApp—is it different than Facebook? What's Messenger? What's Instagram, Snapchat, TikTok, Twitter, X?

They think: "Who set all of this up? Why is it so complicated?"

All of this has an impact: fear, embarrassment, isolation, and possibly despair.

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* https://www.abc.net.au/news/2022-10-16/australia-digital-divide-millions-cannot-access-internet/101498042

3.3 Our current digital supply and demand

The following comparison and analysis has been provided by the Victorian government's digital plan project team.

Telecommunications Connectivity Update - Victorian Overview

The Commonwealth Government has primary responsibility for ensuring the adequacy of telecommunications services across Australia. To meet community and business needs, the Victorian Government has also invested in regional telecommunications infrastructure to address gaps.

The Victorian Government's $540 million *Connecting Victoria* initiative was funded in the November 2020 Victorian State Budget and is currently being implemented under a progressive rollout schedule through to mid-2026. *Connecting Victoria* investments are delivering mobile and broadband connectivity improvements in under-served areas across the State, as well as delivering telecommunications infrastructure resilience measures in high-risk areas.

In addition to the *Connecting Victoria* program, the Commonwealth Government and industry are delivering their own programs and infrastructure

investments, further improving the availability of improved telecommunications services to many locations.

Through *Connecting Victoria*, the Victorian Government has partnered with industry to deliver more than 1,400 broadband and mobile projects, predominantly in peri-urban and regional areas. These include new NBN business fibre zones and other broadband upgrades, new mobile base stations, coverage improvements at existing mobile base stations, resilience measures and upgrades to 5G in key locations. These projects were identified through an extensive market engagement process and assessment of proposals submitted by telecommunications providers.

Connecting Victoria's investment is complementary to Commonwealth Government programs investing in telecommunications infrastructure and with the investments being made by the telecommunications industry, which together include:

- 5G rollout and other mobile network expansion and capacity improvements,

- NBN fibre, fixed wireless and satellite upgrades, and

- Deployment of alternative low earth orbit satellite internet services.

Connecting Victoria Mobile and Broadband Project Locations
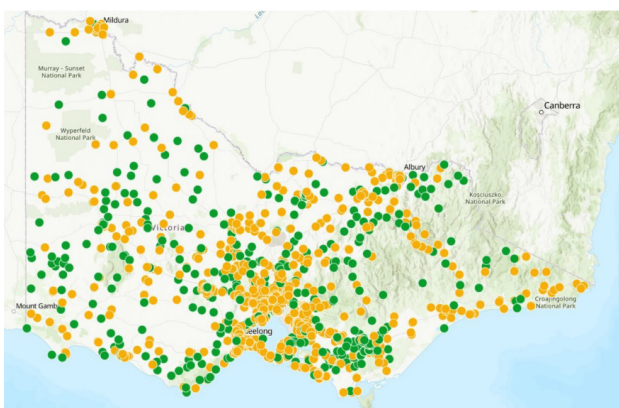
Connecting Victoria Mobile Infrastructure Resilience Project Locations
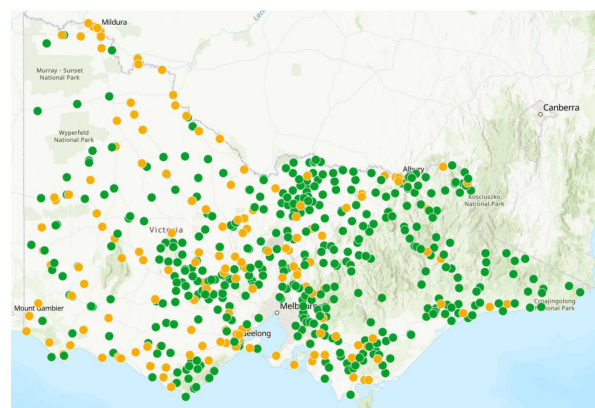
● Completed   ● In progress

(from Victorian Department of Government Services)

How Connecting Victoria locations were selected

The *Connecting Victoria* program sought community input through a broad stakeholder engagement process to identify locations where connectivity improvements were needed. This information was incorporated into the program's market engagement activities to encourage industry to put forward proposals in response to identified connectivity issues.

Proposals put forward by industry were then evaluated on a value-for-money basis, as well as taking into account the potential benefits in terms of economic development, safety and inclusion. Not all locations identified through the engagement process attracted funding proposals from industry, and not all projects put forward offered equivalent value for money or alignment to program objectives.

Ovens Murray – Co-funded telecommunications infrastructure projects

Since 2014, the Victorian and Commonwealth governments have partnered with telecommunications providers to fund 205 telecommunications infrastructure projects across the Ovens Murray region, with the most recent projects funded through the Victorian Government's *Connecting Victoria* initiative.

When the Ovens Murray Digital Plan was launched in late-2019, 122 mobile infrastructure and resilience projects were either recently completed or in progress across the Ovens Murry region. These projects, co-funded by government and industry, included transmission upgrades, new and upgraded mobile base stations/towers, installation of community WiFi at community evacuation centres, and mobile infrastructure hardening to prevent and manage power outages during emergencies.

CONNECTING VICTORIA
Connecting Victoria is delivering 83 projects in the Ovens Murray region. These projects will deliver 11 broadband and 54 mobile and connectivity improvements, as well as 18 resilience improvements that will reduce risk of mobile network failure in emergencies. Projects will be delivered in all 7 local government areas in Ovens Murray region and two Alpine resorts. *Connecting Victoria* projects will benefit more than 40 locations across the region, with multiple projects being delivered in some locations.

For more detail about the *Connecting Victoria* projects in the Ovens Murray region, please refer to the **Appendix 1** of this report.

Community engagement input: Connecting Victoria and other sources

The *Connecting Victoria* program undertook a broad community engagement process from July to September 2021. Engagement took place through a combination of face-to-face roundtables and using the Engage Victoria online platform. Over 11,000 community responses were received through Engage Victoria, with more than 18,000 connectivity issues raised,* providing insights into where Victorians consider their mobile and/or broadband connectivity to be inadequate.

* Each response could raise both a mobile and broadband connectivity issue which were counted separately.

Connecting Victoria
Stakeholder Engagement Activities

2 MONTH ENGAGEMENT

OVER **11,000 ENGAGE VICTORIA** SURVEY RESPONSES

13 ROUND TABLE DISCUSSIONS

<= **LOCAL GOVERNMENT AREAS** ENGAGED

9+10 REGIONAL PARTNERSHIPS + INTERFACE **COUNCILS** ENGAGED

298 COMMUNITY LEADERS AND ADVOCATES ATTENDED

OVER **110** SUBMISSIONS FROM **COUNCILS**

4+ GOVERNMENT ORGANISATIONS ENGAGED
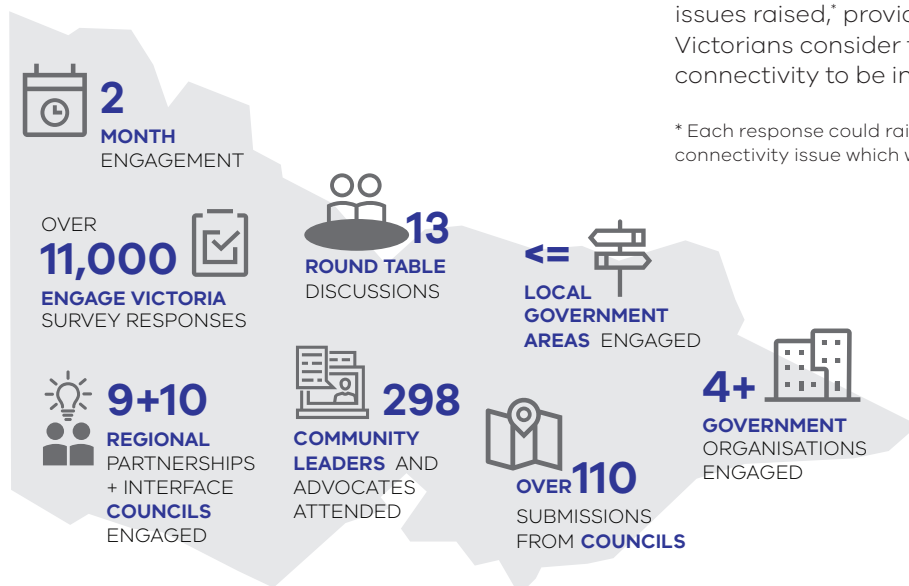
The stakeholder engagement data for Ovens Murray has been reviewed and aggregated according to local government areas to provide more detail about the extent of connectivity concerns raised across communities.

Although an online engagement process is unlikely to capture all connectivity issues and community concerns, it still provides a valuable input to inform advocacy and demonstrates there are still many connectivity concerns across the region.

Connecting Victoria and related programs such as those from the Commonwealth Government will make substantial improvements across the region but will not address all issues.

Appendix 2 of this report details the Ovens Murray stakeholder engagement feedback on connectivity issues.

Analysis of telecommunications infrastructure developments since 2019 digital plan

An analysis of digital supply and demand was conducted on a place and sector basis across the region to provide the evidence base necessary for effective regional digital planning.

It is outside the scope of the 2023 Digital Plan to repeat the place-by-place analysis undertaken in the first digital plan. However, general commentary can be made regarding the trend of technology developments over the last four years since the first plan was developed and how these developments are likely to have impacted the availability of telecommunications services across the four regional sector perspectives.

The places and sectors that were analysed presented in the Ovens Murray Digital Plan (2019) are:

Places and sectors

Significant Places   Primary Production   Tourist Locations   Transport Blackspots

Technology types

Fixed access   Mobile   WiFi   LP-WAN IoT

Overview of telecommunications infrastructure improvements for Ovens Murray since 2019

Sector Spotlight	Technology			
	Fixed access	**Mobile**	**WiFi**	**LP-WAN IoT**
Significant Places	🟢	🟢	🟠	🟢
Primary Production	🟠	🔴		🟢
Tourist Locations	🟢	🟠		
Transport Blackspots		🟠		

Legend

🟢 Significant improvement since last digital plan and/or over next 2-3 years

🟠 Some improvement since last digital plan and/or over next 2-3 years

🔴 Limited or no improvement since last digital plan and/or over next 2-3 years

(Source: Victorian Department of Government Services)

Note: The table above does not indicate the quality of current telecommunications supply across the region but shows the general trend from the last digital plan and whether there have been or are planned improvements.

The following section describes significant changes in the telecommunications landscape and connectivity developments across the Ovens Murray region. Not all connectivity issues will be addressed, and new ones will emerge over time. However, on balance they demonstrate a suite of investments that mean connectivity across the Ovens Murray region will be significantly better over the next 2-3 years than when the first digital plan was developed.

It will be important for regional stakeholders to continue to monitor telecommunications service improvements and developments over time and identify emerging gaps to inform future program and policy development and investment by key stakeholders. This includes monitoring planned upgrades to make sure they deliver the service improvements needed by communities.

Recent activities demonstrate the impact that sustained energy and attention across multiple stakeholders can have in shaping telecommunications policy and program activity to meet community expectations. Even so, it is important to acknowledge that while much is improving, many gaps will remain.

In the following section, four sectors and four technology types have been analysed, and include a summary of what has been accomplished, and the gaps that remain, since the 2019 Ovens Murray Digital Plan.

Sector Spotlight 1.1: Significant Places – Fixed Access Broadband Access

From 2019 Digital Plan: Fixed access broadband had an intermediate supply shortfall for 14 cities / towns / localities, indicating the widespread need for business broadband needs to be further considered and addressed.

2023 Update: The intermediate supply shortfall rating was driven by the prevalence of FTTN (Fibre To The Node) technology across population centres and the uncertainty about its ability to meet business needs at the time.

Through NBN Co's own upgrades currently underway, along with *Connecting Victoria* improvements, most places served by FTTN will become FTTP-ready (Fibre to the Premises) by 2025. FTTP-ready means customers will be able to order an FTTP service on demand for no upfront build cost. NBN Co's network upgrades will also significantly improve the capacity of fixed wireless services, so that most premises served by this technology will be able to access high-speed services capable of meeting household and business needs. NBN's capacity for ADSL is significantly reduced, with many areas only serviced by either fixed wireless or satellite.

NBN Co's upgrades will also shift many premises from fixed wireless onto the fixed-line network and many others from satellite onto the fixed wireless or fixed-line network. 120,000 premises nationally are expected to be moved off Satellite onto higher capacity networks through their upgrade program.

Two locations, Chiltern and Sawmill Settlement have been found to have a major supply shortfall, but improvements have been and continue to be made:

- Chiltern has a fixed wireless tower in the middle of town, and has fibre to the kerb available to some residents, who can now order fibre to the premise;

- Sawmill Settlement is currently serviced by an NBN SkyMuster satellite;

- A 5G upgrade is being funded with Optus through *Connecting Victoria* that could enable access to 5G home broadband services; and

- The emergence of Low Earth Orbit Satellite (LEOSat) services offers a potential upgrade path for premises in both locations, and improvements will also occur through NBN Co's planned satellite service improvements which are improving speeds and data inclusions of Satellite Plans.

Existing Gaps: The last digital plans found that locations served by FTTN could not necessarily meet business needs, and lower quality network technologies like fixed wireless and satellite were unable to reliably meet household and business needs (leading to amber and red ratings).

Current investment activities including through NBN Co's upgrades and the *Connecting Victoria* program will significantly change the connectivity landscape. The FTTN and fixed wireless footprints, once upgraded, are likely to meet most business and household needs, assuming affordability is not a barrier to taking up the standard of service needed.

Remaining fixed access gaps are most likely to arise in areas where:

- Only satellite services are available; however, new LEOSat options (such as Starlink) will provide an alternative, albeit relatively costly, connectivity option, and NBN Co's own Satellite services (SkyMuster Plus and Plus Premium) now offer higher speeds and improved (and unlimited) data allowances.

- Premises are located on the edge of the fixed wireless network or in terrain and geographies where fixed wireless may be less reliable (e.g. hilly locations and areas prone to bad weather).

- FTTN areas that have not been upgraded to be FTTP-ready, noting only several thousand premises across regional Victoria, will remain where this applies, once current upgrade activities are completed.

Another area that warrants close attention over the coming years relates to the reliability of broadband services during significant events like natural disasters, but also more generally in terms of power outages, which can cause service dropouts and degraded performance.[*]

There remains capacity to improve how blackspots are mapped, as well as areas of poor to marginal reception. These issues are commonly reported across regions, and the degree to which they are improved by the network upgrade activities underway is an area that warrants close attention.

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[*] A great example of building network resilience in the face of natural disasters is the Safer Places solar battery and diesel generator project at the Mount Beauty Stadium facilitated by community group Towards Renewable Energy Kiewa (TREK). This project can provide 3 days off-grid autonomy on cloudy and smoky days.

Sector Spotlight 1.2: Significant Places – Mobile

From 2019 Digital Plan: Mobile coverage was assessed as adequate within the main population centres based on multiple carriers, indicating they have 4G coverage in the area according to their coverage maps. However, there is concern as to whether these maps reflect the real-world experience of users, and what is not assessed here is how services deteriorate when moving beyond town centres. Only one location, Sawmill Settlement, was found to have an intermediate shortfall in mobile coverage. The impending rollout of 5G technology has the potential to uplift mobile services for early recipients, but smaller regional population centres are at risk of being left further behind.

NOTE: As a simple definition, 3G, 4G, and 5G represent different "generations" of cellular technology, with increased performance in speed (lower latency), network volume (higher bandwidth), and, in some cases, accessibility (longer range of service).

2023 Update: The quality of mobile coverage data continues to be a challenge for identifying gaps in mobile coverage and therefore future investment priorities. Public coverage maps continue to indicate good coverage across most population centres as highlighted in the previous digital plan. However, the *lived experience* for many residents suggests otherwise, as revealed through community input gathered through the *Connecting Victoria* stakeholder engagement process.

Public coverage maps indicate the MNOs (Mobile Network Operators) have begun rolling out their 5G networks across parts of the Ovens Murray region, including:

- **Telstra**: Albury, Wodonga, Chiltern, Benalla, Wangaratta, Beechworth, Mount Buller, Corryong.
- **Vodafone/TPG**: Albury, Wodonga.
- **Optus**: no 5G coverage currently indicated on public coverage maps.

It should be noted that significant mapping work was performed in the Alpine and Towong shires by the GravelRoad Group.

The *Connecting Victoria* program is investing substantially in partnership with industry into a broad range of mobile connectivity improvements across the Ovens Murray region. This includes 38 upgrades to existing base stations/towers from 4G to 5G and 16 new base stations/towers. Detail on the location of these investments is provided in Tables 1 and 2.

Investment into Victoria's regional telecommunications infrastructure is currently occurring through two main drivers:

- Industry-led investment as the mobile-network operators (MNOs) competitively roll out their 5G networks, focussing on densely populated areas first; and
- Government-subsidy programs from both the Commonwealth and Victorian Government to encourage MNOs to increase network coverage and capacity in areas they would otherwise not invest in.

Government-led funding programs rely on industry participation to identify and put forward projects where their networks can be improved, and which require government subsidy for them to do so. This is an effective and necessary approach; however, better-quality coverage data in future could enable governments and local stakeholders to be more explicit about which locations they want to address as the ability to identify gaps becomes easier.

The Commonwealth has allocated funding to a National Audit of Mobile Coverage, recognising the challenge of accurately assessing current mobile coverage gaps. Another highly relevant development for regions like Ovens Murray is the Commonwealth Government's recent commitment to scope an emergency mobile roaming solution. Such a capability can significantly improve public safety during natural disasters by enabling customers to roam onto any mobile network that is operational during an emergency, regardless of which network they are with.

Existing Gaps: In general, most population centres are likely well-served by at least one provider based on the population coverage claims of the MNOs. In practice, there are consumers who still face mobile connectivity challenges which are not easily identifiable based on coverage map data, but are likely to be reflective of:

- Consumers located at the edge of mobile coverage zones, most likely on the outskirts of population centres or in sparsely populated areas;

- Locations where mobile network capacity is inadequate to meet peak demand; and

- Mobile blackspots, in limited circumstances, such as in new housing developments.

Another important consideration for regional communities regarding mobile connectivity gaps will be the forthcoming switch-off of 3G services by all MNOs by September 2024. While this is not expected overall to lead to significant impacts, and for many it can improve services with the 3G bandwidth repurposed, there is a risk that some locations, premises and communities may be adversely impacted especially those at the edge of existing mobile coverage. The impact across regions will need to be monitored closely.

Although unlikely to be considered a connectivity problem by many at this stage, as 5G networks become more widely available and applications and use-cases reliant on 5G become ingrained, the uneven availability of 5G in smaller population centres and sparsely populated areas may become a more significant community concern in the future.

Looking further out, future mobile technology developments, such as a potential 6G evolution, will again demonstrate similar patterns of network upgrades and a lag in availability for many regional areas, in the absence of government support to fast-track availability to less-commercial locations (from a private sector investment perspective).

Sector Spotlight 1.3: Significant Places – WiFi

From 2019 Digital Plan: Public WiFi access was a major or intermediate supply shortfall for eight places.

2023 Update: Since the last digital plan, and resulting from the 2019-20 Victorian Black Summer fires, a number of NBN Satellite-based community WiFi services have been deployed across the State in disaster-prone areas through the Commonwealth Government's Strengthening Telecommunications Against Natural Disasters program. These services provide an alternative form of connectivity in the event of other telecommunications outages during emergencies and are always active for people to connect to. 45 of these services have been installed across the Ovens Murray region in community locations.*

In addition, Telstra has turned all of its payphones, in metro areas, into WiFi hotspots, available for anyone to use as well as making calls from payphones free.

The value of larger public WiFi networks like those deployed through the Victorian Government's Vic Free WiFi program during emergency events has also been highlighted since the last digital plan. For example, the Victorian floods of October 2022 caused a range of NBN network outages which then caused congestion on the mobile networks as more people shifted onto them. During the floods around Shepparton, the free public WiFi established there enabled people to use that network when NBN services were down and mobile networks became congested.

Existing Gaps: While there is unlikely to have been a large-scale deployment of public WiFi networks across population centres since the findings of the first digital plan, there have been some notable developments which have improved access to WiFi services particularly in times of emergency.

More detailed analysis would need to be undertaken to understand how access to public WiFi services has changed across specific population centres since the last digital plan, putting greater strain on the network and bandwidth at peak times. It is likely that the number of small businesses—such as cafes and accommodation services—providing free WiFi for customers has increased, consistent with the broader trend.

Demand for public WiFi services is also likely to have increased since the last digital plan given the expected increase in consumer familiarity with accessing and using public WiFi networks and potentially driven more recently by cost-of-living pressures.

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* In addition, NBN local teams are able to provide on-ground locally based staff and help to deploy Satellite Muster Trucks and Fly-Away (portable) Satellite Kits for temporary connectivity to support communities, emergency services and support services in response to natural disasters. For farms, NBN also offers IoT services and business satellite services.

Sector Spotlight 1.4: Significant Places – LP-WAN IoT

From 2019 Digital Plan: LP-WAN IoT was found to be reasonably good for the level of business, local government and household demand, which, at the time of the 2019 Digital Plan, was constrained by a lack of IoT knowledge and applications across the region. Four towns, Myrtleford, Bright, Mount Beauty–Tawonga South and Corryong, were found to have an intermediate supply shortfall for this service. Over the next 3-5 years demand is expected to grow strongly and closer attention will need to be paid to how these networks develop.

2023 Update: Availability of IoT network coverage appears to have improved since the last digital plans were released.

At the time of completing the first digital plans, Telstra had just begun activating Cat-M1 IoT network technology across its mobile network base stations. Telstra's website now claims to have the largest IoT network with around 3 million sq km LTE-M coverage and around 4 million sq km NB-IoT coverage. This demonstrates the targeted effort of Telstra to enable low-bandwidth applications across its network.

There are other IoT network providers as well—for example, NNNCo—a dedicated IoT network company, and Thinxtra, which uses Sigfox IoT network technology and has a strong network presence across Ovens Murray based on their public coverage map information.

Existing Gaps: Supply of LP-WAN IoT networks across population centres is likely to be much improved since the last digital plan.

MNOs like Telstra have enabled low-bandwidth networks using their existing mobile network infrastructure, which, given its prevalence close to population centres, means most towns are likely to have access to these networks now.

With supply of these networks likely a less significant barrier compared to when the first digital plan was development, take-up of IoT technologies in significant places is likely to be more affected by awareness and capability gaps. Further work would be needed to understand take-up around population centres.

Sector Spotlight 2: Primary Production – Fixed Access, Mobile and LP-WAN IoT

From 2019 Digital Plan: Fixed access broadband services for primary production businesses need to be addressed. In its current state, the digital infrastructure is unable to meet the region's needs, with all primary production locations found to have a major supply shortfall in fixed access broadband services for business users.

According to publicly available coverage maps, mobile coverage appears to be mixed. Two locations revealed an intermediate supply shortfall, while three sites reported adequate coverage, although it has been highlighted through consultation that the *lived experience* for residents and businesses is often poorer than what coverage maps suggest, owing to the detail and resolution limitations of the maps. One location, around Corryong, was found to have an intermediate supply shortfall for LP-WAN IoT networks.

Looking forward 3-5 years, there is likely to be little market-driven improvement in mobile coverage, and 5G technology is unlikely to replace 4G in these locations. Rising demand in the face of a largely static supply will mean the unmet demand situation will worsen.

2023 Update: NBN Co has completed its primary network rollout and has begun a program of network upgrades that will transition approximately 120,000 premises across Australia currently within the Satellite footprint onto higher quality fixed wireless or fixed-line services. This will mean some premises in the Ovens Murray region, most likely on the fringe of the fixed wireless network, will have access to more suitable services.

The Commonwealth Government has continued to invest in addressing mobile blackspots through Rounds 5, 5A and 6 of its Mobile Black Spot Program since the last digital plan. These funding rounds have not made a significant difference to mobile connectivity across Ovens Murray primary production areas. However, more flexible funding programs like the Regional Connectivity Program have delivered some funding outcomes in other parts of Victoria, improving mobile coverage in primary production areas.

Investment by the MNOs since the last digital plan has been focused on deploying 5G networks, which has been concentrated around more densely populated areas, likely delivering little benefit to primary production areas.

Telstra's IoT coverage map shows nearly ubiquitous coverage of its LP-WAN network across Victoria, apart from gaps along Victoria's Alpine region. Another IoT network provider, Thinxstra, shows significant network coverage across the Ovens Murray region. There is likely to be IoT network coverage from other providers as well, including NNNCo and Optus, for example.

Existing Gaps: Regarding fixed access, there have been several developments since the last digital plan, which mean many primary production businesses now have access to better quality services, or will have by 2025, through either NBN's network upgrades (likely to be relevant to premises that were previously just outside the NBN fixed wireless footprint), or the emergence of LEO Satellite networks (most relevant to premises that will remain in NBN Co's Satellite footprint).

NBN Co's network upgrades will also improve the capacity and data inclusions for satellite customers. To date, capacity and data inclusions have been improved—speeds are faster and data inclusion includes unlimited plans.

Gaps in mobile coverage previously identified and experienced by primary production businesses and premises are unlikely to have experienced significant improvement across the Ovens Murray region since the last report, as MNOs do not tend to focus their network investments in sparsely populated areas, especially in the context of their current rollouts of 5G.

However, there are some examples where government co-funding programs like the Commonwealth's Regional Connectivity Program (RCP) have been leveraged to secure funding for better mobile and fixed wireless services supporting agricultural areas and other regions.* These examples demonstrate the potential opportunities to improve mobile connectivity for primary production in future programs such as the RCP.

Another potential development on the horizon which could substantially improve mobile connectivity for primary production areas is the emergence of LEOSats which may evolve to offer satellite-to-handset capability. These developments are worth monitoring closely.

The IoT network supply situation has matured since the last digital plans with the more significant barrier to IoT technology adoption likely to be awareness and capability barriers rather than network coverage.

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* Further information on these projects can be found at https://www.infrastructure.gov.au/department/media/publications/round-1-regional-connectivity-program-funded-projects

Sector Spotlight 3: Tourist Locations – Fixed and Mobile Access

From 2019 Digital Plan: Most locations have major issues with fixed access broadband services for operators. Tourist spots appear to have variable mobile coverage, with popular tourist locations/resorts generally served better, e.g. Mount Buller, Mount Hotham and Falls Creek, than the longer tourist routes spanning large areas and Alpine regions.

2023 Update: The key improvement for Ovens Murray tourist locations since the last digital plan is a number of network improvements and projects relevant to the alpine locations have been made possible through *Connecting Victoria*, Commonwealth programs, and private investment.

These improvements include:

- an upgrade that will deliver high speed broadband at Mount Buller (*Connecting Victoria*),

- a mobile service upgrade from 4G to 5G at Falls Creek (*Connecting Victoria*),

- the High Country Transmission Upgrade project that will deliver mobile capacity improvements between Wangaratta to Mount Hotham and into Gippsland (Regional Connectivity Program Round 1),

- a fixed-line network at Falls Creek (built by Valve Networks),

- a new fixed wireless tower to service Porepunkah/Eurobin, and

- 2 mobile tower upgrades to improve network capacity at Hotham Heights.

Other popular tourist locations that span larger, unpopulated areas are unlikely to have seen a significant improvement in mobile coverage, unless funding has been secured for investment through government programs.

Existing Gaps: Substantial improvements are being supported through *Connecting Victoria* as well as private investment across a number of high-value Ovens Murray tourist locations, principally across the Alpine regions.

Mobile coverage gaps affecting National Parks and tourist attractions that span sparsely populated locations, such as the Murray to Mountains Rail Trail, King Valley Prosecco Road, Rutherglen Wine Region and Ned Kelly Touring Route, are unlikely to have seen much change in mobile coverage outside larger towns.

There is potential improvement in mobile connectivity options on the horizon here, with the further development of LEO Sat services, which may evolve into offering Satellite-to-handset capability that could enable mobile access in areas outside the coverage footprint of terrestrial mobile networks.

Sector Spotlight 4: Transport Blackspots – Mobile

From 2019 Digital Plan: The general finding was that there was good highway coverage in populated and low-lying areas; with poor coverage of large areas of alpine terrain and low-population density areas.

Previous analysis found major roads to be generally well-covered by at least two mobile operators. These roads included the M31 from Baddaginnie to Wodonga, the AB300 from Maindample to Rutherglen and the B320 from Yarck to Mansfield.

Other significant roads assessed (such as the B400 from Wodonga to Towong Upper) were found to have coverage gaps. Across smaller C class roads, analysis found mobile connectivity was patchy and less reliable.

2023 Update: Telecommunications providers are unlikely to have targeted significant investment to improve mobile coverage quality and capacity along transport corridors since the last digital plan, meaning the general findings are likely to still broadly reflect the current connectivity landscape.

However, three key developments may support future improvements to mobile connectivity along transport corridors:

- The Commonwealth's National Audit of Mobile Coverage;

- The Commonwealth's $300 million funding allocation to improve multi-carrier mobile coverage outcomes along transport corridors and underserved towns; and

- The emergence of LEO Sat technology which may in future enable satellite-to-handset mobile connectivity in future.

Together these initiatives can improve the ability to identify and address connectivity gaps along transport corridors.

Comment on Gaps: The general findings regarding mobile connectivity along transport corridors are expected to broadly still hold. Gaps are most prevalent along minor roads, in alpine areas and in sparsely populated districts, largely due to topographic issues.

Commonwealth initiatives present near-term opportunities to better understand the nature and prevalence of gaps as well as potential means to address them. The National Audit of Mobile Coverage is expected to start producing data in 2024; however, it is not yet clear how the Commonwealth's mobile program funding will be allocated with respect to the coverage audit findings—i.e. the timing of funding decisions with respect to the timing of coverage audit findings.

Commonwealth funding is likely to be targeted to gaps along the largest and busiest roads, with smaller, less used roads unlikely to receive much investment.

Again, there is a future potential for improved mobile connectivity along poorly served transport corridors, with the development of LEO Sat services which may evolve into offering satellite-to-handset capability that could enable mobile access in areas outside the coverage footprint of terrestrial mobile networks.

3.4 Showcase: North East Victoria Smoke Sensor Network

How it Started

With the increase in fire events over the past decade, the wine industry has struggled to cope with the effect of smoke taint on their grapes and the resulting decisions that have to be made by wine makers. After the 2020 bush fires, the wine industry is estimated to have lost upwards of $140m in wine revenues, directly due to the fires and smoke.

Better Decisions

A collaboration between La Trobe University, Wine Australia and the 5 Wine Regions of North East Victoria came together to ask: "What can we do in our vineyards to give us better decision-making regarding smoke-affected grapes?"

Using Community Recovery Grants, the group deployed 100 WiFi-connected, real time smoke sensors in vineyards throughout the Ovens Murray region, streaming data into the "cloud," allowing for some initial analysis of the accumulated smoke exposure to affected grapes: decisions like,

- "Should we pick early?"
- "Should we make a different style of wine from a smoke impacted crop—for example, making a "drink now" Shiraz Rosè, instead of longer aging Shiraz table wine?"
- "What do we need to manipulate in the winemaking and production processes to adapt as much as possible?"
- "How will these decisions affect our ability to meet quality criteria in our wine contracts?"

Better Knowledge

A great deal more is known now about what part of a grape's life cycle is affected by smoke, and in what ways:

- Some varietals, such as pinot noir, are very sensitive to the effects of smoke;
- Not all smoke from fires has the same chemical composition, so there was and is a need to better understand what the "bad" smoke is; and
- Smoke contaminants, for some wine varieties, sometimes only reveal themselves after 3-4 years in the bottle.

Better Questions

Along with the analysis, and substantially increased understanding, there are many new questions arising, such as data governance: ownership of the sensor data, the possibilities of sharing the data (and the resulting analytical and privacy concerns), and issues as to how all of this will be funded into the future.

4. What has been accomplished?

4.1 How was the 2019 Plan used?

Background

In the four years since 2019, the Ovens Murray Digital Plan has been used to advocate for digital improvement projects in the region, to support grant applications and infrastructure development, as well as project implementation.

The 2019 digital plan introduced five *pillars* for digital focus: digital awareness, digital ability, digital data use, digital connectivity and digital governance. In the four years since, substantial progress has been made in most pillars of the plan. The plan proved to be a practical tool in that attraction of funds to regional initiatives was highly successful.

4.2 What were the challenges and opportunities?

Background

In the Ovens Murray Digital Plan (2019), the following were noted as the key digital challenges faced by the region:

Low Level of Digital Inclusion

Digital Connectivity and Lack of NBN Business Grade Services

Low Uptake of Internet of Things (IoT) Applications

Digital Connectivity – Inadequate Mobile Coverage

Digital Data and Cyber Security Awareness

Digital Collaboration and Governance

In the four years since 2019, the Ovens Murray Regional Partnership, through the Digital Futures Coordination Group's work, has sought to address these key challenges.

4.3 What were the accomplishments?

Background

Although the region is faced with challenges, the Ovens Murray region is home to a broadly diverse population of businesspeople, workers and innovators who enjoy the region's unique lifestyle benefits while developing their businesses, building entrepreneurial collaborations and creating customer purchase opportunities through digital technology.

The region's accomplishments in the past four years reveals how technology facilitates community connection, enables work/life balance and provides economic and social benefit to the region through jobs, training and improved services.

The creation of the Digital Futures Coordination Group in 2019, as a working group within the Ovens Murray Regional Partnership, gave a tremendous impetus toward accomplishing many of the 2019 priority actions.

The group:

- **Provided** funding direction, collaboration, accountability, support and guidance for digital projects;
- **Created** a project dashboard reporting format, which has proven highly effective in monitoring project progress;
- **Created** a collaboration space to update digital leaders on initiatives (state govt, NBN, Telstra, local government); and
- **Provided** a knowledgeable voice of advocacy through regional peak bodies and economic development local government partners in the region and state.

The 2019 Ovens Murray Digital Plan has generated over $8M direct investment in the region for digital projects. In total, the following projects have been funded from 2019-2023:

Health

Accelerating OM Health Outcomes through Digital Innovation (Stage 1) – Health Innovation Roadmap (RDF, March 2020-2021)

iManage My Health, North East Tracks LLEN (RDF, November 2020)

Education

Animated Training Videos for an All Abilities Workforce, North East Tracks LLEN (RPDF, November 2020)

Tourism

High Country Visitor Servicing Project, Tourism North East (BRV, Nov 2020 – Nov 2022)

Buy from NE Vic Online Business Support, Benalla Rural City (RDF, March 2021)

Buy from NE Vic Business Training Events and Support, Benalla Rural Council (Business Victoria Local Events, June 2020)

Buy from NE Vic SME eCommerce Feasibility Study in Action, Benalla Rural City (RPDF, April 2020)

High Country Tourism Sector Digital Upskilling Program, Tourism North East (RJIF, Aug. 2019)

Governance

OM Digital Plan Refresh, OMRP (RPDF, 2022)

Startup Shakeup Understanding Digital Literacy in Ovens Murray project, Rural City of Wangaratta (RDF, June 2021)

Telecommunications

Public Wi-Fi: Connecting Bonegilla, (RPDF, November 2020)

Secured a share of Connecting Victoria funding that will deliver upgraded mobile and broadband connectivity by 2026 through 106 new mobile towers and 14 broadband solutions in all seven Ovens Murray local government areas (LGAs) and the Alpine Resorts (Falls Creek)

Five new mobile base stations in Indi representing 35.7% of all Commonwealth funding for Victoria (Commonwealth, April 2020)

Mobile and Internet Communications Strategy – Alpine Shire / Towong Shire / Alpine Resorts (BRV, July 2021)

Complete fibre optic transmission link between the High Country and Gippsland (Commonwealth, April 2021)

Community

Wangaratta Digital Hub Sustainable Operating Model Project, Rural City of Wangaratta (Vic Gov, January 2023)

Wangaratta Digital Hub Business Case in Action, North East Tracks LLEN (RPDF, May 2018)

Pre-Accelerator Program, Startup Shakeup (LaunchVic, January 2021)

Benalla 10 Gigabit City, Benalla Rural City (RDF, November 2020)

Breakout Accelerator business incubator, Australian Centre for Rural Entrepreneurship (Commonwealth Gov, April 2019)

Towong Think-Start-Grow, Towong Shire Council (LaunchVic, July 2018)

Innovate North East: Benalla, Wangaratta, Mansfield and Indigo, Startup Shakeup (LaunchVic, July 2018)

Life Tech Challenge Regional Participation Project, Hume Bank (RPDF, May 2018)

Digital Innovation Case Studies Project, OMRP (RPDF, May 2018)

Wodonga Business Innovation Hub Feasibility Study in Action: Wodonga Innovation Project, City of Wodonga (RPDF, May 2018)

Agriculture

Buy from NE Vic Wine Product Campaign, Issimo (DJPR-AgVic eC&IT, July 2021)

Wine Category Activation, Tourism North East (AgVic E-commerce)

IoT: Smoke Sensor Network, Wines of the King Valley (LER, March 2021)

4.4 Telecommunications policy and programs

The following telecommunications policy issues and programs have been considered in the development of this Digital Plan:

- Ongoing unmet connectivity needs
- 3G switch off
- Emergency mobile roaming
- Network resilience to natural disasters
- 5G rollout
- Low earth orbit satellites – LEOSats
- National Mobile Coverage Audit
- Commonwealth programs
- Connectivity in new residential developments.

The implications of these policies and programs raise several questions for consideration in the Ovens Murray region—posed at the end of each of the following policies and programs.

Ongoing unmet connectivity needs

The national NBN network upgrade, Connecting Victoria projects, Commonwealth telecommunications infrastructure programs and industry-led upgrades are addressing many connectivity shortfalls and gaps, and delivering significant mobile and broadband connectivity improvements. However, they will not address all connectivity needs.

Emerging technologies (e.g. 5G and LEOSats), advances in the way telecommunications services are used and increasing reliance on digital technologies will continue to raise concerns about the quality, reliability and coverage of mobile and broadband networks. The metro-regional divide remains a challenge and some locations, particularly in 'hard to service' and less populated areas will require attention.

Questions to consider:

- *How can the region use ongoing digital planning and advocacy to improve regional connectivity?*
- *What are the region's place-based priorities for connectivity improvements?*
- *What impact are technology developments having on regional needs and priorities?*

3G switch off

As the 5G rollout progresses, mobile network operators are starting to turn off their 3G networks. This enables the operators to use the freed-up radio frequency (also known as spectrum) to increase transmission of faster and more advanced 4G and 5G signals. The phasing down of 3G networks has been underway since 2019 and Vodafone will be the first to entirely switch of its 3G network in December 2023. This will be followed by Telstra in June 2024 and Optus in September 2024.

The 3G switch off may impact some areas that currently only have access to 3G—a possibility in more remote or isolated regional locations. It will also make older 3G-only devices unusable. In addition, the 3G switch off may expose unanticipated coverage gaps.

- *What will be the 'lived experience' of the 3G switch off in the region and how can impacts be monitored and communicated to appropriate stakeholders?*
- *How can we reduce the negative impacts for those affected by the 3G switch off?*

5G rollout

Australia was the first country in the southern hemisphere to launch 5G, the next generation of transformational technology. 5G technology provides faster mobile network speeds, less delay between sending and receiving data (lower latency) and capacity to connect more devices at once. It enables more mobile users to operate online at the same time; reliable access to sophisticated applications; and simultaneous connectivity for IoT technologies, drones, industrial robots and other emerging technologies.

Telecommunications carriers are funding network upgrades from 4G to 5G, according to previous patterns of new network technology deployments starting with densely populated locations such as capital cities and large regional centres. Through co-funding arrangements, Commonwealth and state governments are partnering with carriers to fast-track availability of 5G coverage into other high priority areas that otherwise would be unlikely to get access for several years.

- *Where else in the region is a priority for 5G availability?*
- *What sectoral or use-case lenses make 5G a compelling technology development for regions?*

New technology: low earth orbit satellites

The emergence of low earth orbit satellite (LEOSat) technology, such as Starlink, provides a potential avenue for regional users to access better quality telecommunications services—benefits are especially clear for the Ovens Murray Alpine areas, where topography makes mobile tower services difficult. The latency and speed of these services appear much better than traditional satellite services, and potentially can be integrated with other infrastructure to lower backhaul costs. Access to LEOSats is currently not available in all locations and prices are higher than NBN services.

However, as these new technologies emerge and become more mainstream, the market is likely to become more competitive. These services may provide a valuable alternative for premises currently only able to access traditional satellite services and/or for premises with patchy indoor mobile coverage. LEOSats are also able to provide in-home WiFi and, like other new technologies, can shift the coverage footprint dramatically.

- *What are the potential benefits of LEOSats for the region?*
- *What are the barriers to uptake in locations / sectors where satellite technology is likely to continue to be the best available option for meeting needs?*

National audit of mobile coverage

The Commonwealth Government, under its *Better Connectivity Plan for Regional and Rural Australia* (2022) has allocated $20 million over five years to conduct an independent audit of mobile coverage. The Alpine and Towong shires have completed such audits.

These audits will be used to assess the accuracy of coverage maps produced by mobile carriers, with the results helping to identify mobile black spots and capacity issues, and guide future investment. It is anticipated that the audit will commence in 2024, following completion of the tender process in late 2023.

- *How can the region communicate its 'lived experience' to complement the findings of the mobile coverage audit that can inform future investment priorities?*

Mobile connectivity in new developments

The Commonwealth Telecommunications in New Developments (TIND) policy was adopted in 2011 and focusses on provision of fixed voice and broadband services. Because developers, carriers and statutory planners are currently not expected to consider mobile or broadband coverage in new developments, many residents in new developments and expanding suburbs experience inadequate or no mobile coverage, often over many years.

In October 2023, following discussions with the Victorian Government and other stakeholders, the Commonwealth announced a process to amend the TIND policy. The intention is to expand the TIND policy to include mobile infrastructure and reflect the importance of mobile connectivity in planning decisions.

- *Where in the region, if any, are the new (greenfield) residential housing developments, and what connectivity plans are in place to service these communities?*
- *Will this policy cover broadband connectivity as well?*

Network resilience to natural disasters

The most serious disruptions to telecommunications services in emergency events are due to power outages impacting the operation of telecommunications infrastructure. With severe weather events expected to continue and become more frequent, these vulnerabilities and their implications for public safety are of critical importance and significant interest to Victorian regions.

Measures that can improve the resilience of telecommunications networks generally involve resilience to loss of power and include generators (permanent and portable) and battery backup, creation of network clusters to remove single points of network failure, physical hardening of sites to reduce risk of bushfire damage. Improvements to power network resilience also inherently support telecommunications resilience, such as by undergrounding power network infrastructure.

- *What are the unique connectivity and associated risks in the region during emergency events and natural disasters, and what has been learnt from past experience?*
- *Are there any high-risk locations that are priorities for resilience or network hardening treatment?*

Emergency mobile roaming

The purpose of proposed emergency mobile roaming is to support public safety during times of emergency by enabling mobile phone users to connect to any available network, even if they are not a customer of that network. Natural disasters, including bushfires, floods and storms can result in significant loss of telecommunications services, disrupting community access to emergency information and communications for extended periods of time. If some networks remain operational during an emergency, mobile roaming could enable customers of disrupted networks to still access communications.

In October 2023, the Australian Competition and Consumer Commission advised the Commonwealth Government that temporary mobile roaming is technically feasible, but further work is needed to design and develop the capability.

Stakeholders expressed concern that regional and rural area mobile networks are already congested and/or overwhelmed during peak tourist/visitor periods. During emergency roaming, when additional devices from non-surviving networks attempt to connect to the surviving network, the site infrastructure is likely to become overwhelmed, reducing the functionality of the network for all users.

The Australian Competition and Consumer Commission also highlighted this concern in the October 2023 report with two key subset risks identified:

- Access congestion, where the number of mobile devices trying to register to a mobile site increases substantially, overwhelming the site equipment and/or backhaul capacity back to the network core; and

- Core congestion, where the surviving network's core cannot cope with the additional traffic.

Government and industry will work together and report back to the Minister for Communications by March 2024 on the scope of a new emergency roaming capability and required regulatory settings.

- *How can the region continue to support progress on the adoption of emergency mobile roaming?*

Commonwealth telecommunications infrastructure co-funding programs and other initiatives

The Commonwealth Government has primary responsibility for the national telecommunications system through the *Telecommunications Act 1997* and related legislation. In 2022, the Commonwealth Government consolidated its telecommunications infrastructure and support initiatives under the *Better Connectivity Plan for Regional and Rural Australia* and allocated funding for new programs in its 2022-23 Budget.

Current Commonwealth Government initiatives include:

- Disaster Ready Fund: $1 billion over five years (new)

- NBN Fixed Wireless and Satellite Upgrade Program: $480 million (partnership with NBN Co)

- Regional Connectivity Program (RCP): $200 million (two additional funding rounds)

- Mobile connectivity improvements: $300 million

- Telecommunications emergency resilience improvements: $100 million

- On-Farm Connectivity Program: $30 million over 5 years (new)

- National Audit of Mobile Coverage: $20 million over 5 years (new)

- Regional Tech Hub: $6 million (expanded)

- School Student Broadband Initiative - partnership with NBN Co available from Term 1 2023.

These initiatives support digital access and provide opportunities for further improvements in regional connectivity, beyond those that will be delivered under *Connecting Victoria*.

- *What are the opportunities to shape programs, target investment to areas of regional need and secure additional digital uplift and inclusion in the region?*

- *Do councils have policies and procedures in place to support this level of planning and approvals?*

4.5 Showcase: Rural Connectivity for Recovery and Resilience

How the business started

In 2021, Community Business Connect (CBC), part of the AgBiz Assist group in Wodonga, was awarded a $2.3m grant funding from the Australian Government for the Rural Connectivity for Recovery and Resilience (RCRR) Project. CBC, a hands-on social enterprise, offers the Mobile Signal Booster program, as well as a range of IT and connectivity products and services to residential and commercial users across Regional Victoria and New South Wales.

Following the 2019/2020 Black Summer Bushfires, CBC identified an urgent need to improve mobile signal quality in the bushfire-affected areas of Towong and Alpine Shires, where blackspot prevention programs are unlikely to assist in the near future. As a result, the RCRR project was developed. This funding from the Australian Government has enabled the distribution and installation of no-cost Mobile Signal Boosters to residences in low-coverage, bushfire-prone areas (originally, the Alpine and Towong Shires).

In addition to the Mobile Signal Boosters, CBC offers affected residents one-on-one education, support and a communications and bill analysis for residents of impacted communities. In September 2023, the program scope was updated and is no longer limited to bushfire impacted areas of Alpine and Towong Shires. The revised program scope now includes all areas of Alpine, Towong, and

also Indigo Shire LGAs, who experience low to no mobile signal coverage.

How the booster service works

CBC connects qualified residents to the mobile phone network in a more reliable way, and in some cases establishes a connection where one was previously not possible. This is achieved by amplifying and repeating an existing donor signal, allowing residents to stay connected in the event of an emergency—SMS connectivity (bushfire alerts from the SES) being of greatest criticality.

The mobile booster is 3G/4G enabled and effectively amplifies the signal through a high-gain antennae connected to the booster unit, running off of AC power, which is then transmitted across the home. As a part of the education process, CBC also advises residents on the purchase of an uninterrupted power

supply (UPS) to help keep the booster running, should power supply be cut. CBC is currently exploring ways in which the supply of a UPS may be offered as an additional program in the future.

Customers

Who is a typical customer? Anyone experiencing low mobile signal quality and who lives in Alpine, Towong, and Indigo Shire LGAs. The installation is free to the resident, but averages ~$1850 cost per unit.

Community Business Connect has completed approximately 150 installations to date, with the aim of deploying between 500-700 by March 2024. The group markets its service through a variety of means: in-person, letter box drops, newsletters, media releases in affected towns, social media, radio interviews, and local government advocacy, such as through Indi Telecommunications Advisory Group (ITAG).

4.6 What have we heard from digital stakeholders?

In the research and collaboration phases of this project, we gathered industry, community and local government stakeholders together and asked them to tell us what was working, and what wasn't. We asked them what an ideal digital future in their area looked like.

Here's what we heard:

💬 "What are our regional strengths?"

"Natural disasters and COVID forced shift in digital need and adaptation—organisations have better attitudes about working from home."	*"Good news: there IS a digital plan we can use – this has proven to be good guidance for regional councils. Our governance model seems to be working."*	*"There are more options in digital services for residents—a big increase in digital proficiency since 2016. Many more organisations are delivering digital ability to the community—digital hubs, libraries and neighbourhood houses."*
"We've brought so much more attention to digital illiteracy, through Startup Shakeup and similar programs."	*"Ovens Murray is relatively decentralised–it's not dominated by a single city—we're seeing higher community engagement, volunteerism."*	*"More attention = more local government advocacy around digital services—there is now much better access to mobile broadband, more consistent pricing…"*

💬 "What are our biggest regional gaps and opportunities?"

"The gap is growing between haves and have nots, the connected and not connected—there's still a feeling of social exclusion in the digitally illiterate–we need to remember that digital skills is an equity issue. How can we engage the younger population to participate in improving our digital lives here?"	*"There's just not enough awareness of hubs, libraries and neighbourhood houses. Too confusing for residents. There's no single, central point for help."*
"Need a clearer representation of the social, mental health and economic impacts of low digital literacy. For example, there's not enough awareness of what's available in services in CALD communities."	*"How should we invest in digital improvement? Perhaps we need more proof-of-concept projects – find out what works as a prototype, then really invest?"*
"Although it's getting better, there are blackspot areas still there – can we get better data mapping from the telcos? What is coming, what is planned?"	*"Are we really better prepared for disaster? Do we have the resilience we need?"*
"More than ever, we're seeing peak tourism season choke spots (Harrietville, Beechworth, Bright). We need to fix this to see improved visitor experiences."	*"We're short of digital technology teachers. How do we attract teachers? How do we attract more STEM students? How do we make clearer pathways for education and workforce development?"*

4.7 What have we heard from industry sectors?

Here is what our regional sectors' many voices told us:

💬 What we heard: Health Services

"Patient experience of tele/virtual care: remote patient monitoring, e-health management"	*"Data interoperability across platforms and health institutions—we need to work together!"*	*"Explore Aboriginal Health Service's unique challenges"*	*"Explore best practice models for at home care for example, Shepparton's "Better at Home"*
"How do we get increased participation in MyHealth?"	*"Can we start health campaigns using SMS?"*	*"We need better digital ways to "follow the patient"*	*"We need clear digital health roadmaps"*
"Really worried about continuous cyber-attacks and phishing"	*"Need better data analysis to improve off-line diagnoses (diabetes, respiratory health)"*	*"Let's support development of end-to-end digital providers"*	

💬 What we heard: Tourism

"Advocate, advocate, advocate for better infrastructure"	*"We're concentrating on improving the visitor experience, as we think that's where we'll win"*	*"We get a lot of attention, and we have great assets in the region to market"*	*Visitors want integrated purchasing, bookings, visitor stories"*
"We need better performance on mobile and internet, especially when the region is in tourist season, and there's so much contention and congestion"		*"It's all about our visitors and small businesses getting a reliable connection – we can't be successful competing for tourist $$$ otherwise"*	

What we heard: Telecommunications

"We need skilled workers, busloads of skilled workers"	*"Better awareness of plans and data limits for mobile and internet"*	*"We're busy trying to keep up with an increase of 30% in data requirements, year on year"*	*"We have a lot of work to do in disaster resilience (mobile generators and other possible solutions)"*
"We're starting to work with Starlink to help solve our really remote service issues"	*"Unreliability of connectivity is definitely hitting OM as a drawcard region"*	*"Need better measurement of programs—what's working/what's not"*	*"We need to better address how we talk about 3G and ADSL phase-outs"*
"LGA engagement is better and we want to work with each to create their own unique connectivity strategy"	*"We've accomplished a lot, but need to do a lot more—there are still people who can't reliably get a good connection, or accomplish much online"*	*"Need better awareness of what the Regional Tech Hub can do to provide tech support for residents and businesses"*	

What we heard: Education

"We need to make sure when students transfer, their data is portable enough to go with them"	*"What's working? Supplementary tech training, like the coming Wang Tech School – how do we coordinate?"*	*"Let's be sure to spend time integrating with the Australian Digital Capabilities Framework"*	*"Can we put together training incentives for residents, some kind of achievement recognition?"*
"I'm interested in how AI is going to help education, not hurt it"	*"BeConnected has worked for us, so let's expand its usage"*	*"We need to get the younger community involved in teaching"*	*"Need to give residents more clarity on where they go to get help"*
"The LLEN's are great, and we need to better link their work with other groups"	*"Residents need practical things, like how to protect their data, how to work from home"*	*"Our study hubs are great (CUC), but we need to be more flexible in hours, work pods…"*	*"Let's explore how to get services to residents and not expect them to come to us"*

💬 What we heard: Community

"We've done so many good things over the past four years: Startup Shakeup"	*"Can we find a way to get more packaged services to farmers?"*	*"Buy from Northeast" really worked – simple and just at the right time"*	*"How do we better cushion those who are falling behind?"*
"Can we find a better way to include the wonderful community organisers we've got?"		*"Digital is great, but I'm really worried our human connection is getting lost"*	
"Don't residents really just want to know how to use Centrelink and MyGov, and how to use their bank online?"	*"How can we expect intelligent, skilled people to migrate here when they can't get fast internet or housing?"*	*"We spend too much time talking about connectivity, when inclusion and ability and access are just as important"*	*"I just saw that the ADII has started a serious study of 10 remote indigenous communities, a good start"*

💬 What we heard: Agriculture

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"Before farmers will spend a lot of money on some IoT solution, they need to know whether it has a future, can they grow, will they find out later it won't work with other things?"	*"We have so much data from our more modern farming operations; what's being done with it, who owns it, is it private, can't they do more with it to improve their farming businesses?"*	*"Why aren't we sharing data more? This region can do a lot more with all of the data our farm and vinyard systems are collecting…"*
"Farmers are starting to feel like they need a computer scientist on site to make the right decisions"	*"Connectivity is still a big issue, when the power goes out, what are they supposed to do"*	*"Who do they go to for advice, independent advice, not someone trying to sell them something?"*

4.8 Showcase: Click Region

How the business started

In 2019, digital ability was identified as a significant regional gap, with further evidence generated in research, in partnership with Australian Digital Inclusion Index team. This led the way for Click Region, a business providing customer-led digital training. With technology in business and personal lives constantly evolving, up-to-date skills are critical to success.

What the business does

Click Region utilises a membership model, offering its clients online and face-to-face training in social media, marketing, and business planning assistance – over more than 110 online training courses. It offers both business and community workshops, as well as one-on-one sessions (a popular option), as well as a local directory and events web page to assist with connecting the business community.

The business' go-to-market strategy utilises its strong regional networks to request warm introductions to businesses who need assistance. By connecting with local councils and community groups, it has been able to nurture small business relationships and establish itself as a trusted brand for the region. The focus is on having a face behind the name to ensure it's not an empty online presence with no personality.
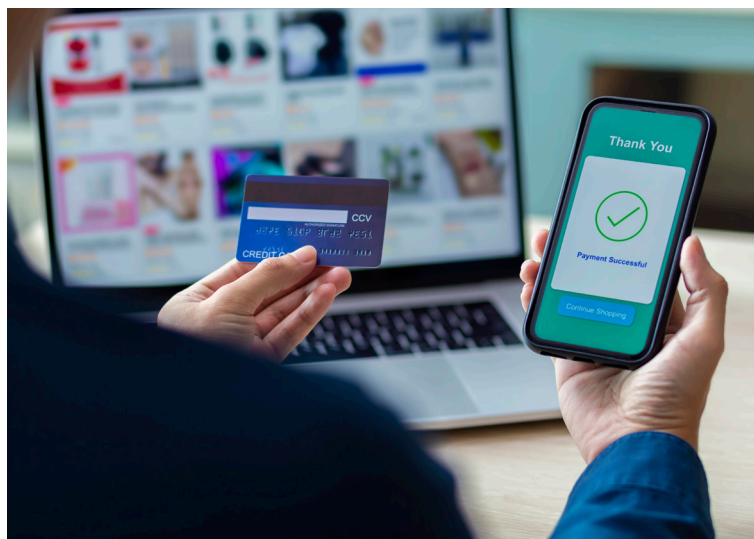
How is Click Region adapting its business model in the future?

It is evolving as it grows further afield. Digital literacy is a challenging area where the people who need it most do not necessarily look for it, so by creating relationships with industry figures who are already connected in these networks, it establishes better rapport with these small businesses and help give them exposure to the cohorts who need it most.

Its clients

Click Region has served more than 270 clients, mostly small business and community group members. It is a trusted voice of knowledge and support in the region, and it doesn't hurt that it's not based in a capital city.

Approximately 36% of Click Region's clients utilise the Working Together (ERV) and Digital Connections (FRRR) government grants, or their local LGA or a pay it forward system, to get complementary 12-month memberships, while the remainder pay full price ($60pa).

Quick thoughts on the future

- Client survey results were extremely helpful: e.g. lowest digital literacy is found in agri-business and hospitality – highest is health and well-being.

- Scheduling more rigorous follow-up support for clients

- Getting better engagement and participation in their workshops

- Building better brand awareness

5. Where are we going?

Our Vision

The Ovens Murray Regional Partnership is committed to:

"Leading the way in digital inclusion, innovation, and entrepreneurship—creating a 'Smart Region' that connects people, attracts talent, encourages innovation, and creates jobs and growth for the 21st century."

To achieve the vision, there are two pathways:

1. Enable and lift regional ambition

Focus on attracting and retaining talent, encouraging and enabling entrepreneurship and innovation, increasing the use of technology to support a smarter, more productive economy and more caring services.

2. Reduce the digital divide

Focus on building digital skills, confidence and online safety across the region, and reduce barriers to access to digital technology.

The six pillars of this Digital Plan are designed to deliver the Vision:

1. Digital Awareness

Region-wide awareness of digital support services, digital technology opportunities, and regional success stories.

2. Digital Skills

Digital capability and skills are in place to serve current and future needs of the region.

3. Digital Safety

Individuals and organisations are aware of risks associated with digital activities and are safe.

4. Digital Data Use

Effective use and analysis of data to improve regional decision making, innovation, and service delivery.

5. Digital Connectivity

Fit for the future high functioning digital technology infrastructure and services covering the region.

6. Digital Governance

Ongoing leadership and coordination of the Ovens Murray Digital Plan will enable the region to build its capability and deliver the best outcomes for its communities.

5.1 Digital Awareness

Goal

Region-wide awareness of digital support services, digital technology opportunities, and regional success stories.

1. Enable and lift regional ambition

Desired outcome

The Ovens Murray region is known for its digital entrepreneurship and innovation: a region that actively seeks out and adopts digital solutions and has a culture of continuous digital advancement.

Why it matters

- The region can leverage $400m economic uplift through improved digital technology improving productivity and services, industry diversification, and business attraction (PWC, 2023).

- Entrepreneurship and innovation abound in the region – but is not highly visible. *"You can't be what you can't see."*

- Since Covid, and part of continuing tree change, the region has attracted people with high digital skills who are innovative, nationally and globally connected. Many work from home – but we don't know where they are, and they don't know each other. This is a talent pool that could be harnessed for regional good, and for driving even more innovation.

- Good promotion of regional digital ambition, champions, and opportunities can attract further skills to the region.

Priority actions

Create a practical sense of what is possible within the region.

... to lift the imagination of residents and businesses in the region to increase regional amenity, growth, diversity, and opportunity by better leveraging digital technologies. Raise awareness of digitally enabled growth opportunities.

Action: Identify and connect regional digital champions
– find and connect regional digital experts in a broad range of business and community to encourage collaboration, innovation, and applying this untapped resource to regional challenges.

Action: Showcase digital success stories
– provide inspiration and showcase role models, featuring stories of innovation, regional success, lessons learned, and practical applications of digital efficiency—e.g. working from home to serve markets around the world.

Action: Raise awareness of digitally enabled growth opportunities
– identify and amplify digitally enabled growth opportunities (and examples) in key regional economic sectors.

5.1 Digital Awareness
(continued)

Goal
Region-wide awareness of digital support services, digital technology opportunities, and regional success stories.

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2. Reduce the digital divide

Desired outcome

Individuals and small businesses feel comfortable and safe online, knowing where to find out what's available, where to get independent advice, and where to go to get help solving a problem.

Why it matters

- Lack of awareness of services and supports limits the ability for people to engage digitally.

- Government, health services and businesses are becoming more digitised with the potential to increase digital exclusion. There is an opportunity to work with agencies to raise awareness of the support available to assist their clients.

- There are many existing courses, places of advice and problem solving in the region which can be better coordinated and promoted – making it easy for users to find.

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Priority actions

Increase digital awareness for individuals and small business:

Action: Focus on and coordinate what is already working
– take a fresh look at what's working including neighbourhood houses, libraries, and Click Region. Consider new ways of promoting these services and coordinating services with place-based agreements to eliminate unnecessary competition for resources and duplication.

Action: Integrate regional messaging
– promote the availability and access to both training and support (problem solving) services, including local services in libraries, neighbourhood houses and online initiatives such as Rural Women Online, Be Connected, and Regional Tech Hub.

Action: Raise awareness of the digital divide and its impact on the region
– determine qualitative and quantitative measures regarding the opportunity costs to the region of the digital divide. Propose specific, practical ways to reduce the divide that can be implemented by broader range of community services and business organisations. Build community ownership of efforts to increase digital inclusion.

Action: Showcase digital success stories in reducing the divide
– feature real life applications of digital successes in the region, by sourcing and publishing a broad range of digital success stories, particularly featuring disadvantaged groups.

5.2 Digital Skills

Goal

Digital capability and skills are in place to serve current and future needs of the region.

1. Enable and lift regional ambition

Desired outcome

The Ovens Murray region has a highly skilled workforce capable of driving and sustaining innovation and entrepreneurship, positioning the region as a hub for digital expertise.

Why it matters

- Digital skills capability gaps are affecting growth in business and industry sectors across the region limiting current capacity and future growth.
- There is a need to identify gaps in the current workforce, project future skills needs and develop strategies to meet workforce needs.
- The National Skills Commission estimates skills clustered around the digital economy will increase 28% between 2022 and 2027. Lightcast found around 40% of Victoria's job ads in February 2020 called for digital skills.
- The Victorian Skills Strategy (2022) states that a more highly skilled workforce is needed across all regions, meaning greater technological support and training is required.
- Significant competition for digital talent means the Ovens Murray region needs to be an attractive location.
- The new Wangaratta Tech School presents an opportunity to shape curriculum to tailor to regional needs and aspirations.

Priority actions

Strategically position the region to attract and retain digital skills:

Action: Develop a regional digital workforce strategy – using the Australian Digital Capabilities Framework and Victorian Skills strategy, identify the digital skills required in the region and opportunities to work in cross-sectoral partnerships to develop skills for regional needs.

Action: Promote the region as a drawcard for digital talent – to attract digital talent, the region needs to be seen as an attractive, viable option: we need housing, community and business support services.

Collaborate regionally to build and promote pathways between education and work:

Action: Enhance and promote education pathways and business placements – promote and encourage participation in programs that connect digitally savvy students into business, government and NFP positions—e.g. SummerTech Live. Map and promote digital capability and skills pathways from school to education to workplace.

Action: Advocacy and support for the new Wangaratta Tech College

NOTE: for an international perspective on Digital Capability frameworks, please review ADIA's *A National Digital Inclusion Roadmap*.

5.2 Digital Skills
(continued)

Goal

Digital capability and skills are in place to serve current and future needs of the region.

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2. Reduce the digital divide

Desired outcome

Individuals and businesses have the knowledge, skills and aptitude required to select, access, and use digital technologies, as well as the ability to adapt to and innovate with future technologies.

Why it matters

- ADII data still shows a gap in digital ability affecting people's ability to participate in fundamental parts of everyday life including accessing essential government services.

- Digitisation, digital tools (including AI), and automation are changing the workforce, requiring those in employment to have digital skills and be able to adapt to change.

- Improving digital skills underpins removal of the digital divide and growth of the digital economy in the Ovens Murray region.

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Priority actions

Build digital skills so that users are capable, confident and safe online:

Action: Continue to develop, promote and deliver broad based community and sector-specific education and training programs – through regional collaboration, ensure affordable access to all types of relevant training: skill development, skills banks, training workshops, and online interactive courses. Support and scale programs that work.

Action: Identify gaps in delivery or access to basic digital skills training across the region – continually monitor regional offerings to ensure that there is good access and coverage across Local Government Areas, across sectors, and for at risk groups. Advocate for regional needs and longer-term ongoing funding for training initiatives that fill the gaps (e.g. mobile services).

Build digital skills so that individuals can participate in the regional workforce:

Action: Collaborate to promote and deliver digital skills training for workforce readiness and workforce needs – identify and promote digital skills programs that enable low digital literacy or at-risk groups to enter or maintain relevant digital skills for the workforce. Ensure STEM pathways include VET options.

5.3 Digital Safety

Goal

Individuals and organisations are aware of risk associated with digital activities and are safe.

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1. Enable and lift regional ambition

Desired outcome

Increased digital maturity as a region.

Individuals and organisations have the capability and responsibility to protect against cyber threats, including online privacy, data security, and safe digital practices to prevent fraud and data breaches.

Why it matters

- Victoria's Cyber Strategy 2021 states "security is an essential foundation to a successful digital economy. As businesses increasingly work online, cybercrime represents a significant risk to Victoria's economy. At the same time, cyber security represents a considerable opportunity for business and job growth in a digital economy."

- Cybercrime has a disproportionate effect on SMEs, but it affects all sizes of business. Cybercrime has increased by 600% since Covid, amplified by targeting exposed employees working from home (Annual Cyber Threat Report 2022, cyber.gov.au).

- In 2022, the average cost per cybercrime report is >$39,000 for small business; >$88,000 for medium business; >$62,000 for large business. The presents an increase of 14% over the previous year. *(ibid)*

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Priority actions

Embed digital safety:

Action: Work with digital champions – to promote online safety and lift regional capability across sectors.

Action: Explore the creation of 'Design for Safety' principles – a set of digital safety recommendations for startups and entrepreneurs.

Action: Enhance risk management approaches – work with NFP boards and committees across the region to improve awareness and investment in digital safety, including risk identification and management.

Action: Cooperate with banks, police, government agencies – to promote cyber safety and awareness.

Action: Understanding our region's cybercrime vulnerabilities – so that we can deliver better services and education to address areas of concern.

5.3 Digital Safety
(continued)

Goal
Individuals and organisations are aware of risk associated with digital activities and are safe.

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2. Reduce the digital divide

Desired outcome

Individuals, small businesses, and organisations feel comfortable and safe online, and able to understand cyber risks and take appropriate safety measures. This means that:

- **community and businesses have the awareness and capability to operate online safely,**
- **there is an increased awareness and understanding of personal responsibility (privacy, data control, online safety),**
- **increased awareness and better practice of cybersecurity, and**
- **community and business know where to go for digital safety advice and services.**

Why it matters

- The ADII study (2022) found that there is strong link between concerns about privacy and scams and lower digital inclusion scores. 30.3% of highly excluded Australians indicate that concern about privacy or scams limits their internet use, a significant barrier.

- Palpable concerns were identified in the region regarding privacy, cyber risks and safety issues including scams, identity theft and cyberbullying.

- Cybercrimes are those directed at computers or other information communications technologies (ICTs), such as computer intrusions and denial of service attacks; and tech enabled crimes where computers or ICTs are an integral part of an offence, such as online fraud, deceptions, identity theft.

- Most frequently reported cybercrimes in Australia are online fraud (27%), online shopping (15%) and online banking (13%). (Annual Cyber Threat Report 2022, cyber.gov.au)

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Priority actions

Build digital skills so that users are capable, confident, and safe online:

Action: develop collaborative pilot projects to address digital safety – work with OM-based regional banks to develop local projects to address and promote digital safety.

Action: widely promote online and physical digital safety training – expand the network of delivery partners across the region (every main town, every LGA) for the BeConnected federal program. Educate the public on digital safety practices through schools, libraries, and community centres.

Action: develop an advocacy case to leverage additional digital safety resources for the region – based on the benefits vs costs of digital fraud to the region.

5.4 Digital Data Use

Goal

Effective use and analysis of data to improve regional decision making, service delivery, and innovation.

↓

1. Enable and lift regional ambition

Desired outcome

A vibrant data-centric ecosystem where regional businesses leverage big data and analytics for competitive advantage and innovation, contributing to the region's reputation as a Smart Region.

Why it matters

- Digital Twin Victoria program is set up to enable collaboration through technology, shared open data, and algorithms to position the state as the 'data and innovation capital'. Easy access to high-quality datasets, analytics, and future ready digital infrastructure are part of the Digital Twin Victoria vision.

- Digital Twin technologies can be applied to wide range of contexts, including: analysing business opportunities, real-time data for emergency management, evidence based decision making, capability building for workforce development, planning and investment by local government, support for community projects.

- Organisations (business, services) in the region capture significant amount of data/intelligence that is currently underutilised and could inform both business strategy and regional growth.

- Positioning the Ovens Murray region to use data effectively will enable and boost innovation and sector growth.

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Priority actions

Action: Explore the creation of a regional data governance model with defined regional goals and agreements for data use, sharing and analysis – 'connected data to make insights' needs agreements about data use, interoperability, and key sector metrics.

Action: Advocate and support the implementation of Smart City strategies regionally – such as Albury/Wodonga's Smart Community Strategy 2020.

Action: Explore opportunities for Smart Community or Smart City strategies in the region – consider how appropriately-scaled Smart Communities' plans might benefit the region.

A Note about Smart Cities:

A smart city uses digital technology and connected data sensors to enhance the quality of life for its residents by improving urban services, reducing costs, and optimising resources.

This concept integrates information and communication technology (ICT) and various physical devices connected to the IoT (Internet of Things) network to manage a city's assets. This includes monitoring and managing traffic and transportation systems, power plants, utilities, water supply networks, waste management, information systems, schools, libraries, hospitals, and other community services.

The goal of a smart city is to improve operational efficiency, share information with the public, and improved service delivery and enhanced well-being for residents.

5.4 Digital Data Use

(continued)

Goal
Effective use and analysis of data to improve regional decision making, service delivery, and innovation.

2. Reduce the digital divide

Desired outcome

Widespread adoption of data-driven decision making improves efficiency and targets services, whilst ensuring digital inclusion continues to be a priority.

Why it matters

- For the Ovens Murray region, this involves gathering, interpreting and using data in ways that respect privacy and security whilst unlocking its value for economic and social benefit.
- All levels of government use data intelligence to generate insights and improve outcomes to provide public value and make policy decisions.
- Sound data structure, sharing, protection and maintenance are foundational to making decisions about regional needs, including investments in infrastructure and services.
- Data is gathered to understand the needs of individuals, community and businesses.
- Currently, there is missed potential in consolidating data to inform better decisions, benchmark, monitor and improve services across community sector, and growth in the small business sector.

Priority actions

Position the region to make best use of data (for the benefit of the community)

Action: Work with local government to leverage best practice in data use and data-driven-decision making – achieving the 'Smart Region' vision means that all sectors are able to use data effectively. Increased data-driven decision-making can improve service efficiencies, improve targeting and quality of services, and lower costs.

Action: Inform and educate regional stakeholders (including community sector services and small businesses) on good practice in data use – and the benefits of high-quality data collection and analysis in enhancing decision making, targeted service delivery, and business competitiveness and profitability.

Action: Explore the creation of an Ovens Murray Digital Analytics (Big Data) Think Tank – with voluntary membership from digital leaders in the region, with outside expertise as required. Drive better data use to inform regional directions, investment readiness, and leverage openly shared data. Use AI to aggregate data for the region, positioning the Ovens Murray as future-ready.

Action: Create a data analytics strategy for Ovens Murray LGAs – using intelligence from stronger use of data analytics to improve engagement and service provision for residents, particularly disadvantaged groups. AI may be used to facilitate this transformation.

5.5 Digital Connectivity

Goal

Fit for the future high functioning digital technology infrastructure and services covering the region.

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1. Enable and lift regional ambition

2. Reduce the digital divide

Desired outcome

Affordable and reliable access to internet and mobile services, with appropriate performance levels for different customers (residents, organisations, businesses, visitors), ability to cope with fluctuating load levels (e.g. tourist peaks, events) and system resilience in times of emergencies.

High quality digital connection encourages the uptake of existing and new technologies that connect people, increase the quality of life, support service delivery, increase business productivity and underpin community safety and resilience.

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Why it matters

- The Ovens Murray region is characterised by its varied topography including Alpine high country, foothills, river valleys and river plains. Mobile and internet coverage are not fully accessible.

- Need for connectivity is now ubiquitous – with much of our lives and livelihoods dependent on connectivity. Since 2019 Digital Plan there has been significant investment in the region to increase connectivity and reliability of digital technology infrastructure, but significant telecommunications connectivity issues remain.

- Lack of affordable and reliable connectivity worsens the digital divide.

- Natural disasters (bushfires and floods) have shown the vulnerability of regional and isolated communities when left without reliable mobile network coverage. Mobile and internet coverage are critical for communication of timely warnings for emergencies, for the safety of community, and for the safety and operational effectiveness of emergency responders. (Alpine Telecommunications Strategy 2023).

- Several notable considerations:
  - Mobile network coverage, capacity, and choice: introduction of 4G and 5G, phase out of 3G (with impacts for isolated and rural users)
  - NBN infrastructure access, suitability, and affordability
  - Last mile connectivity
  - Improvements to satellite access particularly low earth orbit satellites (affordability still an issue)
  - Access to LPWAN networks – affecting operation of the Internet of Things (IoT)

5.5 Digital Connectivity
(continued)

Goal
Fit for the future high functioning digital technology infrastructure and services covering the region.

1. Enable and lift regional ambition

2. Reduce the digital divide

Priority actions

Advocate for reliable, affordable fit-for-purpose digital technology infrastructure improvements:

With the aim of:

- Full regional coverage,
- Reliability of connectivity, including during peak times,
- Network hardening and resilience (responding to climate change and disasters),
- Equitable, accessible, and affordable connectivity (mobile and data),
- Reducing the digital divide and enabling, and
- Enabling and lifting regional ambition.

Progress in this pillar will be made through focusing on:

- Coordinated planning
- Advocacy
- Delivery
- Resilience

Action: Continue to update regional telecommunications infrastructure priority list – to work with Indi Telecommunications Action Group (ITAG) to identify evolving priority list for connectivity (particularly mobile) addressing blackspots. These priorities are essential for regionally coordinated and effective lobbying.

Action: Advocate for LGAs to work with providers to create unique Connectivity Plans – each regional LGA to complete work with NBN and Telstra for local Connectivity Plans. Encourage plan sharing between LGA's.

Action: Plan for digital connectivity system resilience

Action: Access the results of the federal government mobile audit and action

Action: Advocate for key improvements for regional connectivity for residents, businesses and visitors – advocate for:

- improved load management and reliability (events and peak season tourist loads),
- more free public Wi-Fi areas, including transport (e.g. rail) and key corridors with maps to show availability (including commercially-funded public Wi-Fi locations),
- heat maps to show signal strength in blackspot areas (not just a dot),
- clear communications and impact management resulting from ADSL and 3G transitions, and
- expanded rollout of no cost fibre for businesses (beyond Bright, Benalla, Wodonga and Wangaratta).

5.6 Digital Governance

Goal
Ongoing leadership and coordination of the Ovens Murray Digital Plan will enable the Ovens Murray region to build its capability and deliver the best outcomes for its communities.

↓

1. Enable and lift regional ambition

2. Reduce the digital divide

Desired outcome

The Ovens Murray region's digital efforts are coordinated, collaborative, efficient, and impactful.

Why it matters

- This 2023 Ovens Murray Digital Plan has established that the successful implementation of the 2019 Ovens Murray Digital Plan and the realisation of significant achievements was due to the leadership of the OM Digital Futures Coordination Group who kept the Plan alive and enacted.

- Cross-sector and cross-regional collaboration has been critical for:
  - Development of innovative solutions
  - Knowledge sharing
  - Solid enduring initiatives that are well-owned and evidenced
  - Increasing regional ambition
  - Ensuring that digital inclusion was not lost to the pursuit of economic growth
  - Regional advocacy and leveraging funding

- To keep pace with accelerating digital change impacting on the region, its communities and organisations, the Digital Futures Coordination Group will need to evolve and access expertise from outside the region when needed.

- Innovation in the OM region needs more groundwork to be laid, to qualify as a compelling alternative for highly skilled digital migrants.

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(continues)

5.6 Digital Governance

(continued)

Goal
Ongoing leadership and coordination of the Ovens Murray Digital Plan will enable the Ovens Murray region to build its capability and deliver the best outcomes for its communities.

↓

1. Enable and lift regional ambition

2. Reduce the digital divide

Priority actions

Action: Continue to build and monitor the region's digital ecosystem

Action: Develop key principles for projects discussed and developed by the Digital Futures Coordination Group – e.g. consider and discuss projects that involve 2 or more partners; and have the ability to be replicated elsewhere in the region or scaled for regional impact.

Action: Explore a formal expansion of diversity of representation within the Digital Futures Coordination Group – consider even more diversification within the DFCG to cover sectors and stakeholders including:

- Emergency Response and Recovery
- Health
- Community services (libraries, neighbourhood houses)
- Workforce brokers – youth to employment (LLENs)

Action: Explore agenda and process expansion for the Digital Futures Coordination Group – adding time for strategic discussions, including Digital Trends and the implications for the region (e.g. AI).

Action: Explore and advocate for statewide coordination and assistance for digital action within regions to leverage the scale, scope and pace of potential outcomes – formalise the relationships between regions and state government telecommunications/digital portfolio experts.

Enable ongoing state government commitment to Regional Digital planning and activity.

6. Next steps

This Plan highlights the gaps and opportunities to reduce the digital divide in the Ovens Murray region, as well as to enable and lift the region's digital ambitions. It has examined several areas to improve—digital awareness, skills, safety, data use, connectivity and governance—and has made identified priority actions to be considered by regional stakeholders.

In seeking to address the region's priority needs, we maximise the potential for local residents, businesses and community to adapt and flourish as the digital age advances at an ever more accelerated rate—thereby building a strong digital future for the region.

The findings and recommendations identified in this 2023 Ovens Murray Digital Plan will form the basis of advocacy by the Regional Partnership into Victorian, Commonwealth and local governments, as well as ongoing regional collaboration and support for industry and community groups that contribute to the region's digital future.

The Ovens Murray Regional Partnership sincerely thanks members of the 2023 Digital Plan Working Group and other committed regional stakeholders who generously gave their time and shared their knowledge, providing a highly valued contribution to the development of this plan.

Contact us

If you would like to discuss this Ovens Murray Regional Digital Plan, please contact the Ovens Murray Regional Partnership on: Email: ovensmurray.partnership@rdv.vic.gov.au.

We look forward to hearing from you.

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Photo credits

Front Cover
Beechworth Coffee - *Tourism North East*

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Farm at the base of Mount Buffalo – *Ovens Murray Regional Partnership*

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Students at Bendigo Tech School – *Department of Education*

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Senior Couple Learning to Use Digital Tablet – *Thurtell (iStock)*

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Smoke Sensor in vineyard – *Dean Cleave-Smith*

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Cyclist taking a photo at an Alpine Resort – *Tourism North East*

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Young female farmer with ute and dogs – *pixdeluxe (iStock)*

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Using a smart phone and credit card online shopping – *shutjane (iStock)*

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Patient communicating with her doctor via laptop – *Henfaes (iStock)*

Appendices

Appendix 1 – Connecting Victoria: Broadband Connectivity Improvements

The 11 *Connecting Victoria* broadband connectivity improvements being delivered in the Ovens Murray region are:

- 8 coverage to the premise (N2P) upgrades from fibre to the node (FTTN) to fibre to the premises (FTTP)
- 1 new NBN Business Fibre Zone (BFZ)
- 1 satellite to fixed wireless (S2FW) upgrade
- 1 satellite to fibre to the premises (S2P) upgrade.

The 54 *Connecting Victoria* mobile connectivity improvements being delivered in the Ovens Murray region are:

- 38 existing base stations/towers upgraded to 5G
- 16 new base stations/towers.

The 18 *Connecting Victoria* mobile network resilience improvements being delivered in the Ovens Murray region are:

- 10 power resilience upgrades
- 4 battery upgrades to provide 12-hour alternative power source
- 3 permanent power generators to provide alternative power source
- 1 battery upgrade plus power system upgrade at a single site.

The projects being delivered across the 7 local government areas and 2 Alpine Resorts in the Ovens Murray region are:

- Alpine Shire – 8 projects (2 broadband / 5 mobile / 1 resilience)
- Benalla Regional City – 9 projects (1 broadband / 5 mobile / 3 resilience)
- Indigo Shire – 7 projects (1 broadband / 4 mobile / 2 resilience)
- Mansfield Shire – 6 projects (1 broadband / 4 mobile / 1 resilience)
- Towong Shire – 9 projects (1 broadband / 4 mobile / 4 resilience)
- Wangaratta Rural City – 18 projects (2 broadband / 14 mobile / 2 resilience)
- City of Wodonga – 23 projects (2 broadband / 17 mobile / 4 resilience)
- Mount Buller – 2 projects (1 broadband / 1 resilience)
- Falls Creek – 1 project (1 mobile)

In October 2023, 74 of the 83 *Connecting Victoria* projects were in progress and 9 projects had been completed, including:

- 5 of 11 broadband upgrades had been completed
- 2 of 54 mobile upgrades had been completed
- 2 of 18 mobile network resilience projects had been completed.

Delivery of projects is expected to increase significantly in the 2023-24 and 2024-25 financial years. The locations of *Connecting Victoria* mobile projects being delivered in Ovens Murray region are provided in the following tables and, unless identified as 'complete' are in progress.

Table 1: Connecting Victoria – Ovens Murray NBN Broadband Upgrades

LGA	Suburb/Town	Upgrade Description	Type
Alpine	Bright	Satellite to Fixed Wireless	Sat2FW
	Myrtleford	Coverage to the premise (complete)	N2P
Benalla	Benalla	Business Fibre Zone (complete)	BFZ
Indigo	Beechworth	Coverage to the premise	N2P
Mansfield	Mansfield	Coverage to the premise	N2P
Towong	Corryong	Coverage to the premise (complete)	N2P
Wangaratta	Wangaratta	Coverage to the premise	N2P
	Wangaratta	Coverage to the premise	N2P
Wodonga	Wodonga	Coverage to the premise (complete)	N2P
	Wodonga	Coverage to the premise (complete)	N2P
Unincorporated	Mount Buller	Satellite to Fibre to the Premises	Sat2P

Table 2: Connecting Victoria – Ovens Murray New Mobile Base Stations/Towers

LGA	Suburb/Town	Carrier
Alpine	Tawonga	Telstra
Benalla	Benalla	Telstra
	Goorambat	Telstra
Mansfield	Gaffneys Creek	Telstra
Towong	Burrowye	Telstra
	Dartmouth	Optus
	Koetong	Telstra
Wangaratta	Wangaratta	Optus
	Tarrawingee	Telstra
	Oxley	Telstra
	Wangaratta South	Optus
	Whitfield	Telstra
Wodonga	Barnawartha North	Optus
	Castle Creek	Telstra
	Wodonga	Telstra
	Wodonga	Telstra

Table 3: Connecting Victoria – Ovens Murray Mobile Base Station/Tower 5G Upgrades

LGA	Suburb/Town	Carrier
Alpine	Bright	Optus
	Bright	Telstra
	Myrtleford	Optus
	Myrtleford	Telstra
Benalla	Benalla (complete)	Optus
	Benalla	Optus
	Benalla	Optus
Indigo	Barnawartha	Telstra
	Chiltern	Optus
	Rutherglen	Telstra
	Wahgunyah	Telstra
Mansfield	Bonnie Doon	Telstra
	Mansfield	Optus
	Mansfield	Telstra
Towong	Bethanga	Telstra
Wangaratta	Moyhu	Telstra
	Oxley Flats	Optus
	Springhurst	Optus
	Wangandary	Optus
	Wangaratta	Optus
	Wangaratta	Optus
	Wangaratta	Optus
	Wangaratta South	Optus
	Whitlands	Optus

LGA	Suburb/Town	Carrier
Wodonga	Bandiana	Optus
	Bandiana	TPG
	Barnawartha North	Telstra
	Leneva	Telstra
	West Wodonga	Optus
	West Wodonga	Optus
	West Wodonga	TPG
	West Wodonga	TPG
	Wodonga	Optus
	Wodonga	Optus
	Wodonga	Optus
	Wodonga	TPG
	Wodonga	TPG
Unincorporated	Falls Creek Resort	Telstra

Table 4: Connecting Victoria – Ovens Murray Mobile Network Resilience Projects

LGA	Suburb/Town	Carrier	Solution Type
Alpine	Cobungra	Telstra	Battery upgrade (12 hours)
Benalla	Benalla	Optus	Power resilience upgrade (complete)
	Lima South	Optus	Power resilience upgrade (complete)
	Winton North	Optus	Power resilience upgrade
Indigo	Barnawartha	Optus	Power resilience upgrade
	Tangambalanga	Optus	Power resilience upgrade
Mansfield	Jamieson	Telstra	Battery upgrade (12 hours)
Towong	Corryong	Telstra	Permanent generator
	Mitta Mitta	Telstra	Permanent generator
	Mount Alfred	Telstra	Permanent generator
	Towong	Telstra	Battery upgrade (12 hours)
Wangaratta	Wangaratta	Optus	Power resilience upgrade
	Wangaratta	Optus	Power resilience upgrade
Wodonga	Bandiana	Telstra	Battery upgrade (12 hours)
	West Wodonga	Optus	Power resilience upgrade
	Wodonga	Optus	Power resilience upgrade
	Wodonga	Telstra	Battery upgrade (12 hours) and power system upgrade
Unincorporated	Mount Buller	Optus	Power resilience upgrade

Appendix 2 – Summary of Ovens Murray stakeholder engagement feedback on connectivity issues

Connecting Victoria - Summary of Ovens Murray stakeholder engagement feedback on connectivity issues

LGA	Total Responses received	Suburbs with most concerns	Mobile vs broadband concerns raised*	Major connectivity themes raised
Alpine	**255**	Bright (77) Dinner Plain (16) Porepunkah (14) Mount Beauty (12) Tawonga South (12) Myrtleford (11)	172 – Mobile 96 – Broadband	Safety Tourism Economic Uplift Growth Area
Benalla	**119**	Benalla (37) Boxwood (26) Chesney Vale(15) Goorambat (9)	111 – Mobile 45 – Broadband	Remote work and learning Safety Economic Uplift Tourism Agriculture
Indigo	**338**	Beechworth (154) Stanley (47) Barnawartha (32) Chiltern (21) Indigo Valley (22)	202 – Mobile 184 – Broadband	Remote work and learning Safety Economic Uplift Tourism Affordability
Mansfield	**956**	Archerton (302) Mount Buller (302) Barwite (71) Merrijig (49) Bonnie Doon (42) Mansfield (42)	350 – Mobile 588 – Broadband	Tourism Safety Economic Uplift Remote work and learning
Towong	**157**	Biggara (19) Nariel Valley (15) Bellbridge (9) Tallangatta Valley (9) Corryong (8)	115 – Mobile 55 – Broadband	Safety Economic Uplift Growth Areas Tourism
Wangaratta	**316**	Bobinawarrah (99) Wangaratta (33) Oxley (25) Tarrawingee (23)	224 – Mobile 149 – Broadband	Economic Uplift Safety Remote work and learning Education Affordability

LGA	Total Responses received	Suburbs with most concerns	Mobile vs broadband concerns raised*	Major connectivity themes raised
Wodonga	**39**	West Wodonga (12) Wodonga (5)	20 – Mobile 11 – Broadband	Remote work and learning Safety Economic Uplift
Unincorporated	**23**	Hotham Heights (16) Falls Creek (3) Mt Buller (2)	11 – Mobile 9 – Broadband	Remote work and learning Telemedicine Economic Uplift Tourism
TOTAL	**2,203**			

* Note respondents were able to nominate both mobile and broadband issues meaning mobile and broadband responses combined can add to more than total responses for the LG