Regional Digital Plan Summary

GREAT SOUTH COAST

REGIONAL
PARTNERSHIPS
GREAT SOUTH COAST

Statement from the Great South Coast Regional Partnership Chair

The Great South Coast region is a diverse area comprising population centres of greatly varying sizes, a range of industries and primary production areas and a wealth of magnificent tourist attractions including the Twelve Apostles and Budj Bim Cultural Landscape.

Whether it is a local business owner, a young student, a tourism operator, a visitor or an elderly citizen, digital connectivity is now a fundamental feature of everyone's lives.

So ingrained are digital services in our daily lives that they are now a significant factor contributing to the liveability and growth of regional communities. No matter where we go and what we do, we must be able to connect with the people, services and information we need.

Our regional stakeholders have long suffered the challenges associated with inferior digital services. This is particularly true for those located in more remote and less densely populated areas and presents challenges for population retention and attraction.

The lack of clear evidence on where digital infrastructure gaps exist and the demand of users has been a clear barrier to improving services and better targeting investment.

In this regard, the Great South Coast Regional Partnership is pleased to present its Digital Plan.

This plan provides an initial snapshot in time of our digital infrastructure landscape and is the first ever comprehensive digital plan of its kind for our region.

The plan sets out a range of recommendations and priorities for our region which we, and we hope our many stakeholders, will pursue to address our digital divide and underpin economic development and liveability across our region.

This plan is not the final word on digital priorities. It is a starting point to guide immediate and future work and provides a useful framework to consider digital priorities and next steps for our region.

We look forward to hearing from you and continuing our local engagement to build on this important evidence base.

I would like to extend my thanks to the Great South Coast Digital Plan Steering Committee for their time and effort in developing this plan, and to the Victorian Government for their support to make this possible.

Lisa Dwyer
Chair,
Great South Coast
Regional Partnership

What is a Digital Plan?

The Great South Coast Digital Plan is an evidence-based, place-based analysis of the supply of and demand for digital services and skills.

The Great South Coast Digital Plan identifies gaps in the region's current digital infrastructure landscape and makes recommendations on how these gaps can be addressed.

The Digital Plan forms the basis of our Regional Partnership's advocacy to all levels of government, as well as industry and community groups. It will also be a valuable resource to other stakeholders in the region for their own advocacy and action.

Addressing the digital divide

Great South Coast's Digital Plan is a first of its kind for the region, filling the critical information gap needed to effectively reduce the persistent country-city digital divide, defined as regional shortfalls in:

Access to digital services

The ability to effectively use these services

Their affordability relative to their capital city counterparts

A substantial digital gap has been found between regional Victoria and Melbourne:

56

2018 Rural Victoria digital inclusion score

65^

2018 Metropolitan Melbourne digital inclusion score

^ Rating from the 2019 Royal Melbourne Institute of Technology-Swinburne-Roy Morgan-Telstra Digital Inclusion Index (DII)

Digital issues affecting all regions

Six technology areas have been analysed in the Great South Coast Digital Plan to identify supply shortages in the regions:

Fixed broadband

Ensuring NBN service quality is sufficient to meet resident and business needs

Mobile coverage

Addressing the prevalence of blackspots

IoT (Internet of Things) networks

Availability of low-bandwidth networks to support the uptake of next generation technologies

Public WiFi

Availability of free public WiFi for disadvantaged residents and tourists

Access

Access to government assets to improve services locally

Digital skills

Improving digital literacy, supply of IT professionals, and workforce preparedness for the future

Great South Coast Priority Project and Recommendations

Priority Projects: The Great South Coast Regional Partnership has identified two priority digital projects to pursue:

Internet of Things (IoT) connectivity and use - Internet of Things is a rapidly growing market that refers to the connection of an ever-increasing array of devices, services and equipment that connects to the internet. Better understanding of this technology will be critical to underpin competitiveness and productivity in our regional industries in the future.

Digital education initiatives – the region will explore opportunities to improve access to and utilisation of digital technologies in the delivery of education and training across the region, with an emphasis on building digital skills in fields relevant to regional priorities, including IoT for agriculture, smart cities, utilities and environment.

Key recommendations of the Great South Coast Digital Plan:

Local Government

Uses their local presence, insights and planning powers to identify and confirm localised fixed and mobile blackspots, influence NBN high performance technology deployment, promote early 5G rollout and facilitate digital literacy training (including in local digital hubs).

Victorian Government

Reviews and extends its regional telecommunications advocacy, co-investment funding and pilot programs; works with network operators to improve coverage data; addresses location-specific unmet needs from targeted highspeed broadband deployment; facilitates regional IoT and 5G developments; and expedites access for stakeholders in the region to its infrastructure visualisation tool.

Commonwealth Government

Continues, reviews and extends its mobile blackspot co-funding program, requires NBN Co to maximise deployment of high performance technologies and network architecture that supports business grade digital services, mandates that the telecommunications industry meets stronger NBN service connection and maintenance requirements and invests in digital skills training programs.

NBN Co

Recognises the need for pricing models that encourage the adoption and realisation of latent digital opportunities in rural and regional areas.^

Telco Industry

Actively considers opportunities to provide competing broadband services to businesses in high demand precincts (and high speed backhaul links), particularly if NBN Co fails to restructure its wholesale pricing or does not provide effective business grade services to regional customers.

^ The Regional Partnership recognises that NBN Co is making progress on this through its Wholesale Pricing Review 2019.

Great South Coast Regional Partnership: at a glance

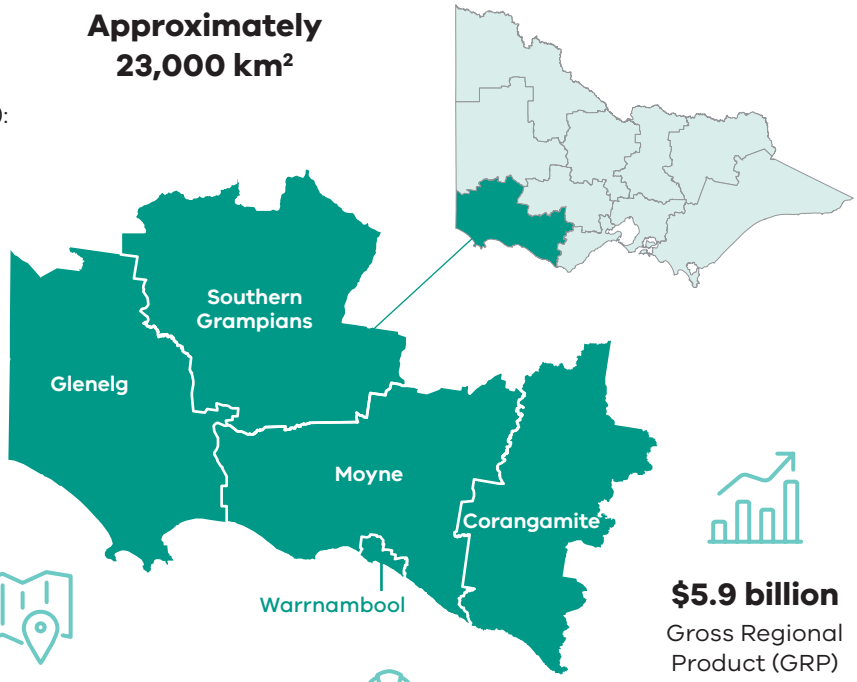
The Great South Coast Regional Partnership is one of nine Partnerships across the state, established by the Victorian Government, recognising that local communities are in the best position to understand the challenges and opportunities faced by their region.

5 LGAs

Local government areas (population):

- Warrnambool (35,000)
- Corangamite (16,000)
- Glenelg (19,000)
- Moyne (17,000)
- Southern Grampians (16,000)

Approximately 23,000 km²



Primary Production

- Sheep and beef grazing
- Dairy grazing
- Forestry
- Horticulture
- Aquaculture

3,761 jobs

form part of the Tourism, Events and Visitor Economy in the region

Key Industries

- Agriculture/forestry/fishing (16%)
- Health care/social assistance (14%)
- Retail trade (10%)
- Education/training (8%)
- Manufacturing (8%)
- Tourism (8%)
- Construction (7%)

$5.9 billion

Gross Regional Product (GRP)

103,000

residents as of 2016

Assessment of digital needs

Analysis of digital supply and demand is conducted on a place and sector basis across the region to provide the evidence base necessary for effective digital planning. Places and sectors in the region have been analysed as follows:

Place/sector analysis

Significant Places

Looks at the demand and supply of digital infrastructure and services in the most populated cities, towns and localities of the region.

Primary Production

Looks at the most economically significant primary production industries in the region.

Tourist Locations

Looks at the supply of and demand for digital services in the most important tourist attractions / locations in the region.

Transport Blackspots

Looks at the availability of mobile services along the region's key transport routes.

Digital infrastructure analysis

Fixed access

Includes National Broadband Network (NBN) fixed-line broadband services including fibre-to-the-premises (FTTP), fibre-to-the-node (FTTN), fibre-to-the-curb (FTTC), fixed wireless and satellite.

Mobile

Availability of digital mobile networks capable of supporting voice telephony and data applications such as through 3G and 4G networks.

WiFi

The availability of public WiFi services such as through public libraries and buildings, information centres and other local government initiatives.

LP-WAN IoT

The availability of Low Powered Wide Area Networks (LP-WAN) that can support Internet of Things (IoT) applications like remote sensors and devices that are increasingly relevant to industry applications.

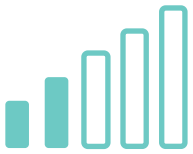
Great South Coast Regional Partnership: key issues

The Great South Coast Digital Plan identifies a number of digital connectivity issues across our region which adversely impact our economic and social development and general liveability, with important implications for population attraction and retention across our regional cities and towns. Of particular importance are the following issues:

Inadequate mobile coverage

There is a persistent and significant divide in the quality of mobile services available to regional users compared to metropolitan users with important implications for public safety, economic development and general liveability. Regional users have emphasised this issue recently, registering 262 blackspots˘ experienced across the Great South Coast region as part of the Commonwealth's black spot funding program.

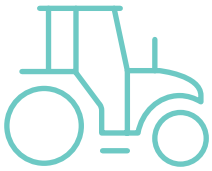
The Digital Plan has necessarily relied on public mobile coverage maps provided by the carriers. The analysis reveals the maps to be too high-level and low resolution to enable detailed identification of areas where coverage is unreliable, weak and/or incapable of supporting the data services which users have come to expect to access 'on-demand'. This means that while an area may appear well-served by these maps, the 'lived experience' of regional users is often very different. The analysis summarised on the following pages should be read with this in mind. Better data in the future can provide a more complete picture about mobile coverage issues within towns and in areas not yet analysed by the Digital Plans.



The Regional Partnership calls for continued Commonwealth and State funding to address mobile coverage issues and better data from carriers to enable more informed funding decisions.

Low up-take of Internet of Things applications

The coverage of low bandwidth Internet-of-Things (IoT) networks for agriculture, logistics, delivery of "smart city" public services and other sectors is reasonable at the moment, but availability and knowledge of IoT applications and their value-proposition is limited. It is important for regional businesses to engage with these next-generation sensor-based business practices. Early adoption across the region can underpin productivity growth and competitiveness of our industries. If the current demand trend continues, we risk being left behind.



The Regional Partnership has identified IoT connectivity and use as a priority project for the region.

˘ based on the Commonwealth National Mobile Black Spot Database, last updated October 2018

Lack of NBN business-grade services

The availability of adequate, affordable business-grade services for regional businesses across all NBN technology types remains a concern. This is despite the introduction of NBN's Enterprise Ethernet business service, which, due to technical limitations, will not be accessible to many businesses who have not received the higher capacity technologies in the rollout.

The Regional Partnership calls on the Commonwealth, NBN Co and the Victorian Government to prioritise actions that can address underserved regional business precincts with high-capacity business-grade broadband services.

Findings of the Digital Plan

Significant places with a shortage of digital infrastructure

There are 11 cities and towns above 1,000 people in the Great South Coast region. All of these locations have been analysed in this Digital Plan. Another four localities with less than 1,000 people were also included in the analysis to provide a broader perspective of different town sizes†.

The analysis has not looked comprehensively at smaller population centres with less than 300 people and looks exclusively at the town centre in each location, noting that this in effect misses people living nearby in sparsely populated areas where services tend to be worse.

While our analysis of public coverage maps indicates there is generally good 4G mobile coverage within population centres, we know from regional consultations that the 'lived experience' for many users can be quite different with continuing demand for better mobile infrastructure.

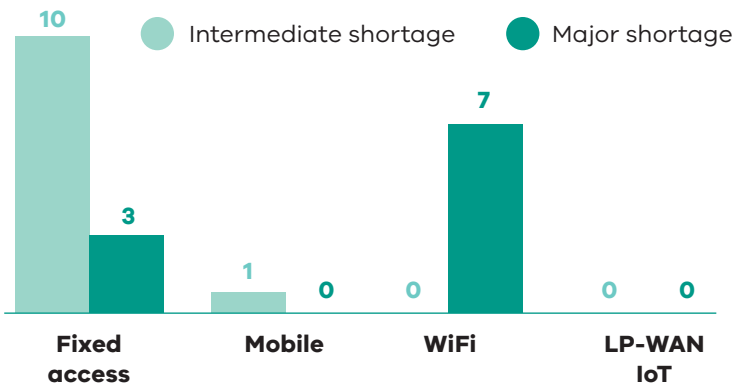
Of the 15 significant places analysed in the Great South Coast region, it was revealed that:

- **Fixed access broadband** had an intermediate supply shortfall for 10 cities/towns/localities*, with three towns, Casterton, Heywood and Mortlake, suffering a major supply shortfall, indicating the widespread need for business broadband needs to be further considered and addressed.
- **Mobile coverage** was assessed as adequate within the main population centres based on multiple carriers indicating they have coverage in the area according to their coverage maps. However, there is concern 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 locality, Cape Bridgewater, was found to have an intermediate supply shortfall. 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.
- **Public WiFi** access was a major supply shortfall for seven places.
- **LP-WAN IoT** was found to be reasonably good for the level of business, local government and household demand at present which is constrained by lack of IoT knowledge and applications across the region. 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.

† based on 2016 ABS census data

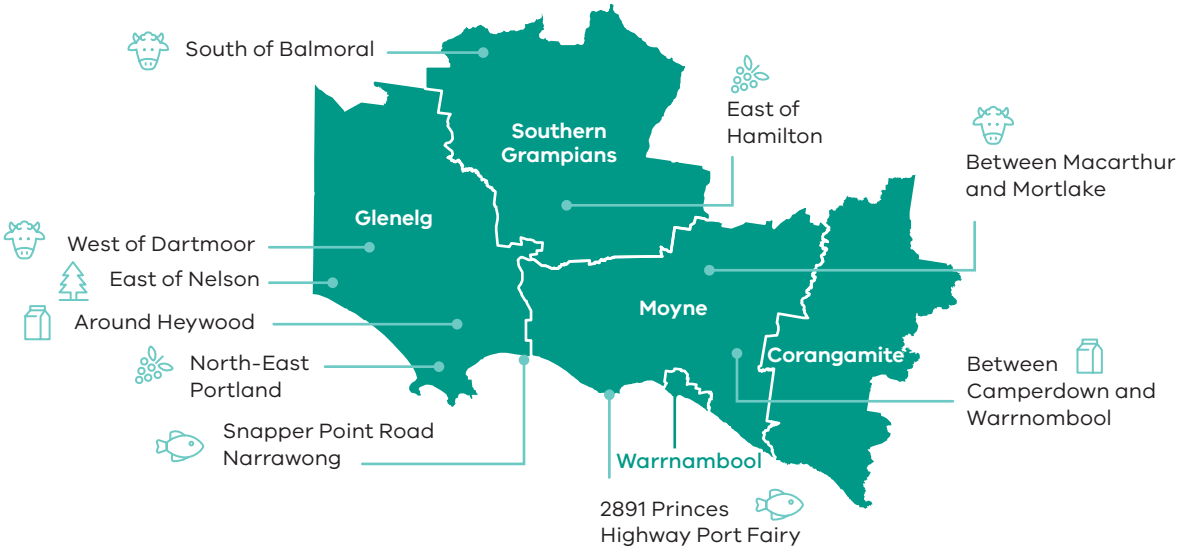
* Warrnambool, Portland, Hamilton, Port Fairy, Camperdown, Terang, Koroit, Cobden, Timboon, Cape Bridgewater.

Number of places with unmet digital needs



Analysis of primary production in the region

Primary production in the region revolves around sheep and beef grazing, dairy grazing, horticulture, forestry and aquaculture. The ten locations analysed cover all the major types of primary production seen throughout the Great South Coast region.



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

According to publicly available coverage maps, **mobile coverage** appears to be mixed – three revealed a major shortfall and one had an intermediate shortfall˘. Despite six sites reporting adequate coverage, 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.

Three of the locations, between Macarthur and Mortlake, West of Dartmoor and East of Nelson, were found to have an intermediate supply shortfall for **LP-WAN IoT** supported services.

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.

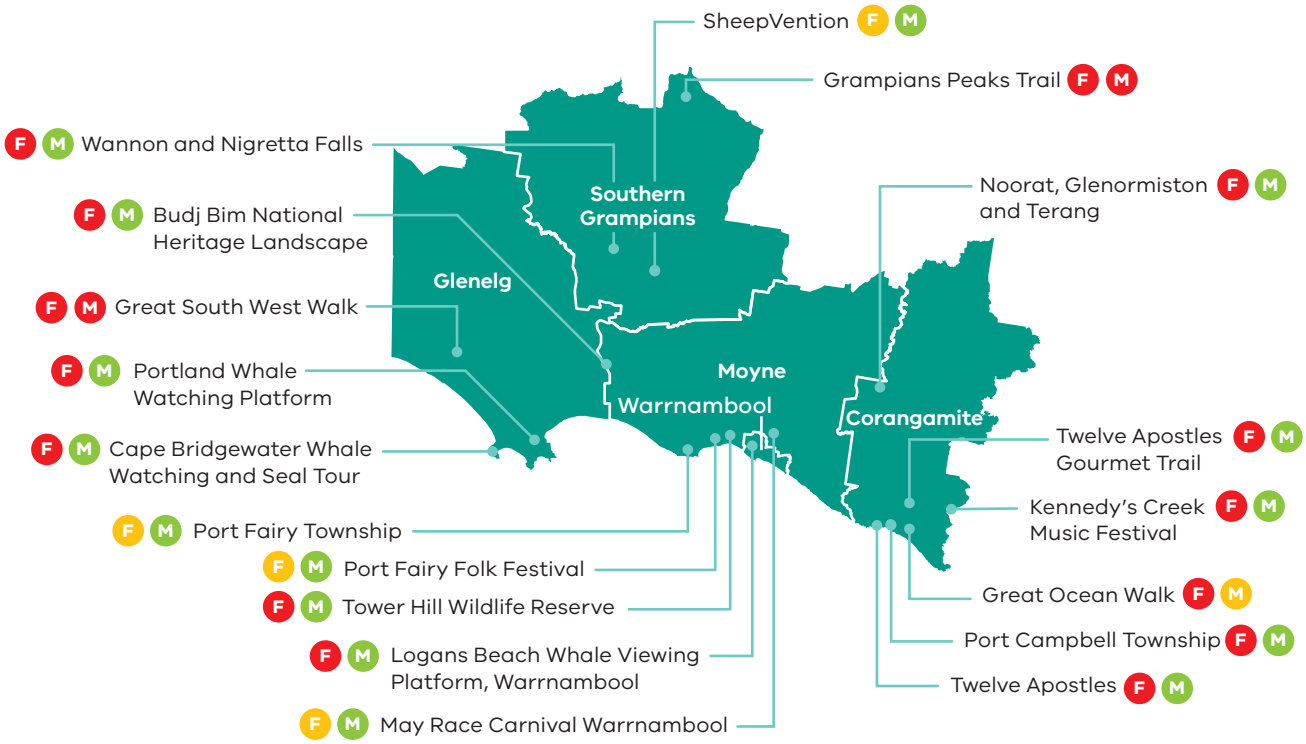
Local governments and regional businesses will need to consider leveraging government assets for cost-effective bespoke solutions, and the Commonwealth and state governments should develop more flexible mobile blackspot programs tailored to the region and its needs.

Mobile coverage nearer population centres is better than services available in more remote primary production locations, however obtaining a clear picture of where specific gaps exist or where there is weak and inadequate coverage is difficult with existing public data. Better quality coverage data is becoming increasingly important to identify priority locations in need of better mobile infrastructure.

˘ Major: South of Balmoral (sheep & beef grazing), between Macarthur and Mortlake (sheep & beef grazing), East of Nelson (forestry). Intermediate: west of Dartmoor (sheep & beef grazing).

Analysis of tourist locations

Tourist sites include year-round attractions, signature annual festivals, periodic events, and hiking trails that are frequently visited. Tourist locations, including 11 permanent spots, three events and four trails were assessed on the adequacy of digital infrastructure‡:



Legend

●	Major supply shortfall
●	Intermediate shortfall
●	Current supply meets or exceeds demand⁺
F	Fixed access broadband
M	Mobile service coverage

All locations have issues with **fixed access broadband services**. Most tourist spots appear to have adequate **mobile coverage**, but national parks and trails are underserved.

‡ Analysis combines operator and visitor user types.

⁺ Note that there are reservations, based on local mobile access experience, about the good coverage indicated by public coverage maps.

Analysis of transport blackspots

Road and rail transport corridors need good mobile coverage for continuous mobile connectivity. Sixteen transport corridors were analysed below:

Road Class	From	To	Mobile coverage
A	Colac	Mt Gambier	Coverage by all 3 carriers
	Horsham	Heywood	Coverage by at least 2 carriers
B	Wattle Hill	Allansford	Coverage by all 3 carriers
	Warrnambool	Mortlake	Coverage by all 3 carriers
	Cressy	Hamilton	Coverage by at least 2 carriers
	Hamilton	Glenthompson	Coverage by at least 2 carriers
C	Portland	Nelson	Partial coverage by all carriers only
	Portland	Casterton	Coverage by all 3 carriers
	Woolsthorpe	Heywood	Coverage by all 3 carriers
Rail (passenger)	Geelong	Melbourne	Coverage by 3 carriers
	Warrnambool	Geelong	Coverage by 3 carriers, in-carriage coverage needs to be verified
Rail (freight)	Maroona (Ararat)	Hamilton	Not relevant for passenger use
	Hamilton	Portland	Not relevant for passenger use
Airports	Portland		Coverage by 3 carriers
	Warrnambool		Coverage by 3 carriers
	Hamilton		Coverage by 1 carrier

Legend

- Major supply shortfall
- Intermediate shortfall
- Current supply meets or exceeds demand[+]

[+] Note that there are reservations, based on local mobile access experience, about the good coverage indicated by public coverage maps.

Next steps

The analysis and recommendations that have come out of the Great South Coast Digital Plan will form the basis of our Regional Partnerships' advocacy to the Commonwealth, Victorian and local governments, as well as industry and community groups in developing the future digital landscape of our region.

This Digital Plan highlights the region's current gaps in digital infrastructure and where our future demands may lie, bringing to light the areas where our efforts should be focused to bridge the digital divide. By addressing these priority areas, we will ensure our local residents, businesses and community flourish as the digital age continues to advance.

The Great South Coast Regional Partnership would like to thank the members of Great South Coast Regional Digital Plan Steering Committee who gave their time, thoughts and passion towards the development of the Great South Coast Regional Digital Plan.

Contact Us

If you would like to discuss the Great South Coast Regional Digital Plan please contact the Great South Coast Regional Partnership on:

E greatsouthcoast.partnership@rdv.vic.gov.au
T (03) 5561 9965

We look forward to hearing from you.

REGIONAL PARTNERSHIPS
GREAT SOUTH COAST