

Digital Strategy

Glenelg Shire Council & Southern Grampians Shire Council

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Date
2 May 2016



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1. The Digital Future

Digital technology is not just changing the *way* we do things, it is changing *what* we do. The future prosperity of communities is increasingly tied to their digital infrastructure, literacy and opportunities: the digital ecosystem. This section describes the new digital economy and society we will need to respond to, and why we need a Digital Strategy.

1.1 What is Digital?

Digital technologies are the tools that are enabled by computers and the Internet, especially broadband Internet connections. These tools are built upon established and emerging technologies such as smart phones, sensors, cloud computing, social media, video conferencing, data analysis and robotics.

1.2 How is Digital Changing the Economy?

Digital technology is redefining the structure of our national economy. Geografia has found that NBN access can drive productivity growth of up to 14% amongst Victorian businesses. Some of the key changes that digital technology is enabling, and those that we need to respond to, include:

- 1 The creation of new industries and jobs – such as programming, infrastructure engineering and user experience design.
- 2 The decline of many existing jobs – especially manual and repetitive tasks – with automation and computerisation. At the same time increasing productivity for many businesses.
- 3 The changing nature of work - with people working from home, on the road, and from afar. For the first time, many people are able to work from anywhere– connected by video and the cloud.
- 4 Access to new markets and customers, from anywhere in the world. This will increase opportunities but also competition.
- 5 The shift to new business practices. Businesses rely on innovation, agility and entrepreneurship for success. Business models that are slow to change are always at risk, particularly as technology and opportunities are continuously and rapidly changing.

1.3 How is Digital Changing Communities?

Digital is also changing the communities we live in – through the way we interact, and the structure of our social networks. It will:

- Increase social connections and opportunity. Technologies such as video conferencing and chat make it easier to connect with friends, family and community groups. Technology also allows new online interest or social networks to form, sometimes spilling over into the offline world. These new opportunities can be important to retaining youth in regional areas.
- Increase inclusion and social mobility, especially in remote and disadvantaged areas. Technology will help reduce the tyranny of distance, including unequal access to services.
- Make life easier at home, especially for those who are ageing or with a disability. For example, technologies such as health monitoring, electronic health care, and home automation will help the sick and elderly live happily at home for longer. This is especially important in more remote areas, where access to health services can be an issue.

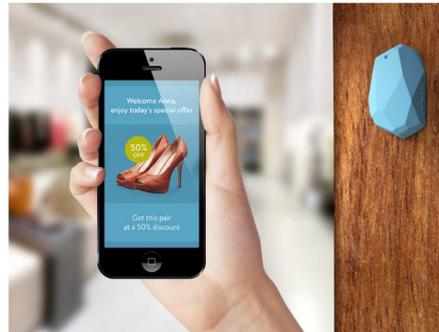


Table 1 Examples of the digital future



High speed broadband makes online musical collaboration possible for the first time. Websites such as musicianlink.com and ninjam.com provide software to enable musicians from anywhere in the world to play and record music together.

Young people in regional locations are less constrained by distance, and can join bands all over the world. Technologies such as this could help keep them living in regional areas. Low latency communications also benefit applications well beyond music.



The world of online and offline retailing is becoming increasingly blurred with digital technology. This trend is often referred to as omni-channel retailing.

Sensors on the walls of physical retail stores can be linked to smart phone applications. When a customer walks by the store, vouchers or specials can be sent to their phone. Alternatively, information about products can be provided to a customer within a store.



Local council services are increasingly moving online in Australia. Moreland City Council has provided customer service through video conferencing to people in their homes, and in community centres since 2013.

This is particularly useful for older residents who find it difficult to attend customer service counters at the council offices.

Other councils have moved planning and building permit services online, provide live streaming of Council meetings, and encourage citizens to have their say on budgets using online tools.



Technologies such as 3D printing (additive manufacturing) are fundamentally changing business practice.

For example, jewellery shops are using 3D printers to create the latest designs. Rather than holding excess stock, jewellers can 'print' more of the best-selling items, quickly responding to the latest trends, and testing the popularity of new designers.

This is one example of a wider trend toward more 'agile' business models that involve reacting quickly to consumer desires and trends.



1.4 How is Digital Changing Government?

Digital technology will allow government to do more with less, and better respond to the needs of the community. The opportunities for local government are not just about changing the way services are provided (e.g. offering traditional offline services online). Digital provides the opportunity to completely redesign government services from the ground up.

Some examples of the areas where digital is changing government services include:

- Encouraging online community participation – ensuring that decisions and services reflect the needs and views of the community.
- Increasing communication with constituents and between officers – using technologies such as video conferencing.
- Responding to issues or faults more efficiently through sensors or live reporting from the community.
- Providing information and data to the community to promote transparency and accountability.
- Reducing the cost of customer service transactions with the help of technology.
- Demonstrating the opportunities to local business and the community.

1.5 What is a Digital Strategy?

A Digital Strategy describes a pathway to take advantage of the opportunities in the digital age, enabled by high speed broadband

Internet. This Strategy identifies the opportunities in the Southern Grampians and Glenelg Shires.

Both Shires will benefit from the staged rollout of the National Broadband Network (NBN) in the coming years, and this will change the way our community uses the Internet, opening up new possibilities.

A strong local digital ecosystem will be needed to take full advantage of the NBN and traditional broadband Internet. A local digital ecosystem recognises that it takes more than infrastructure to realise these new opportunities. Also necessary are:

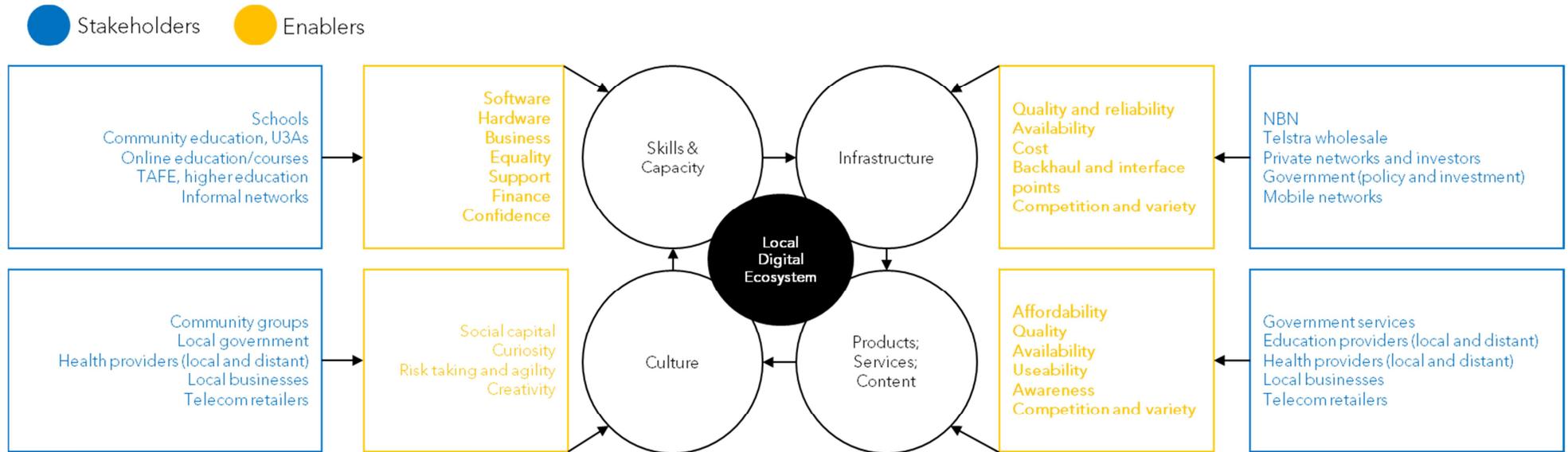
- **Skills and capacity** – technical ability, modern business skills
- **Culture** – leadership, entrepreneurship and curiosity
- **Products and services** – telecommunications product, online groups and sites
- **Infrastructure** – quality, speed, reliability and cost of Internet (Figure 1).

This Strategy focuses on how we can develop a strong local digital ecosystem. It provides a pathway for developing:

- A more digitally connected community.
- An economy that can rapidly respond to the business opportunities in the digital area.
- Council leadership in providing digital services for the community.



Figure 1 The four dimensions of a healthy local digital ecosystem



2 Where Are We Today?

Before developing a Strategy, we need to take stock of our existing local digital ecosystem. This section details where we are at today in terms of our key issues, our digital infrastructure, skills, culture and product mix.

2.1 Key Social and Economic Drivers

Digital technology can help address some of our social and economic challenges and opportunities, including:

- **Ageing population** - Our communities are ageing faster than the Victorian regional average. This has implications for productivity, social isolation, health and services access.
- **Remoteness** - some of our towns are remote with poor access to many services; something technology could help.
- **Tourism** - there is potential for tourism growth and technology plays an important role in tourism markets.
- **Agriculture** - is our key export, and could benefit from significant productivity increases on the back of digital.
- **Strong community capital** - our towns benefit from strong online and offline networks. New digital technologies provide an opportunity to enhance these social connections.
- **Population growth** - some towns continue to shrink. Working from home or remotely might create new opportunities.

2.2 Infrastructure and Connectivity

Full details of all infrastructure issues are provided at Appendix A-B.

The NBNCo has rolled out fixed wireless Internet to some smaller towns, including Dunkeld and Balmoral. The periphery of major centre such as Portland, Hamilton and Heywood also has access to fixed wireless NBN.

It is expected that Hamilton, Portland, Casterton and Coleraine will receive fibre to the node (FTTN) services through 2016 and 2017¹. There are no planned NBN Points of Interface (PoIs) and this will limit the opportunity for regionally serving data centres or cloud services. NBN services in Southern Grampians and Glenelg will be routed through the Horsham PoI.

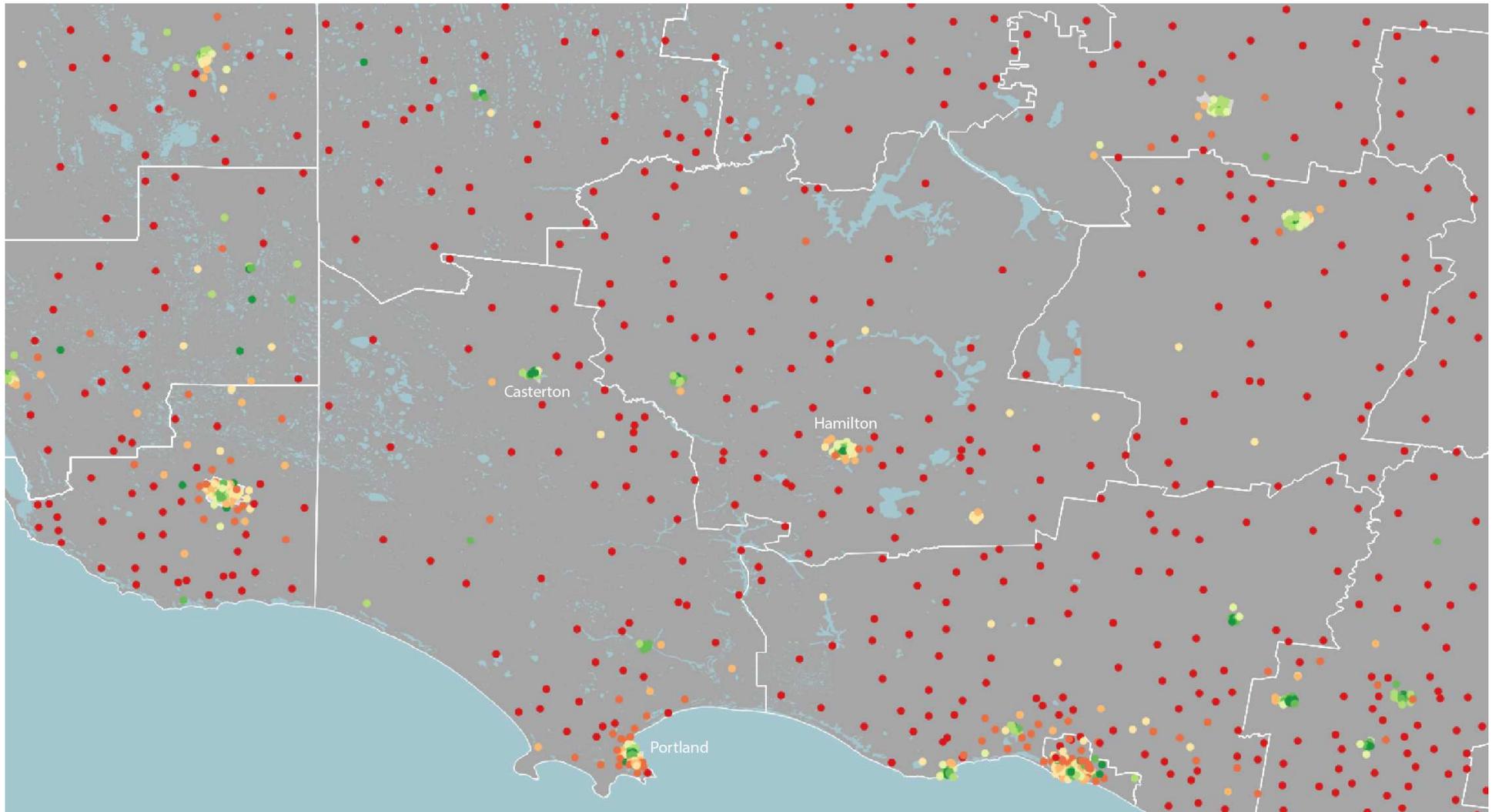
Both Shires are in the slowest 30% of average ADSL speeds in regional Victoria, although speeds vary significantly across the Shires: larger towns are generally faster (Figure 2). The Digital Strategy will need to respond to this.

Outside of the Telstra and NBN networks, there is no private or large-scale 'dark fibre' evident in the areas. Unusually, the Shires are one of the few areas that are not connected to the VERNet - a high speed network for education and health services.

Many residents and businesses rely on 3G/4G services for Internet access, either on the road or on farms. There are many reported 3G/4G black spots across the two shires, significantly impacting on opportunities in more remote farming communities and small towns.

¹ Correct as at February 2016.

Figure 2 Fixed broadband (ADSL) speeds by Telstra Distribution Area (Geografia, 2015 based on Department of Communications, 2014)



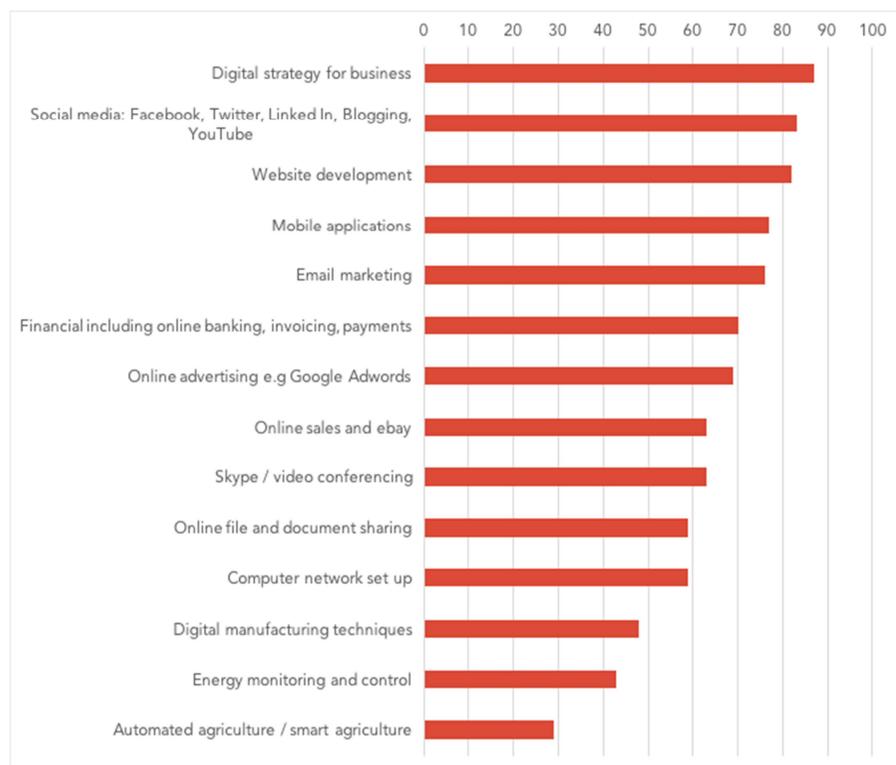
Red dots = slower ADSL speeds, Green dots = faster speeds



2.3 Digital Skills and Capacity

The consultation and surveys helped reveal the level of existing digital skills and capacity within the regional business community, residents and youth (Figure 3). Key skills and capacity gaps noted through the survey and consultation include: digital strategy for business; social media; website development; mobile applications; online financial tools; and email marketing. These should provide the focus of future capacity building programs.

Figure 3 Key digital skills gaps reported in business survey (%)



2.4 Product and Service Mix

Consultation with businesses and the community was held online (surveys, competitions) and through in-person workshops in mid-2015. A full summary of business and community survey results is provided at Appendix H. This helped reveal existing digital usage patterns and potential gaps and needs.

The most popular digital products and tools used by businesses in Southern Grampians and Glenelg include email, business websites, accounting and financial cloud services, social media and digital marketing. Details of digital product use in the local area compared to national averages is shown in Figure 4. National figures are sourced from Alcatel Lucent's Smart Digital Connected Research Report.

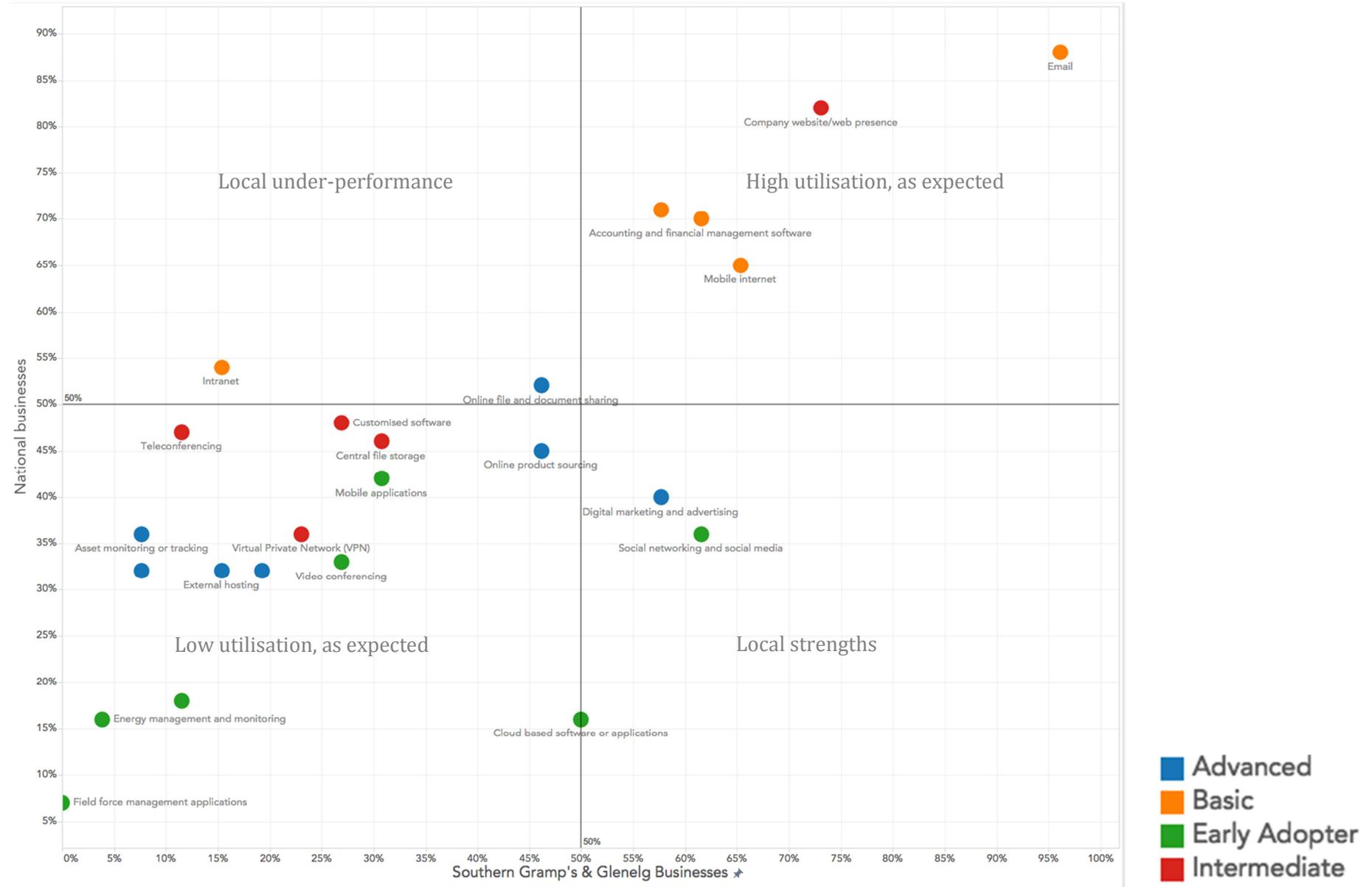
Although there is high social media use across businesses in Southern Grampians and Glenelg Shires, many workshop participants and survey respondents noted there are many other businesses that lack many skills in these areas, and that this requires attention.

There appears to be a local shortfall in the use of productivity and security oriented digital business services – such as intranet or online (cloud based) file sharing systems. Productivity enhancing opportunities from digital technology should be a focus for business servicing.

The lack of local service providers in Glenelg and Southern Grampians (with cloud computing and business system expertise) is likely limiting uptake of these productivity tools. Similarly, slower Internet speed is limiting the ability to use these tools.



Figure 4 Digital business product utilisation matrix - Southern Gramp's/Glenelg business v national



There are a number of places and services where residents and business can acquire new technology skills. These include public libraries, community and adult education providers, and U3As. Not all local high schools operate specific technology classes, which will limit the ability for youth to develop the skills required in a digital economy over the longer term.

Many existing businesses also possess existing skills in some of the key gap areas identified above. Consequently, there is an opportunity to explore how skills might be shared between different businesses through services, mentoring or peer to peer support.

Within the local community, there is significant interest in making better use of digital health services, including accessing further learning opportunities in this area (see Figure 5 and Figure 6). Given the existing capability of local health services in the area, and the need to respond to an ageing population, this provides an opportunity to focus on for extending digital services and capacity.

Other areas of interest to the community, for developing their digital capacity, include:

- **Internet security and privacy** – a large proportion of survey respondents indicated they have anxieties regarding these issues, and this creates a barrier to full utilisation of digital.
- **Basic programming and app development** – there are not currently any opportunities to learn these skills within Glenelg and Southern Grampians Shires.
- **Selling and buying goods online** – through online marketplaces, and to generate additional income.

Figure 5 Community members interest in learning about digital

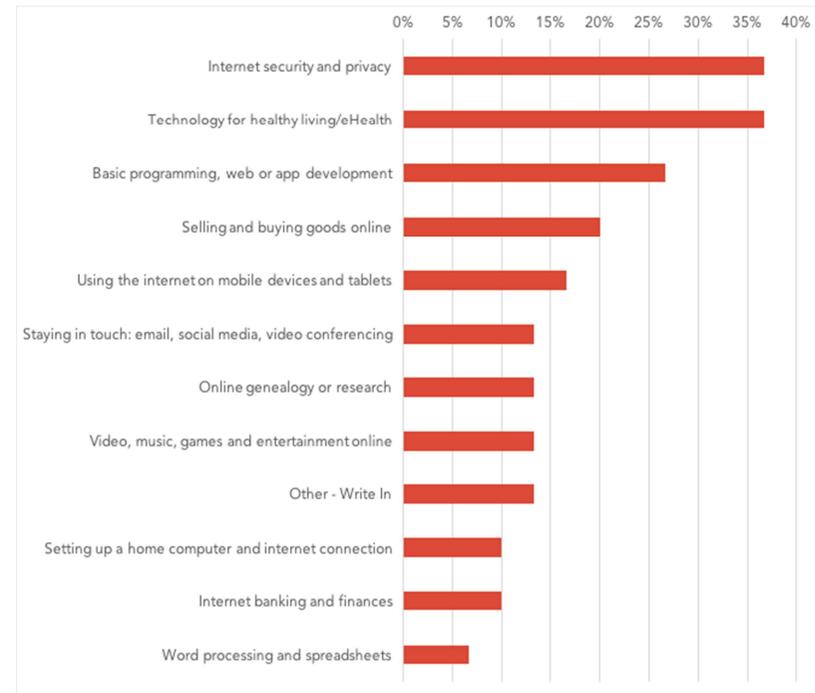
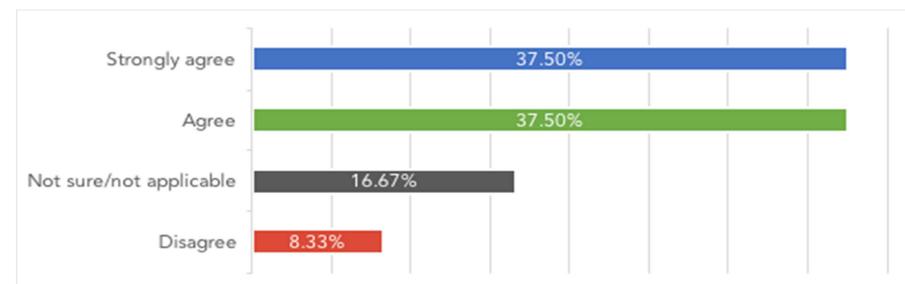


Figure 6 I would feel comfortable accessing specialist medical services online? (local residents)



2.5 Local eGovernment

Local councils play a leadership role in the transition toward a digital economy and community. Digitised council services not only make life easier through efficiencies for both council officers and the community; they also make help demonstrate the possibilities of digital services to the local community, and the digital culture of a place to outside investors.

A detailed audit of eGovernment services in Glenelg and Southern Grampians Shire is provided at Appendix D. This has been informed by workshops with a cross-section of council staff.

Some of the key strengths for Glenelg and Southern Grampians Shires, when compared to other similar councils include:

1. Online web mapping
2. Social media use and audience
3. Electronic contact/enquiry forms

Some of key areas of improvement for the two councils include:

- 3 Online community engagement – allowing residents to have their say online.
- 4 Providing content for mobile phones (e.g. responsive web sites, mobile apps). Community expectations about accessing information online, from anywhere using phones continues to grow. This is especially important in some key markets (e.g. tourism).
- 5 Expanding digitised services, such as online planning permit/building permit tracking and submission.

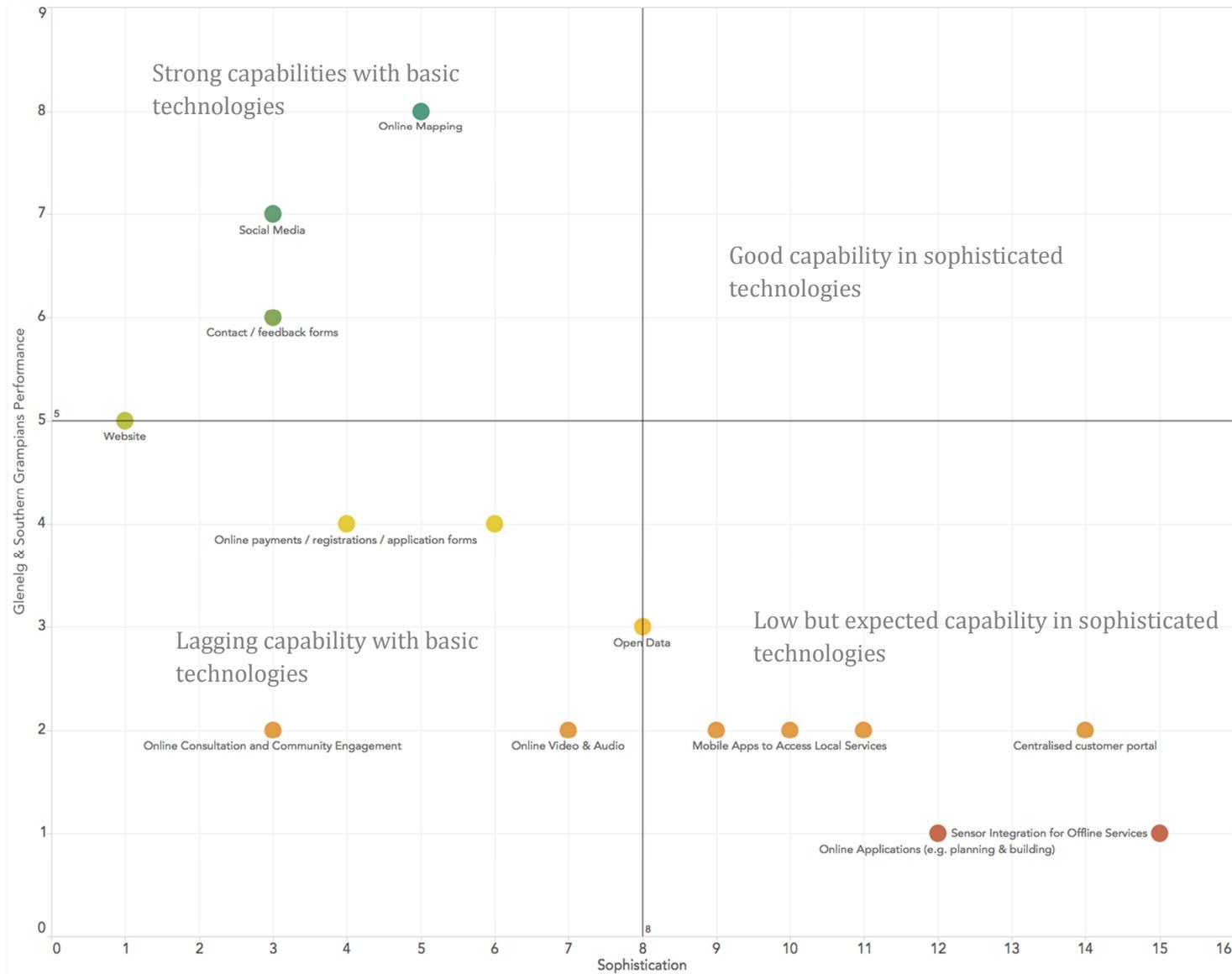
A visual summary of both the capability of the councils (considered together) is provided at Figure 7, overleaf.

Within both councils, the responsibility for digital services and enablement lies across many different actors/departments – such as information technology, communications, economic development, and finance. One of the challenges lies in coordinating digital efforts across the organisation. Some other councils have developed eGovernment portfolios to help provide this guidance – recognising that digital government is not just about technology, but also the redesign of services and cultural change.

The workshops with Council staff suggested there is a strong support internally for improving online services, and developing a digital culture within both councils. There is a critical mass of staff in each Council that could drive wider digital evolution.



Figure 7 Glenelg & Southern Grampians eGovernment capability-sophistication matrix



3. Vision: A Digital Economy and Community

Our vision is for Glenelg and the Southern Grampians to be leaders in the digital economy and, through this, ensure our economies are resilient and our communities connected. The vision details how our digital future should look, and how we can measure whether we are on track toward building a healthy, digital ecosystem.

3.1 Our Vision

By 2025, Glenelg and Southern Grampians will be leading examples of successful digital economies, communities and local governments in regional Australia. Digital technology will have helped to create a resilient economy, and connected community. Our councils, in partnership with businesses, the community, and services providers, have developed a healthy local digital ecosystem that embraces digital change. This will be underpinned by enhanced digital infrastructure, and by stronger digital skills in our community.

3.2 Key Partners in a Digital Ecosystem

A healthy digital ecosystem cannot be developed by our councils in isolation. The wider digital ecosystem needs to be cultivated by a mix of partners, including:

- **Local education providers** – schools, adult and community education providers, and skills groups.

- **Local health services** – given the significant opportunities to enhance health outcomes through digital technology.
- **Local businesses** – who can share skills and experiences, and stimulate demand for digital.
- **The community** – who can share skills, content and applications for digital technology.

Partners in our digital ecosystem also extend beyond local groups. The beauty of digital is that it reduces the impact of distance. Key digital services (e.g. cloud services, internet service provision, online education) will continue to be provided from outside our local area. Exploring partnerships, wherever relevant, with outside groups should be promoted as part of the embrace of the digital era.

Connecting and leading these partners should be the role of councils. There are no other stakeholders that have the mandate or networks to help coordinate a response toward developing a local digital ecosystem.



3.3 Progressively Developing the Ecosystem

This Digital Strategy recognises that, in some areas, our communities are moving more slowly towards digital than other parts of Victoria. This is due to our infrastructure gaps, and limited local service availability. In the first years of the Strategy, the focus should be on developing the basic building blocks of a digital ecosystem, and then developing more sophisticated products, services and ideas as local capacity and confidence is developed.

The basic building blocks that should provide the focus in the short to medium term include:

- **Basic Internet infrastructure** – exploring opportunities to bring forward investment in critical Internet infrastructure.
- **Basic skills** – continuing to develop foundation skills for business and the community participate in the digital world.

3.4 Monitoring Digital Outcomes

To ensure we are on track to achieve our vision for a digital ecosystem, it is crucial that progress is monitored. The proposed indicators in Table 2 will help us do this. Baseline data is now available for these indicators, and can be regularly reviewed (ideally on a biennial basis). Measuring progress toward these goals will ensure that the Digital Strategy is adjusted as necessary to respond to changes, and helps to promote accountability for our digital future.

Table 2 Key performance indicators for our digital ecosystem

Key performance indicator	Data source/updates
• Broadband uptake	ABS Census (see Appendix B for baseline)
• Average Internet speeds	Department of Communications (see Appendix B for baseline)
• Digital adoption by local business	Regular business survey (see Section 2.2. for baseline)
• Community attitudes toward technology	Regular community survey (see Appendix F for baseline)
• Council adoption of online technologies	Regular audit of online Council services (see Section 2.4 for baseline)

3.5 Strategies and Actions

The remaining sections outline the strategies and actions that will help achieve the vision. **Strategies** provide high level directions and principles. They represent a long-term commitment and help coordinate our **actions**. Actions describe specific programs, interventions and investments, which, combined, will work towards the achievement of our digital vision.



4. Focus A: Enabling Infrastructure

Basic infrastructure is crucial to enabling a digital local ecosystem. Existing provision and the current NBN roll-out plan are insufficient for stimulating local digital development.

Larger towns such as Casterton, Coleraine, Hamilton and Portland are now expected to gain access to the FTTN (fibre to the node) technology from the NBN in 2016 and 2017. Opportunities to take the most advantage of this rollout, and build a competitive advantage relative to other regional centres, should be explored.

In and around smaller towns and more remote areas, the main challenge is access to 3G and 4G Internet (through mobile phone networks). These are critical to allowing these areas to take advantage of emerging trends, such as the Internet of Things, which are enabling everything from smart farming and precision agriculture to digital health. Without this basic connectivity for machine to machine communication the digital divide will grow between these areas and larger settlements. This will have negative social (e.g. health) and economic (e.g. productivity) impacts.

4.1 Strategic Directions

Direction	Rationale
Prioritise the development of basic 3G/4G Internet access in remote areas of our Shires.	3G and 4G (as opposed to satellite or fixed wireless access) will be critical to enabling smart farming and digital health in remote areas (both of which rely on Internet of Things connectivity)
Explore the desire and benefit for businesses and community members to transfer from fibre to the node (FTTN) to fibre to the premise (FTTP) technology as part of NBN's 'technology choice' program	Greater benefit will come from FTTP technology being implemented in our major centres, especially in commercial precincts. Businesses and community members in central areas could choose to implement FTTP under the 'technology choice' program, but this will require organisation.
Plan ahead to ensure basic infrastructure can be installed efficiently over the longer term.	Remove major impediments (planning and cost) to future Internet infrastructure investment.
Advocate strongly for investment in infrastructure according to the above priorities.	There remains a place for advocacy to infrastructure and service providers – NBN, Telstra, and the state government.



4.2 Actions

	Action	Stakeholders	Priority	Geography
1	Lay the groundwork for NBN and mobile tower rollouts through: <ul style="list-style-type: none"> • Laying conduit during Council asset maintenance projects (e.g. roadworks) wherever relevant to aid future fibre roll outs. • Record the location of assets and infrastructure through surveys, GIS or other means, wherever possible, to aid future roll outs. • Streamline or prioritise planning permit application procedures for telecom infrastructure roll outs. 	SGSC, GSC	High	Everywhere
2	Prepare a public WiFi plan for main streets/attractions in major tourist towns. Consider whether it is appropriate to work alongside Telstra or other providers as part of their semi-public WiFi roll outs (e.g. Telstra Air). Consider whether paid WiFi access might supplement poor ADSL access for business in some areas. This would require investment in improved connectivity (e.g. cable or microwave) between WiFi sources and exchanges to provide alternative services at a better speed than ADSL. Consider the role and capacity of public WiFi during large events (e.g. Sheepvention, Kelpie Festival, cruise boat arrivals)	SGSC, GSC, Telstra, local businesses	High	Portland, Hamilton, Dunkeld, Casterton
3	Explore opportunities with Optus, Vodafone and NBN to provide mobile phone connectivity more cost effectively in small and medium sized towns along NBN backhaul routes using NBN backhaul infrastructure.	SGSC, GSC, NBN, telcos	Medium	Casterton, Heywood, Coleraine
4	Explore the opportunities and desire for transferring from FTTN to FTTP technology under the 'technology choice' for commercial areas in Hamilton and Portland before the NBN is rolled out in 2016/17. There will be some cost to local businesses to use the higher benefit technology. However, funding opportunities from RDV might be considered, given substantial advantages of this technology.	SGSC, GSC, NBN, Chambers of Commerce	Medium	Hamilton, Portland
5	Continue to advocate for improved telecommunications access (mobile Internet and NBN) through local members, to government, and to service providers.	SGSC, GSC	Medium	Everywhere



5. Focus B: Digital Local Government

The provision of government services online saves time and money for both ratepayers/businesses and our councils. It also provides an opportunity for digital leadership in our region, showing what is possible and how to do it.

The Council workshops revealed a significant interest from staff in shifting toward more online services. Community and business consultation also revealed a desire for more Council services to be provided in digital forms. At the same time, there was concern that legacy/offline systems need to be continue to be provided.

Digital technology also has the opportunity to completely redesign Council services. For example, mobile applications that allow residents to report maintenance issues to Councils not only increase the efficiency of Council maintenance operations, they can also provide real-time feedback to community members about when a maintenance request is complete, thereby increasing ratepayer satisfaction. Similarly, online community engagement is a key means to allow communities to have their say about Council decisions and direction.

To be successful digital organisations, cultural transformation will be important. Some other local governments have adopted a 'digital first' paradigm, where the digital opportunities and consequences are considered as part of all decisions in Council procedures. Other local governments have stimulated transformation through creating eGovernment or service transformation roles. This may be a longer term direction for Glenelg and Southern Grampians Shires. In either case, it is important that local government is empowered to respond promptly and expertly to digital opportunities.

5.1 Strategic Directions

Direction	Rationale
Increase the number and variety of Council services that are available online, while maintaining off-line or 'low tech' services that respond to the needs of our diverse community	<p>There are growing community expectations about services moving online. Online services also provide the opportunity to significantly enhance operational efficiencies.</p> <p>Our Councils can lead by example – demonstrating to business and the community the advantages of online service delivery and literacy.</p> <p>Improving Council capacity in this area, and providing online service to the community will also build digital capabilities among staff and the community.</p> <p>Given the ageing population and lower levels of technical literacy in some areas, maintaining off-line or 'low tech' services is also crucial.</p>
Use digital technology to promote Council transparency, engagement with, and accountability to our community.	The efficiencies of technology can help promote a constructive, accountable relationship between councils and communities/businesses. It provides the opportunity for more genuine interaction and engagement between these groups.
Adopt a digital first attitude / cultural change focus across our organisations. This recognises that digital is more than	For digital to have a disruptive effect on Council services, there is a need to move beyond a purely technical view. A transformative approach, that considers



facilitating technology, and that it involves everybody in an organisation having the capacity to recognise and respond promptly to opportunities.

technology in partnership with service design would have a much larger impact on service provision and social/economic outcomes.



5.2 Actions

	Action	Stakeholders	Priority	Geography
1.	Develop a digital channel strategy for Council and resource it's implementation. Effective use of online digital communications is a relatively mature, sophisticated process and requires a sufficient level of expertise and resourcing. Resources allocated to assist with the transition to these digital channels should also build Council staff digital capabilities.	SGSC, GSC	Medium	Everywhere
2	Develop a strategy for video conferencing within both councils that considers where it might be used within customer service functions, meetings with suppliers and planning applications or outside investors. This may also involve setting up video conferencing tools in smaller town community centres or libraries. At the same time, consider the role of the video conferencing technology in making Council meetings available, either live or recorded. Video conferencing would be particularly relevant for allowing residents in smaller, distant towns (e.g. Casterton) to participate in Council meetings and affairs.	SGSC, GSC	Medium	Everywhere
3	Plan and implement open data programs in each Council, releasing data sets onto the data.vic.gov.au platform to ensure resource efficiency and consistency with other local government areas releasing data.	SGSC, GSC	High	Everywhere
4	Explore the joint procurement of an online community engagement platform for both councils. This provides a 'one stop shop' for community members to have their say on Council plans and proposals, while minimising costs. It would fill a gap in current online engagement, and allows Council to build up an online community to provide input into decision making.	SGSC, GSC	High	Everywhere
5	Develop a digital mentorship scheme with Code for Australia, or another relevant organisation. This scheme should focus on young people or students from the area developing digital solutions for local government and the community, with help from external groups such as Code for Australia. Explore the use of Council open data in this scheme.	SGSC, GSC	Medium	Everywhere
6	Explore the potential to procure and rollout ready-made, cost efficient mobile apps designed for local government service provision, such as 'Snap, Send, Solve' to increase service efficiency and accountability.	SGSC, GSC	High	Everywhere
7	In the medium to longer term (5+ years), consider establishing service transformation roles or portfolios within the councils that specifically focus on	SGSC, GSC	Medium	Everywhere



service redesign and efficiencies, coupled with technology.

8	Consider a target for introducing one new, online service for ratepayers every two years. Consider joint development of procurement of these services between the two councils to promote efficiencies.	SGSC, GSC	High	Everywhere
9	Ensure there is flexibility in the resource allocation and decision-making in Council to respond to new digital opportunities as they arise.	SGSC, GSC	High	Everywhere



6. Focus C: Building Digital Capacity

Building new skills, culture and interest in digital technology will be critical to a functioning local digital ecosystem. When building the capacity of businesses and community, there is a need to recognise that people are starting from very different levels, and that skill development should be highly relevant to the audience.

Existing services that help the community and business build their digital capacity include public libraries, community and adult education providers, and U3As. Not all local high schools operate specific technology classes, which may limit technical abilities amongst a key group – younger people.

The survey and consultation results suggest that the key skills development areas for our community (residents, as opposed to businesses) include NBN signups and package comparison, digital health, security and privacy, basic programming and app development. There are currently limited opportunities in the local area to explore some of these topics, or receive in-person training.

A large barrier to reaping benefits from the NBN in areas that are currently serviced by it, is confusion about how it works, and how to select a provider or package. There may be a role for our councils in disseminating information about these choices, and how to make them – through brochures or customer service staff/librarians. Many community members reported not trusting commercial providers to help them make decisions about the best package for their needs.

6.1 Strategic Directions

Direction	Rationale
Recognise that basic digital skills, knowledge, confidence and interest is a significant barrier to digital development.	For much of the community and business – very basic skills require development prior to more sophisticated skills development.
Recognise there is a need to build interest in and motivation around digital technology amongst our communities.	There appear to be lower levels of interest in digital technology and its opportunities compared to some other communities. Building interest will be a key factor of digital success.
Prioritise building the digital skills and interest of younger people in our communities.	Younger people are often more willing and have a greater receptiveness to new technologies, and represent the future of the community and economy.
Promote peer to peer learning within our communities.	Embrace resource and budget constraints in skills development – promote peer to peer learning.
Create physical focal points for digital skills development and support.	Create physical spaces that people can gravitate to, to help build their digital capability
Focus skills development programs on the relevant interests of different groups.	Ensure training and demonstration programs are most relevant to each individual group (e.g. demographics, industries) to evoke interest. Appendix I provides ‘personas’ of user groups to assist with this.



6.2 Actions

Action	Stakeholders	Priority	Geography
1 Publish and disseminate information regarding how best to choose an NBN provider and package for residents and businesses. Consider inviting residents to discuss their options with trained librarians or Council customer service staff.	SGSC, GSC, NBN	High	Areas with NBN access
2 Discuss the opportunities and impediments for high schools currently without computer programming and digital media classes to introduce classes in these areas. Consider whether special funding streams might be available to provide young people with this opportunity, or through 'roaming' teachers shared between schools. These higher level technical skills will be increasingly important to participating in the new, digital economy.	SGSC, GSC, Schools, DEECD	High	Everywhere
3 Consider funding a well-considered marketing campaign or community development program that encourages digital participation amongst our community. This should ideally focus on younger adults. Personas developed in Appendix I provide a basis for targeting these groups in a way that is relevant to their needs. The UK's 'Get More Out of Life' digital campaign provides a good reference for a comparable program. A one-off 'digital expo' that travels to all towns in the region to provide a 'hands on' demonstration of new technologies could also be explored.	SGSC, GSC, schools	Medium	Everywhere
4 Explore the design and funding requirements for a peer-to-peer learning program for technical skills. This recognises that there are existing skills in our community, but they are not often visible. Moreover, they would benefit from structured support for teaching skills between individuals. The UK's 'Digital Ages' program provides a model for intergenerational peer to peer learning.	SGSC, GSC, training providers	High	Everywhere
5 Publish all digital learning programs/opportunities online onto a single website, then market/advertise this website. Currently it is difficult for community members to find information about opportunities in a single place.	SGSC, GSC, training providers	Medium	Everywhere
6 Prioritise public libraries as public spaces that play a key role in digital skills development and capacity building amongst residents. Continue to train library staff in digital technologies so that they can offer support to residents.	SGSC, GSC, libraries	High	Everywhere
7 Organise skills development programs in the libraries for residents that focus on digital security and privacy, digital health promotion, and introductions to programming.	SGSC, GSC	High	Everywhere



7. Focus D: Digital Industry

Digital technology provides an opportunity for businesses in Southern Grampians and Glenelg to access new outside markets, promote local expenditure, and increase operational efficiencies. The current barriers to our industry realising the benefits of digital are the local availability of suitable skills, infrastructure, industry networks and contemporary business spaces.

Consultation with local businesses and business surveys reveal that many local businesses are embracing digital change, and adapting their business models accordingly. However, anecdotally, there are also many local businesses that are underprepared. These less prepared businesses are unlikely to have participated in this consultation process, and are difficult to engage around digital opportunities.

Leveraging the existing skills in our business community – with local businesses that are themselves experts in social media, mobile app development and 3D printing – should be promoted. This will ensure training and capacity building remains cost-efficient, while making the best use of existing industry networks.

There is a need to promote cultural change amongst local businesses. Specific actions for three key sectors that are expected to be either growth or wealth generating sectors (health, agriculture and tourism) are proposed. These programs will help to shift digital culture within these industries, and to act as digital demonstrations to local businesses.

7.1 Strategic Directions

Direction	Rationale
Create physical spaces that are well suited to business needs that can accommodate digitally enabled, modern small businesses.	There are limited suitable spaces for these types of businesses in Portland and Hamilton.
Position smart agriculture and digital health as key industries which will be the focus for digital enablement.	These sectors are comparative advantages for our economy, and potentially high growth industries. There is a unique opportunity to become a leader in these areas due to our existing institutions.
Prioritise digital opportunities for the tourism sector and related businesses.	Digital technology is particularly important for the prosperity of the tourism sector, given the digital sophistication of tourists and the role of mobile and Internet as the key information medium for visitors.
Encourage peer-to-peer learning for business digital skills.	Embrace resource and budget constraints in skills development – promote peer to peer learning between businesses as well.



7.2 Actions

	Action	Stakeholders	Priority	Geography
1	Plan and deliver a program of capacity building workshops for business around: <ul style="list-style-type: none"> • Digital strategy development for small business • Social media – potentially drawing upon existing social media business talent within our communities. • Website and app development introductions/project management. Design a peer to peer learning model, to complement formal trainers from the outside, to help deliver this program.	SGSC, GSC, businesses	High	Everywhere
2	Develop tourism/visitor targeted ‘splash screens’ for our public and visitor WiFi networks that advertise local businesses, attractions, and services (as an expenditure stimulation initiative). Invite private businesses with WiFi (e.g. hotels, caravan parks, restaurants) to roll out and benefit from these splash screens as well.	SGSC, GSC, businesses	Medium	Everywhere
3	Explore support for developing local app’s specific to tourist towns that help visitors explore local attractions, heritage, and businesses. Consider integrating beacon technology into these applications to help merge the offline and online worlds, and provide a differentiated experience for visitors.	SGSC, GSC, businesses	Medium	Portland, Dunkeld
4	As NBN and mobile Internet access improves across the more remote parts of our Shires, consider the opportunity become a leader in remote/on-farm digital health provision. This could involve a research and trial partnership for on-farm remote health monitoring, in partnership with our local health services. Complement this program through the integration of Council services (e.g. videoconferencing for MCH services)	SGSC, GSC, hospitals and health services	High	Farming areas
5	As NBN and mobile Internet access improves across the more remote parts of our Shires, consider the opportunity become a leader in smart livestock/sheep agricultural practice. This would require a partnership between local farmers, a local education provider such as RIST, and a University with experience in the area.	SGSC, GSC, farmers, education providers	Medium	Farming areas

8. Localised Initiatives

Figure 8 maps location specific initiatives proposed in previous three sections. Initiatives that apply to the whole of a municipality are not included.



Figure 8 Location specific proposals

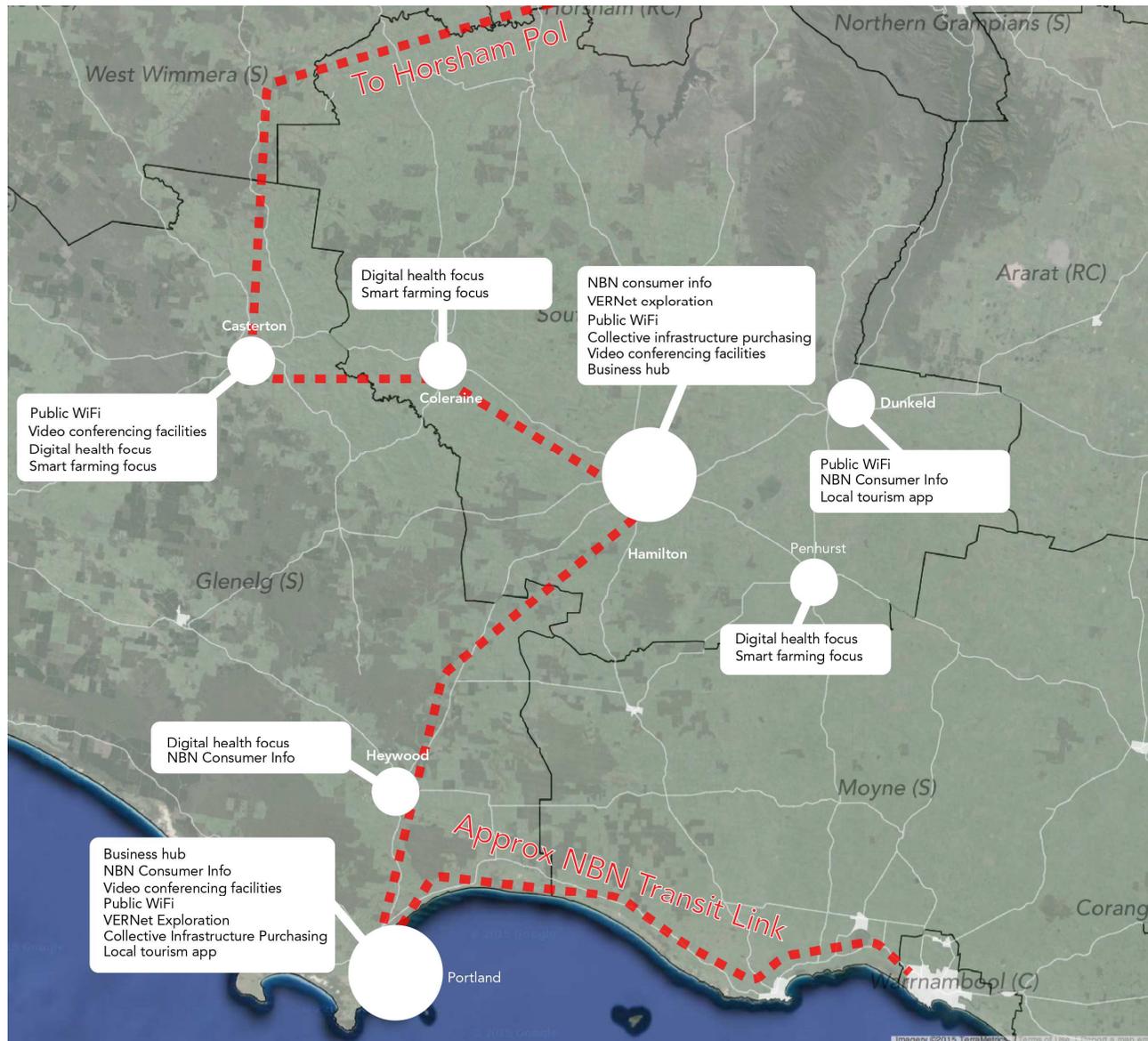
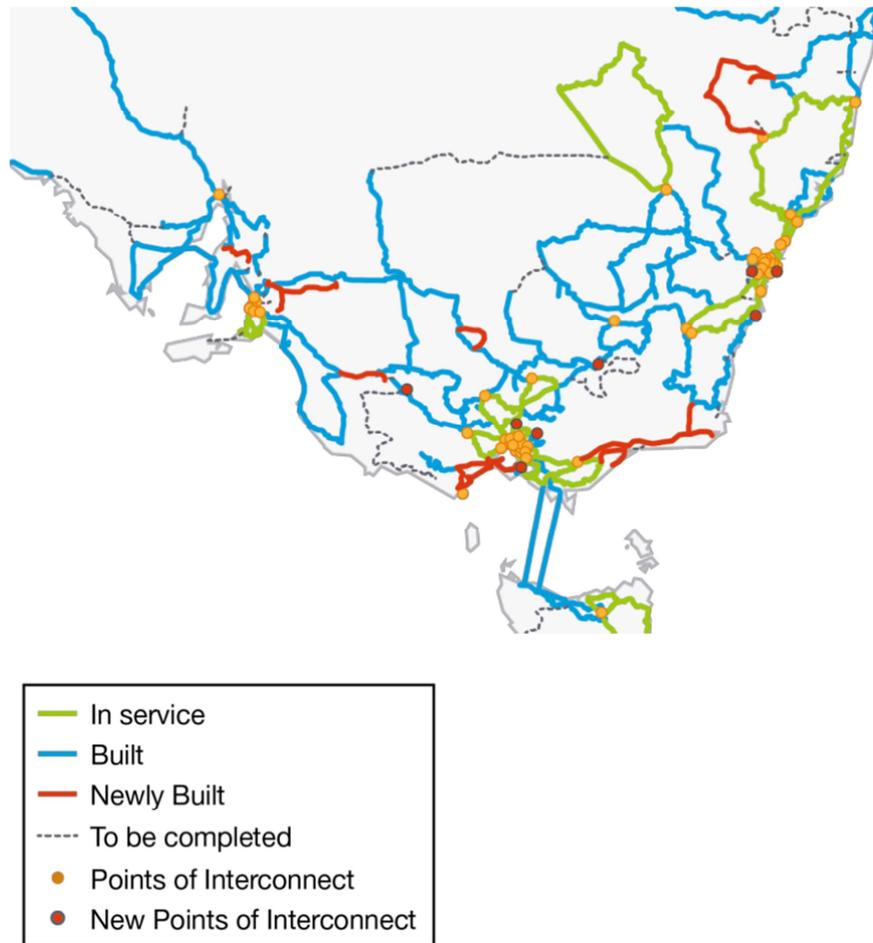


Figure 10 NBN Transit Links (NBN Co, 2015)



Alternative Fibre Networks

- VERNet is a fibre network that operates between education facilities and hospital/health facilities across Victoria. It also links to the wider Australian network of research, education

and health facilities (AARNet). Speeds are provided between 1Gbps and 100Gbps. It provides services to higher education, health, school and research organisations. Agreements with suppliers mean that the network is generally limited to provision within these sectors. Both Glenelg and Southern Grampians Shires are not connected to the VERNet. The nearest centres with provision are Ballarat, Horsham, Stawell and Warrnambool (expanded to Deakin University in 2013).

- NextGen Regional Backbone Blackspots Program (RBBP) is a Commonwealth Government supported network of backbone transmission links across regional areas of Australia. NetGen sells use of the network to wholesale providers (such as Internet Service Providers). It appears that the closest connections to the RBBP are at Mount Gambier in South Australia. The network does not extend through Glenelg and Southern Grampians Shires.
- The South West Alliance of Rural Health (SWARH) operates a network (providing connections into hospitals and health clinics in the region). The network is largely based on the Telstra network (passing through the Telstra exchange system). There are some fibre links between major health facilities and local exchanges to gain connectivity.
- Aussie Broadband previously provided radio link based broadband across the region. Customers are now being transitioned to the fixed wireless NBN network, with Aussie Broadband operating as a retailer.

ADSL Capacity

- In lieu of NBN access in many of the major centres in Southern Grampians and Glenelg, it is important to consider the availability of first and second wave broadband services. For most customers, these are provided through ADSL services



(ADSL1 provided through 8Mbps enabled ports, and ADSL2 provided through 20Mbps enabled ports).

- An analysis of spare ports under each category is provided in the following table. It shows available capacity in most of the non-NBN serviced centres. However, Portland lacks ADSL2 ready ports at the local exchange. Telstra has advised that there is a plan to rectify this capacity issue at Portland.
- Telstra has noted that there are few backhaul congestion issues in the region. There are only intermittent problems at smaller exchanges and sub-exchanges, which are not impacting large areas.

Table 3 ADSL port capacity at major exchanges (Accessed August 2015)

Exchange	ADSL2 Capable	ADSL1 Capable	Total Ports Available
Hamilton	348	0	348
Heywood	11	0	11
Portland	0	256	256
Dunkeld	0	0	0
Casterton	7	350	357
Coleraine	153	0	153
Glenthompson	0	0	0

Mobile Networks

- Mobile networks are important for the provision of Internet access while people are away from home or their business. However, mobile data can also be used for broadband access in homes or businesses that might not have adequate access through other forms (such as NBN or ADSL2). Connections through mobile data networks can often be expensive and less

reliable, and therefore are generally a secondary option. There are significant portions of Glenelg and Southern Grampians Shires that experience 3G/4G black spots (areas that do not have a reliable mobile phone signal that can provide data services).

- The Federal Government has recently contributed funding toward several mobile phone towers in areas that are experiencing black spots in Southern Grampians and Glenelg. This will provide partial relief to some areas.
- Mobile phone operators such as Vodafone have recently begun negotiating with NBN to access the NBN’s backhaul infrastructure in regional areas where they do not yet have a presence. This would allow these companies to more cost effectively service areas such as Southern Grampians and Glenelg, and therefore increase consumer choice and competition in the local market.
- It should be noted that it is not possible to achieve 100% reliable, mobile coverage in many regional areas, especially those with low population densities and topography issues. Consequently, the mobile networks cannot provide a reliable, cost-effective infrastructure to support the data needs of many community and economic digital applications in more remote areas (such as sensor technology on farms).

Current Major Users

- Hospitals and health services in the region are interconnected using the SWARH network – used for data intensive applications such as video conferencing, the sending of imagery, and managing patient data. This network is a Wide Area Network (WAN) that still largely requires Telstra infrastructure access in Southern Grampians and Glenelg. There are fibre links between some Telstra exchanges and major health facilities.



- Education. Our understanding is that local schools and TAFEs largely rely on traditional copper networks, such as ADSL.
- Councils. Our understanding is that councils largely rely on traditional copper networks, such as ADSL.
- Major Industry. Discussions with telecommunications retailers active in the area did not reveal any knowledge of private fibre or other investment in private networks. It is likely that most large businesses rely on a mix of ADSL, mobile networks and, in more remote locations, satellite.

Public WiFi

- Public WiFi is limited in the region, and provided for free from council library facilities. In addition, some businesses provide WiFi to customers.
- Our understanding is that Telstra Retail has not yet rolled out the Telstra Air scheme within the region using their own infrastructure as hot spots (such as public telephones).



Appendix B: Digital Access & Quality

- Data on broadband penetration and quality provides a baseline profile of digital access in Southern Grampians and Glenelg. Using this baseline profile, we can track how our community accesses and uses Internet connectivity over time. Figures are compared to other regional councils in Victoria, to understand how Southern Grampians and Glenelg place amongst peers.
- The 2011 Census shows that Glenelg and Southern Grampians have similar broadband uptake rates (ADSL1 or faster) to the regional Victoria average (see Figure 11). However, modelling undertaken by Deloitte (see Figure 12) shows that the two Shires both have low uptake of second wave broadband (ADSL2 or faster). This suggests that a large number of broadband subscribers in Glenelg and Southern Grampians remain on first wave broadband (ADSL1). This is likely driven by limited availability in more remote areas, and lower levels of consumer interest in higher speeds.
- This trend is also captured in Figure 13, which shows that average ADSL speeds in Southern Grampians and Glenelg are amongst the slowest in regional Victoria. It should be noted that ADSL speeds are highly influenced by distance from a nearest exchange. In the case of more remote areas this distance will significantly impact on ADSL speeds.
- Figures 11 to 13 detail fixed Internet connectivity and speeds at a more local level. Figure 14 shows little difference between broadband uptake in cities (Hamilton and Portland) and other areas of Glenelg and Southern Grampians (which have good access to ADSL). All areas have much lower penetration rates than the national average.

Figure 11 Dwellings with broadband connection (ABS, 2011)

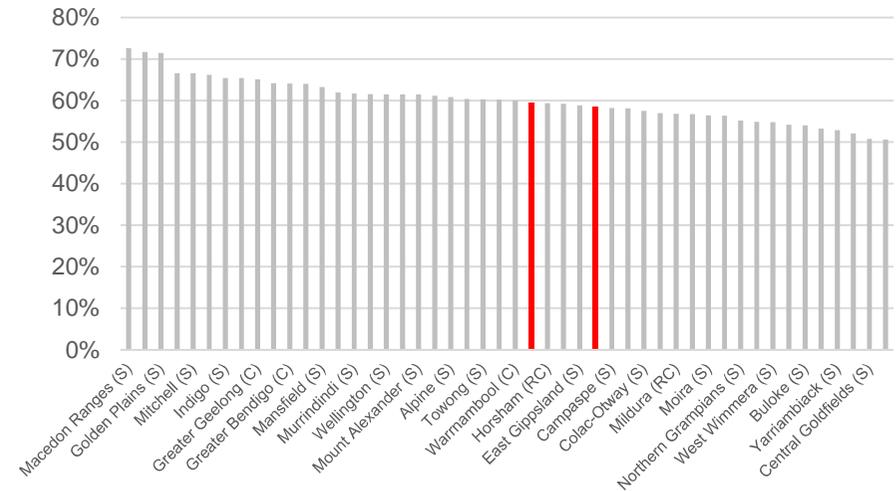


Figure 12 Households with Second Wave Broadband (Deloitte, 2013)

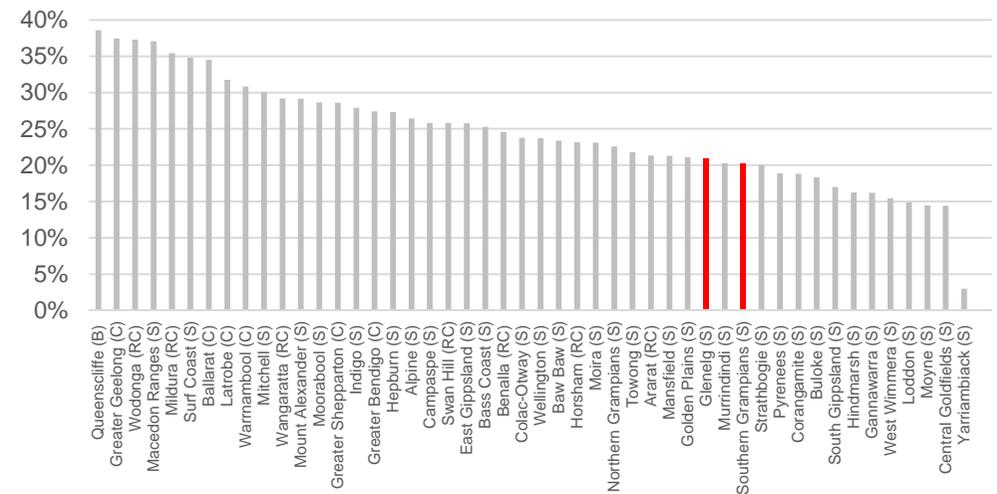
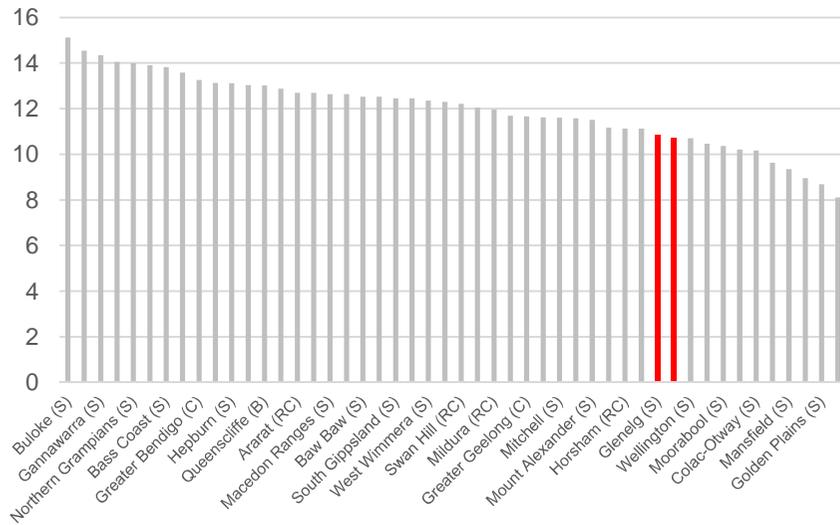


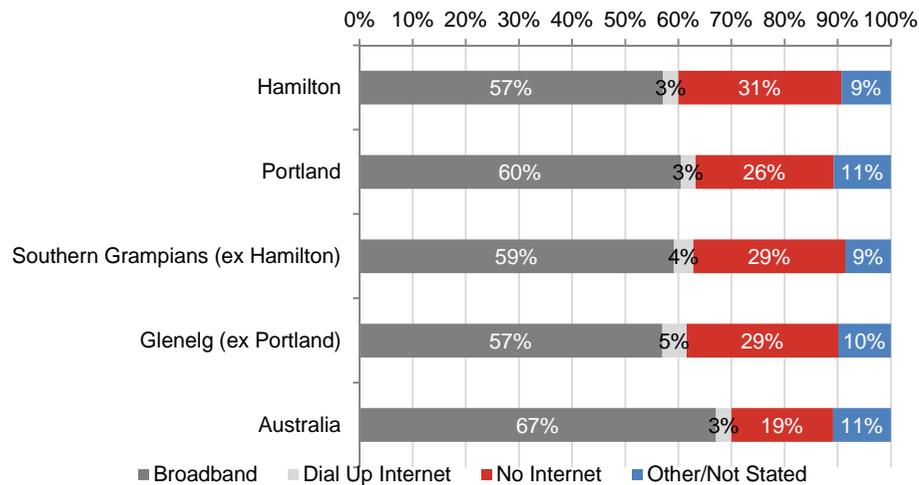
Figure 13 Median ADSL speed (Department of Comm's, 2014)





- Mapping average ADSL speeds by Telstra Distribution Area (Figure 13) demonstrates, unsurprisingly, that major centres such as Casterton, Heywood, Portland and Hamilton have much faster ADSL speeds available than more remote areas. It should be noted that these more remote areas will increasingly have access to higher speeds through a mix of satellite and fixed wireless Internet provided by the NBN.

Figure 14 Internet Connections at Dwellings (ABS Census, 2011)



Appendix C: Digital Capacity & Culture

- As described in the digital enablers diagram (Section 1), both digital skills and capacity, and local culture are vital to a functioning digital ecosystem in the region. There is limited data about the digital skills, capacity and culture of the local population. Therefore two proxy measures are provided below, that allow both Glenelg and Southern Grampians to be benchmarked against peer regional communities.
- The level of Twitter activity per capita in a municipality provides an indication of the level of social media use and engagement in a local area. It can provide an insight into uptake of technology as a proxy measure for social networking online. Figure 15 shows that both Shires are at the lower end of social media engagement amongst Victoria's rural areas, suggesting there is a need to explore opportunities for promoting greater online social connectivity.
- The number of patents approved in a local area provides a proxy measure of technical innovation amongst local businesses (Figure 16). Southern Grampians has a particularly high number of patent approvals per capita, suggesting a level of local business innovation.
- Surveys that are currently been undertaken with local community members and businesses will provide further insight into the level of skills in the community and businesses, and attitudes toward digital technology. These survey results will provide a baseline profile that can be tracked over time, to understand how skills and attitudes are changing.

Figure 15 Twitter use per capita index (Geografia, 2015)

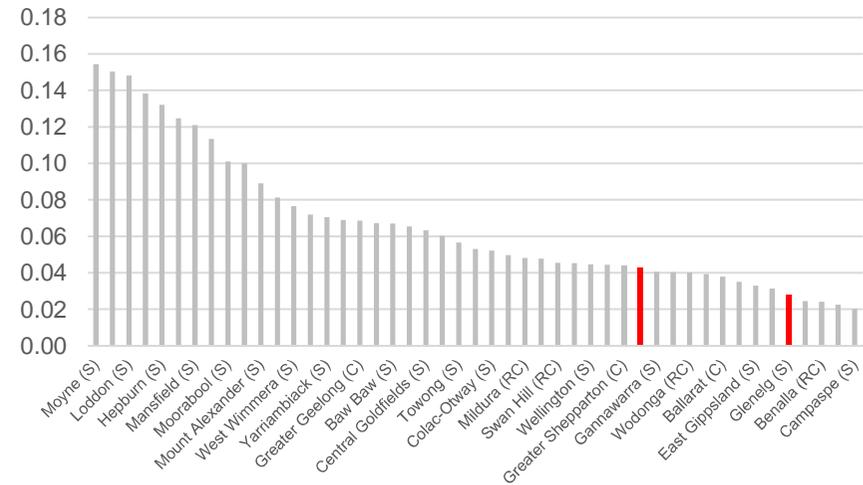
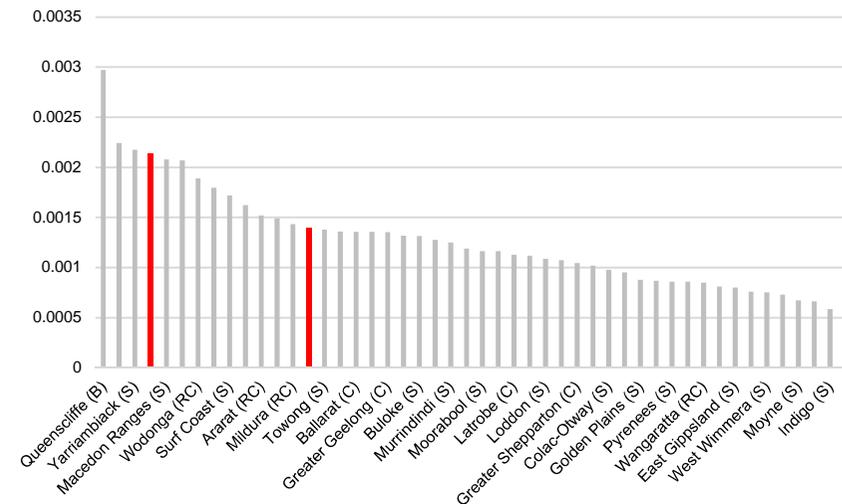


Figure 16 Patent counts per capita (Intellectual Property Australia)



Appendix D: eGovernment Audit

This scale represents Council's adoption compared to other similar size Councils in Australia.



	Service Category	Southern Grampians Shire Council	Glenelg Shire Council
Less Sophisticated	Website	Not mobile phone enabled/responsive, difficult navigation (website currently undergoing a refresh) Navigation needs work.	Not mobile phone enabled/responsive, good navigation. Easy to find information / task drive approach "I want to"
	Social Media	Active social media use (Facebook use every few days), respond to community feedback through Facebook. Youtube account, but no Twitter.	Active social media use – Twitter & Facebook. Community comments not actively addressed on social media, generally an email address is provided to forward query to.
More Sophisticated	Online Consultation and Community Engagement	Consultation activities not easily found. Community consultation submissions to be provided by writing or by phone (not online). No dedicated community engagement portal.	Consultation activities not easily found, generally provided through media release only. Community must email or call to make submissions. No dedicated community engagement portal. Download print and post submission forms for specific projects.
	Contact / feedback forms	Complete feedback form online.	Request for service and feedback form are the same but can be completed online.
	Online payments / registrations / application forms	Online payments available. Must download and send forms to apply for waste	Basic online transactions. Dedicated services area.



Service Category	Southern Grampians Shire Council	Glenelg Shire Council
	collection etc.	
Online Mapping	Standard online mapping features, as well as advanced land use suitability mapping for agricultural commodities.	Standard online mapping features combined with more advanced property information available for real estate agents etc.
Public WiFi	Public WiFi provided in libraries.	Public WiFi provided in libraries.
Online Video & Audio	No current online recordings or live broadcasts of Council proceedings and events. No current video conferencing facilities for customer contacts.	No current online recordings or live broadcasts of Council proceedings and events. No current video conferencing facilities for customer contacts.
Open Data	No open data platform or data feeds. Some data sets available via mapping platforms, but raw data not available.	No open data platform or data feeds. Some data sets available via mapping platforms, but raw data not available.
Online & Mobile Reporting of Issues/Faults	Online feedback form to provide comments or submissions on any issue. Not currently using any app services for issue reporting.	Online feedback form to provide comments or submissions on any issue. Not currently using any app services for issue reporting.
Mobile Apps to Access Local Services	No local mobile app.	No local mobile app.
Mobile Apps to Access Tourism Information	No tourism focused mobile app.	No tourism focused mobile app.
Online Applications (e.g. planning & building)	PDF form provided requires printing/manual fill submission. No application tracking or similar.	PDF form provided requires printing/manual fill submission. No application tracking or similar.
Centralised customer portal	No current move toward centralised customer online portal, integrated with CRM	No current move toward centralised customer online portal, integrated with



Service Category	Southern Grampians Shire Council	Glenelg Shire Council
Sensor Integration for Offline Services	No current plans to integrate sensors (e.g. rubbish, car parking, recreation, civil infrastructure)	CRM No current plans to integrate sensors (e.g. rubbish, car parking, recreation, civil infrastructure)



Appendix E: Existing Digital Stakeholders

Group/Business	Category	Services/Programs	Location(s)
Bainmbridge College	Skills	Certificate II in Computer Game Design; Certificate II in Media Studies	Hamilton
Bayview College	Skills	Information Technology Class (VCE), Visual Communications Class	Portland
U3A Hamilton	Skills	Computer studies – basic computer skills such as Microsoft Word, internet use for older adults	Hamilton
Telstra Wholesale	Infrastructure	Operates exchanges, telecomms infrastructure	Regional
Telstra Retail	Services & Products	Operates Telstra stores, Internet Service Provision retailing, community support programs in the Region	Regional (from Ballarat)
Aussie Broadband	Services & Products	Internet Service Provider very active in the region – a prominent retailer of NBN fixed wireless services. Participates actively with NBN road shows etc.	Regional (from Warrnambool)
SWARH	Infrastructure	Private network (using Telstra infrastructure) providing connectivity between health services in the Region.	Regional
Small Business Victoria	Skills	Provides training in digital skills to businesses both online and through local workshops in the region.	State-wide
Southern Grampians Adult Education	Skills	Certificate II in Information, Digital Media & Technology, as well as short courses in computers & technology, digital media	Southern Grampians
Leading Edge Telecoms	Services & Products	Retailer of Telstra products, including mobile broadband	Portland
Optus Shops	Services & Products	Internet Service Provision retailing, mobile phone network retailing	Hamilton & Portland
Hotkey Solutions South Coast / Leading Edge Computers	Services & Products	Internet marketing, website design, hosting, networking services for businesses, Internet Service Provision retailing (ADSL)	Portland



Group/Business	Category	Services/Programs	Location(s)
Various Facebook Groups	Content	Hamilton Young Mums Network I've Lived in Hamilton Portland Buy and Sell	Hamilton Portland
Hamilton Library	Infrastructure	Public WiFi (free)	Hamilton
Glenelg Libraries	Infrastructure	Public WiFi (free) Public computers, iPads	Portland Casterton Heywood
	Skills	One to one technology help Seniors technology classes Cyber safety classes	
RIST	Education	Some computer skills for rural students	Hamilton



Appendix F: Local Best Practice Review

This section provides case studies of local government areas that have provided leadership in the area of digital services, uptake and strategy. The figure below provides a spectrum of digital appetite that local government, stakeholders and communities can use to guide decisions about the digital technologies they wish to adopt, and the level of government and community intervention in the local digital ecosystem.



The spectrum extends from more experimental technologies, and higher levels of local government intervention through to lower levels of risk and the adoption of more mature technologies. Each of the case studies below represents a different government approach, and a different place along this spectrum.



Burnie City Council, Tasmania

Early adopter and active government intervention

In the United States and United Kingdom it is not unusual for local government to invest (either directly or indirectly) in telecomms infrastructure to encourage community penetration of HSBB. Burnie City Council in Tasmania is one of the few Australian local governments that have been actively involved in the provision of Internet infrastructure to local businesses and communities.

Prior to Federal Government investment in the NBN, Burnie City Council was concerned about the lack of availability of high-speed broadband, and the impact on Council services and the wider community. The Council built capability in providing point-to-point broadband technologies (using microwave/radio connections). This service was eventually provided as a commercial service through a new entity called TasCom.

The experience of Burnie City Council allowed them to move into other related services – early adoption of public WiFi, and data centre and hosting services. These were also provided to other local governments in Tasmania as a commercial service.

Geraldton, Western Australia

Early adopter through partnership with technology companies

Geraldton was the first regional area to receive fibre to the premise under the NBN in WA, and possesses a Point of Interconnect (PoI) within the NBN. Recognising this advantage, in 2012 the City of Greater Geraldton applied for, and received a grant from IBM to develop a smart city strategy. Council is now providing leadership on a number of fronts. This has included:

1. Positioning Geraldton as a 'digital region' to attract public and private investment, using the IBM grant as a catalyst. This has included private investment in a regional data centre (providing services to the north-west region, including resource intensive areas), and opening of a new CSIRO research centre.
2. Council investment in a \$5 million technology park.
3. Establishment of a digital hub and enterprise centre.
4. Encouraging uptake of videoconferencing amongst health and welfare organisations.
5. Enhancing internal services through investment in technological innovation.



Penrith, New South Wales

Exploring partnerships with the research, health and education sectors to create a local advantage

The outer suburban area of Penrith in Sydney has been a beneficiary of NBN access through fibre to the premise. Council recently developed a multi-sector Digital Strategy that was developed in collaboration with large local institutions such as the health service and the University of Western Sydney. This allowed Council to focus on digital workforce and skills issues more intensively, and explore opportunities for research collaboration. Council and these institutions are now exploring research opportunities at the intersection of health and the Internet of Things/5G- such as Internet enabled patient monitoring devices and home based care.

Albury-Wodonga, Victoria/New South Wales

Partnership between two local governments to leverage federal funding

Albury-Wodonga's Digital Strategy, like the majority other local government digital strategies has had a key focus on developing the skills and capacity of local businesses, and leveraging government funding opportunities.

The Digital Strategy has generally focused on more mature technologies and approaches, and a subsequent lower level of risk. This has included designing skills development programs that address specific local business needs, and attracting funding from the former Digital Enterprise Program (for training to fund these gaps). The Digital Strategy has also placed a large focus on identifying and funding eGovernment initiatives through a former federal funding program for Digital Local Government (which has now ceased).

A key advantage of the Albury-Wodonga Digital Strategy was collaborative nature of the project, between two councils (both in different states). This allowed the councils to explore shared programs and funding opportunities, understand the economic and social linkages between the two areas, and achieve economies of scale through digital interventions. This was a key differentiator in the attraction of government funding.



Appendix G: Industry Case Studies

Teleworking: Translating Services for the World

Through the use of improved internet connection, Rifka from Glenthompson can run her work-from-home translation business.

Born in Western Australia, Rifka's love of languages led her to Europe on a series of foreign language exchange programmes, and ultimately to complete a degree in Translation Studies (specialising in German to English). Rifka realised that with today's technology, she could provide translation services from almost anywhere in the world.

Today, that place is 10km outside Glenthompson in Victoria, where Rifka lives with her husband and young family on a 26-acre property, or as Rifka calls it, "their very big garden".

Tucked in close to the Grampian mountains, on the Glenelg Highway between Hamilton and Ballarat, the majority of Glenthompson's residents are serviced by mobile or "wireless" broadband. Rifka says the connection is reasonable where she lives, and knowing the problems other people are experiencing with drops outs and slow connection speeds, she doesn't take that for granted.

"About 95% of my translation work is from online sources, often with tight deadlines. A client might be looking for a 5000-word translation with a two-day turnaround. That can be difficult to deliver if the internet suddenly shuts down."

Rifka markets her services through a number of online websites. It's a bit like an online dating service, except these websites match up freelance translators with anyone needing something translated, from technical manuals to a diary inherited from Great Aunt Mildred.

The success of online matching sites like TranslatorsCafé.com and ProZ.com is that Rifka doesn't need her own website. Plus, the cost of having an online profile is minimal while she works part-time. "Most of the websites have a number of subscription options. Having an online profile is usually free if I do fewer than 10 jobs per month. Once the kids are a bit older, I'd like to increase my job numbers and then I'll have to start paying bigger subscriptions."

While she has no formal training, Rifka says she feels quite comfortable in the 'online space', due in part to the support of her husband, who is a keen online gamer.



Retail: Victoria's Sights & Delights

Hamilton's boutique home wares and gift store, Victoria's Sights and Delights, recently attended the council's free public course on online business strategies to improve her skills online and expand her business and consumer base.

Vicki Douglass has been the proprietor of Victoria's Sights and Delights in Gray Street, Hamilton for 11 years. Victoria Sights and Delights is a boutique selling homewares and gifts. She uses Facebook to promote her business.

She is passionate about her business but her real passion is her customers. Five years ago Vicki was well aware of the digital revolution around her, even if there was little evidence of it in Hamilton itself. "It seemed like everyone was talking about websites and selling on eBay. I don't think businesses put enough effort into different media. I didn't know anyone in Hamilton who had a website back then".

Vicki enlisted Horsham outfit Phunkemedia to design her website, but quickly found that using a website administrator like Phunkemedia didn't offer her the freedom to make changes and manage content the way she wanted to.

A free public course on online business strategies, run by the Council gave Vicki the confidence to join a five-week website design course in Horsham. Soon afterwards she had built victoriasonline.com.au.

For a short time, Vicki linked her website to the eBay shopping site, but was overwhelmed by the level of competition, and made few sales. Today Vicki uses the website and Facebook page to build her consumer base, and with significant results. "We have 2000 members and a mailing list of 1300".

Our VIP members receive a monthly newsletter and every month one lucky member wins a prize."

It has been a big effort to get this far, with considerable support from her tech savvy children, but ultimately Vicki has managed to find a space in the digital world in which she is comfortable, and from where she can indulge in her passion of connecting with people, "You can't take customers for granted. I like to think my customers are getting a relationship and not just a purchase."

You can visit Victoria's Sights and Delights online at <https://www.facebook.com/pages/Victorias-Sights-Delights/156054204407622>



Precision Agriculture

A hundred years ago, a farmer would study the sky, feel the soil in his fingers and watch his ewes for signs of imminent lambing. He'd use his years of experience to judge when to harvest, which cattle were ailing and which weeds would spread rapidly. His tools were rudimentary by today's standards. Combustion engines were only just starting to replace animal power.

He might be unable to conceive the technology being used in today's high-tech farms, but he would understand the practices. This is because intelligent agriculture is not about revolutionising farming itself, but about optimising existing practices.

Information comes from sensors in the ground, measuring soil fertility, moisture, insects and weeds. Livestock are individually monitored for location, movement across pasture, health and reproduction activity. Satellite imagery monitors vegetation cover and growth rates in each field, and drones survey crops for disease. Analysis would be impossible without the means to receive and send data via broadband and satellite networks. As networks are rolled out across the country, the benefits are more significant than just improved phone coverage.

Access to cloud-based services mean that information can be shared between locations around the farm. Accounts can be done in the main house and instantly synchronise with the computers in the farm office across the yard.

Information can be streamed off farm and sent to a control centre for analysis by people who know the software and can understand the link between soil fertility and crop yield. This analyst becomes the consultant, talking weekly to the farmer via Skype to help him make decisions based on the data.

Even the tools themselves will be able to respond to the information they receive. Automatic guidance steers tractors in precise patterns across the pasture and GPS sensors in the ground tell the variable rate fertilisers exactly how much fertiliser to apply at each position.

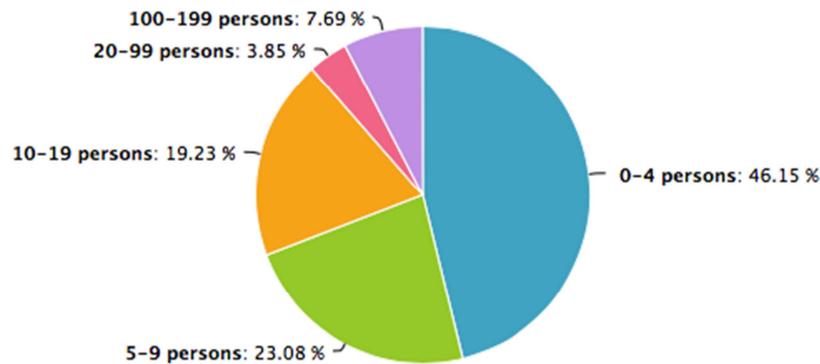
If it all sounds too extraordinary to be a reality in our lifetime, think again. It's already happening, with sensors now common in small-scale intensive farming like vineyards, and large scale grain growers and irrigators using GPS and digital technology to collect data on yield and inputs.

According to the UN, Australia wastes about 30% of our primary produce. Precision agriculture is about making farming processes more efficient and environmentally sustainable and producing better quality results.

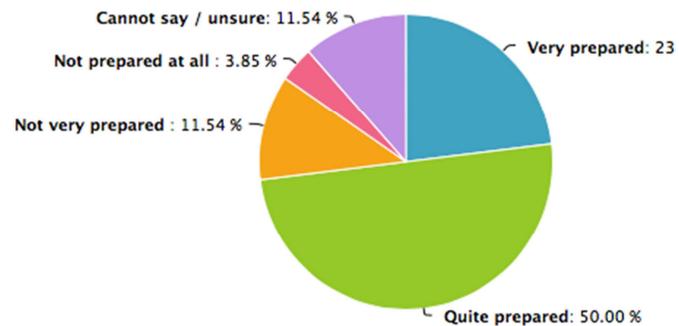


Appendix H: Community & Business Survey Summary

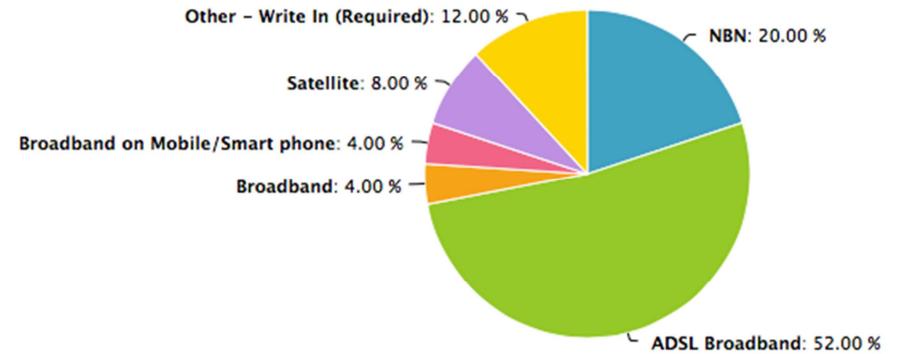
Business Survey: How Many Employees



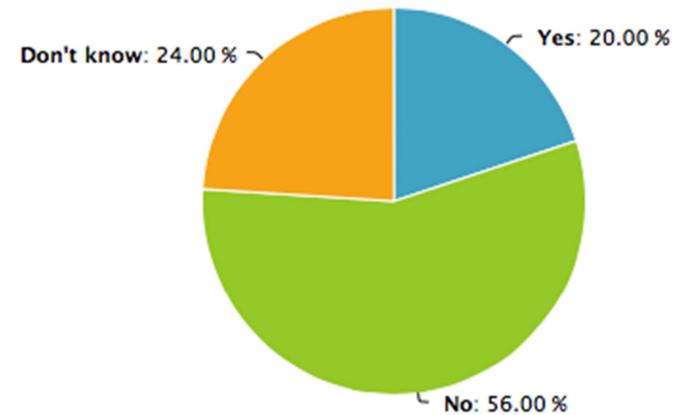
Business Survey: Preparation for the digital economy



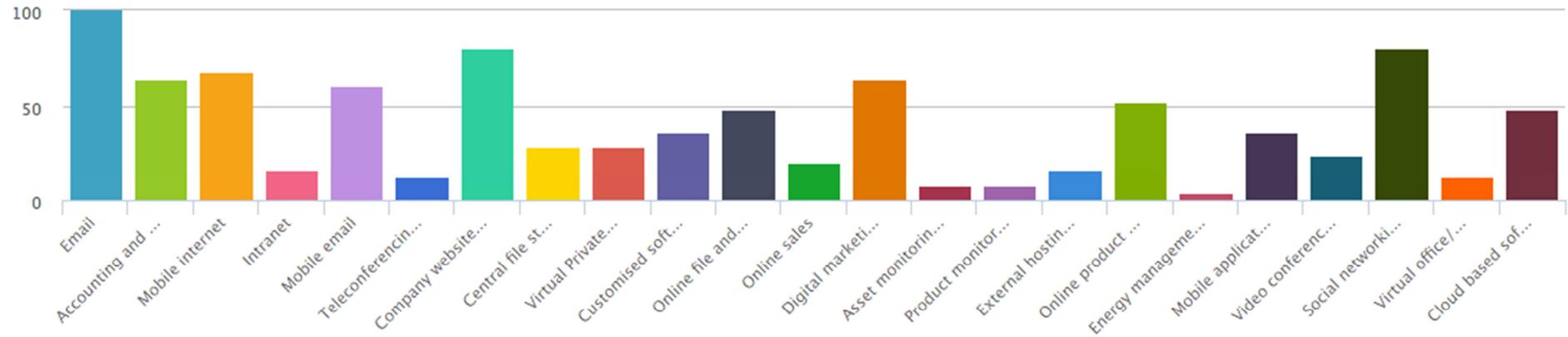
Business Survey: Type of Internet Connection



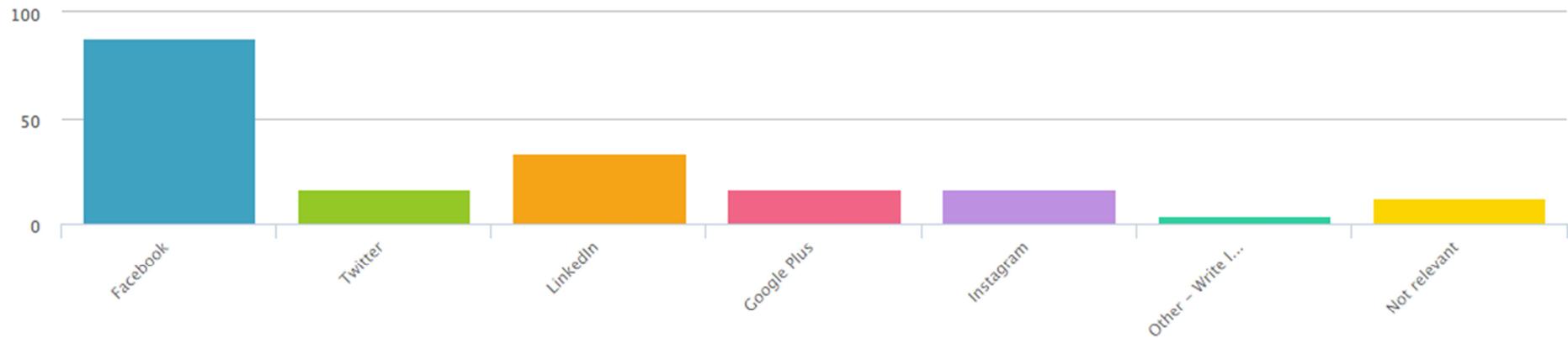
Business Survey: Is the NBN available at your business premises?



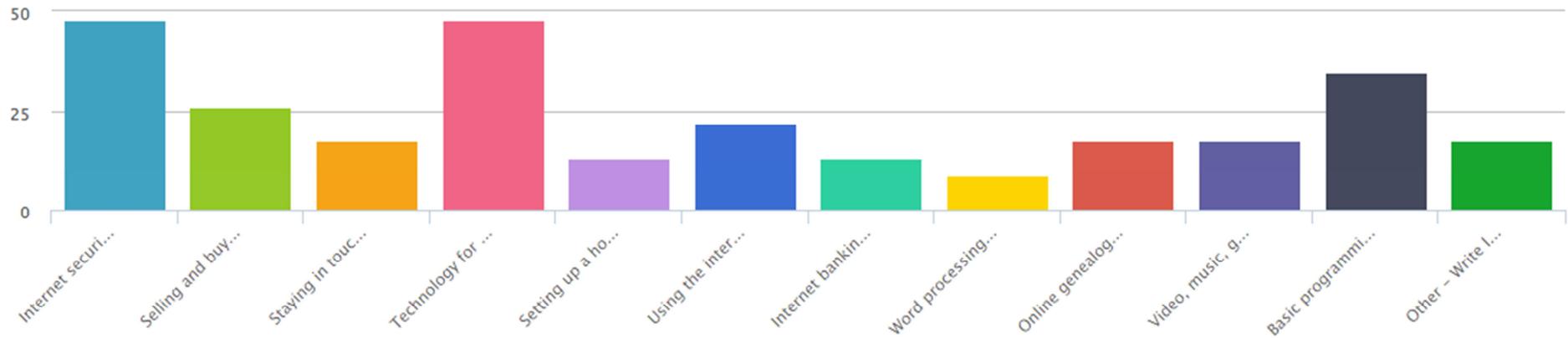
Business Survey: What digital services are currently used



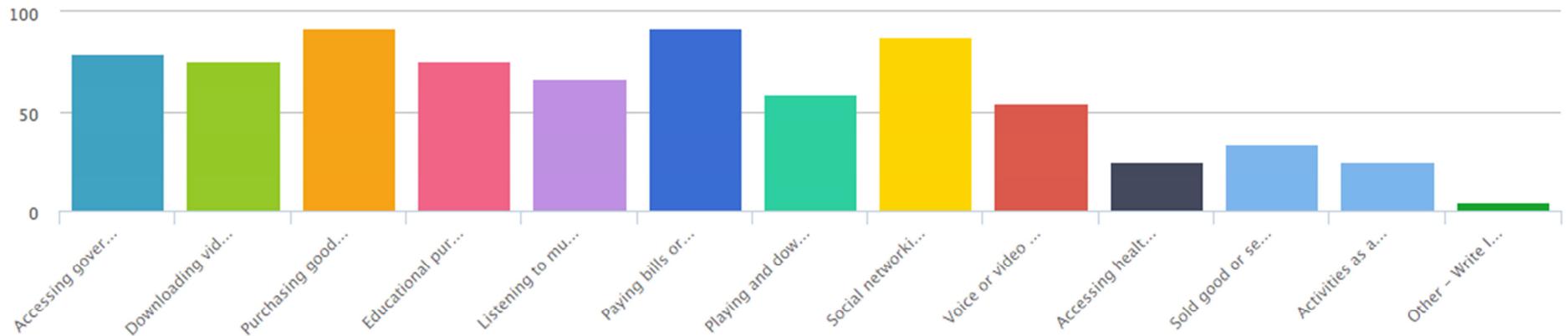
Business Survey: What social media services do you use?



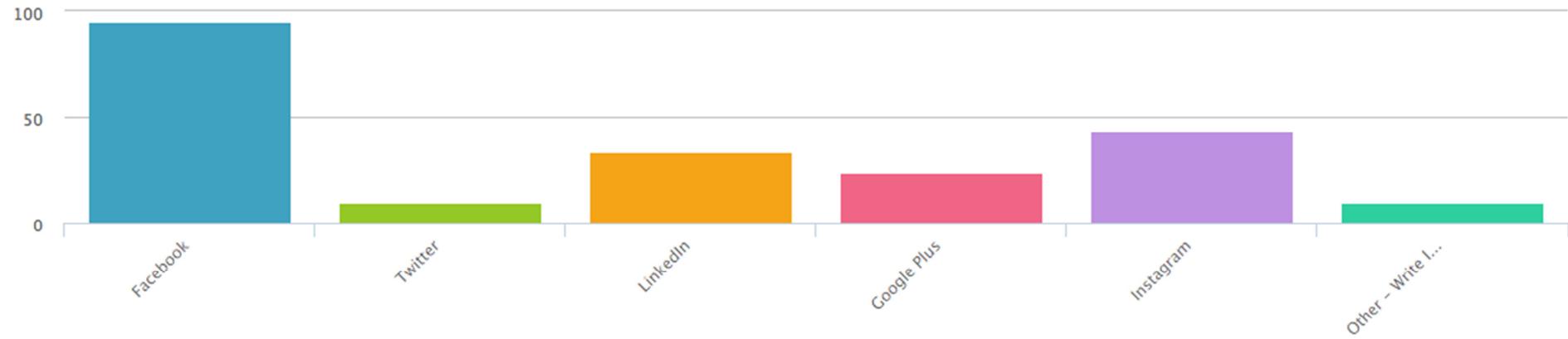
Community survey: interest in training/skills topics



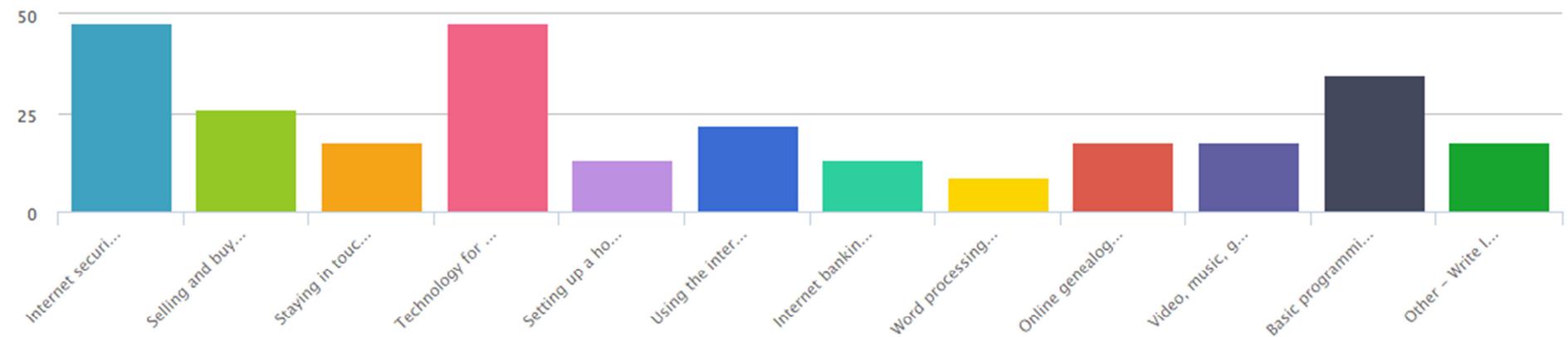
Community survey: existing use of digital services in last twelve months



Community survey: current use of social media



Community survey: Training topics of most interest



Appendix I: Personas for Key Target Groups

Type of users	What they are doing now – social / economic risks	What they want Social / Economic opportunity?
Working from home	Online businesses – national and international – may move away	HSBB for home Possible co-working
	Online businesses servicing local community – lack of support, unreliable internet	Co-working – alongside other businesses (not library), networking opportunities Meeting rooms
	Arrangement with company based outside community – isolated, unproductive	Quiet place to work close to home (not library)
	Home with kids – isolated, unproductive	Co-working – quiet Rooms to talk on the phone
	Home alone – isolated, unproductive	Co-working for company and networking Lunchroom
Studying	Home alone – isolated	Library – quiet Co-working area – quiet Study groups / Meet ups Internships – business networking, opportunities in area
	Correspondence learning – only online discussions	As above
	Travelling to study	Online courses with meet ups online and F2F in community
	Library study	Study groups / Meet ups
Small businesses operators	Online – have website and some social media	Boost in marketing Marketing services
	Online – social media use limited or none	Marketing support – training, services
	Not online – limits productivity	Marketing support Efficiency gains
Gamers	Home gaming with other kids from school – limited social contact	Gaming spaces Meet ups
	Home gaming online with WWW- risks of online, limited connection to community / family time	Gaming spaces Networking Opportunities to share / apply their skills



Type of users	What they are doing now – social / economic risks	What they want Social / Economic opportunity?
Retirees (not elderly) e.g. 60-80	Email Skype Banking Photos on ipad? Online shopping? Facebook – local events, family Probably used computers at work	Support to: Get photos off phone –e.g. Dropbox Get music off phone - iTunes Online learning Find applications that may help them Understand security issues and risks (incl. alleviating fears) May need some word-processing help Accounting? Iview and online television
Elderly (aged care) e.g. 80 - 100	Limited	Games Family Music Health Internet access Email Online television Banking?
Tourists: Grey nomads	Route / drive Gardens Bus tour (Portland)	Caravan parks Bus tours Photographs of seasons
Tourists: City slickers	Country retreat Adopt an animal? Farms to visit / buy local / set up co-ops Gourmet / local food Yoga / Health retreat Art Galleries	High quality digital tools, convenience, discerning Social media interaction
Tourists: Adventurers	Mountain climbing Running – lakeside adventures Diving Mountain biking Geocaching	Photographs of attractions Stories of adventures Teasers for geocaching sites
Wildlife / nature seekers	Bandicoot, moths, fish, whales Facilities / education	Photographs Sharing – social media etc.



Type of users	What they are doing now - social / economic risks	What they want Social / Economic opportunity?
	Sites to visit - volcano	App guides



Appendix J: Funding Opportunities

The Federal Government’s previous programs for digital capacity building and enablement (e.g. Digital Enterprise Program, Digital Local Government Program) are no longer in operation. Consequently, there will need to be a focus on state government funding sources and private investment to assist local government in implementing the actions proposed in this Strategy. The actions that might be relevant for each funding stream available are identified below.

Funding stream/source	Actions that may be considered for funding
Regional Development Victoria: Productive & Liveable Cities & Centres Program Stream	<ul style="list-style-type: none"> • Public WiFi in key commercial/community precincts in Hamilton, Portland
Regional Development Victoria: Rural Development Program Stream	<ul style="list-style-type: none"> • Public WiFi • App development (with beacon technology) • WiFi splash screen system in towns • Smart agriculture program
Regional Development Victoria: Visitor Economy Program Stream	<ul style="list-style-type: none"> • App development (with beacon technology), focused on tourist places
Federal Government Blackspots Program	<ul style="list-style-type: none"> • 3G/4G infrastructure in remote parts of the Shire • Introducing new mobile services leveraging NBN backhaul infrastructure
Private partnerships	<ul style="list-style-type: none"> • Public WiFi roll out (e.g. in partnership with Telstra Air or similar)
Education and health funding streams (at state and federal level)	<ul style="list-style-type: none"> • Smart health program • Computer programming and digital media education in schools