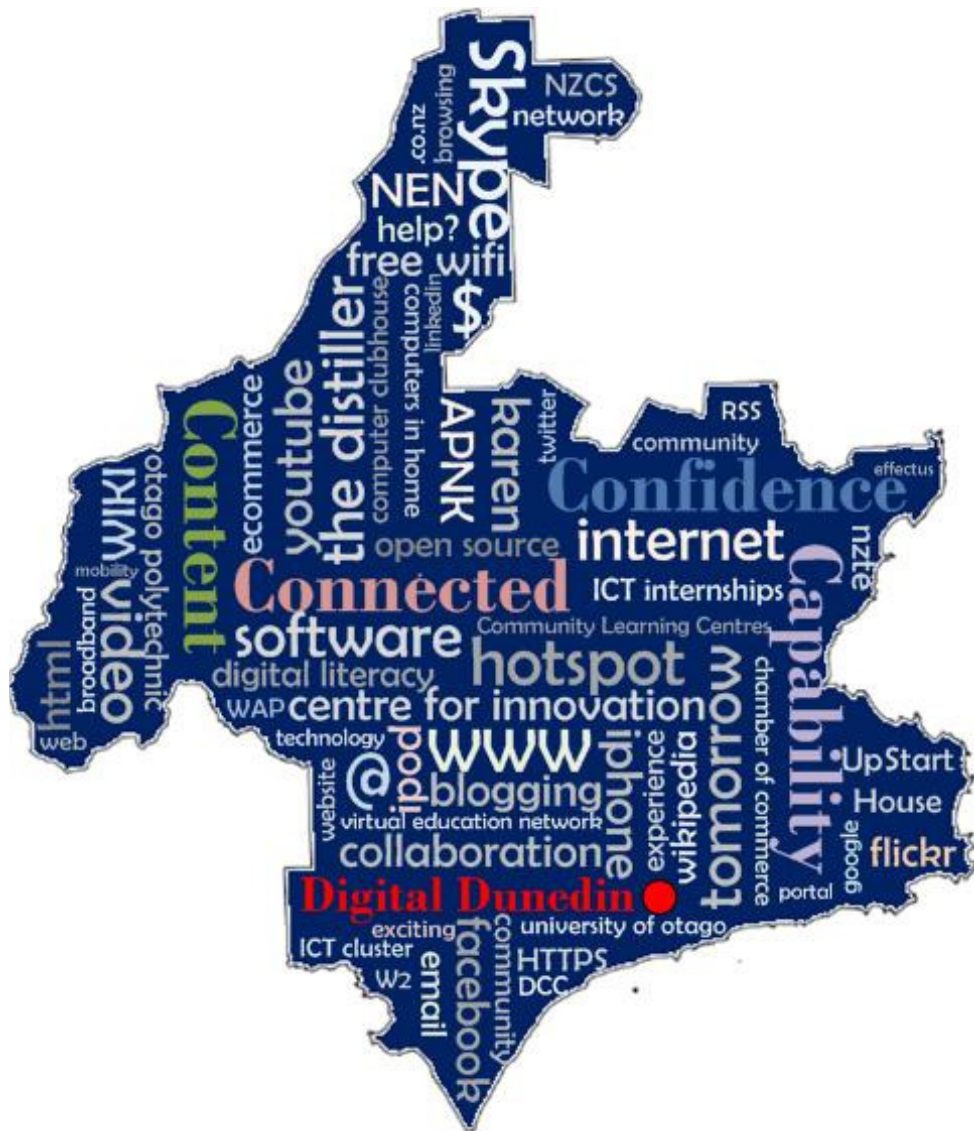


Dunedin Digital Strategy 2010 to 2013



SECTION ONE: FAST TRACK

How to read this document

This is **Section One** of the Dunedin Digital Strategy

There are four sections within the Strategy. Each section builds upon the previous section to provide a detailed report on the digital opportunity, strategy and implementation plan.



SECTION ONE – FAST TRACK

An overview of the Dunedin Digital Strategy from start to finish.

This document summarises Sections Two to Four.

SECTION TWO – THE OPPORTUNITY

The key opportunities for visitors, residents, businesses and students across the four key strategic themes of: connection, content, capability and confidence.

SECTION THREE – THE STRATEGY

The Dunedin Digital Strategy.

The strategic vision and goals and the projects required to deliver the Digital Strategy.

SECTION FOUR – THE PLAN

Recommends an action plan to implement the Dunedin Digital Strategy.

Includes recommendations on which projects should start first, who should lead them and who should be involved.

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The 'tag cloud' image on the front cover of this report records many of the key words raised during the Dunedin Digital Strategy consultation

1 FOREWORD FROM THE DIGITAL STRATEGY STEERING TEAM

In its relatively short life, Dunedin has developed as a city offering a fulfilling and convenient lifestyle, excellent educational facilities, wonderful recreational opportunities and a varied environment hosting a range of native wildlife. But Dunedin is far from the world's centres of population and commercial, financial and political influence. It also has a huge, mostly rural, geographic footprint. Distance has long been an issue for Dunedin and conquering the tyranny of distance has long been the key to engaging in commerce and communication.

In the 19th century the answer lay in railways and shipping. In the twentieth century motorways and air travel shrank distance. As cheap energy is depleted in the twenty-first century, distance is increasingly being conquered by digital communication technology: largely high-speed fibre optic broadband.

It is imperative for Dunedin's well-being and development that our community has access to modern and rapidly expanding, digital communication technology. It is essential infrastructure; as important as roads, drains and water supply systems.

It is not only communication. Within a few short years, more education and health services and a wide range of commercial services will be delivered by digital technologies; sometimes exclusively. Digital technologies will become the de facto transportation systems as well as essential communications media.

Digital communication technology is not just about laying fibre optic cable beneath the city's streets and along rural roads. It is promoting their use by the community and ensuring digital services are accessible and affordable. It is ensuring that appropriate products and services are available.

That is why the Council has developed a strategy to best equip the whole of our community with current and future digital technology opportunities. The strategy is an action plan, not just a statement of issues and needs.

The strategy is not solely Council focussed. It aims to enhance the whole of Dunedin and the surrounding region's digital communication capacity. It addresses the needs and concerns of all sectors. That is why the Digital Strategy Steering Team set up by the Dunedin City Council (DCC), includes representatives from health and IT business sectors, education, the Community Trust and the DCC's infrastructure provider - Aurora. During the consultation process, the Digital Strategy Steering Team sought input from across the community. That wide canvassing of ideas and aspirations regarding the digital communication sector, contributed enormous value to the final strategy.

Councillor Dave Cull

Chairman of the Dunedin Digital Strategy Steering Team

2 DUNEDIN DIGITAL STRATEGY EXECUTIVE SUMMARY

This is the city's first Digital Strategy. It has been created through community consultation, research and with guidance from a Digital Strategy Steering Team.

The Dunedin Digital Strategy is aligned with the government's Digital Strategy for New Zealand. This strategy has a vision for using digital technology to create a sustainable, prosperous and vibrant society. The strategy is structured around four key themes:

1. **Connection:** "What is needed to access digital services?"
2. **Content:** "What information should be available?"
3. **Capability:** "How do we gain the necessary skills to use technology effectively?"
4. **Confidence:** "How do we raise confidence in using digital technology?"

These themes are referred to throughout the Dunedin Digital Strategy.

The Dunedin Digital Strategy has a clear focus to *'review what digital services are available today, understand the digital needs across the community and develop a digital vision for the city in the future'*.

2.1 Consultation

An extensive consultation process was run across the community, city businesses, key stakeholders, students, visitors and technology providers. It included surveys, workshops, presentations, public meetings and a formal submissions hearings process.

With reference to the government's themes of content, confidence, capability and connection (the four Cs) the results from the consultation workshops and survey are summarised in the tables below:

Connection <i>"Access to Digital Services"</i>	<p>What you said:</p> <ul style="list-style-type: none"> • Many businesses, community group and schools are not serviced by fast, high quality digital networks across the city. • There is poor service when connecting to digital networks in the more rural parts of the city. • There are unnecessary delays when implementing digital networks due to Council processes. There is no preparation undertaken to assist digital installations in the future. • Digital networks are expensive to access and not easy to connect to. • There is a growing expectation from tourists and visitors that access to digital services should be available and at no cost. <p>Survey Results:</p> <ul style="list-style-type: none"> • 78% of those who responded to the survey reported poor access to digital networks in the rural part of the city. • Across the city only 40% of Dunedin residents are happy with their access to digital services.
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Content
“digital information”

What you said:

- We need to deliver more online services for the community and visitors to the city to access.
- We are not doing enough to attract or retain the digital businesses (for example IT, software development or consultancy businesses) in our city.
- The digital businesses that create new online content need help to grow and prosper.

Survey Results:

- 70% of attendees at the digital strategy workshops reported that they wish to see more Council services available online.
- Only 34% of those who responded to the survey believe that Dunedin is at the forefront of creating digital content and innovation.

Capability
“skills to use digital services”

What you said:

- Schools in the city have poor access to digital networks and for some, limited access to digital technology (for example computers, interactive whiteboards or mobile devices). Many families have no access to computers at home.
- There are limited options for our community groups, particularly youth groups, to access high-tech digital technology.
- There is a low level of digital literacy across the community with many not understanding what digital services are available and the benefits.
- Many businesses and sectors, like the not-for-profit sector, have limited capability to fully participate in digital services.

Survey Results:

- 27% of those who responded to the online survey have limited capability to use digital technology.

Confidence
“confidence to use digital technology”

What you said:

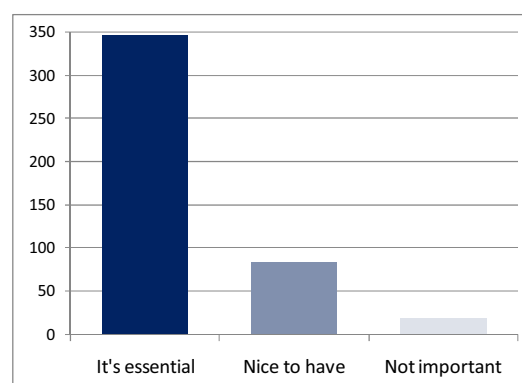
- There is a lack of confidence using digital services and an unwillingness to fully participate in digital technology due to risks.
- There is no advice available to residents to help them connect to digital services and use them safely.

Survey Results:

- Only 34% of those who responded to the online survey have confidence and trust in digital services.

The consultation process emphasised the importance of developing the Digital Strategy. This was further supported by the survey results; across the 450 respondents who completed the survey there was overwhelming support for the development of a digital strategy (as per the graph on the right).

It was acknowledged that this strategy is essential; if the city does not address these needs we will fall further behind the rest of the country, denying our community access to essential services within an increasingly connected society and negatively impacting our economic growth. Connection to a fast, high quality digital network isn’t a luxury. It is



an essential part of our infrastructure as a city and needs to be considered in the same way as roads, sewage and water.

It is important to see beyond the immediate business case and consider the digital opportunities that can be enabled by a connected city. The opportunities of a video empowered education service for our rural schools, a health sector that connects patients to online services and a business sector that fully utilises the power of digital services to work internationally. These examples illustrate what can be achieved with a connected city. However no one can predict what we will do with digital services in the future. What we do know is that communities which do not embrace technology will languish on the wrong side of the digital divide.

The need has never been greater for the city to define a Digital Strategy to fully embrace the social, economic and cultural opportunities of digital services.

Section Two of the Dunedin Digital Strategy reviews the consultation results and opportunities raised during the initial consultation process.

2.2 Dunedin Digital Strategy

The Digital Strategy vision is to create “**Digital Dunedin**”. This will be achieved through the leadership, commitment and support of the following strategic goals:

1. **A Digitally Connected City to increase the access, affordability and the quality of digital networks connecting the residents and businesses across the city.**
2. **A Digitally Enabled City to deliver more digital content to the community, visitors and businesses across the city and develop Dunedin as a centre for digital innovation.**
3. **A Digitally Capable City to raise the level of knowledge, literacy and skills to use digital technology across the community, business and service sectors.**
4. **A Digitally Confident City to increase assurance that digital services are safe and reliable for residents to fully embrace and participate in.**

As part of this bold vision for our city the following strategic projects and leaderships groups are recommended:

2.2.1 Strategic Leadership

Establish specific advisory groups to lead the development of digital networks across the city and digital innovation projects. These advisory groups will consist of representatives from the community and businesses across the city with the support and leadership from the Council. The roles of these advisory groups are summarised in the table below:

Digital Dunedin Advisory Groups	Advisory Groups	Role and Targets
	Digital Network	<ul style="list-style-type: none"> Lead discussions with government and commercial agencies to advance digital networks across the city and address the poor access reported during the consultation. Currently 40% of residents surveyed reported that they had acceptable access to digital networks. Target is to increase this to 75% by 2016¹. Lead a project to review the options available to connect the more rural parts of the city to fast, high quality digital networks and improve the digital service to these communities and businesses. Currently 22% of residents surveyed report acceptable access to digital networks in the more rural parts of the city. Target is to provide fast broadband to 97% of rural residents by 2016². Lobby for improved international access for the country to ensure the city is serviced well in the future. <p><i>More details can be found in Appendix A, section 4.1</i></p>
	Digital Innovation	<ul style="list-style-type: none"> Lead the development and growth of digital innovation across the city. Through consultation agree on initiatives to retain and attract new digital businesses (for example: IT, software development, consultancy companies) to the city. Currently 34% of those surveyed believe Dunedin is a centre for digital innovation. Target is to increase this to 65% by 2014 through initiatives led by this advisory group and by collaborating with organisations in the city, like the University and Polytechnic. Create an environment that is supportive of digital innovation to make it easier for new digital businesses to start. This may include providing educational and mentoring services to guide business growth and access to technology to kick start new ideas. Target to increase the technology GDP by 20% by 2014³. <p><i>More details can be found in Appendix A, section 4.2</i></p>

2.2.2 Highest Priority Strategic Projects

The following table summarises the highest priority strategic projects for each of the strategic goals within the Dunedin Digital Strategy:

A Digitally Connected City	<ul style="list-style-type: none"> Implement wireless (wifi) networks to improve accessibility to digital networks and provide a service for the community and visitors to the city. Review options to provide this service at no cost for a period of time to address the affordability concerns raised during the consultation. Target for 100% of central Dunedin city (from Port Chalmers to Dunedin Airport) and 6 rural communities to have access to wireless services by 2012. Remove any impediments for installing digital networks across the city and prepare the city for new digital services in the future. Target to define digital infrastructure standards and an active programme of work to install network infrastructure across the city. <p><i>More details can be found in Appendix A, section 4.1</i></p>
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¹ The Government's target is to provide ultra-fast broadband to 75% of New Zealanders by 2020; Dunedin Digital Strategy's target is to achieve this by 2016.

² This is in alignment with the Government target of 97% of rural households to be connected to broadband services over the next 6 years.

³ This target is to be agreed by the Economic Development Unit at the Council and measured through the BERL report.

A Digitally Enabled City

- Increase the Council services available online to the community and provide new digital services to communicate and engage with the community. Target to increase Council online content by 50% by 2012 with a focus on online payments, social networking services, e-democracy and online forms.
- Have in place ‘Dunedin City Portal’ to provide an online service for the community which will promote activities and attractions in the city, centralise community and student information, promote business opportunities and provide a one-stop-shop for city information. Currently these services operate independently and the target is to have a single portal established by 2011 and integrated into the central city wifi network.

More details can be found in Appendix A, section 4.2

A Digitally Capable City

- Improve the access schools have to digital networks and increase the digital resources available in schools to raise digital capability across school-age children. Currently many schools report limited technology resources. Target is to provide a minimum of 100 digital devices (for example: computers, interactive whiteboards and mobile devices) to local schools through recycling business computers, sponsorship and technology grants.
- Implement a community based “Computer Club House” to provide access to digital technology and particularly empower youth from all backgrounds to become more capable, creative and confident learners. Target to have Computer Club House, or similar initiative, operating by 2013.
- Appoint “Digital Ambassadors” within the city to provide advice and guidance on digital services and to raise capability across the sectors that need it most. Currently 27% of residents surveyed report that they have limited capability to use digital services. The target is to reduce this figure to less than 15% by 2014 with the Technology Ambassador role operating by 2011.
- Raise the level of digital literacy across the community and raise the level of skill and knowledge in digital services. The target is to have a literacy programme operating by 2012.

More details can be found in Appendix A, section 4.3

A Digitally Confident City

- Launch an educational campaign to promote the safe use of digital technology and provide best practice advice for connecting, using and participating in digital services. Work closely with community groups to understand the risks and work together to raise digital confidence across the city. Target is to have the educational campaign operating during 2011.
- Establish a city-wide digital help desk service to provide a point of contact for guidance on connecting and safely using digital services. Currently only 34% of residents surveyed confidently use digital services. The target is to increase this to 60% by 2014 and have the help desk service operating early 2012.

More details can be found in Appendix A, section 4.4

Section Three of the Dunedin Digital Strategy describes in more detail the strategic projects recommended to deliver the Digital Strategy vision and goals.

2.3 The Future

The Digital Strategy has a bold vision to create a “Digital Dunedin” through strong leadership and commitment to the strategic projects outlined. This is a community driven strategy that has been guided by the inputs received during the consultation process.

But the inevitable question, as a ratepayer, business owner or a visitor to the city, is how will this strategy help me?

For a member of the Community?	<p>A fast digital network from your home and the opportunity to fully participate in digital services across the entire city</p> <p>Freedom to access digital services from a portable or mobile device via the central city wireless network, from 2011 onwards</p> <p>Easier ways to engage with the DCC community services through online and social networking services</p> <p>Guidance on the safe use of digital technology with support and advice from the city digital help desk</p> <p>Greater access to digital technology at schools and community groups</p> <p>Free advice to community groups on the best use of digital technology</p> <p>A Computer Club House established to provide access to the latest technology for those members of the community who have little opportunity at present</p>	For a Business in the City?	<p>Fast digital networks to your business offer an opportunity to embrace new digital services and access a truly international market</p> <p>Access to Digital Ambassadors who provide impartial advice on how to participate in a digitally connected market</p> <p>Access to educational services and mentoring to grow your digital business</p> <p>Access to technologies to help kick start new digital businesses</p> <p>Freedom to conduct your business from home or at a location that suits you through the central city wireless service, from 2011 onwards</p>	For a visitor to the City?	<p>Free access to a central city wireless network to connect to the internet and access digital services when visiting the city</p> <p>When you arrive by boat at Port Chalmers or by plane at Dunedin Airport, you will have access to digital services to check emails, upload pictures or browse the internet</p> <p>Free access to the Dunedin City Portal to find out more about the cities attractions and book tickets online</p> <p>Help with connecting to digital services when you are in town through the city digital help desk service</p>
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In addition, developing digital services also supports the Dunedin Community Outcomes as defined within the Long Term Council Community Plan (LTCCP). The alignment and benefits with the LTCCP are summarised in the table below:

2.3.1 LTCCP Alignment

LTCCP Outcome	Digital Strategy Alignment
<p>Wealthy Community: a city that enables strong local business growth and employment growth, and attracts increasing numbers of new businesses and tourists.</p>	<ul style="list-style-type: none"> Supporting economic growth across the city through companies that rely on or develop digital services. Attracting and retaining skilled digital staff within the city. Increasing the attractiveness of visiting Dunedin through the availability of digital services, particularly the free wireless network operating in the central city.
<p>Supportive Community: a city where residents feel included and connected with their wider community.</p>	<ul style="list-style-type: none"> Connecting the community to each other through digital services. Access to community assets like the Computer Club House to socially meet and experience digital technology.
<p>Accessible City: A city where residents interact freely through the city's reliable and professional transport and telecommunications systems.</p>	<ul style="list-style-type: none"> A robust digital infrastructure that is fast, affordable and accessible across the community.

2.4 Recommended Action Plan

There is no doubt that the city needs a Digital Strategy and the residents, visitors, community groups and business owners who participated during the consultation process are looking for action. They demonstrated a sense of urgency for these projects to start and both encouragement and willingness to support the implementation of the strategy. But most of all there was a high level of expectation from those consulted that this needs to happen for the wealth, diversity and growth of our city into the future. The strategy is ambitious with a number of projects and leadership groups identified. To be successful the leadership of the Digital Strategy projects will require assistance from the community, businesses, academic institutions and other interested parties along the way. Collaboration and community consultation are key messages that have been raised throughout the consultation and the implementation process needs to continue to involve members of the community and use their knowledge, skills and support to deliver the strategic goals.

A recommended implementation plan has been described within Section Four. It is recommended that the Digital Strategy projects are grouped into four work streams: *Leadership, Enabling, Capability and Confidence*. An overview of each work stream, the projects within each work stream and who is recommended to lead and contribute to each project is shown in Appendix B. As yet, there is no committed funding for the Digital Strategy. Further work is required to define how the projects will be funded and what opportunities there are both locally and nationally to support the strategy.

There was strong support for many of these projects to start promptly. This has been acknowledged and the work streams are prioritised accordingly with the *Enabling* work stream being the highest priority. An overview of the work streams and the recommended start date for each work stream is shown in Appendix C.

Section Four describes a recommended implementation plan for the Dunedin Digital Strategy. It also provides a recommendation on who should be consulted and involved in the leadership of the projects and advisory groups.

3 IN CONCLUSION

The Dunedin Digital Strategy has been developed in consideration of the comments raised during the consultation process. During the consultation we listened to the comments made and didn't develop a strategy that was solely focussed on laying more fibre optic cable or promoting a particular digital technology. But rather a strategy that will deliver benefits across all of the four Cs: connection, content, confidence and capability as the graphical insert demonstrates.

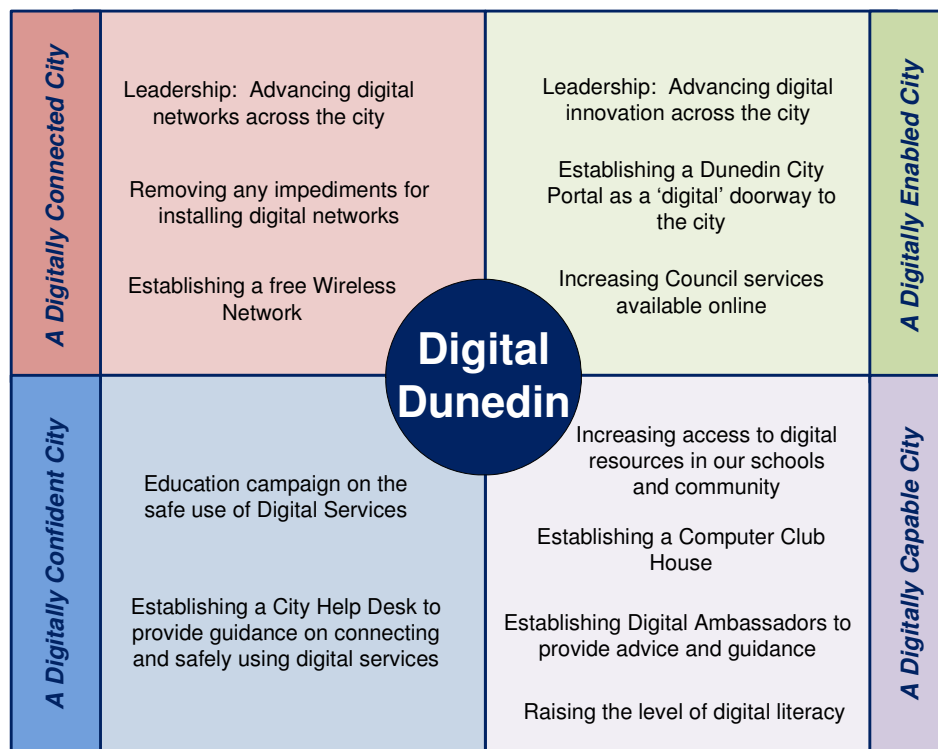
There was strong support across the community for the Digital Strategy, with a high level of participation in the public meetings, online survey and submissions process. The comments raised have been instrumental in the development of the strategic projects and leadership groups. But it is expected that the high level of community support will continue.

The implementation process will rely on community participation to guide how projects are implemented and ultimately the success of the strategy.

In its entirety this strategy is focussed to bring social, economic and financial benefits across the community and businesses in the city. We believe the strategy has the right balance of projects and initiatives to deliver benefits across all of the four Cs.

Finally, the vision is to create a connected city that provides digital services to bring wealth and social benefits to the city. For the benefit of the community, schools, our economic growth and the future generations the implementation of this Digital Strategy is essential.

Let's create a "Digital Dunedin".



This is the end of Section One.

Section Two is 'The Opportunity'.

The key opportunities for visitors, residents, businesses and students across the four key strategic themes of: connection, content, capability and confidence.

4 APPENDIX A: FAST TRACK THE SUPPORTING DATA

The tables in Appendix A are divided into the four goals of the Dunedin Digital Strategy and summarise the key strategic projects.

They provide a high level overview of the project, key outcomes, estimated costs, priorities and recommended leadership.

Key:

1	<p>Project Reference. This reference is used throughout the Digital Strategy to identify each strategic project. They are colour coded to reflect the four strategic themes of connection, content, capability and confidence.</p>				
\$	<p>Estimated Costs Column</p> <p>Estimated costs are broken down into four categories:</p> <table border="1" style="margin-left: 20px;"> <tr> <td>Less than \$50,000</td> </tr> <tr> <td>Between \$50,000 to \$100,000</td> </tr> <tr> <td>Between \$100,000 to \$500,000</td> </tr> <tr> <td>Greater than \$500,000</td> </tr> </table> <p>These financial estimates have been made following consultation with technology providers and through comparison to similar projects.</p> <p>These costs are for guidance only and it is acknowledged that further work is required to define the costs of the projects and potential sources of funding in more detail. This work will be completed following the endorsement of the Digital Strategy and work commences on the implementation stage.</p>	Less than \$50,000	Between \$50,000 to \$100,000	Between \$100,000 to \$500,000	Greater than \$500,000
Less than \$50,000					
Between \$50,000 to \$100,000					
Between \$100,000 to \$500,000					
Greater than \$500,000					

4.1 A Digitally Connected City

Goal: A Digitally Connected City to increase the access, affordability and the quality of digital networks connecting the residents and businesses across the city.

Proj. Ref	Project	Project Goals	Current Target	Future Target	Est. \$
1	Digital Networks Advisory Group	<ul style="list-style-type: none"> Lead discussions with government and commercial agencies to advance fast, high quality, digital networks across the city. Influence the implementation of digital networking to those businesses, schools and communities that need it most. Lead a project to determine how digital networks can be delivered to the rural parts of the city. Review the opportunity for sharing the costs for the installation through partnerships with commercial vendors and/or joint ventures with other Councils that border the city. Be transparent and inform residents and businesses of connectivity progress across the city and any forthcoming developments. Lobby for improving international internet access to the country to ensure the city is serviced well in the future. 	<ul style="list-style-type: none"> 40% of residents report acceptable access to digital networks at home. 22% of rural community residents report acceptable access to digital networks. 	<ul style="list-style-type: none"> 75% of residents reporting acceptable access to digital networks at home by 2016 (improving on the government's target of 2020). Align with government target of 75% of city having access to Ultra Fast Broadband and the target of 97% of rural households to be connected to broadband services by 2016⁴. Annual survey of satisfaction and publication of digital network development across the city. 	From \$50,000 to \$500,000 ⁵
2	Digital Roadblocks	<p>Goal1: The Council to provide leadership in establishing the digital infrastructure needs of the City through:</p> <ul style="list-style-type: none"> Identifying the digital infrastructure standards necessary for the City; Preparing a 'digital infrastructure map' of the city to show where the digital infrastructure (like fibre ducting) has been installed across the city and make this information available to all commercial vendors; Identifying where that digital infrastructure is required to support digital networks in the future; <p>Goal 2: The Council to deliver mechanisms for facilitating the installation of digital infrastructure through:</p> <ul style="list-style-type: none"> Including networking infrastructure in the code of subdivision and district plans to prepare 'green field' sites and support faster implementation of digital networks; Defining standards and installing network infrastructure as part of the continuing and scheduled programme of work at the Council (e.g. Roading, water and waste); 	<ul style="list-style-type: none"> Consultation indicated that there is no preparation work undertaken at present. 	<ul style="list-style-type: none"> Standards defined by end of 2010. Council working party established with a target of including digital networking standards within the Council programme of work early 2011. 75% of green field sites prepared for digital services by 2011 	Between \$100,000 to \$500,000

⁴ Government target. Source: Ministry of Economic Development broadband investment target.

⁵ Estimated costs are for the operation of the advisory group to complete feasibility reviews and lobbying. If the government initiatives are not forthcoming then the financial estimate will increase significantly to complete the targets identified.

DIGITAL DUNEDIN – IMAGINE OUR CITY

Proj. Ref	Project	Project Goals	Current Target	Future Target	Est \$
3	Dunedin Wireless Network	<ul style="list-style-type: none"> Implement a wireless service (wifi) across the city and outlying suburbs to improve the accessibility to digital networks. Project will consider the opportunity for partnerships with current wireless providers to achieve a wide as possible coverage across the city. Project will also review the most suitable technology to use to provide a high quality and consistent service to the community and visitors to the city. Project to assess how a “free service” can be provided. This may identify that free services are provided for a period of time or within a restricted data download limit. To exceed these limits charges may apply presenting an opportunity to offset the costs for the service. 	<ul style="list-style-type: none"> 20% of central city serviced with commercial wifi providers at present. 	<ul style="list-style-type: none"> 100% of central Dunedin city (from Port Chalmers to Dunedin Airport) to have access to wireless services by 2012. 6 outlying suburbs to have access to wireless services by 2012 with a programme of work extending this figure to 10 by 2014. Which location to be decided through ongoing consultation and the availability of backhaul access. 	Between \$100,000 to \$500,000

4.2 A Digitally Enabled City

A Digitally Enabled City which will deliver more digital content to the community, visitors and businesses across the city and develop Dunedin as a centre of digital innovation.

Proj. Ref	Project	Project Goals	Current Target	Future Target	Est \$
4	Digital Innovation Advisory Group	<p>Lead initiatives that will provide economic value to the city and develop Dunedin as a centre for innovation. To include initiatives to:</p> <ul style="list-style-type: none"> Retain digital businesses in the city Attract new digital businesses to the city by promoting the cities strengths Work with our sister city on digital innovation opportunities Provide services (like mentoring) to assist new digital businesses Support the Council’s Economic Development Unit (EDU) projects like ICT internships, technology precinct and other initiatives within the city Provide access to technology (like free internet access or data centre hosting) to kick start new digital businesses 	<ul style="list-style-type: none"> 34% report Dunedin is a centre for innovation. Isolated services available to assist digital start up businesses. 	<ul style="list-style-type: none"> Increase to 65% of residents reporting Dunedin as a centre for innovation by 2013. Increase technology GDP by 20% by 2014 as measured by the BERL report⁶. 	Up to \$50,000 ⁷

⁶ BERL report assesses the economic value of sectors within Dunedin. The target to increase by 20% will be agreed with the Economic Development Unit at the Council.

⁷ Estimated costs are for the operating costs of the advisory group. Any initiatives that this group recommend will require separate funding.

DIGITAL DUNEDIN – IMAGINE OUR CITY

Proj. Ref	Project	Project Goals	Current Target	Future Target	Est \$
5	Dunedin Online	<p>Increase the online services available to the community, visitors and businesses across the city.</p> <p>Project to include:</p> <ul style="list-style-type: none"> Increasing Councils services available online to the community with a focus on online payments, RSS feeds, social networking services and online forms. Increased transparency of Council information and processes available to the community including reviewing how eDemocracy⁸ can be used to build stronger relationships between the community and Council. Providing online content to support the Dunedin City portal. 	<ul style="list-style-type: none"> Limited online services currently available. 70% wish to see more online Council services. 	<ul style="list-style-type: none"> Increase online content by 50% by 2012. Annual review of what services the community wish to see. Increased transparency on Council information. 	Up to \$50,000
6	Dunedin City Portal	<p>The aims of the Dunedin City portal are:</p> <ul style="list-style-type: none"> Integrate information across separate online websites within a single entity. This includes information for students, businesses, visitors and the community. Support the brand 'Dunedin' by creating a one-stop-shop for city information. Improve the promotion of the city and increase visibility of city events and community services. Showcase digital innovation across the city through a dynamic and stimulating digital service whilst also informing the community on what digital services are available. 	<ul style="list-style-type: none"> No service available 	<ul style="list-style-type: none"> Portal operating and integrated to central city wireless network by 2011. Annual review to assess services provided by the portal and what services the community wish to see in the future. 	Between \$50,000 to \$100,000

4.3 A Digitally Capable City

A Digitally Capable City to raise the level of knowledge, literacy and skills to use digital technology across the community, business and service sectors

Proj. Ref	Project	Project Goals	Current Target	Future Target	Est \$
7	Digital Technology	<p>Increase the number of digital devices available across the community and at schools. Initiatives include:</p> <ul style="list-style-type: none"> Establishing a 'computer in home initiative' to provide computers to disadvantaged families or community groups that have no access to computers at present. This includes providing training and assistance to use the computers well. Creating an active partnership with commercial vendors to sponsor technology within a school or community group. This may be in the form of computer hardware, interactive white boards or services to access the internet. 	<ul style="list-style-type: none"> Limited access to digital technology across schools and community members. 	<ul style="list-style-type: none"> Provide a minimum of 100 digital devices per year to those schools and families that need assistance from 2011. Encourage the use of open source software to reduce technology costs. Encourage more re-use and recycling of digital devices. 	Between \$100,000 and \$500,000

⁸ eDemocracy refers using digital services for political and governance processes.

DIGITAL DUNEDIN – IMAGINE OUR CITY

Proj. Ref	Project	Project Goals	Current Target	Future Target	Est \$
8	Computer Club House	<ul style="list-style-type: none"> Seek grants to purchase, upgrade or maintain digital technology. Establish a computer broker service to allow businesses or individuals that no longer required a computer to donate this to school or a family that is in need. <p>Project also to include initiatives to:</p> <ul style="list-style-type: none"> Increase awareness on open source software and benefits to the community as an alternative to reduce technology costs. Support the development of a Dunedin Open Source repository and distribution media (e.g. DVD). Promote initiatives to encourage the recycling and re-using of digital technology across the community, schools and business sectors. 	<ul style="list-style-type: none"> Limited community services focussed on building capability across digital technology and digital services. 	<ul style="list-style-type: none"> Target to have a Computer Club House (or similar initiative) operating by 2013. 	Greater than \$500,000
9	Digital Ambassadors	<p>Project to establish a Digital Ambassadors scheme to provide impartial advice to improve the digital capability across community, not-for-profit groups and small business sectors.</p> <p>Project to review:</p> <ul style="list-style-type: none"> Financial support required for the scheme to operate and the ongoing financial support required. Identify who will commit to support this service across the academic and professional ICT bodies in the city. Identify a location and operating model to be followed (potentially based on the community law principles). 	<ul style="list-style-type: none"> 27% of residents report no capability to access digital services. 	<ul style="list-style-type: none"> 50% improvement in capability across the city to reduce the current target to 15% by 2013. Digital Ambassador initiative operating by 2011. 	Between \$100,000 to \$500,000

DIGITAL DUNEDIN – IMAGINE OUR CITY

Proj. Ref	Project	Project Goals	Current Target	Future Target	Est \$
10	Digital Literacy	<ul style="list-style-type: none"> Review how this initiative could be linked to the Computer Club House project described in ref 8 and other digital services discussed in this strategy. <p>Project to raise the level of digital literacy across the community by providing practical examples of how digital services can benefit the community. Also to encourage the digital literacy services currently operating in the city.</p> <p>Project will review:</p> <ul style="list-style-type: none"> Opportunities to promote the current digital literacy initiatives in the city to increase the skills in understanding, creating and using digital services. Methods to develop 'practical' examples of how digital services can help the community (create the need to participate in digital networks). Collaborate with other professional bodies on delivering digital literacy programmes for the community. Review how this initiative could be linked to the Computer Club House project described in Project Ref 8 and other digital services discussed in this strategy. 	<ul style="list-style-type: none"> Isolated digital literacy programme operating in the city. 	<ul style="list-style-type: none"> Target to have a digital literacy programme operating (and integrated within other Digital Strategy projects) by 2012. 	Between \$50,000 and \$100,000

4.4 A Digitally Confident City

A Digitally Confident City to increase assurance that digital services are safe and reliable for residents to fully embrace and participate in.

Proj. Ref	Project	Project Goals	Current Target	Future Target	Est \$
11	Digital Safe Use Campaign	<p>Project to promote the safe participation in digital services and raise digital confidence across the city. Project will lead a 'Digital Safe Use Campaign' to advise on the safe practices for connecting, using and participating in digital services. Input from community groups and law enforcement agencies will drive what content is to be delivered to reflect the concerns of parents, community leaders and educational professionals.</p> <p>Project will review:</p> <ul style="list-style-type: none"> Current risks when using digital services and what issues the community, parents and businesses are concerned about. Mechanisms available to promote safe practices, for example: online advisory services, publications and events. Ongoing financial commitment for promoting digital safe use on an annual basis. Review what services are currently operating and opportunity for collaboration on digital safe use campaigns. 	<ul style="list-style-type: none"> 34% have confidence and trust in digital services. 	<ul style="list-style-type: none"> Increase confidence across city to 60% by 2012. 	Between \$50,000 and \$100,000

Proj. Ref	Project	Project Goals	Current Target	Future Target	Est \$
12	Digital Help Desk	<p>Project to increase the community's confidence in accessing and using digital services. The Council's Customer Services Agency help desk is ideally suited to provide this service responding to requests for assistance by phone, through email and in person. The goal is to support the community by providing a Digital Help Desk service that will provide:</p> <ul style="list-style-type: none"> • Advice on best practices to be followed when using digital services. • Advice on community based courses to attend (Project Ref 10). • Guidance on how to access Council digital networks (like the wireless network discussed in Project Ref 3). • Point of contact that visitors can use to enquire about digital services in the city; • Advice on e-recycling of digital technology. • Promoting Dunedin ICT businesses that can assist with digital services. <p>Project will review:</p> <ul style="list-style-type: none"> • What is required to establish a Digital Help Desk to operate through the Council's Customer Services Agency. • Reviewing what information is required and from what sources to support the Help Desk role. • Reviewing training requirements for Customer Services Agency staff. 	<p>34% have confidence and trust in digital services.</p>	<p>Increase confidence across city to 60% by 2012.</p>	<p>Up to \$50,000</p>

Section Three of the Dunedin Digital Strategy describes in more detail the strategic projects recommended to deliver the Digital Strategy vision and goals.

5 APPENDIX B: RECOMMENDED PROJECT WORK STREAMS

Work Stream	Proj. Ref	4 Cs	Est. Times	Lead Agency	Recommended Contributors	Project Description
Leadership	1	Connection	<ul style="list-style-type: none"> Late 2010 Advisory Group formed and operating Annual publication on work stream progress starting in 2011 	Dunedin Digital Office or Dunedin Digital Trust	<ul style="list-style-type: none"> Community groups in city Technology providers (as required) Business and Education sectors Rural community group member Rural connection project to include Taieri Gorge Member when discussing the use of rail corridor Other Councils or funding bodies (as required) Specialists as necessary (e.g. KAREN, NEN advisors) 	Digital Networks Advisory Group; established to lead discussions on improving digital network in the city and access international digital networking
	4	Content	<ul style="list-style-type: none"> Late 2010 Advisory Group operating 2011 initiatives agreed and implementation starts Annual publication on digital innovation progress across the city starting in 2011 	Dunedin Digital Office or Dunedin Digital Trust	<ul style="list-style-type: none"> University and Polytechnic representative Distiller representative Community and business representatives Chamber of Commerce representative 	Digital Innovation Advisory Group; established to lead initiatives that will provide economic benefit to the city.
	2	Connection	<ul style="list-style-type: none"> Late 2010 project team to lead review operating 2011 implementation starts 	Goal 1 : Council through General Manager Customer Services Goal 2: Council through General Manager City Environment and General Manager Strategy and Development	<ul style="list-style-type: none"> Technology providers to be consulted Benchmark against other Councils Specialists in digital infrastructure Crown Fibre Holding 	Digital Roadblocks; project to prepare the city by identifying where digital infrastructure is required for future digital networks.
Enabling	5	Content	<ul style="list-style-type: none"> 2010 project team formed Implementation starts 2010 	Council through General Manager Customer Services	<ul style="list-style-type: none"> Consult with community on which services are the priority Benchmark against other Councils Library Representative 	Dunedin Online; project to increase the online services provided by the Council to the community, visitors and businesses across the city.

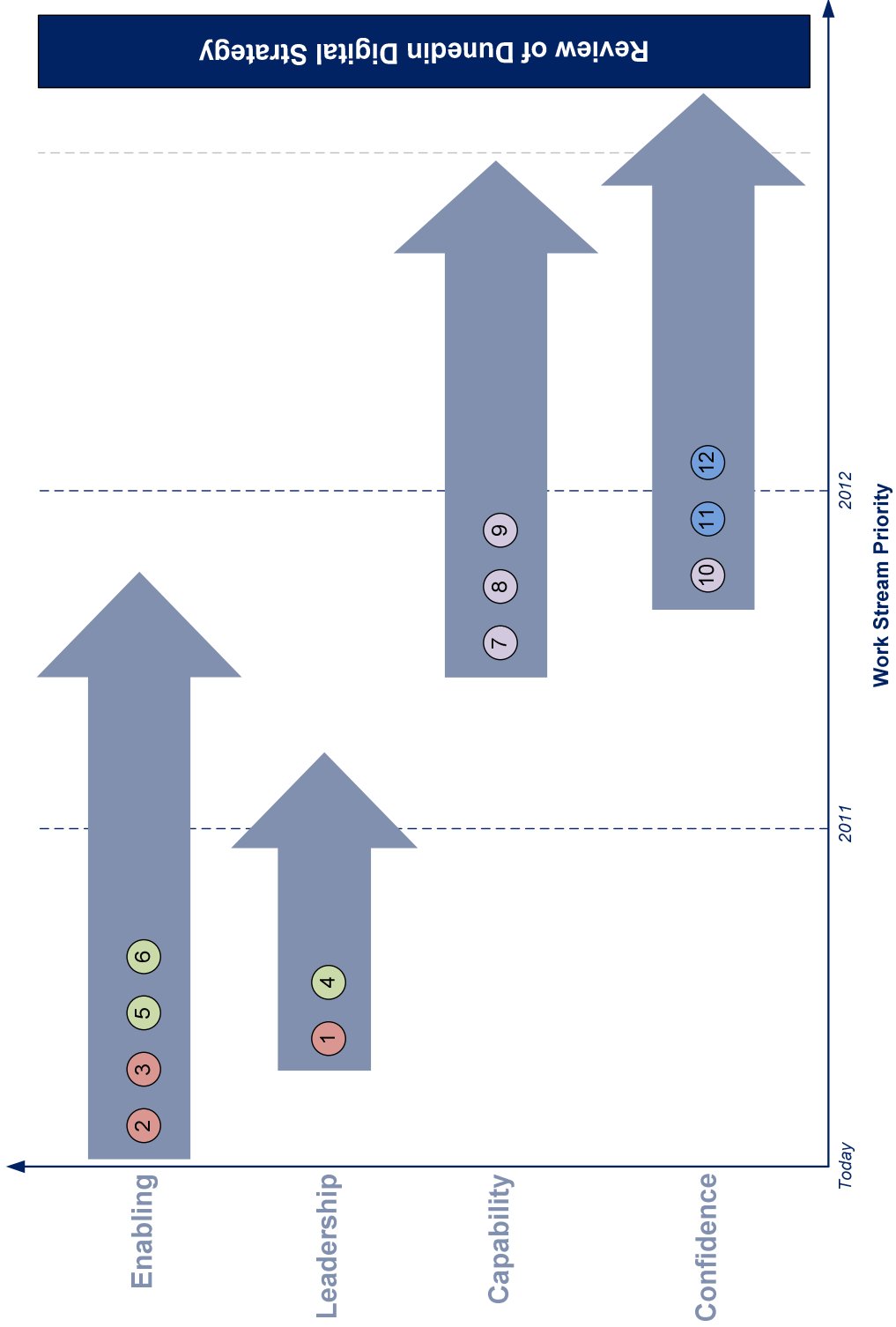
Work Stream	Proj. Ref	4 Cs	Est. Times	Lead Agency	Recommended Contributors	Project Description
Capability	3	Connection	<ul style="list-style-type: none"> Late 2010 project team established 2010-2011 implementation starts Early 2011 decision on free access agreed 	Dunedin Digital Office or Dunedin Digital Trust	<ul style="list-style-type: none"> Community groups in city Commercial vendors and academic institutions (as required) who provide wireless services at present Tourism sector Specialist Technology Advice (as required) to support the decision on what technology to use (e.g. WiMax) 	Dunedin Wireless Network ; implement a wireless service (wifi) across the central city and outlining suburbs to improve accessibility to digital networks across the City.
	6	Content	<ul style="list-style-type: none"> Late 2010 project team formed 2011 portal developed and implemented and integrated with Dunedin Wireless Network 	Council through the General Manager Strategy and Development	<ul style="list-style-type: none"> Tourism Dunedin and Tourism representative i-site team to represent visitors interests Council: BIS and Marketing Activity Area representative Community Groups University and Polytechnic Library Representative DVML representative 	Dunedin City Portal ; Establish a Dunedin City Portal to integrate information across separate online websites within a single entity. This includes information for students, businesses, visitors and the community.
	7	Capable	<ul style="list-style-type: none"> Early 2011 project team formed Late 2011 implementation starts 	Dunedin Digital Office or Dunedin Digital Trust	<ul style="list-style-type: none"> Education representatives to assist with project Businesses to review partnerships opportunities Community Trust representative Computers in Home scheme representative in Dunedin Cargill Enterprises regarding discussions on re-using and recycling projects 	Digital Technology ; project to increase the number of digital devices available across the community, families and at schools. Promote open source solutions and re-using/recycling of technology.
Capability	8	Capable	<ul style="list-style-type: none"> 2011 project team to lead review operating 2012 decision on viability made 2012-2013 Computer Club implementation starts 	Dunedin Digital Office or Dunedin Digital Trust	<ul style="list-style-type: none"> Advice from Computer Club House NZ Community groups to assess needs University and Polytechnic representatives Library member Community Trust representative 	Computer Club House ; establish a community based Computer Club House (or similar initiative) to provide access to digital technology to members of the community who have little exposure at present.
	9	Capable	<ul style="list-style-type: none"> 2011 project review underway and decision on service made Late 2011 service begins operating 	Dunedin Digital Office or Dunedin Digital Trust	<ul style="list-style-type: none"> Community Trusts representative University and Polytechnic representatives Specialist Advice 	Digital Ambassadors ; to improve digital capability across community, not for profit and small businesses sectors

Work Stream	Proj. Ref	4 Cs	Est. Times	Lead Agency	Recommended Contributors	Project Description
Confidence	10	Capable	<ul style="list-style-type: none"> 2011 project team is formed 2011 review completed on resources available and implementation starts 	Dunedin Office or Dunedin Digital Trust	<ul style="list-style-type: none"> Community learning Centres representative Libraries representative Polytechnic Representative NZ ICT representative for 'kiwi skills' collaboration 	Digital Literacy ; raise the level of digital literacy across the community.
	11	Confidence	<ul style="list-style-type: none"> Late 2011 key partnerships established and services agreed Educational programmes operating from Late 2011 / early 2012 	Dunedin Digital Office or Dunedin Digital Trust	<ul style="list-style-type: none"> Education providers in the city Community Groups to assess needs Netsafe organisation Law enforcement agencies 	Digital Safe use ; educational campaign to promote safe use of digital technology.
	12	Confidence	<ul style="list-style-type: none"> Late 2011 project review completed and partnership opportunities explored Early 2012 digital help desk service operating 	Council through the General Manager Customer Services	<ul style="list-style-type: none"> Community Group to assess needs 	Digital Help Desk ; project to provide advice and guidance on connecting and using digital services.

Section Four describes a recommended implementation plan for the Dunedin Digital Strategy in more detail.

6 APPENDIX C: RECOMMENDED DIGITAL TIMELINE

The timeline below provides a recommended high level indication on when the Digital Strategy Advisory Groups and strategic projects should start.



How to read this document

This is **Section Two** of the Dunedin Digital Strategy

There are four sections within the Strategy. Each section builds upon the previous section to provide a detailed report on the digital opportunity, strategy and implementation plan.

SECTION ONE – FAST TRACK

An overview of the Dunedin Digital Strategy from start to finish.

This document summarises Sections Two to Four.



SECTION TWO – THE OPPORTUNITY

The key opportunities for visitors, residents, businesses and students across the four key strategic themes of: **connection, content, capability and confidence.**

SECTION THREE – THE STRATEGY

The Dunedin Digital Strategy.

The strategic vision and goals and the projects required to deliver the Digital Strategy.

SECTION FOUR – THE PLAN

Recommends an action plan to implement the Dunedin Digital Strategy.

Includes recommendations on which projects should start first, who should lead them and who should be involved.

Strategy prepared by: Stuart Dillon-Roberts

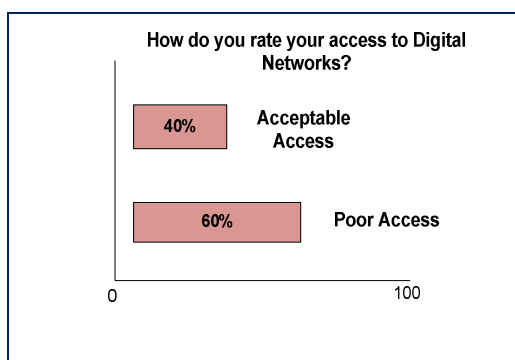
stuart@effectus.co.nz



The 'tag cloud' image on the front cover of this report records many of the key words raised during the Dunedin Digital Strategy consultation

1 OPPORTUNITY TO CONNECT THE CITY

Connectivity is the starting point in the development of a Digital Strategy for the city.



During the consultation the connectivity aspect was widely discussed and the importance of delivering a high quality, fast, accessible and affordable service strongly emphasised. There was frustration expressed by businesses that cannot connect to a fast digital network, complaints that services are not available outside of the city centre and that digital services are too expensive. Across the city only 40% of Dunedin residents surveyed are satisfied with their access to digital services.

The message from public consultation has been clear. The Digital Strategy needs to deliver a multi-tiered approach to create a connected city that delivers: fast, high quality, accessible and affordable digital networks to the community and businesses. This provides an opportunity for the Council to take a leading role in the development of a connected city.

The Connectivity Opportunity

To create a “connected city” whereby residents across the city, from Middlemarch to Waikouaiti and across the city centre to down the Peninsula, have the option to connect to fast, high quality and affordable digital networks.

How do we do this?

Consultation and the research undertaken indicate that to create a connected city a multi-tiered approach is required. A starting point, and fundamental to a connected city, is to build a digital highway that provides a connectivity backbone across the city.

1.1 Building the Digital Highway

Like building a road, it is important to construct the foundations first. For Dunedin to be a connected city the core foundation of our digital services need to be built first and built well.

There are a number of technologies that can provide fast digital networks. Fibre optic cable is, for many, the leading technology for building the foundations for digital networks. Whilst there are other technologies that can be used, and these options need to be considered, fibre does provide a means to provide fast, high quality access over long distances.

Fibre is also used to communicate outside the city and connect Dunedin to the backbone of local and international digital networks. It is therefore an important building block in the development of a digital network and creating a connecting city.

Within the city commercial vendors do provide access to high speed digital networks and fibre optic technology. But this is

Why Fibre Optic?

Fibre optic can be used to connect to high speed data access or for providing access over long distances. Connecting homes or businesses to fibre enables huge improvements in the bandwidth provided. Fibre will enable fast data transfers, allow access to high quality video, improve communications across the internet and enable businesses and home users to partake in digital services today and in the future.

limited and not all businesses, community groups, schools and home users have access to fast digital networks. This is impacting our city and restricting the digital services that can be used.

*“I need fast internet access for my business today”
Business Owner, Dunedin Central City*

*“I have relocated my business to Melbourne
Australia due to the appalling connection speeds”
Business Owner, Dunedin Central City*

There are two issues here: to create a connected city we need fast access to digital networks and we need to deliver these services to those who need it most. What is missing is focus and businesses, community groups and schools have made it clear that fast access is needed to their doorsteps for them to use digital services today and in the future.

So what can be done?

1.1.1 Government and Commercial Initiatives

The Government has committed to accelerating the implementation of a fibre optic cable infrastructure over the next 10 years through an Ultra Fast Broadband (UFB) initiative. To achieve this objective the government is seeking commercial partners to implement fibre. Aurora (a Dunedin city operated company) has joined with Southland electricity lines companies in a joint venture named Flute. This proposal, which is in competition with national providers, intends to meet the government’s requirement of implementing fibre optic cable across Dunedin city. A decision on the preferred vendor will be made later in 2010.

Ultra-Fast Broadband

The government will be investing up to \$1.5 billion in open-access, dark-fibre infrastructure to accelerate the roll-out of ultra-fast broadband to 75 percent of New Zealanders over ten years.

Ultra-fast broadband is defined as a fibre-to-the-premise broadband service providing downlink speeds of at least 100 Mbps and uplink speeds of at least 50 Mbps.

Source:
www.med.govt.nz/broadband

In addition, commercial vendors also have plans for building faster digital services across the city. This includes expanding the current services, increasing capacity and introducing new services.

The Kiwi Advanced Research Network (KAREN) has two points of presence in the city at AgResearch in Mosgiel and at the University of Otago. The KAREN network is currently focussed on providing high speed networking access for research and education. However there are discussions underway to broaden who can use this network.

Both the government and commercial vendors are indicating that faster, higher quality digital services will be available to complement the current services available.

For the residents and businesses in the city this will be welcomed news but the time frame for these services to be available is unclear and the question on whether these services will meet the needs of businesses, community groups and schools is left unanswered.

“Isn’t the digital connectivity direction confusing with no clear vision for our city” Business Owner, Dunedin

The Need for Speed

Building a fast digital network is a critical component to the city’s economic competitiveness and an essential factor for our future.

Why?

The future of digital services lies in media-rich content requiring fast access to digital networks. We have moved away from plain text emails to sharing photos and videos online. The future will be about high definition TV through the internet, desktop video conferencing and online multimedia learning.

It is confusing with government initiatives waiting to be confirmed and commercial vendors all promising investment in the region. This presents an opportunity to take a leadership role and ensure that the city’s digital highway is built promptly and that those who need it most are identified as high priority.

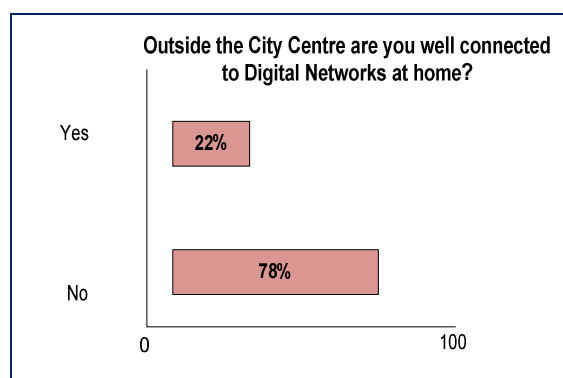
The Council or another group can be an advocate for connecting those businesses, community groups and schools that need faster connectivity as a priority, influence the implementation of faster digital services and work more closely with the commercial vendors and the government to ensure that commitments are met. Finally the lobby group can be an advocate for building a stronger digital highway and keep city residents informed on the development of the city’s digital network.

However, both the government’s UFB initiative and the commercial vendors have a focus on delivering digital networks to the populous areas of Dunedin city. The more rural parts of Dunedin will miss out. A strong message during the consultation has been that we need to consider connectivity across all parts of the city.

1.1.2 Connecting Rural Dunedin

The consultation process highlighted that there are significant limitations accessing digital services outside the central parts of the city. Appendix A illustrates the service providers across the city and the limited choice outside of main city centre.

This is supported by the consultation survey with 78% of those responded complaining about the poor level of connectivity outside of the city centre.



A point raised during the consultation was that it falls to financial economics: a commercial network provider is not likely to invest in a digital network outside of the city when the financial return is lower than that in the central city. The government has recognised this problem and committed \$300 million to invest in connecting rural communities to digital services¹. This includes targets of 97% of rural households to be connected to broadband services and 97% of rural schools to be connected within the next 6 years. This is a positive move and presents a clear opportunity for the city to claim a stake in this investment.

But why connect the rural regions?

This question was raised during the consultation. There is no clear business case for connecting the more rural parts of the city. But to create a truly connected city and present the rural community with the opportunity to connect to digital services, digital networks within the rural regions will be required.

The consultation highlighted many opportunities to deliver new services to the rural community and a few are illustrated in the text box opposite.

Research also showed that at times there isn’t a strong business case for connecting rural sectors, but once they are connected these areas flourish, new digital businesses start and those who choose to work from home can do so.

What Difference Will Connecting the Rural Community Provide?

Your comments:

- Practice nurses who can connect to rural patients through a web camera and check on their health remotely.
- Tourists being able to check the weather in Middlemarch on a web cam before starting the Rail Trail.
- Rural schools being able to participate in online educational services and have video conference links.

¹ Source: Ministry of Economic Development Broadband investment, April 2010.

*“Realise that the benefit of any investment in getting better access to Dunedin people is much larger than the investment. The ROI is excellent”
 Business Owner, Port Chalmers.*

But how can we connect the rural parts of the city?

There are a number of technologies and potential routes to connect the rural sector. Each option will need to be considered in more detail. As an illustration, Appendix B shows how a digital network could be extended to the rural parts of the city by utilising the rail infrastructure from Dunedin to Middlemarch. In this example, a partnership with a network provider could reduce the financial investment required. This also presents an opportunity for a joint venture with other Councils to build an infrastructure that extends into their region and to work together to claim a stake in the government’s investment in the rural sector.

There are a number of questions to work through to find the best solution, best route and who can assist. To move this forward will require a project to review all options and make a recommendation of the most cost effective and meaningful solution. What we do know is that the rural aspects of the city are unlikely to be connected without leadership and support.

“I believe that if the DCC is truly committed to a regional communications strategy it should include ALL its rural residents, as much of the region is rural from Tumahai to Henley to Hyde” Resident, Dunedin

1.1.3 Removing Barriers

Implementing a digital network across the city will require investment in technology and detailed planning to deliver services to the locations that need it most. During the consultation process it was suggested that the Council can support the installation of digital services by working with the network providers and remove any barriers that delay the development of the city’s digital services. The building sector also realises the need for preparing our homes and offices for digital services in the future. A new building code entitled ‘Premises Wiring Code of Practice’ recommends standards to be followed when wiring new buildings to gain the full benefits of digital services in the future. At present this code of practice is voluntary.

The Council needs to consider this new code of practice but also consider options to: fast track consent process, coordinate the installation of cable ducting when the opportunity presents and work closely with network suppliers to understand their longer term plans.

“One thing the Council can do is lay cable ducting to make it easier to install fibre” Business Owner, Dunedin.

The Council may wish to consider the use of redundant water\sewage pipes to lay fibre or railway lines to lay cable over large distances. Technologies are also advancing with options now available to lay fibre more efficiently without the impact of digging up roads or pathways. As a city the more that can be done to prepare for digital technology the faster digital services will be delivered.

This presents an opportunity for the Council to consider its internal processes, define the networking standards to be followed, assess any barriers that are impeding commercial network providers from installing digital networks and prepare new ‘green field’ sites for future digital technology.

1.2 Building an Accessible and Affordable Digital Network

A connected city will require a multi-tiered digital network. During the consultation there was strong support for a wireless network for visitors to use to provide access to digital services through portable devices, like laptops or mobile devices.

Creating a wireless (wifi) network across the city will deliver digital services to a wide area and allow portable or mobile devices to access digital services from a location they choose. Feedback from the consultation was this service should be free of charge.

FACT: 40% of respondents when asked “what service would bring prosperity to the region and make Dunedin a better place to live, study, work and play” **suggested a free wifi service.**

Consultation with the Tourism sector highlighted that there is a growing expectation from tourists that wireless technology will be available to check emails, book online services and connect to digital services on the internet. At present there are limited digital networks for tourists or visitors to use across the city, except for those operating commercially.

This isn't a new concept, students and staff at the University of Otago have access to a wireless network within the boundary of the University campus which allows access to the University's digital services and the internet. There are plans to extend this service to include student residential addresses. Otago Polytechnic and a commercial company are in partnership providing wireless services across Dunedin. In addition, the Council is currently trialling a free wireless service within the Octagon and Dunedin Public Library provides free wireless access to the internet as part of the Aotearoa People's Network Kaharoa². Across the city centre there are also commercial businesses operating wireless services which allow access to the internet for a charge.

This is More Than a Service!

It was commented during the consultation that providing a free wifi is more than a great service it also a great way to market and brand the city.

“Whilst Southland may have “zero fees”, Dunedin has free wifi”.

This is a great way to market the city to visitors and tourists.

The opportunity is to review the wireless services across the city, identify the areas that have no coverage and work towards establishing a city wide service.

“Implement a free wifi network across the city and put signs up around the city promoting the service” Resident, Dunedin

Can this be free?

Further work will be required to decide how the service could operate. It could be designed to permit access to the community, students, tourists and visitors if the amount of information downloaded or uploaded is kept within a daily limit or a period of time. Once outside this limit costs could be on-charged to use the service which may over time cover the operating costs of the network.

1.3 Summary

There is a strong need to improve access to high performance, high quality, accessible and affordable digital networking across Dunedin city. The opportunity is to implement a multi-tiered digital network which provides access to digital services across the city.

² 50% of New Zealand's public libraries are partners to the Aotearoa People's Network Kaharoa (<http://www.aotearoapeoplesnetwork.org/>) which provides free access to high speed broadband internet as well as a range of software applications.

The consultation process supported the development of the digital highway across the city and improving access to fast, high quality digital services to those who need it most. There was also strong support for the installation of a wireless network and providing this free of charge for a period of time.

Consultation emphasised that the rural parts of the city need to be included within any plans to expand digital networks. It was acknowledged that investment will be required, with potential partnerships or joint ventures with other Councils, to build a rural digital network. It was also stressed that there is uncertainty at present, with no clear picture on how digital networks will be developed across the city until the government and other agencies' intentions have been communicated. What we do know is that we need to be first in the queue to stake our claim for financial support and ensure we deliver the services the city needs.

Finally, the consultation also raised that the city needs to lobby for improved digital networks out of the city and expanding international access to digital services.

The opportunities are summarised in the table below:

Discussion	Opportunity	Strategic Ref
Many business, communities and schools not serviced by fast, high quality digital networks.	<ul style="list-style-type: none"> Opportunity to take a leadership role in the development of high speed access across the city and influence the implementation plans to ensure those who need it most are identified as high priority. 	1
Confusion on how digital networking will be advanced across the city.	<ul style="list-style-type: none"> Opportunity for the city to work more closely with the government, commercial agencies, KAREN and other bodies to understand digital network plans. Opportunity to inform city residents on what digital networking service will be available and when. 	1
Poor access to digital networks across the rural sector.	<ul style="list-style-type: none"> Opportunity to review how digital networks can be delivered to the rural community and what partnerships or joint ventures can be established to deliver services. Opportunity to provide wireless networks to the rural communities in the city. Opportunity to work with the government and capitalise on the government's commitment to connect the rural sector. 	1
Commercial vendors concerned over internal Council processes impeding the speed that digital networks can be installed. Green field sites are not being prepared for new technology.	<ul style="list-style-type: none"> Opportunity for an internal review of Council processes and procedures to determine what can be done. Opportunity to work with the Council to install a digital infrastructure to assist the installation of digital networks. Opportunity to prepare green field sites for future digital services. 	2
Need to provide a digital network that is accessible to all. Patchy access to digital networks across the city.	<ul style="list-style-type: none"> Opportunity to provide a Dunedin city wireless service for the community, visitors and businesses to use. 	3

Discussion	Opportunity	Strategic Ref
<p>Digital networks considered expensive by residents. Tourists to the city have an expectation to access free digital services.</p>	<ul style="list-style-type: none"> Opportunity to provide a free digital service for the community, visitors and businesses to access. 	<p>3</p>

2 OPPORTUNITY TO CREATE DIGITAL CONTENT

Connectivity has dominated the digital debate at the expense of other digital enablers. This is naturally the most important starting point as good connectivity is essential for the development of content on digital networks. However, the content aspect of the four Cs presents the greatest opportunity to build economic wealth and prosperity across the city.

The city has many success stories already with world class digital businesses operating within the city. We also have many smaller start-up digital businesses that have established their roots in Dunedin. We have left the starting blocks but we need to keep these businesses within the city and encourage more digital businesses to grow the city, attract and retain talent and increase economic wealth. To do this we do need the connectivity but we also need to create an environment where innovation is encouraged and creativity is rewarded.

The Content Opportunity

The opportunity for Dunedin city is be to the city of digital innovation, boosting the local economy, opening new markets and enabling community services.

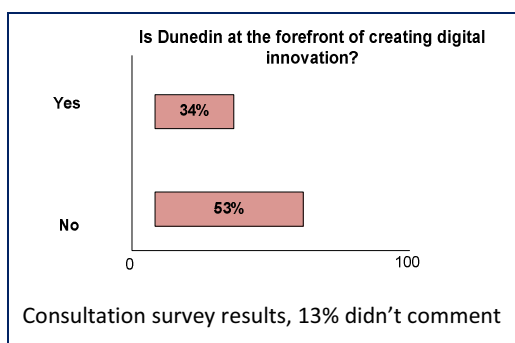
2.1 City of Digital Innovation

The Council, through the Economic Development Unit (EDU), has recognised the potential for increasing revenue within the city through the encouragement and financial support of the Information, Communication Technology (ICT) sector. The EDU leads a number of initiatives to assist start-up digital businesses and through its ICT cluster meetings it encourages greater collaboration across the sector. In addition we are fortunate to have the University of Otago’s Centre for Innovation (CFI); which facilitates the development of commercial applications via collaborations between the University and industry researchers, student entrepreneurs, and academic researchers on the University’s campus. It provides an innovative environment including high speed internet access for the rapid development of new products and processes.

Local Success Story:

"PocketSmith is a web-based calendar and budgeting tool that forecasts your future cash position. Based in the Dunedin Centre for Innovation, PocketSmith was started by three entrepreneurs with a view to going global from Dunedin. Their digital service now operates across an international market with users in 100 countries, and services the world's largest Employee Assistance Provider, who have 18.5 million clients worldwide."

www.pocketsmith.com



Finally, there is also a strong Chamber of Commerce operating in the city and local initiatives like Upstart House and The Distiller³ which provide a positive environment for start-up businesses.

The above examples paint a positive picture, yet the consultation meetings and survey results indicate that there is a low perception of our ability to create digital content or attract new start-up businesses within the city (refer to graph at left). It was commented that the businesses that operate in the city do so for the quality of

3 Reference: <http://thedistiller.org/> and <http://www.upstart.org.nz/>

life Dunedin provides and not because of the support from the Council, support networks or digital services available.

The results indicate there is more work to do to promote the city's strengths, attract and retain future entrepreneurs and create an environment that supports innovation.

So what can be done?

Consultation highlighted that there a number of opportunities to be considered. Firstly that having fast, high quality connectivity is imperative, without this, businesses will look elsewhere. This has to happen but also important is to support innovation and attract new businesses by promoting the city's strengths, develop closer alignment with the students at the University and Polytechnic and create a positive and supportive environment for start-up businesses to operate within. These opportunities are discussed in more detail below.

2.1.1 Promote Our Strengths

The city has a number of high profile success stories where Dunedin businesses have become international market leaders. This includes Animation Research Limited and Natural History NZ, both Dunedin companies that operate internationally and are highly regarded within their respective fields. These success stories present an opportunity to promote the city and that successful digital technology companies can thrive across the region.

Equally important is to promote the city to its students and tap into the entrepreneurs of the future before they leave. The opportunity is to work more closely with the University of Otago, Otago Polytechnic and The Distiller to highlight the city's strengths whilst also promoting the services that the EDU offer to support new businesses.

Another suggestion made during the consultation was to include our digital success stories within the city's biannual Science Week festival.

“Shout from the roof tops that Dunedin is a great place for digital entrepreneurs” Resident, Dunedin

2.1.2 Community Services for Start-Up Businesses

In discussion with the start-up businesses in the city it was recognised that one of the barriers for starting a new business is the investment in technology and access to services. To create a city where digital innovation is encouraged, the opportunity is to provide community services to start-up digital businesses. These services could be made available for a nominal fee or free for a period of time. The suggested services included:

- Technology services:
 - Shared Services: access to community based services whereby technology is provided for the community to use. This could include email, storage or web services. This type of service is often referred to as 'shared services'.
 - Connection: access to the internet for a period of time (for example 12 months).
 - Data Centre: access to a community provided data centre to safely store ICT equipment.
 - Knowledge Base: portal to share ideas and software development tips and tricks for the digital content developers.
- Business services:
 - Business Skills: sales and marketing advice and tips on developing business plans, etc.

- Mentoring: assist start-up businesses to mature their business focus and skills.

This is not the core business of the Council and partnerships with other organisations to provide these services would be required. It was noted during the consultation that many of the businesses across the city were willing to assist start-up businesses. This included: space in data centres to store servers, mentoring of executives at small businesses and access to resources to help the start-up business grow. What was missing is the facilitation of the process to link the start-ups and businesses together.

“More than happy to provide space in our data centre for the benefit of the community” Chief Information Officer, Dunedin

2.1.3 Sister City

To attract new businesses to the city we need to stand out from other cities across the country; there needs to be a point of difference. One of Dunedin’s sister cities presents an opportunity to provide the point of difference: Shanghai is considered one of the leading centres for innovation in the world and operates a number of academic and technology organisations across city. This includes the Shanghai Technology Business Incubation Association⁴ which leads innovation and supports new technology businesses in Shanghai.

This, and others institutions across Shanghai, present an opportunity for the two cities to work more closely on how they support innovation and grow businesses. This may also lead on to joint development projects, sharing knowledge and advice on trading in each country.

A point of difference and an opportunity to learn from one of the leading technology centres in the world.

2.1.4 Online Mentors

During the consultation the idea of ‘ICT Heroes’ was raised. Within the city there are entrepreneurs who have grown businesses to the point where they are now established at an international level. These entrepreneurs are well known across the ICT community and are referred to as ‘ICT Heroes’.

“I returned to Dunedin from Auckland to learn from the ICT Heroes in the city and use their guidance to grow my business” Craig Smith, Language Perfect

Animation Research Limited has created an entrepreneurs’ community website. Here members of the community can seek advice, submit ideas to mentors and collaborate with other entrepreneurs.

Source:
<http://whakaaturanga.arl.co.nz/>

This presents a great opportunity for the city. Firstly to promote that these ICT heroes are located in Dunedin and secondly, with their support, formalise a mentoring programme to inspire and develop the future start-up businesses.

Often when mentoring is considered it assumes a one to one meeting between two parties. It was raised however, that an online mentoring service for start-up businesses could be created whereby a wider audience can seek guidance from the ICT heroes and other digital mentors.

Animation Research Limited with support from local businesses has established an online mentoring service. Whilst in its early days and currently focussed on the Maori entrepreneur community this service could be developed for Dunedin city based businesses. An overview of the service is explained in the text box.

⁴ Website: www.tic.stn.sh.cn/en

2.1.5 Summary

The previous section describes a handful of ideas that were discussed during the consultation process. There was strong support from businesses to assist and eagerness from start-up businesses to engage more closely. What was clear was that both parties needed to be linked and services formalised to make Dunedin stand out in the crowd.

"Take leadership in bringing the right people and businesses together to lead innovation and find positive solutions for our city"

Resident, Dunedin

2.2 City of Digital Content

Throughout the consultation there have been a number of suggestions on the types of digital content that could be developed to benefit the community. Examples of these are shown in the text box to the right.

One of the ideas that had strong support was to develop a Dunedin City Portal.

2.2.1 Dunedin City Portal

The concept of the Dunedin City Portal is to provide a 'one stop shop' for information on the city.

It was commented that information on city events, activities and the tourism ventures available across the city are already on a number of web sites. Ideally this information could be integrated within a central service for the benefit of residents, visitors and tourists. A Dunedin City portal would provide this service as a single location to find out more about the city. Information could include: list of the events happening across the city, tourism ventures

Dunedin Portal Experience

- A visitor to the city connects to the free wireless service (see section 1.2) through their mobile device. The Dunedin City portal web page opens up. From here they look for the times of the Taieri Gorge train trip and then book a train excursion.
- Tourists connect to the wifi network and connect to the activities page to watch videos on what to do when in the city
- A resident connected to the wifi network and checks out the 'events' calendar to find out what events are running next weekend.

running for the week, a centralised booking system and snippets of information on the city's attractions. The portal would be 'best of breeds' and developed to be visually stimulating and embrace the latest digital technology to showcase the city as a centre for innovation.

In addition, integrating all the attractions and activities across the city into a single service supports the development of brand 'Dunedin' and provides an ideal platform to promote the city.

The text box to the left provides an illustration on how the service could operate.

Examples from the consultation:

- Medical – create an iphone application that showed where the medical facilities and defibrillators are located across the city.
- Cultural Tours of the city through mobile devices that prompted tourists when they passed a place of interest.
- Centralised booking site for tourists to book excursions on Dunedin's attractions.

"I like the idea of a Dunedin portal which takes potential visitors through the various activities from the Taieri Gorge railway to penguin watching at Sandfly beach (paid for as well as free activities). Also, we're a university town, it would be a good idea to have some kind of "education" portal for potential students which could provide information on what courses are here, where to live, average rents, "find a flatmate" services etc." Resident, Dunedin.

It was also discussed that the Dunedin City Portal service could be integrated with the Dunedin wireless network (discussed in section 1.2) and be the first 'port of call' when connected to the wifi network.

2.2.2 Dunedin City Council

The opportunity is to create a city that embraces digital services and is at the forefront of creating digital content.

During the consultation it was raised that the Dunedin City Council has to 'get onboard' and embrace this vision for the city and deliver more services to the community online.

"Greater ability to register applications online and to use the internet for all of the Council's services" Resident, Dunedin

Suggestions included: paying rates online, forms available online, policy development (e-democracy) and increased community engagement through online social networking tools. There was strong support for the Council to engage more closely with the city residents to understand what online services are needed and then take a progressive approach to delivering more online content.

In addition, during the consultation it was noted that this would provide the Council with the opportunity to be more transparent through digital services and publish Council datasets to the community.

"Publishing council datasets in open formats would signal that Dunedin is a city with a forward thinking vision for ICT, and would allow ICT businesses, students and others to develop value-added services to ease and improve the ease of living in Dunedin and to allow for better public awareness of and contribution to policy and decision making" Dunedin Resident.

This will signal to the community that the Council is committed to delivering digital content and is actively pursuing opportunities to serve residents through online services.

2.3 Summary

The opportunity is for a leadership role in the development of digital content and providing an environment that supports digital innovation. This will attract new businesses, keep talent in the city and boost the local economy.

In addition, the Council have the opportunity to lead by example and develop more online services and be more transparent with Council information.

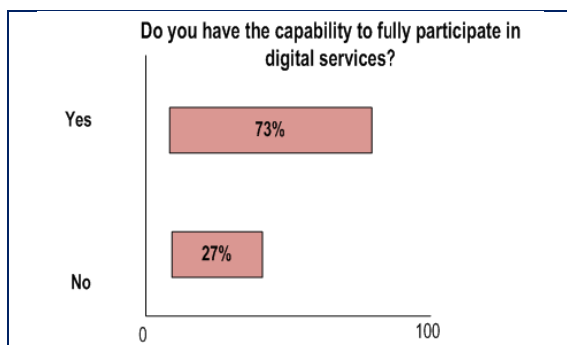
The opportunities are summarised in the table below:

Discussion	Opportunity	Strategic Ref
<p>Improve the attractiveness of the city and promote to all the services we have available.</p>	<ul style="list-style-type: none"> • Opportunity to promote the city and highlight local success stories and the services available to attract more businesses to fuel economic growth. 	<p>4</p>
<p>Need to be innovative to attract and retain new start-up businesses.</p>	<ul style="list-style-type: none"> • Opportunity to provide free services to start-up businesses including access to technology and business services like sales and marketing advice. • Opportunity to work with our sister city to review how to encourage start up businesses and grow technology. • Encourage start-up businesses to grow through mentoring services and learning from the ICT heroes within our city. 	<p>4</p>
<p>Improve Council services available online and be more transparent with Council information.</p>	<ul style="list-style-type: none"> • Council to lead the way and deliver more services online to the community. Focus on online payments, RSS feeds and council forms. • Opportunity to use social networking tools to engage with the community. • Opportunity to review e-democracy to engage more close on policy development. • Council information available for residents to analyse and review. 	<p>5</p>
<p>Digital content difficult to locate and operating in isolation across the city.</p>	<ul style="list-style-type: none"> • Opportunity to create a ‘Dunedin Digital Portal’ to centralise information for visitors, residents and tourists. • Promote the city’s attractions and community information within a single service. • Support the message of brand ‘Dunedin’. 	<p>6</p>

3 OPPORTUNITY TO BUILD CAPABILITY

Technology is rapidly changing the way we do things, how we do them and by what means. Keeping up with technology both at home and at work can be a daunting task.

There is an increasing need to learn new skills to keep abreast of technology and use digital services advantageously within a business, community or school setting. It can be argued that this is the most important of the four Cs as we can have the best connected city in NZ and provide rich digital content but if residents, communities or businesses cannot fully participate in digital services the Strategy has failed.



Dunedin has a disperse set of abilities on digital technology. On one hand we have experts within the field and entrepreneurs creating new digital services, on the other hand we have people with limited knowledge on digital services. The survey results, indicated in the text box, indicate a high level of capability across those who completed the online survey; this is to be expected as the digitally enabled tended to respond to the online survey. In contrast during the consultation workshops a different message was heard with many communities and

businesses lacking the skills and understanding to fully participate in digital services. There is a clear digital skills gap between the digitally capable and those lacking the skills to fully understand and use digital services.

The Capability Opportunity

The opportunity is for the city is to raise the level of access, knowledge and capability on digital services to create a digitally capable city.


3.1 Schools and the Community

Education is the starting point for a capable community. It was strongly supported during the consultation that the city needed to raise the level of digital literacy by improving access to digital networks for schools, communities and families in the city.

3.1.1 Capability across Schools

A number of schools across Dunedin city have poor access to digital services and lack devices to connect to digital networks. There are exceptions, with a number of schools that are well equipped and serviced. The consultation process highlighted that many felt it was important to address this issue first to ensure that future generations are exposed to digital services and have a high degree of digital capability.

In addition, another strong message during the consultation was to connect schools to fast and high quality internet access. This is a message that is also being supported by the government through the National Education Network (NEN). NEN has been



The NEN provides very fast, unrestricted broadband to schools, creating a new learning environment for collaboration and access to online content and services.

Source:
www.karen.net.nz/national-education-network

funded to extend a trial to connect 200 schools across New Zealand. This includes providing high speed access, communication equipment and financial assistance to cover costs of connecting to the NEN.

This is an important initiative and worthy of support but it is currently just a trial and will provide for only a small percentage of schools across New Zealand.

This presents an opportunity to review locally which schools have access to high speed digital networks, which ones have limited access and identify options to connect the schools that need it most. This may involve the NEN or be a local initiative like creating a Dunedin Schools Digital Loop to connect schools together and provide shared access to digital services.

Connection is the first priority and, as raised in the previous section, this is an issue that needs to be addressed. It is also recognised that many schools do not have sufficient computers to connect to the internet or digital services. This was raised as a concern during the consultation and expressed that there is a need to equip schools with digital technology. This technology could include: additional computers, mobile devices (laptops\i-pads) or interactive white boards so that classes can see digital services in action.

Your comments included:

"Increase the number of computers in all primary and intermediate schools (at least 5 per classroom)" Business Owner, Dunedin

Computers In Homes

www.computerinhomes.org.nz

This project aims to support low income communities to use ICT to strengthen their education.

It works with low decile schools and families in greatest need by providing refurbished computers.

"My local school needs more computers to fully participate in the new online educational services"
Resident, Dunedin

Across New Zealand this issues has been recognised and schemes like 'Computers in Homes' have been developed to increase the number of computers in low decile schools. The approach taken is to refurbish computers and provide them to schools or families in need. This scheme also includes training and assistance with using the

computer.

So what can we do?

To create a truly connected and digitally capable city options for increasing the accessibility of digital devices to school age children needs to be considered.

Options that were expressed during consultation included:

- Establishing a computer broker service to allow businesses or individuals that no longer require a computer to donate this to a school that is in need. This could be facilitated through the 'Computers in Homes' scheme or through other initiatives currently operating in the city.
- Creating an active partnership where commercial vendors sponsor technology within a school or a community group. This may be in the form of computer hardware, interactive white boards or services to access the internet.
- Providing grants to support the purchase and maintenance of technology for schools or community groups in need.

There is a clear desire to address the limited access to digital devices within certain schools across Dunedin city. The opportunity is to consider initiatives to work more closely with businesses that regularly replace digital technology to identify surplus technology that schools can use. Consideration should also be given to direct financial support to purchase new items and maintain those currently in use.

In addition, any scheme increasing access to digital technology also needs to include training and assistance to ensure the technology is used well.

3.1.2 Capability across the Community

The consultation process also highlighted the need to improve digital capability across the community by improving access to digital technology and raising digital literacy.

A concept discussed during the consultation process was to establish a Computer Club House or club houses in the city. The concept behind the Computer Club House is discussed in the text box (to the right).

It is envisaged that the Club House will provide a ‘drop in’ centre for young people to use and learn about digital services in a stimulating and creative environment. Adult mentors would be on hand to guide and support those who use the facility. The mentors supporting the Club House could be volunteers from the ICT students at the University of Otago or Polytechnic.

There was strong feedback from the consultation workshops that a Computer Club House would become a community asset that would raise the capability of digital services and provide access to those who at present are not given the opportunity. The club house could be located within one of the Council libraries, a school or a Community Learning Centre.

The opportunity here is to review how a Computer Club House, or similar initiative, could operate within the city to become a community asset and emphasise the commitment to raising capability across the city.

In addition, there are other sectors that need to be considered within the community. For example: increasing digital capability within the pre-school and retired age groups. These sectors also should be considered and the opportunity is to review the Computer Club House concept and adapt this to be inclusive for all the community.

3.1.3 Open Source Software

It was raised during the consultation that many of the digital devices in schools and across community groups had fallen behind the latest version of operating system or software because the cost to upgrade was too expensive. It was suggested that ‘Open Source’ software may be beneficial. Many schools in Dunedin have been converted to Google Applications and use the Linux operating system. During the consultation there was support for Open Source software to be promoted over purchasing commercial software and the benefits explained to communities and schools. It was also suggested that a ‘Dunedin Open Source DVD’ could be created, which would install an open source operating system and free

Computer Club House

The Club House learning approach is designed to empower youth from all backgrounds to become more capable, creative, and confident learners.

The Computer Club House provides a creative and safe out-of-school learning environment where young people from under-served communities work with adult mentors to explore their own ideas, develop skills, and build confidence in themselves through the use of technology.

Source: www.computerclubhouse.org

Open Source Software

Open Source Software is growing in popularity. Software that is open source is distributed under a licensing arrangement which allows the software to be shared, viewed and modified by other users and organisations. One of the most commonly known open source operating systems is Linux.

software. This may be a solution to resolve those computers that require upgrading and install the latest version of software at no cost.

3.2 Business and Not-For-Profit Engagement

Equally there is a requirement to improve the capability of the business and not-for-profit (NFP) sector to fully participate in and use digital services. It was recognised that digital services play an important role in how businesses communicate, engage with customers, promote products, increase market presence and sell products. It was commented that many businesses do not fully understand the benefits of digital services and have made little investment in technology.

Similarly, the NFP sector and tourism sector expressed views that many do not fully understand the capabilities digital services can present to their sectors.

“Many businesses and community groups wish to use digital services more but lack the knowledge to get going” Community Group Leader, Dunedin

Whilst education has a role to play here and organisations like the Chamber of Commerce provide educational courses for businesses, it was noted that impartial advice is needed to fully explain the benefits of digital services to organisations. Whilst many vendors in the city can provide advice on digital services and technology it was commented that there is a reluctance to use these services as the vendors’ focus can be on the products they sell.

This presents an opportunity to establish a service that improves capability across the business and other sectors by sharing knowledge and providing impartial advice. During the consultation it was discussed that a role of ‘Digital Ambassadors’ could be established to fulfil this need.

3.2.1 Digital Ambassadors

The role of the Digital Ambassador could be to raise the capability and understanding of digital services available across the city. This may be in the form of training, workshops, digital “boot camps” or direct advice. The objective is to link those ‘who know’ to those ‘who don’t know’.

It was discussed that the digital ambassador scheme could operate in a similar way as the Dunedin Community Law centres capitalising on students, business professionals or professional societies⁵ in the city to lead the service. Secondary school students may also wish to support this service.

The text box opposite describes how the Dunedin Community Law centre operates. In addition, it was suggested that seconded staff from businesses or funded positions through community grants could also be used to support the role.

It was acknowledged that this scheme needs to act independently from any vendor with a clear mandate for promoting digital services, raising capability and advising on how digital services can be used to aid productivity, introduce new services or open new markets. The role would provide impartial advice, training and present digital case-studies to

Information for Dunedin Community Law Centre Student Volunteers

The Dunedin Community Law Centre opened in July 1980, and has been providing free legal advice, information, education and advocacy services to the Otago community since that time, with a particular focus on those members of the community who have difficulty accessing traditional legal resources. There are 4 qualified lawyers, a community worker, a law reform worker, an education coordinator, and support people on the 'day staff'. There are also 120 student clinic advisers and 80 lawyers volunteering on a rostered basis to provide legal advice through the advice clinics.

Source: www.dclc.org.nz

⁵ For example, groups like the Dunedin NZ Computer Society.

highlight what can be done. During the consultation it was discussed that ‘digital ambassadors’ may also be in a position to run the Computer Club Houses (reference 3.1.2) and be key supporters of the opportunities discussed in that section.

“Educate people and businesses in the benefits to be gained from having these services and skills. But also make them aware of the dangers (both commercial and social) of falling behind” Business Owner, Dunedin.

3.3 Digital Literacy

Increasing access to digital technology needs to be underpinned by raising the digital literacy across the community. It was noted during the consultation that increasing the digital literacy skills across the community is vital to improving our capability to use technology well. We are fortunate to have Otago Polytechnic’s Community Learning Centres based in the city. These community centres provide an opportunity for residents to complete free training on software applications and digital services.

Digital Literacy Examples

- Using SKYPE to connect to friend or family overseas
- Buying goods through an online shop
- Moving your digital pictures from a digital camera and editing them

These centres are a great asset and need to be encouraged and capitalised upon to further develop capability, raise digital literacy and skills across the community.

It was commented during the consultation process that practical ‘meaningful’ examples on how to use digital services will be necessary to build digital literacy skills. The text box provides examples on the meaningful use of technology which

would also raise digital literacy. There are other digital literacy resources both locally and nationally that can be used as part of a multi-tiered approach to raising digital literacy.

3.4 Re-use and Recycle

Initiatives within this section encourage increasing the number of digital devices available to the community and schools. These are important initiatives as access and exposure to the latest digital devices will improve digital capability. During the consultation this approach was commended but it was also raised that we needed to consider the implications of electronic waste and the impact on the environment. Within Dunedin, Cargill Enterprises provide an e-waste and e-recycling service where computer equipment and associated electronics can be recycled rather than disposed of at a landfill site. Also at the Green Island landfill site a ‘Rummage’ store will accept electronic equipment like computers, keyboards and monitors that are no longer wanted. These items may be of use to someone else and allow items to be re-used rather than disposed. Both of these initiatives need to be encouraged and promoted as part of the initiatives to increase the use of digital devices.

The opportunity is to work with businesses, communities and schools to encourage the re-use and recycling of digital devices as part of the ongoing initiative to raise digital capability.

3.5 Summary

The need is to improve the level of digital literacy and capability. The opportunity is to raise capability through improved access to digital technology particularly at schools and providing access to educational resources to raise awareness on digital services and the benefits these services can provide.

The consultation process highlighted public support for improved access at schools and increasing the technology available for school age children to use. This was further supported with the suggestion of establishing a Computer Club House in the city as a community asset to improve access to digital technology and exposure on digital services. It is important to build the capability from an early age to

ensure that future generations have the capability to use and advance within a digitally empowered environment.

There was also strong support for supporting the business and other sectors by providing impartial advice, training and support to use digital services and improve the services they provide to their customers and the community.

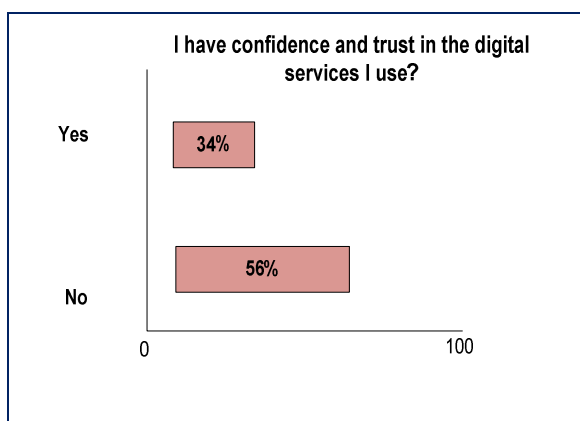
The opportunities are summarised in the table below:

Discussion	Opportunity	Strategic Ref
Not all schools have access to fast and high quality digital networks.	<ul style="list-style-type: none"> Opportunity to take a leadership role in the development of high speed digital network access for schools. Leadership role to work with NEN and lobby for connecting the schools across the city. 	1
Many schools have limited access to technology to fully participate in digital services.	<ul style="list-style-type: none"> Opportunity to increase the number of digital devices at schools through sponsorship, computer broker services and technology partnerships. 	7
Many families do not have access to computers to access digital services.	<ul style="list-style-type: none"> Opportunity to improve access to computers in the home. 	7
<p>Many schools and community groups have computer software that has fallen behind the latest standards and are faced with high costs to upgrade.</p> <p>Growing concern at high costs for technology.</p>	<ul style="list-style-type: none"> Opportunity to promote open source software as an alternative and minimise the expense of maintaining computer software. Opportunity to create a Dunedin Open Source DVD to install software on computers at no cost. 	7
Limited option for communities, particularly youth groups, to use digital technology and digital services in a stimulating and creative environment.	<ul style="list-style-type: none"> Opportunity to establish a 'Computer Club House' in the city to provide access to digital technology to members of the community who have little exposure at present. Provide a community based asset and highlight the city's commitment to raising digital capability across the community. 	8
<p>Many businesses do not have the skills to fully participate in digital services.</p> <p>Sectors like not-for-profit have limited access to impartial advice on how digital services can advance their organisation and the community they serve.</p>	<ul style="list-style-type: none"> Opportunity to create the role of 'Digital Ambassadors' to lead training and provide impartial advice to the small business, not-for-profit and tourism sectors across the city. Opportunity to encourage the use of the community learning centres to provide educational campaigns and raise digital capability. 	9

Discussion	Opportunity	Strategic Ref
Growing number of digital devices that are not being re-used or recycled.	<ul style="list-style-type: none"> • Opportunity to promote the re-use and recycling of electronic waste and encourage the services that operate in the city. 	7
Recognised the importance of raising digital literacy across the community and demonstrating practical use of digital services.	<ul style="list-style-type: none"> • Opportunity to develop digital literacy initiatives that raised digital capability across all sectors in the community. • Capitalise on the services available and promote these across the community. 	10

4 OPPORTUNITY TO RAISE DIGITAL CONFIDENCE

The community and businesses across the city need to trust digital networks and use them with confidence to create a digitally connected city. The threat of a security incident, exposure of private information and the reliability of digital services are concerns that were expressed during the consultation. This was supported by the consultation survey with over half the respondents raising concerns over the use and access to digital services (as per graph below). Particularly, people were concerned over the privacy of information and threat of viruses.



Whilst there are a number of initiatives to raise security awareness, including Netsafe (www.netsafe.org.nz), the consultation process indicated that there is still a high degree of concern regarding security risks which is preventing many from fully participating in digital services.

In addition, concern was also expressed over the reliability of digital services and the impact of a failure on businesses and community who rely heavily on digital services. There is a need to build the confidence of residents, community and business sector in digital services so that that they

can fully participate.

The Confidence Opportunity

The opportunity is to strengthen the understanding and knowledge required for residents to embrace and participate fully in digital services.

4.1 Education and Awareness

Many commented during the consultation their unwillingness to purchase products over the internet due to the risk. Whilst it could be argued that these issues need to be addressed at a nationwide level, to fulfil the vision of a city where the residents confidently use digital services a clear understanding of the threats is required and a proactive education and awareness campaign supported.

“Education is key to raising confidence regarding what the risks are and how to avoid them” Business Owner, Dunedin.

It has been raised that the Community Learning Centres (CLC) provided by Otago Polytechnic or similar services by other organisations are positioned well to enhance digital capability across the city (see section 3.3). This approach, to deliver community education campaigns, could equally be used to provide educational campaigns on the safe use of digital services.

Other methods to raise awareness suggested during the consultation included:

- A column in the Council publications like CityTalk to promote safe internet use and targeted campaigns like buying products over the internet in the Christmas publication;
- Guidance on the Dunedin City Council website and downloadable advisory documents on best practices to follow;

- “Keep secure” week, similar to other campaigns organised to promote safe practice on digital services; and,
- Security best practice advice on the Dunedin City Portal (raised in section 2.2.1).

To deliver these services the Council may need to consider a partnership with a Dunedin institution to guide the development and publication on safe use practices. It is also important to keep one step ahead of the risks and the views of residents and the business sector will need to be canvassed to adapt the security information provided.

Close engagement with the law enforcement agencies was also encouraged to understand the digital risks that are being reported.

“On a daily basis we have a reported incident of cyber bullying made at the Dunedin Police Station” comment made during Civil Defence workshop.

For a more specialist risk, like cyber bullying it was suggested that free workshops could be provided to the community. One of the key messages during the consultation was that the awareness campaigns need to stay fresh and keep abreast of the security risks, understand the changing needs and be creative to promote best practices.

4.2 Help

It was commented that as digital services are advanced across the city there is no service available for residents to turn to for help. The suggested solution was to create a city-wide ‘Digital Help Desk’ service.

This service will allow residents to seek assistance on the safe use of digital services and request advice on best practices to follow. It is not considered that this service will provide technical support on software applications but rather advice on best practices for the safe use of digital services and how to access digital services in the city. The types of questions the Digital Help Desk could answer are shown in the text box.

In addition it was suggested that the Digital Help Desk could also provide:

- Assistance connecting to digital networks, like the Dunedin Wireless Network (as discussed in section 1.2)
- Guidance on the digital services across the city, like the Computer Club House suggestion (discussed in section 3.1.2) or Digital Ambassadors suggestion (discussed in section 3.2.1)
- Promotion on the digital literacy initiatives operating in the city (discussed in section 3.3)
- Guidance for tourists or visitors to the city on what digital services are available
- Promotion for local ICT businesses who can help with fixing a computer or removing a computer virus

To answer these questions the Digital Help Desk would need to be kept informed on the progress of the Dunedin Digital Strategy projects, have access to online resources and prepared responses for common questions. It may also include help sheets that residents can download or be sent through the mail.

Digital Help Desk

The types of questions the Help Desk could answer?

What are safe practices to follow when buying goods over the internet?

How do I keep my computer safe from viruses?

How do I report a text bullying incident?

The Council has already a city help desk and call centre operating within the Customer Services Agency (CSA). The CSA, located on the basement floor of the Civic Centre, responds to questions from the community either in person, via email or by phone. This team are ideally positioned to provide the Digital Help Desk as part of their service to the community.

Providing a Digital Help Desk service will further emphasise the commitment to raising capability across the city and provide reassurances to residents that best practice advice and guidance is available.

4.3 Ensuring Reliability

The reliability of digital services was also raised during the consultation as an important consideration to raise confidence in digital services. It is important that digital services operate well and are built to provide a reliable service to the residents, community and businesses across the city. Confidence in digital services will be lost if the service provided is unreliable.

It cannot be expected for the Council to review and audit the technical architectures or the operations of all digital service providers to the city. However a review might be beneficial to identify the key services operating in the city and seek reassurances that the vendors providing these services have considered redundancy and have plans to manage during any significant faults. In addition, performance of our primary service vendors could be reviewed and published on an annual basis.

4.4 Summary

The need is to raise the level of confidence for businesses and the community to fully participate in digital services. The opportunity is to raise awareness of the risks when using digital services and promote best practices through educational campaigns. In addition the opportunity to provide a Help Desk for residents to contact to seek advice on accessing and using digital services safely should be considered. Finally the consultation highlighted that the reliability of digital services is a considerable factor in maintaining the confidence in the services provided.

The opportunities are summarised in the table below:

Discussion	Opportunity	Strategic Ref
Lack of confidence using digital services and unwillingness to full use the services due to risks.	<ul style="list-style-type: none"> Opportunity to build confidence through a proactive educational campaign utilising various methods to promote safe practices. Educational courses available from community learning centres or similar organisations. 	11
No clear guidance on safe practices available to the community.	<ul style="list-style-type: none"> Opportunity to prepare downloadable best practice guides. Annual review on what risks are the greatest concern to the community and businesses. 	11
No service available to help residents connect to digital services and use them safely.	<ul style="list-style-type: none"> Opportunity to provide a central help desk service for all to contact. Use this service to promote best practice use of digital services and provide advice to tourists and those who wish to connect to digital networks. 	12

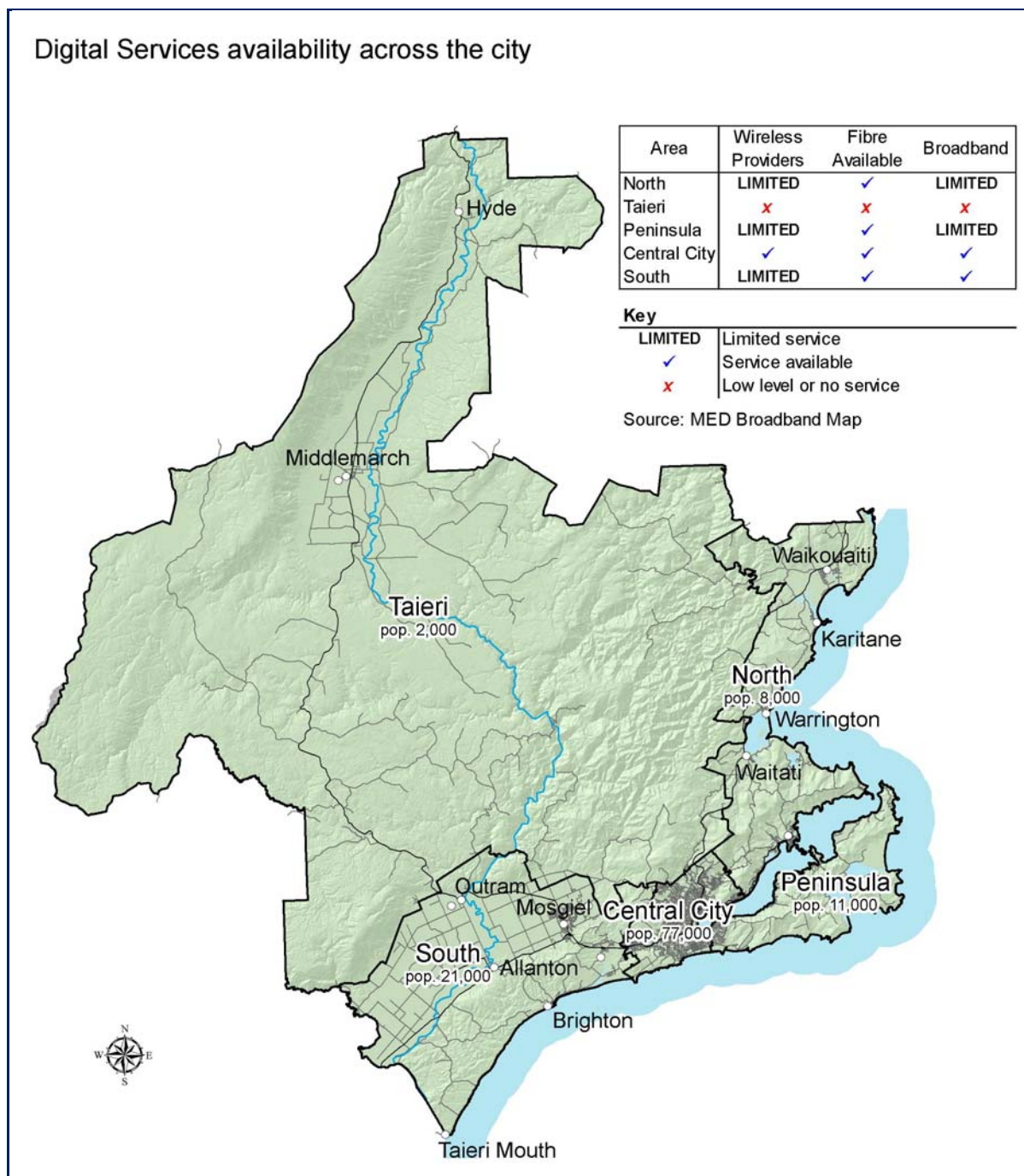
Discussion	Opportunity	Strategic Ref
Lack of confidence that digital services are reliable.	<ul style="list-style-type: none"> • Opportunity to review the key digital services provided to the city and audit what measures have been taken to ensure reliability of services.; • Publish an annual review of services provided and the reliability build into these services and the performance over the past year. 	1

This is the end of Section Two

Section Three is ‘The Strategy’.

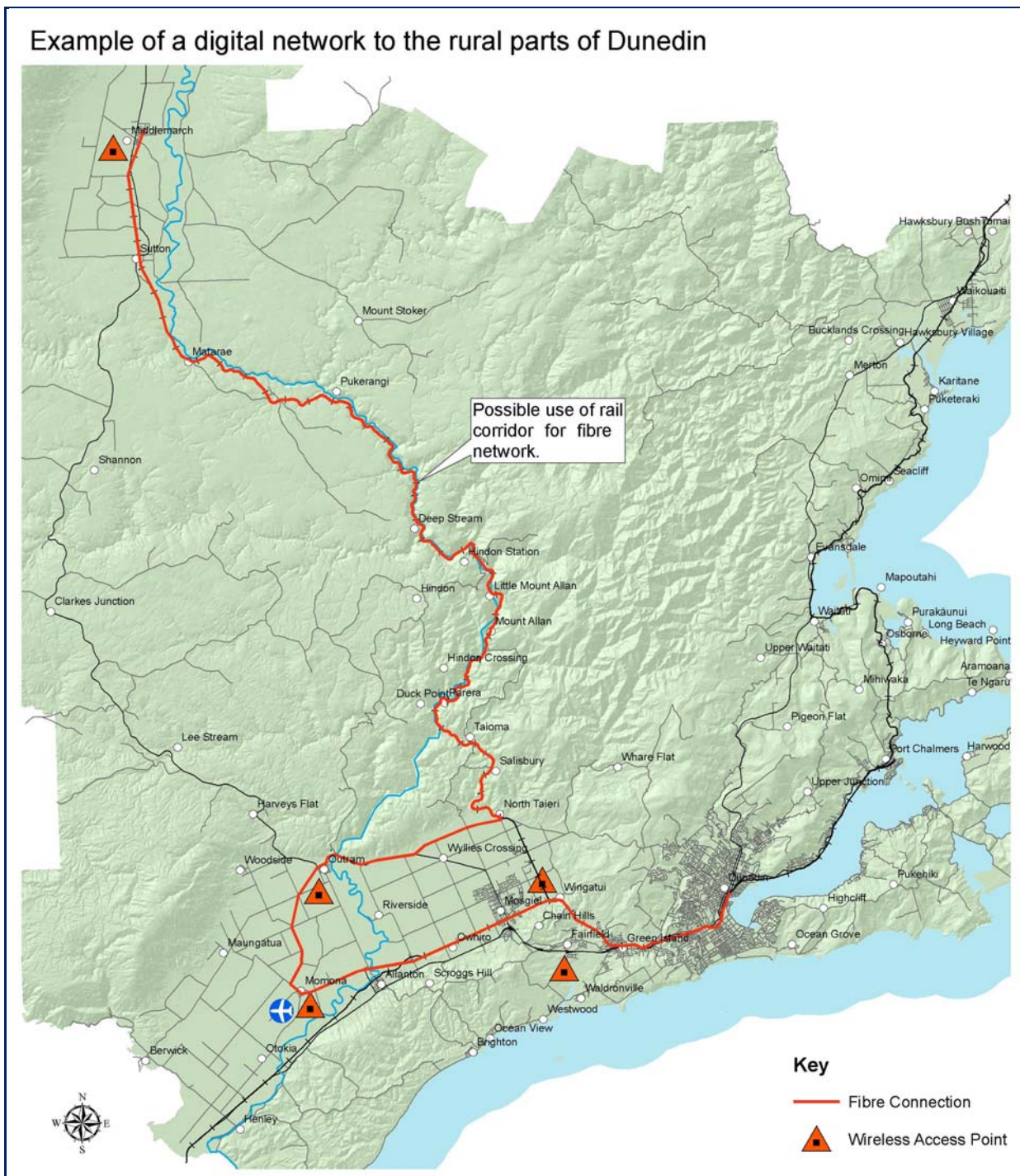
The strategic vision, goals and projects required to deliver the Digital Strategy.

APPENDIX A: DIGITAL SERVICES AVAILABILITY ACROSS THE CITY



APPENDIX B: EXAMPLE OF RURAL CONNECTION

Example of a digital network to the rural parts of Dunedin



How to read this document

This is **Section Three** of the Dunedin Digital Strategy

There are four sections within the Strategy. Each section builds upon the previous section to provide a detailed report on the digital opportunity, strategy and implementation plan.

SECTION ONE – FAST TRACK

An overview of the Dunedin Digital Strategy from start to finish.

This document summarises Sections Two to Four.

SECTION TWO – THE OPPORTUNITY

The key opportunities for visitors, residents, businesses and students across the four key strategic themes of: connection, content, capability and confidence.

SECTION THREE – THE STRATEGY

The Dunedin Digital Strategy.

The strategic vision and goals and the projects required to deliver the Digital Strategy.

SECTION FOUR – THE PLAN

Recommends an action plan to implement the Dunedin Digital Strategy.

Includes recommendations on which projects should start first, who should lead them and who should be involved.

Strategy prepared by: Stuart Dillon-Roberts

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The 'tag cloud' image on the front cover of this report records many of the key words raised during the Dunedin Digital Strategy consultation

1 DUNEDIN DIGITAL STRATEGY

1.1 Vision

The Dunedin Digital Strategy vision is to create “**Digital Dunedin**”.

1.2 Core Strategy and Objectives

This vision will be achieved through the leadership, commitment and support of the following strategic goals and objectives across the Connection, Content, Capability and Confidence themes:

Theme	Strategic Goal and Objectives	Projects
Connection	<p>A Digitally Connected City to increase the access, affordability and the quality of digital networks connecting the residents and businesses across the city</p> <p><i>Objective:</i></p> <ul style="list-style-type: none"> ○ Delivery of a high performing and quality digital network across the city; ○ Improved accessibility and affordability of digital services. 	Reference Section 2.1
Content	<p>A Digitally Enabled City to deliver more digital content to the community, visitors and businesses across the city and develop Dunedin as a centre for digital innovation</p> <p><i>Objective:</i></p> <ul style="list-style-type: none"> ○ Develop an environment that fosters and encourages digital creativity; ○ Focus on increasing the delivery of community services through digital technology. 	Reference Section 2.2
Capability	<p>A Digitally Capable City to raise the level of knowledge, literacy and skills to use digital technology across the community, business and service sectors</p> <p><i>Objective:</i></p> <ul style="list-style-type: none"> ○ Raise capability across the community through greater access to digital technology and digital services; ○ Improve knowledge and skills across the city through education, advice and awareness campaigns. 	Reference Section 2.3
Confidence	<p>A Digitally Confident City to increase assurance that digital services are safe and reliable for residents to fully embrace and participate in</p> <p><i>Objective:</i></p> <ul style="list-style-type: none"> ○ Educate, promote and provide assistance on the safe use of digital services across the community. 	Reference Section 2.4

2 STRATEGIC PROJECTS

The following strategic projects and initiatives have been identified to deliver the goals and objectives of the Dunedin Digital Strategy.

2.1 Connection: Strategic Projects

Theme	Strategic Goal and Objectives
A Digitally Connected City	<p>A Digitally Connected City to increase the access, affordability and the quality of digital networks connecting the residents and businesses across the city</p> <p><i>Objective:</i></p> <ul style="list-style-type: none"> ○ Delivery of a high performing and quality digital network across the city; ○ Improved accessibility and affordability of digital services.

Ref	Strategic Projects and Tasks	Target
Objective: Delivery of high performing and quality digital networks across the City		
1	<p>Leadership: Digital Network Advisory Group</p> <p>Establish a Digital Network Advisory Group consisting of representatives from the community and businesses sectors across the city. The role of the advisory group will be to advance digital connectivity across the city. This includes developing a constructive relationship with the successful vendor on the Government's Ultra Fast Broadband initiative to influence the implementation of digital networks to the locations that need it most. In addition, this group will lead discussions with the KAREN, NEN and others government bodies on future digital networking opportunities across the city. This includes establishing digital networks in the rural parts of the city.</p> <p>This group will report into the Digital Strategy Steering Team and it is proposed the key responsibilities will include:</p> <ol style="list-style-type: none"> 1) Lead discussions with government and commercial agencies to advance fast, high quality, digital networks across the city. Influence the implementation of digital networking to those businesses, schools and communities that need it most. 2) Lead a project to determine how digital networks can be delivered to the rural parts of the city. Review the opportunity for sharing the costs of installation through partnerships with commercial vendors and/or joint ventures with other Councils that border the city. Initiatives by the government to fund rural 	<ul style="list-style-type: none"> • Currently 40% of residents surveyed reported that they had acceptable access to digital networks. <p><i>Target is to increase this to 75% by 2016. Improving upon the government's target of 2020¹.</i></p> <ul style="list-style-type: none"> • Currently 22% of residents surveyed report acceptable access to digital networks in the more rural parts of the city. <p><i>Target is to provide fast broadband to 97% of rural residents by 2016.</i></p> <ul style="list-style-type: none"> • Introduce an annual survey to measure the performance of digital networks and level of satisfaction across the community.

¹ Government target of providing ultra-fast broadband to 75% of New Zealanders by 2020. Source: MED.

	<p>broadband will also need to be considered as part of the review. Technology also has a part to play here and a review on the best solution or mix of solutions to serve the rural communities will be required.</p> <p>3) Be transparent and inform residents and businesses of connectivity progress across the city and any forthcoming developments.</p> <p>4) Lobby for improving international internet access to the country to ensure the city is serviced well in the future.</p>	<ul style="list-style-type: none"> Regularly inform residents on digital network developments across the city.
<p>2</p>	<p>Project: Digital Roadblocks</p> <p>Goal1: The Council to provide leadership in establishing the digital infrastructure needs of the City through:</p> <ol style="list-style-type: none"> Identifying the digital infrastructure standards necessary for the City; Preparing a ‘digital infrastructure map’ of the city to show where the digital infrastructure (like fibre ducting) has been installed across the city and make this information available to all commercial vendors; Identifying where that digital infrastructure is required to support digital networks in the future; <p>Goal 2: The Council to deliver mechanisms for facilitating the installation of digital infrastructure through:</p> <ol style="list-style-type: none"> Including networking infrastructure in the code of subdivision and district plans to prepare ‘green field’ sites and support faster implementation of digital networks; Defining standards and installing network infrastructure as part of the continuing and scheduled programme of work at the Council (e.g. Roading, water and waste); 	<ul style="list-style-type: none"> Digital Networking standards defined by end of 2010. Currently no preparation is undertaken. <p>Target to have a Council working party established with a target of including digital networking standards within the Council programme of work early 2011.</p> <p>Target to have 75% of all green field sites be prepared for digital technology by 2011.</p>

Ref	Strategic Projects and Tasks	Target
<p>Objective: Improved accessibility and affordability of digital services</p>		
<p>3</p>	<p>Project: Dunedin Wireless (wifi) Network².</p> <p>Project to establish a central city and outlying suburbs wireless (wifi) network to improve the accessibility to digital networks across the community.</p> <p>Project to include:</p>	<ul style="list-style-type: none"> Currently, only 20% of the city has access to wireless services. <p>Target of 100% of central Dunedin City from Port Chalmers to Dunedin</p>

² It is to be noted that any wireless or cellular installation undertaken by a third party, in support of the Digital Strategy, will follow the Ministry of Health’s recommended health standards at that time.

	<ol style="list-style-type: none"> 1) Review the best options for installing a Dunedin wireless network that will achieve the highest degree of cover whilst delivering a high quality and consistent service to the community and visitors to the city. Review to consider: most suitable technology to be used, location of wireless devices that are aesthetically pleasing and the service level standards to be achieved. 2) Review current commercial and wireless network providers in Dunedin and strive for partnerships to achieve a single service across the community. Focus on presenting the ‘Dunedin City Portal’ (Project Ref 6) website as the first service available when connecting to the Dunedin Wireless Network. 3) Review on how a “free service” can be provided. This may identify that free services are provided for a period of time or within a restricted data download limit. To exceed these limits charges may apply presenting an opportunity to offset the costs for the service. 	<p><i>Airport) to have access to have access to fast, high quality, wireless services by 2012.</i></p> <p><i>Six rural communities to have access to wireless services by 2012 with a programme of work extending this figure to 10 by 2014.³</i></p> <ul style="list-style-type: none"> • Implementation of wireless service to start in 2011. • Deliver a service that is affordable whilst maintaining quality and functionality.
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³ The locations are to be decided through ongoing consultation and the availability of backhaul access.

2.2 Content: Strategic Projects

Area	Strategic Goal and Objectives
A Digitally Enabled City	<p>A Digitally Enabled City to deliver more digital content to the community, visitors and businesses across the city and develop Dunedin as a centre for digital innovation</p> <p><i>Objective:</i></p> <ul style="list-style-type: none"> ○ Develop an environment that fosters and encourages digital creativity; ○ Focus on increasing the delivery of community services through digital technology.

Ref	Strategic Projects and Tasks	Target
Objective: Develop an environment that fosters and encourages digital creativity		
4	<p>Leadership: Digital Innovation Advisory Group</p> <p>Establish a Digital Innovation Advisory Group who will lead the development of digital innovation across the city. This will include engaging more closely with the University of Otago\Otago Polytechnic to understand what is needed to attract and retain future entrepreneurs in the city and what services will assist new start-up businesses to prosper. These services may include: providing free access to technology, business support and mentoring services and guidance from the city’s “ICT Heroes”⁴ on how to grow a business.</p> <p>The key responsibilities of this leadership group will be:</p> <p>Lead the development of digital innovation across the city and lead initiatives to retain and attract new digital businesses to the city.</p> <p>This includes:</p> <ol style="list-style-type: none"> 1) Improve the attractiveness of the city by promoting the digital opportunities in the city and highlight our local success stories. 2) Work with our sister city on digital innovation opportunities and growing international business opportunities. 3) Provide services (like mentoring) to assist new digital businesses to grow and prosper. 4) Support the Council’s Economic Development Unit (EDU) 	<ul style="list-style-type: none"> • Currently 34% of those surveyed believe Dunedin is a centre for digital innovation. <p><i>Target is to increase this to 65% by 2014.</i></p> <p><i>Target to increase technology GDP by 20% by 2014 as measured by the BERL report⁵.</i></p>

⁴ ICT Heroes refers to the entrepreneurs in the city who have successfully grown international businesses (refer to section 2.1.4, section 2 of the Dunedin Digital Strategy)

⁵ BERL report assesses the economic value of sectors within Dunedin. The target to increase the GDP by 20% will be agreed with the Economic Development Unit at the Council.

	<p>projects including: ICT internships, technology precinct and other initiatives within the city.</p> <p>5) Provide access to technology (like free internet access or data centre hosting) to kick start new digital businesses and help them grow.</p>	
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Ref	Strategic Projects and Tasks	Target
Objective: Focus on increasing the delivery of community services through digital technology		
5	<p>Project: Dunedin Online Project to increase the Council services available online to the community and provide new digital services to communicate and engage with the community.</p> <p>Project to include:</p> <ol style="list-style-type: none"> 1) Increasing Councils services available online to the community with a focus on online payments, RSS feeds, social networking services and online forms to improve the customer experience and engagement with the community. It is recommended that an annual review is completed to assess what digital services the community wish to see. 2) Increased transparency of Council information and processes available to the community including reviewing how eDemocracy⁶ can be used to build stronger relationships between the community and Council. 3) Supporting the Dunedin City portal (Project Ref 6) by providing content to support this service. 	<ul style="list-style-type: none"> • Limited online content available to the community. <p><i>Target to increase Council online services by 50% by 2012. With a focus on online payments, social networking services and online forms.</i></p> <ul style="list-style-type: none"> • Annual review of what services the community wish to see. • Increased transparency on Council information.

⁶ eDemocracy refers to using digital services for political and governance processes.

6	<p>Project: Dunedin City Portal</p> <p>Project to establish a ‘Dunedin City Portal’ to integrate information across separate online websites within a single digital entity. This will involve working with Dunedin Brand partners, Dunedin City Council and key community stakeholders to create a single portal for the city.</p> <p>The portal will centralise and integrate community information, provide details on the attractions and events in the city and showcase digital innovation. A service that promotes the city, increases the visibility of city events, promotes businesses and the community services available.</p> <p>Portal aims are:</p> <ol style="list-style-type: none"> 1) Integrate information across separate online websites within a single entity. This includes information for students, businesses, visitors and the community. 2) Support the brand ‘Dunedin’ by creating a one-stop-shop for city information. 3) Improve the promotion of the city and increase visibility of city events and community services. 4) Showcase digital innovation across the city through a dynamic and stimulating digital service whilst also informing the community on what digital services are available. <p>This project is linked to Project Ref 3 as it is recommended that this service will be the first ‘port of call’ when using the wireless network.</p>	<ul style="list-style-type: none"> • Currently online services operate independently. <p><i>Target is to have the Dunedin City Portal established by 2011 and integrated into the central city wireless network.</i></p> <ul style="list-style-type: none"> • Annual review to assess services provided by the portal and what services the community wish to see in the future.
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2.3 Capability: Strategic Projects

Area	Strategic Goal and Objectives
A Digitally Capable City	<p>A Digitally Capable City to raise the level of knowledge, literacy and skills to use digital technology across the community, business and service sectors</p> <p><i>Objective:</i></p> <ul style="list-style-type: none"> ○ Raise capability across the community through greater access to digital technology and digital services; ○ Improve knowledge and skills across the City through education, advice and awareness campaigns.

Ref	Strategic Projects and Tasks	Target
<p>Objective: Raise capability across the community through greater access to digital technology and digital services</p>		
7	<p>Project: Digital Technology A project to increase the access to digital devices across the community and at schools.</p> <p>Project is focussed on the following groups:</p> <ol style="list-style-type: none"> 1) Families with the greatest need that have no access to computers or digital services at present. 2) Schools that have limited access to digital technology like interactive whiteboards or mobile devices (ipads or laptops). <p>Project to be achieved through the following initiatives:</p> <ol style="list-style-type: none"> 1) Establishing a ‘Computer in Homes initiative’ to provide computers to disadvantaged families or community groups that have no access to computers at present. This includes providing training and assistance to use the computers well. 2) Creating an active partnership with commercial vendors to sponsor technology within a school or community group. This may be in the form of computer hardware, interactive white boards or services to access the internet. 3) Seek grants to purchase, upgrade or maintain digital technology. 4) Establish a computer broker service to allow businesses or individuals that no longer required a computer to donate this to school or a family that is in need. <p>In addition, as part of the project the following initiatives are</p>	<ul style="list-style-type: none"> • Many schools, communities and families have limited access to digital technology. <p>Target to provide a minimum of 100 digital devices to those schools, families or community groups that need assistance, per year, from 2011.</p> <ul style="list-style-type: none"> • Encourage the use of open source software to reduce technology costs. • Encourage more re-use and recycling of digital devices.

	<p>included:</p> <p>5) Increase awareness on open source software and benefits to the community as an alternative to reduce technology costs. Support the development of a Dunedin Open Source repository and distribution media (e.g. DVD).</p> <p>6) Promote initiatives to encourage the recycling and re-using of digital technology across the community, schools and business sectors.</p>	
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Ref	Strategic Projects and Tasks	Target
Objective: Improve knowledge and skills across the City through education, advice and awareness campaigns		
8	<p>Project: Computer Club House Project to review the opportunity to establish a ‘Computer Club House’ or similar initiative within the city. Objective is to establish a centre to provide access to digital technology to members of the community who have little exposure at present.</p> <p>The Club House is aimed at providing an opportunity for young people to learn about digital services in a stimulating and creative environment. Adult mentors are on hand to guide and support those who use the facility. The goal of the project is to establish a Computer Club House or similar initiative and support this facility as a longer term community asset. This project will also demonstrate the city’s commitment to raising capability across the community.</p> <p>Project will review:</p> <ol style="list-style-type: none"> 1) Financial investment required establishing a Computer Club House and the ongoing financial support required. 2) Opportunities for sponsorship both locally and nationally. 3) Location of Club House or Club Houses, for example: Dunedin City Library, Community Learning Centre or at a school. 4) Review of other Club Houses operating in NZ and overseas and determining what makes them successful. 5) What digital services (for example building robots or making a video recording) could be offered and what skills are available locally to assist with the project. 	<ul style="list-style-type: none"> • Limited community focussed services to support raising digital capability. <p><i>Target to have Computer Club House or similar initiative operating by 2013.</i></p>
9	<p>Project: Digital Ambassadors Project to review the opportunity to appoint ‘Digital Ambassadors’ across the city. This role will provide advice and guidance on digital services to the not-for-profit, small business, tourism and other</p>	<ul style="list-style-type: none"> • Currently a low level of capability report across small business and not for profit sectors.

	<p>sectors across the city. The objective is to raise the digital awareness and capability across the city through a community based service.</p> <p>The goal is to improve the level of understanding and provide impartial advice to assist these sectors on the use of digital services and improve skills on digital technology.</p> <p>Project will review:</p> <ol style="list-style-type: none"> 1) Financial support required for the scheme to operate and the ongoing financial support required. 2) Identify who will commit to support this service across the academic and professional ICT bodies in the city. 3) Identify a location and operating model to be followed (potentially based on the community law principles). 4) Review how this initiative could be linked to the Computer Club House project described in Project Ref 8 and other digital services discussed in this strategy. 	<ul style="list-style-type: none"> • 27% of residents report no capability to access digital services. <p>Target a 50% improvement in capability across the city to reduce the current target to 15% by 2013.</p> <p>Digital Ambassador operating by 2011.</p>
<p>10</p>	<p>Project: Digital Literacy</p> <p>Project to raise the level of digital literacy across the community by providing practical examples of how digital services can benefit the community. The project also aims to encourage the digital literacy services currently operating in the city.</p> <p>Project will review:</p> <ol style="list-style-type: none"> 1) Opportunities to promote the current digital literacy initiatives in the city to increase the skills in understanding, creating and using digital services. 2) Methods to develop ‘practical’ examples of how digital services can help the community (create the need to participate in digital networks.) 3) Collaborate with other professional bodies on delivering digital literacy programmes for the community. 4) Review how this initiative could be linked to the Computer Club House project described in Project Ref 8 and other digital services discussed in this strategy. 	<ul style="list-style-type: none"> • Currently there are isolated digital literacy programmes operating. <p>Target to have a digital literacy programme operating (and integrated within other Digital Strategy projects) by 2012.</p>

2.4 Confidence: Strategic Projects

Area	Strategic Goal and Objectives
A Digitally Confident City	<p>A Digitally Confident City to increase assurance that digital services are safe and reliable for residents to fully embrace and participate in</p> <p><i>Objective:</i></p> <ul style="list-style-type: none"> ○ Educate, promote and provide assistance on the safe use of digital services across the community.

Ref Plan	Strategic Projects and Tasks	Target
Objective: Educate, promote and provide assistance on the safe use of digital services across the community		
11	<p>Project: Digital Safe Use Campaign</p> <p>Project to promote the safe participation in digital services and raise digital confidence across the city. Project will lead a Digital Safe Use Campaign to advise on the safe practices for connecting, using and participating in digital services. This may include providing online courses, courses at learning centres (like those provided by Otago Polytechnic), technology 'boot camps' and promoting best practices through publications like CityTalk (a DCC publication).</p> <p>In addition, input from community groups and law enforcement agencies will drive what content is to be delivered to reflect the concerns of parents, community leaders and educational professionals.</p> <p>Project will review:</p> <ol style="list-style-type: none"> 1) Current risks when using digital services and what issues the community, parents and businesses are concerned about. 2) Mechanisms available to promote safe practices, for example: online advisory services, publications and events. 3) Ongoing financial commitment for promoting digital safe use on an annual basis. 4) Review what services are currently operating and opportunities for collaboration on digital safe use campaigns. 	<ul style="list-style-type: none"> • Promote safe use of digital services across the community and raise digital confidence. • Currently 34% of residents surveyed confidently use digital services. <p>Target is to increase this to 60% by 2012.</p>
12	<p>Project: Digital Help Desk</p> <p>Project to increase the community's confidence in accessing and</p>	<ul style="list-style-type: none"> • Currently only 34% have confidence in digital services.

<p>using digital services. The Council’s Customer Services Agency help desk is ideally suited to provide this service responding to requests for assistance by phone, through email and in person.</p> <p>The goal is to support the community by providing a Help Desk service that will provide:</p> <ol style="list-style-type: none"> 1) Advice on best practices to be followed when using digital services; this may well be in the format of help sheets that residents can download or receive through the mail; 2) Advice on community based courses available (Project Ref 8). 3) Guidance on how to access Council digital networks (like the wireless network discussed in Project Ref 3). 4) Point of contact that visitors can use to enquire about digital services. 5) Promote local ICT businesses that can assist with digital services. 6) Advice on re-use and recycling of digital technology. <p>Project will review:</p> <ol style="list-style-type: none"> 1) What is required to establish a Digital Help Desk to operate through the Council’s Customer Services Agency. 2) What information is required and from what sources to support the Help Desk role. 3) Training requirements for Customer Services Agency staff. 	<p>Target to increase levels of confidence in digital services to 60% by 2012.</p> <ul style="list-style-type: none"> • Provide an advisory point of contact to support access and use of Council digital services. • Provide a service for tourists and visitors to access. • Digital Help Desk service operating by 2011.
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The is the end of Section Three

Section Four is ‘The Plan’.

Recommends an action plan to implement the Dunedin Digital Strategy.

Includes recommendations on which projects should start first, who should lead them and who should be involved

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You are here

Strategy prepared by: Stuart Dillon-Roberts

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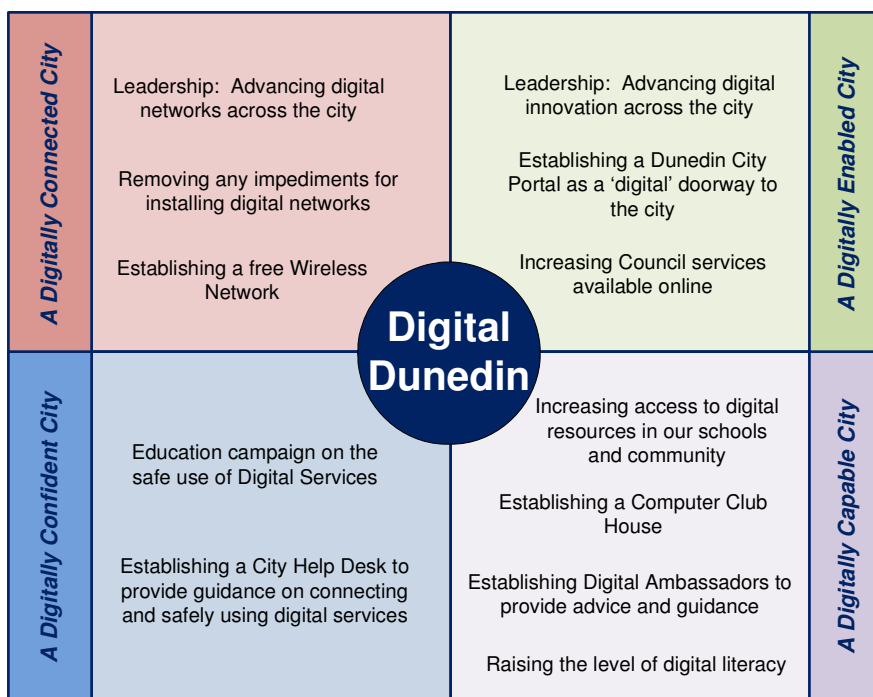
1 DIGITAL STRATEGY PLAN

The Dunedin Digital Strategy is an ambitious plan. Across the four themes of connection, content, capability and confidence a number of projects are recommended and advisory groups to be created to provide leadership on digital initiatives. These projects and initiatives will need to be prioritised, funded, and commitments made.

The strategy has been developed in consideration of the comments raised during the consultation process.

During the consultation we listened to the comments made and didn't develop a strategy that was solely focussed on laying more fibre optic cable or promoting a particular digital technology. But rather we focused on a strategy that will deliver benefits across all of the four Cs: connection, content, confidence and capability as the graphical insert demonstrates.

The Dunedin Digital Strategy has been developed to bring long term social, economic and financial benefits across the community and businesses in the city.



The consultation also highlighted that the responsibility for the digital strategy doesn't fully lie with the Council and there was strong support for the community to be involved in the implementation process.

This is what you said:

“To be successful this needs to be driven by the community not just the Council” Resident, Dunedin

“Get the community involved in this exciting project” Community Leader, Dunedin

The Council needs to be commended for instigating this strategy and it certainly has a role to play in the implementation stage with assistance from the community, businesses, academic institutions and other interested parties.

There was also strong support for the implementation to start quickly. The view was that Dunedin is already behind other cities and the implementation of the Digital Strategy needs to start as soon as possible - before we fall even further behind.

This is what you said:

“We need action now not just talk”, Business Owner, Dunedin

As a consequence *The Plan*, this section, recommends how the Dunedin Digital Strategy will be implemented. This includes recommendations on what projects will start first, who will lead the projects and who should be involved in the project teams. This section also provides a timeline indicating when projects should start over the 2010 to 2013 period.

But STOP!



This section is the *recommended* plan to lead, govern and implement the Digital Strategy. Further work is required once the Digital Strategy has been endorsed to agree a final implementation plan, determine how the projects will be funded and confirm the resources required.

Recommended Plan

2 RECOMMENDED IMPLEMENTATION PLAN

2.1 Prioritisation

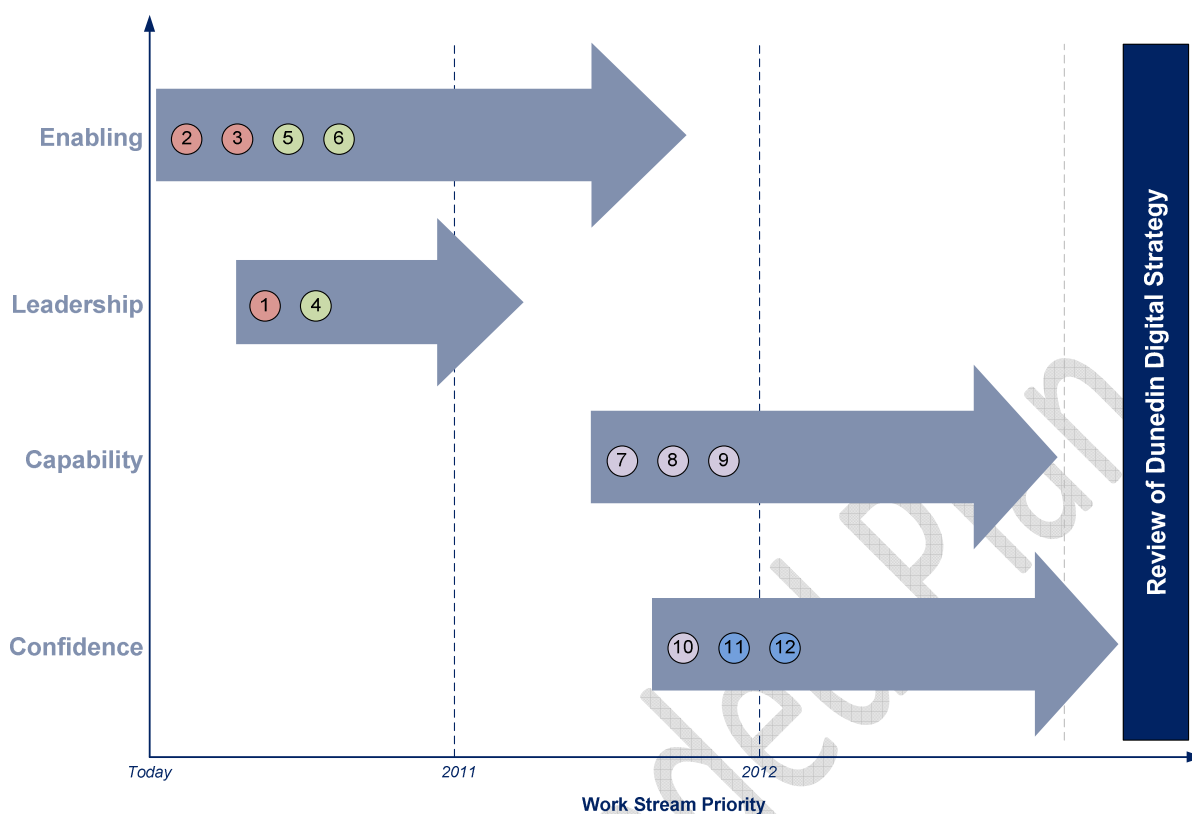
The Dunedin Digital Strategy includes 10 projects and 2 advisory groups. To simplify the implementation process it is recommended that the Digital Strategy projects are grouped into four work streams: *Leadership, Enabling, Capability and Confidence*. Each work stream contains a number of digital strategy projects that have similar outcomes or are aligned across a common theme. A clear message during the consultation process was that all the projects needed to be completed to meet the goals of the Digital Strategy. It is therefore recommended that the Digital Strategy projects are prioritised and the most pressing of projects are started first.

The four work streams recommended and the projects within each of the work streams are summarised in the table below.

Work Streams	Proj. Ref	4 Cs	Project Description
Leadership	1	Connection	Digital Networks Advisory Group established to lead discussions on improving digital networks in the city and access international digital networking.
	4	Content	Digital Innovation Advisory Group established to lead initiatives that will provide economic benefit to the city.
Enabling	2	Connection	Digital Roadblocks project to prepare the city by identifying where digital infrastructure is required for future digital networks.
	3	Connection	Dunedin Wireless Network project to implement a wireless service (wifi) across the central city and outlining suburbs to improve accessibility to digital networks across the city.
	5	Content	Dunedin Online project to increase the online services provided by the Council to the community, visitors and businesses across the city.
	6	Content	Dunedin City Portal project to establish a 'Dunedin City Portal' to integrate information across separate online websites within a single digital entity.
Capability	7	Capable	Digital Technology project to increase the number of digital devices available across the community, families and at schools. Promote open source solutions and re-using/recycling of technology.
	8	Capable	Computer Club House established. A community based Computer Club House (or similar initiative) to provide access to digital technology to members of the community who have little exposure at present.
	9	Capable	Digital Ambassadors to improve digital capability across community, not for profit and small businesses sectors.
	10	Capable	Digital Literacy project to raise the level of digital literacy across the community.
Confidence	11	Confidence	Digital Safe Use project to establish an educational campaign to promote safe use of digital technology.
	12	Confidence	Digital Help Desk project to provide advice and guidance on connecting and using digital services.

The *Enabling* work stream has been identified as the highest priority work stream. This work stream includes 4 projects which have been categorised as the highest priority to establish the core infrastructure and to increase the availability of digital services across the community.

The other work streams have been prioritised as indicated in the diagram below.



The prioritisation of these work streams will need further work as the priority will be influenced by the availability of resources and funding. However, ideally the work streams will follow the recommended prioritisation illustrated above.

2.2 Timeline

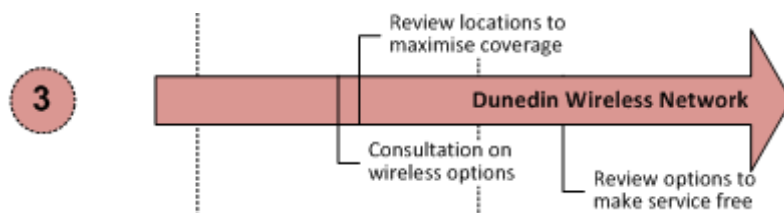
The Digital Strategy has a three year timeline. Over the period 2010 to 2013 the Digital Strategy projects and advisory groups will be formed, projects initiated, the community further consulted and projects implemented. It is recognised that technology moves at a fast pace; what we believe is required to achieve a *Digital Dunedin* may well be different in years to come. It is therefore recommended that the Dunedin Digital Strategy is reviewed in three years time. This is a shorter period than most strategies to reflect that technology and community needs may well change in the near future.

The review timeframe is three years from the strategy being approved by the Council. If this is late in 2010 then the review should be completed late 2013.

2.2.1 Recommended Projects' Roadmaps

To further support the implementation process high-level project roadmaps are included within this section. They serve to guide on the activities to be followed once the Digital Strategy has been endorsed and the implementation stage starts.

For each project a start time and end time is shown and the key activities to be completed over this timeframe. An example is shown below:



The dates indicated on the roadmaps will need to be confirmed once the Digital Strategy has been endorsed and the implementation stage starts. They do, however, provide a target for each project to aim for.

The roadmaps for each project within the four work streams can be found in the Appendices referenced below:

Work Stream	Appendix Reference
Enabling	Appendix A, section 4.1
Leadership	Appendix A, section 4.2
Capability	Appendix A, section 4.3
Confidence	Appendix A, section 4.4

2.3 Community Participation

Collaboration and community consultation were key messages raised throughout the Digital Strategy consultation process. It is important that the community consultation continues and that the community, businesses, academic institutions and specialists are consulted across all projects.

The table below details the recommended parties that should be included within each implementation process. Many of those indicated in the table have already offered assistance or demonstrated a willingness to contribute to the implementation process.

Work Stream	Project Ref	4 Cs	Contributors	Project Description
Leadership	1	Connection	<ul style="list-style-type: none"> Membership recommended in section 3.1.2 	Digital Networks Advisory Group established to lead discussions on improving digital networks in the city and access international digital networking.
	4	Content	<ul style="list-style-type: none"> Membership recommended in section 3.1.3 	Digital Innovation Advisory Group established to lead initiatives that will provide economic benefit to the city.
Enabling	2	Connection	<ul style="list-style-type: none"> Technology providers to be consulted Benchmark against other Councils 	Digital Roadblocks project to prepare the city by identifying where digital infrastructure is required for future digital networks.
	3	Connection	<ul style="list-style-type: none"> Community groups in city Commercial vendors and academic institutions (as required) who provide wireless services at present Tourism sector 	Dunedin Wireless Network project to implement a wireless service (wifi) across the central city and outlining suburbs to improve accessibility to digital networks across the city.

Work Stream	Project Ref	4 Cs	Contributors	Project Description
			<ul style="list-style-type: none"> Specialist technology advice (as required) to support the decision on what technology to use (e.g. WiMax) 	
	5	Content	<ul style="list-style-type: none"> Consult with community on which services are the priority Benchmark against other Councils Library Representative 	Dunedin Online project to increase the online services provided by the Council to the community, visitors and businesses across the city.
	6	Content	<ul style="list-style-type: none"> Tourism Dunedin and Tourism representative Brand Partners i-site team to represent visitors interests Council: BIS and Marketing Activity Area representative Community Groups University and Polytechnic DVML representative 	Dunedin City Portal project to establish a 'Dunedin City Portal' to integrate information across separate online websites within a single digital entity.
Capability	7	Capable	<ul style="list-style-type: none"> Education representatives to assist with project Businesses to review partnerships opportunities Community Trust representative Computers in Home scheme representative in Dunedin Cargill Enterprises regarding discussions on re-using and recycling projects 	Digital Technology; project to increase the number of digital devices available across the community, families and at schools. Promote open source solutions and re-using/recycling of technology.
	8	Capable	<ul style="list-style-type: none"> Advice from computer club house NZ Community groups to assess needs University and Polytechnic representatives Library member Community Trust representative 	Computer Club House established. A community based Computer Club House (or similar initiative) to provide access to digital technology to members of the community who have little exposure at present.
	9	Capable	<ul style="list-style-type: none"> Community Trusts representative University and Polytechnic representatives Specialist Advice 	Digital Ambassadors to improve digital capability across community, not for profit and small businesses sectors.
	10	Capable	<ul style="list-style-type: none"> Community learning Centers representative Libraries representative Polytechnic Representative NZ ICT representative for 'kiwi skills' collaboration 	Digital Literacy project to raise the level of digital literacy across the community.
Confidence	11	Confidence	<ul style="list-style-type: none"> Education providers in the city Community Groups to assess needs Netsafe organisation Law enforcement agencies 	Digital Safe Use project to establish an educational campaign to promote safe use of digital technology.
	12	Confidence	<ul style="list-style-type: none"> Community Group to assess needs 	Digital Help Desk project to provide advice and guidance on connecting and using digital services.

2.4 Funding

As yet, there is no committed funding for the Digital Strategy. Further work is required to define how the projects will be funded and what opportunities there are both locally and nationally to support the strategy. This may include seeking financial support from local businesses, technology companies, government agencies, trusts and local or regional Councils. A key part of the implementation plan for each project will be to review funding opportunities.

At a high level an estimate for each project has been indicated in the table below. This serves to guide on the costs associated with each of the Digital Strategy projects. These financial estimates have been made following consultation with technology providers and through comparison to similar projects.

Estimated costs are broken down into four categories:

Less than \$50,000
Between \$50,000 to \$100,000
Between \$100,000 to \$500,000
Greater than \$500,000

Work Streams	Proj. Ref	4 Cs	Project Description	Financial Estimates
Leadership	1	Connection	Digital Networks Advisory Group established to lead discussions on improving digital networks in the city and access international digital networking.	Less than \$50,000 to operate the Advisory Group. If no Government funding is forthcoming this will increase to over \$500,000.
	4	Content	Digital Innovation Advisory Group established to lead initiatives that will provide economic benefit to the city.	Less than \$50,000 to operate the Advisory Group.
Enabling	2	Connection	Digital Roadblocks project to prepare the city by identifying where digital infrastructure is required for future digital networks.	Between \$100,000 to \$500,000.
	3	Connection	Dunedin Wireless Network project to implement a wireless service (wifi) across the central city and outlining suburbs to improve accessibility to digital networks across the city.	Between \$100,000 to \$500,000.
	5	Content	Dunedin Online project to increase the online services provided by the Council to the community, visitors and businesses across the city.	Less than \$50,000.
	6	Content	Dunedin City Portal project to establish a 'Dunedin City Portal' to integrate information across separate online websites within a single digital entity. Integrate service to Dunedin Wireless Network.	Between \$50,000 to \$100,000.

Work Streams	Proj. Ref	4 Cs	Project Description	Financial Estimates
Capability	7	Capable	Digital Technology project to increase the number of digital devices available across the community, families and at schools. Promote open source solutions and re-using/recycling of technology.	Between \$100,000 to \$500,000.
	8	Capable	Computer Club House established. A community based Computer Club House (or similar initiative) to provide access to digital technology to members of the community who have little exposure at present.	Greater than \$500,000.
	9	Capable	Digital Ambassadors to improve digital capability across community, not for profit and small businesses sectors.	Between \$100,000 to \$500,000.
	10	Capable	Digital Literacy project to raise the level of digital literacy across the community.	Between \$50,000 and \$100,000.
Confidence	11	Confidence	Digital Safe use project to establish an educational campaign to promote safe use of digital technology.	Between \$50,000 and \$100,000.
	12	Confidence	Digital Help Desk project to provide advice and guidance on connecting and using digital services.	Less than \$50,000.

3 LEADERSHIP AND GOVERNANCE

The recommended leadership for implementing the Dunedin Digital Strategy falls to the Dunedin City Council; Advisory Groups outlined in the strategy and community groups across the city. The ongoing governance role to steer how the strategy is implemented is to be decided, but it is recommended that the current Digital Strategy Steering Team continue to fulfil this role.

3.1 Roles and Responsibilities

3.1.1 Digital Strategy Steering Team

The Digital Strategy Steering Team, at the time of developing this report, includes representatives from key stakeholder groups across the city and is chaired by a nominated Councillor. Membership is as follows:

Capability Theme	Area of Interest	Name
Connection	Dunedin City Council Chief Executive	Jim Harland
Connection	Dunedin City Council, General Manager Customer Services	Grant Strang
Confidence	Dunedin City Councillors	Cr Dave Cull (Chair), Cr Chris Staynes (Deputy Chair)
Confidence	Infrastructure Enabler, Chief Executive, Delta	Grady Cameron
Content	ICT Cluster Member representatives	Stuart Fleming, Gary Taiaroa
Content	Content Provider - Health Sector	Sarah Kalmakoff / Rene Ngatai
Content	Content Provider – Education, Chief Information Officer, University of Otago	Mike Harte
Confidence	Otago Community Trust, Content Provider-Secondary Education	Peter Hills
Content	Content Provider – Education, Chief Information Officer Otago Polytechnic	Mike Collins

Digital Strategy Steering Team as of 1 February 2010

The role of the Digital Strategy Steering Team has been primarily to develop the Dunedin Digital Strategy. This team are to be commended for their role in steering the development of the city's first Digital Strategy.

This group has provided advice and guidance as the Digital Strategy has been developed. Following acceptance of the strategy it is recommended that this team continues to fulfil a governance role whilst the implementation plan is developed, funding opportunities identified and resources confirmed.

3.1.2 Digital Networks Advisory Group

The Digital Networks Advisory Group is a key advisory group identified within the Digital Strategy providing specialist advice on the development and advancement of digital networks across the city. This group will engage with government agencies, commercial vendors and other Councils to deliver the targets outlined in the Digital Strategy. This group will also take on the role of lobbying for improved backhaul to the city with a mandate to inform the community of digital networking changes across the city.

The recommended membership of this advisory group is:

Suggested Member	Suggested Role
Economic Development Unit (Dunedin City Council)	<ul style="list-style-type: none"> Chair of Advisory Group Link between Council and Advisory Group
KAREN representative	<ul style="list-style-type: none"> Representing the views of the education and science community and interface with the KAREN digital network
Education representative	<ul style="list-style-type: none"> Representing the views of education and interface to the NEN digital network
Business Sector	<ul style="list-style-type: none"> Representatives from the business sector
Chamber of Commerce	<ul style="list-style-type: none"> Represent businesses across the City
Commercial Vendors	<ul style="list-style-type: none"> As required

3.1.3 Digital Innovation Advisory Group

The Digital Innovation Advisory Group identified within the Digital Strategy will focus on providing advice and leading initiatives to promote the city, create an environment that supports digital innovation and provide services to assist start-up digital businesses.

This is a key advisory group and the recommended membership of this group is:

Suggested Member	Role
Economic Development Unit (Dunedin City Council)	<ul style="list-style-type: none"> Link between Council and Advisory Group
University of Otago and Otago Polytechnic members	<ul style="list-style-type: none"> Retaining skills within City Encouraging student start-ups businesses and keeping them within the City
Innovation Centre	<ul style="list-style-type: none"> Promotion of innovation services within City Technology and support services required to assist start-up businesses
Chamber of Commerce	<ul style="list-style-type: none"> Integration within business sector Up skilling business skills and mentoring opportunities

Suggested Member	Role
ICT Business Sector	<ul style="list-style-type: none"> • Mentoring opportunities • Advising new start-ups

3.2 Leadership

Leadership of the Dunedin Digital Strategy will fall to both the Dunedin City Council and the wider Dunedin community. The projects each of these groups will lead is discussed in this section of the strategy.

3.2.1 Dunedin City Council

It is recommended that following approval of the Digital Strategy, that the Council leads those projects in the Digital Strategy that are directly Council related. A nominated General Manager has been recommended to lead these projects within the respective activity areas of the Council. The projects under Council leadership and the nominated General Manager to lead these projects is defined in the table below:

Work Streams	Proj. Ref	4 Cs	Project description
Enabling	2	Connection	<p>Digital Roadblocks Project</p> <p>Goal 1: The Council to provide leadership in establishing the digital infrastructure needs of the City through:</p> <ul style="list-style-type: none"> • Identifying the digital infrastructure standards necessary for the City; • Preparing a 'digital infrastructure map' of the city to show where the digital infrastructure (like fibre ducting) has been installed across the city and make this information available to all commercial vendors; • Identifying where that digital infrastructure is required to support digital networks in the future; <p><i>Project led by General Manager Customer Services</i></p> <p>Goal 2: The Council to deliver mechanisms for facilitating the installation of digital infrastructure through:</p> <ul style="list-style-type: none"> • Including networking infrastructure in the code of subdivision and district plans to prepare 'green field' sites and support faster implementation of digital networks; • Defining standards and installing network infrastructure as part of the continuing and scheduled programme of work at the Council (e.g. Rooding, water and waste); <p><i>Project led by General Manager City Environment and Strategy and Development.</i></p>
	5	Content	<p>Dunedin Online Project</p> <p>Goal: Increase the online services available to the community, visitors and businesses across the city.</p> <ul style="list-style-type: none"> • Increasing Councils services available online to the community with a focus on online payments, RSS feeds, social networking services and online forms.

Work Streams	Proj. Ref	4 Cs	Project description
	6	Content	<ul style="list-style-type: none"> Increased transparency of Council information and processes available to the community including reviewing how eDemocracy can be used to build stronger relationships between the community and Council. Providing online content to support the Dunedin City portal. <p><i>Project led by General Manager Customer Services</i></p> <p>Dunedin City Portal</p> <p>Project to establish a ‘Dunedin City Portal’ to integrate information across separate online websites within a single digital entity. This will involve working with Dunedin Brand partners, Dunedin City Council and key community stakeholders to create a single portal for the city.</p> <p>The portal will centralise and integrate community information, provide details on the attractions and events in the city and showcase digital innovation. A service that promotes the city, increases the visibility of city events, promotes businesses and the community services available.</p> <p>Portal aims are:</p> <ul style="list-style-type: none"> Integrate information across separate online websites within a single entity. This includes information for students, businesses, visitors and the community. Support the brand ‘Dunedin’ by creating a one-stop-shop for city information. Improve the promotion of the city and increase visibility of city events and community services. Showcase digital innovation across the city through a dynamic and stimulating digital service whilst also informing the community on what digital services are available. <p><i>Project led by General Manager Strategy and Development</i></p>
Confidence	12	Confidence	<p>Digital Help Desk</p> <p>Project to increase the community’s confidence in accessing and using digital services. The Council’s Customer Services Agency help desk is ideally suited to provide this service responding to requests for assistance by phone, through email and in person.</p> <p>The goal is to support the community by providing a Digital Help Desk service that will provide:</p> <ul style="list-style-type: none"> Advice on best practices to be followed when using digital services. Advice on community based courses to attend (Project Ref 10). Guidance on how to access Council digital networks (like the wireless network discussed in Project Ref 3). Point of contact that visitors can use to enquire about digital services in the city; Advice on e-recycling of digital technology. Promoting Dunedin ICT businesses that can assist with digital services. <p>Project will review:</p> <ul style="list-style-type: none"> What is required to establish a Digital Help Desk to operate through the Council’s Customer Services Agency. What information is required and from what sources to support the Help Desk role. Training requirements for Customer Services Agency staff. <p><i>Project led by General Manager Customer Services</i></p>

3.3 Community Leadership

Digital Strategy projects shown in the table below have strong ties to the community and during the consultation process there was strong support for these to be led independently from the Council. It is recommended that these are led through a community entity.

Work Streams	Proj. Ref	4 Cs	Project description
Enabling	3	Connection	Dunedin Wireless Network project to implement a wireless service (wifi) across the central city and outlining suburbs to improve accessibility to digital networks across the city.
Capability	7	Capable	Digital Technology project to increase the number of digital devices available across the community and to schools.
	8	Capable	Computer Club House established. A community based Computer Club House (or similar initiative) to provide access to digital technology to members of the community who have little exposure at present.
	9	Capable	Digital Ambassadors to improve digital capability across community, not for profit and small businesses sectors.
	10	Capable	Digital Literacy project to raise the level of digital literacy across the community.
Confidence	11	Confidence	Digital Safe Use project to establish an educational campaign to promote safe use of digital technology.

Through discussions with the Digital Strategy Steering Team, two options for leadership of the community projects are preferred. One option is to establish a *Dunedin Digital Office* the other, to establish a *Dunedin Digital Trust*.

Both of these options will need to be reviewed in more detail and a decision made of the most suitable solution to deliver the Digital Strategy projects.

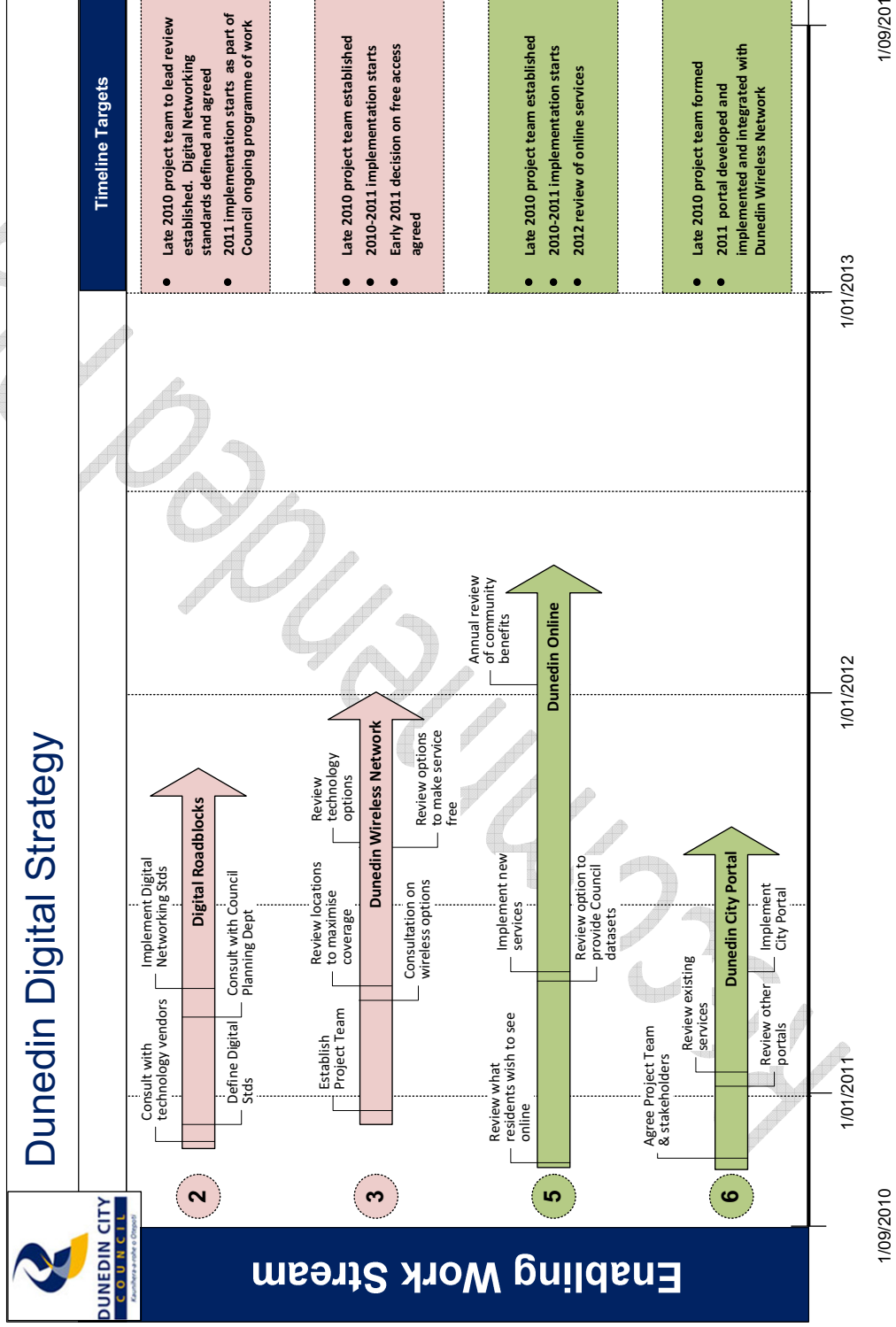
The is the end of Section Four

This is the final section in the Dunedin Digital Strategy. A summary of all sections can be found in Section One “Fast Track”.

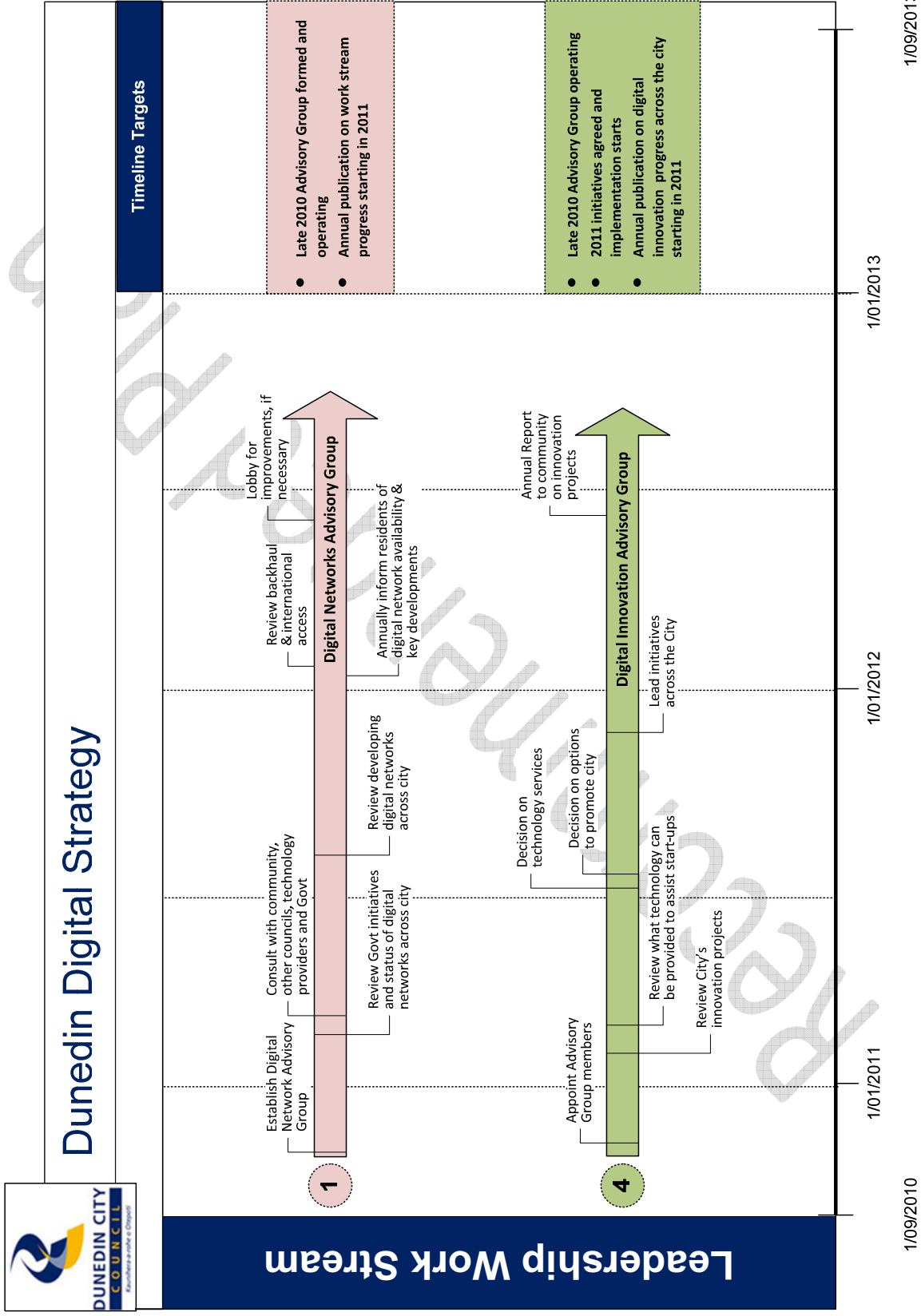
4 APPENDIX A: RECOMMENDED ROADMAPS

The following roadmaps depict the high-level timeframes and milestones for each of the four work streams.

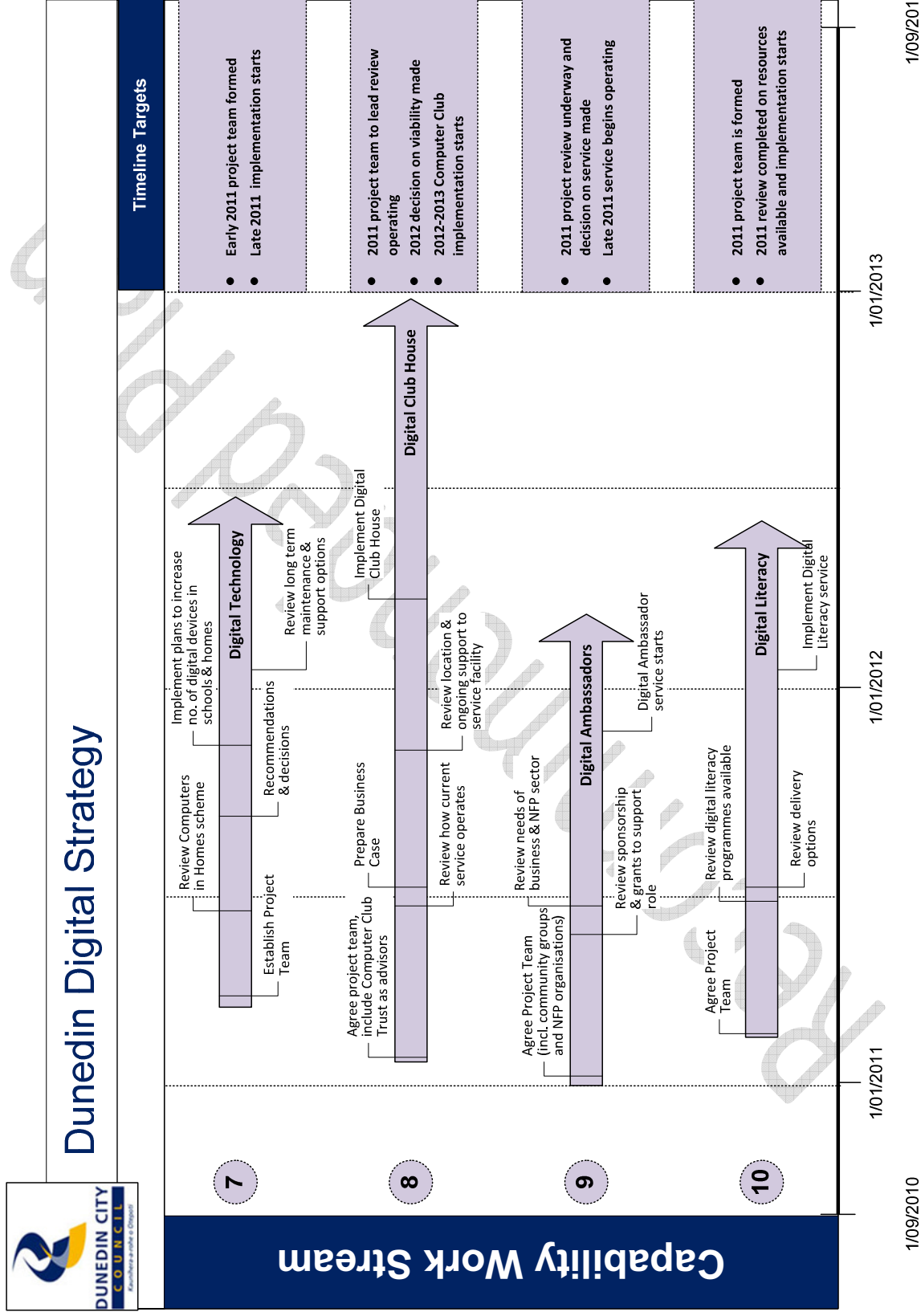
4.1 Enabling



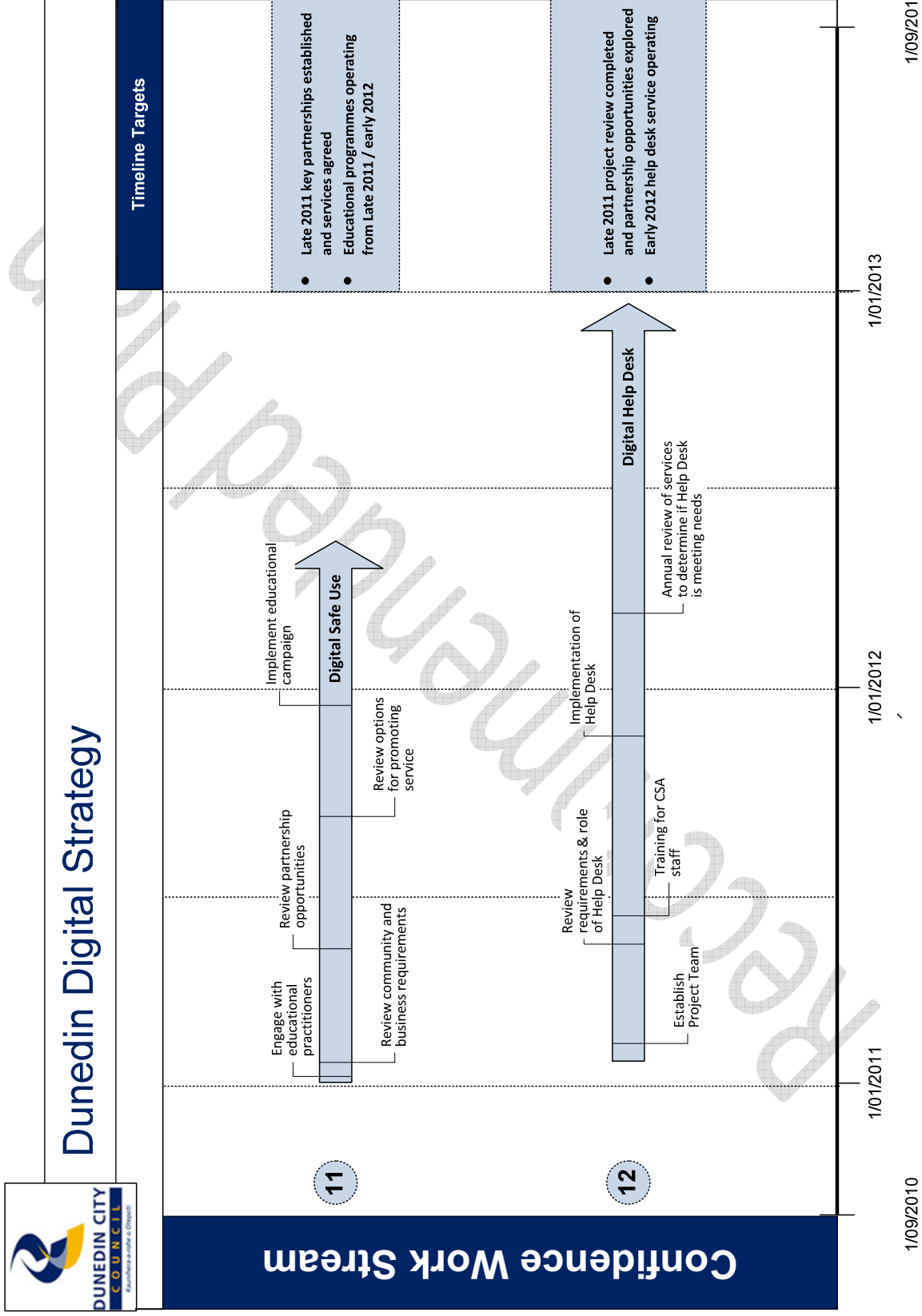
4.2 Leadership



4.3 Capability

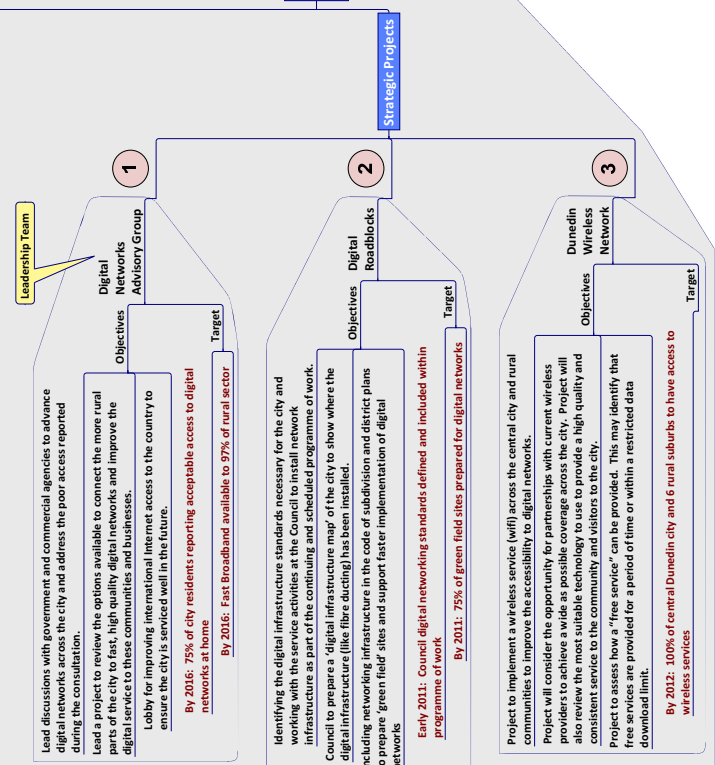


4.4 Confidence



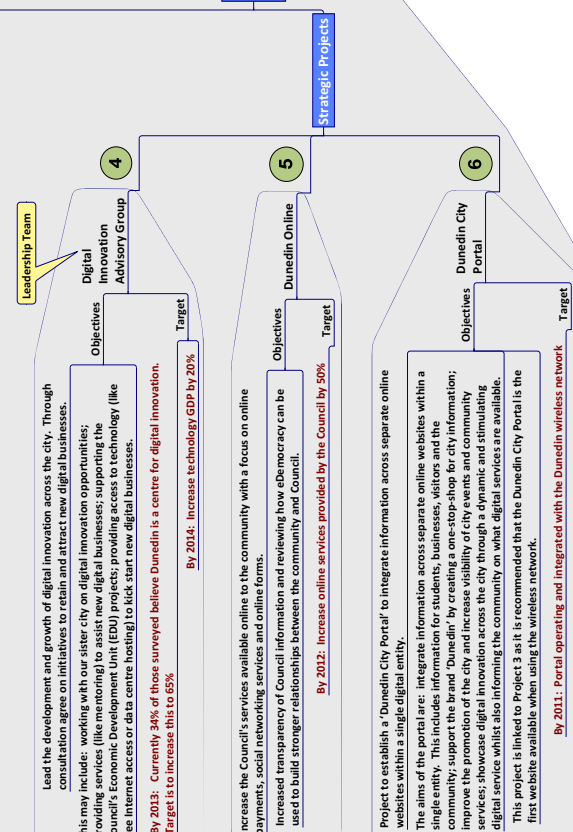


A Digitally Connected City to increase the access, affordability and the quality of digital networks connecting the residents and businesses across the city.



A Digitally Connected City

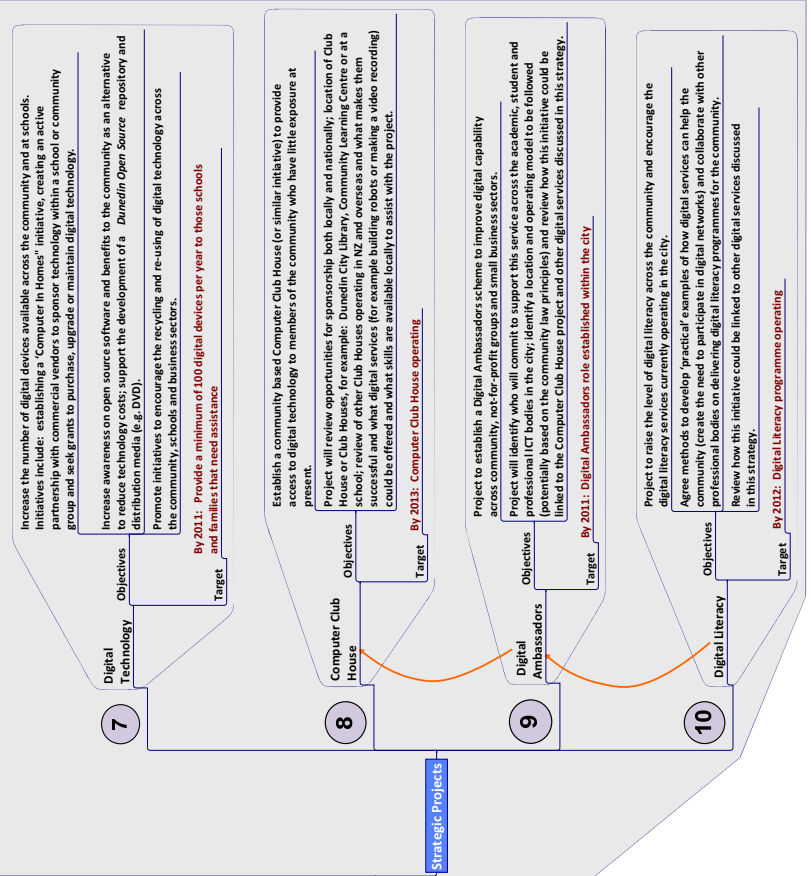
A Digitally Enabled City which will deliver more digital content to the community, visitors and businesses across the city and develop Dunedin as a centre of digital innovation.



A Digitally Enabled City

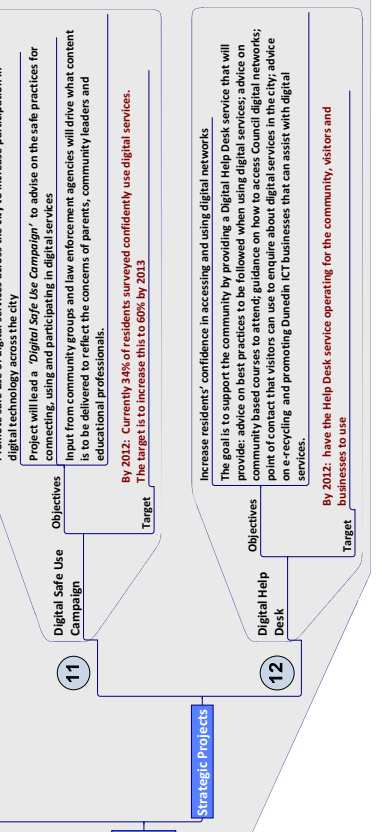
Strategy on a Page
Dunedin Digital Strategy
Prepared by: Stuart Dillon-Roberts, Effectus

A Digitally Capable City to raise the level of knowledge, literacy and skills to use digital technology across the community, business and service sectors.



A Digitally Capable City

A Digitally Confident City to increase assurance that digital services are safe and reliable for residents to fully embrace and participate in.



A Digitally Confident City

