



# eMandurah

A Digital Strategy for the City of Mandurah – October 2012

This strategy has been prepared by Explor Consulting Pty. Ltd. for the City of Mandurah.

Explor Consulting is the leader in digital futures consulting.

We help communities and their governments to plan and build better futures, taking advantage of the opportunities of digital technologies and broadband services.

Explor works with governments and organisations at all levels: local, regional, state, territory, provincial and national.

We provide advice, we help develop digital strategies, we facilitate the funding and initiation of projects and we provide management assistance.

Explor's people have unique insights into how digital technologies and broadband services can be exploited to support economic, social and environmental development.



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# Vision and Goals for a Digital Mandurah

As one of the first communities in Australia to gain ultra-speed broadband connections through the National Broadband Network (NBN), this strategy has been developed to ensure that the City of Mandurah capitalises on the economic, social and environmental benefits this technology delivers.

Explor Consulting has prepared it through detailed research and consultation with members of the Mandurah community and staff of the City.

This plan proposes a vision for Mandurah's future, enhanced by broadband and digital technologies:

*Mandurah, situated on a beautiful coastline about 72km south of Perth, will become a vibrant, prosperous and sustainable city where people and businesses confidently use digital technology to enrich the way they live, work, learn, create and connect.*

The following goals are proposed to support this vision:

Life	<p>People of all backgrounds and ages in Mandurah will have the confidence, capability and access to use digital technologies to support fulfilling, creative and healthy lives.</p> <p>People will use online services and access digital resources in ways that promote healthy, active, safe, enriching and socially connected living.</p> <p>Online services available for Mandurah's residents and visitors will be rich, extensive and easy to use.</p>
Work	<p>Mandurah's existing businesses will be using digital technologies to grow their market shares and to improve their productivity.</p> <p>Mandurah's economic base will be broader with new types of businesses able to flourish in the city through access to broadband services and other technologies.</p> <p>Mandurah will have more employment opportunities, particularly professional employment opportunities, made possible through broadband services and other technologies.</p> <p>Mandurah will be a good place to establish new businesses of all sizes due to the availability of digitally enabled facilities and well designed online government services.</p>
Learning	<p>People, particularly younger people, will have greater access to a wider variety of higher education courses, through the use of online delivery within Mandurah.</p> <p>Students at Mandurah's schools and other education institutions will achieve at a higher level, supported by the well informed use of digital technologies to support effective learning and teaching.</p>
Community	<p>Mandurah will be a more vibrant place, with the innovative but sensitive use of technology to enhance the experience of being in the city.</p> <p>Mandurah will have a flourishing arts and cultural sector, including many digital artists and digital media professionals.</p> <p>Mandurah's residents and visitors will have a rich understanding of the city's stories and heritage, recorded and presented using digital technologies.</p> <p>Social disadvantage and isolation will be reduced by using online services to better connect people, improve the delivery of community services and help provide people with key skills.</p> <p>Mandurah will have an active community sector, with community organisations embracing the opportunities of digital technology to connect with people and to support their services.</p>
Environment	<p>Mandurah's residents, visitors and investors will have a greater understanding of the city's unique environment, ecosystems and heritage through the availability of a rich set of online resources and information.</p> <p>Mandurah will have a lower carbon footprint and lower energy consumption due to the use of smart infrastructure for utility services and reduced needs to travel due to good online services.</p>

# Strategies to Support the Vision and Goals

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To achieve the vision and goals, the plan outlines eight digital technology focused strategies for the City:

## *Become an active technology leader*

There must be concerted leadership, continuous communication with the community, a suitable commitment of resources and effective management and monitoring of the various strategies. The City of Mandurah should take on the leadership role.

## *Create public digital facilities and infrastructure*

Ubiquitous broadband access is the foundation for Mandurah's digital future. The NBN will provide ultra-fast speed fixed services to homes and private premises. There should also be public outdoor spaces and shared indoor spaces where people who are working, learning or enjoying their leisure time can access broadband services.

## *Create and present compelling digital content and stories*

Mandurah must build on its greatest assets: its people, its location and its heritage. There are many benefits in creating and presenting a rich array of digital content and digital stories about Mandurah to potential visitors, to potential investors and most importantly, to the people who live, work and learn in Mandurah.

## *Build household capacity and confidence*

Digital technologies offer new ways of living, working and learning and much of this occurs within people's homes. There will need to be some changes to homes throughout Mandurah so that people have the physical spaces they require and the technical infrastructure to support different ways of living. These changes should also support sustainable and independent living.

## *Build small business capacity and confidence*

As businesses and individuals in Mandurah develop their capabilities to effectively use digital technologies, they will require practical assistance from locally based, trusted and competent people. The availability of this practical assistance must be developed and expanded.

## *Enable new business and employment opportunities*

Mandurah's goal of broadening its economic and employment base must be supported by its digital strategy. New enablers and incentives must be provided to encourage new types of business to establish and grow in Mandurah. Facilities and support must be provided so that people can work in Mandurah for employers and clients who are located elsewhere.

## *Support greater access to quality education and training*

The use of digital technology to support education and training must be increased so that access and achievement is improved. Importantly, there must be greater collaboration and use of shared services by the many education providers.

## *Tap into the opportunities and resources of older citizens.*

Demographic trends mean that older citizens will become a growing proportion of Mandurah's residents. Digital technologies should be used in ways that support those resident's needs. This can also create an opportunity for Mandurah to become a leader in providing the facilities, technology and services that support quality living for older people.



# Setting the Scene

The City of Mandurah's focus is ensuring that Mandurah will develop as a prosperous, vibrant, sustainable and socially equitable city offering significant opportunities for all residents.

Broadband services and other digital technologies will help the city to develop but to fully achieve this goal, the Council understands that there is a need for a clear plan on how to seize the opportunities of digital technologies and use them to build this future.

*eMandurah* – a proposed digital strategic plan for the city, explores the opportunities for using digital technologies, lays out an *eMandurah* vision and sets out proposed strategies to achieve that vision.

The City of Mandurah has commissioned the development of a digital strategic plan so that residents, the business community, council employees and the city's many partners, both in the Peel Region and beyond, can understand the digital future that the city intends to work towards and how the city will achieve it. The plan will also be a pillar in the overall city strategic plan for the period from 2013.

This plan has been prepared for the City by Explor, a consulting firm that specialises in developing digital strategies and in helping communities and their governments to plan and

build better futures, taking advantage of the opportunities of digital technologies and broadband services.

It has been prepared in mid 2012 through research and consultations with many members of the Mandurah community and staff of the city council.

Explor acknowledges the time, advice and insights provided by those community members and council staff, all of which was of great value. Explor particularly appreciated the support provided by the City's Economic Development Team.

*Right now in Mandurah... Churches are embracing new online technologies.*

*The local churches are embracing the opportunity that digital technologies offer them to better communicate with parishioners. For Father Daryl Cotton at Mandurah's Anglican Church the provision of podcasted sermons allows FIFO workers living in Mandurah and working in the Pilbara to remain connected to the church community. Pastor Russell Smith at the Eastlake Church is using Twitter, a dynamic website and other online tools to engage and connect with the church community. Both churches see the future development of their online presence as vital to engaging housebound or FIFO members and reaching out to new members and those in need in the City of Mandurah.*



# Why Mandurah Must Invest in the Community's Digital Future

*The direct contribution of the Internet to the Australian economy is worth approximately \$50 billion or 3.6% of Australia's Gross Domestic Product in 2010. This contribution is of similar value to the retail sector or Australia's iron ore exports.*

*Access Economics 2011*

Mandurah is one of the first communities in Australia to gain the ultra-speed broadband connections of the NBN. The city is focused on

achieving economic, social and environmental benefits from the NBN: that is why this Digital Futures Strategy has been developed.

Ultra-speed broadband is only one element in the array of digital technologies that are transforming the way we live and work. Over recent decades there have been dramatic developments in these digital technologies:

- High speed computing
- The miniaturisation of electronic equipment
- Mobile phones and mobile devices
- The Internet
- The digitisation of information and audio-visual materials.
- online services to communicate with suppliers and partner businesses, some of who may be overseas.
- Place based services.

We now all regularly use email, the web, social media (such as Facebook and Twitter), Smartphones and iPads. Importantly, these technologies have become affordable, pervasive and inter-connected.

However, the changes are not only in the availability of the new technologies: the significant changes are in the way we are using the technologies to do things very differently. Individuals of all ages have changed the way they work, relax, communicate, learn and shop.

Many businesses have changed the way they interact with their customers, their suppliers and their staff. Governments have changed the way they deliver their services and engage with their citizens.

## *What will business be like in a digitally mature Mandurah?*

*Almost all small and medium sized businesses in Mandurah will understand the opportunities and threats offered by digital technologies for their businesses. They will use technologies to sustain and grow their businesses.*

*Businesses will use relevant online services including social media to gain, retain and interact with customers. Some of their customers will be in Mandurah while others could be intrastate, interstate and overseas.*

*Mandurah businesses will use technology to support efficient, effective and trustworthy work practices. Their staff could make use of digital tools including mobile devices. Businesses could make extensive use of online services to communicate with suppliers and partner businesses, some of who may be overseas.*

*Many businesses will have re-designed their operations and work practices, taking the opportunity to shed unnecessary assets and facilities. In some businesses, staff could work from home. Other businesses could use shared offices, telecommuting centres and other facilities in the city that have been equipped with good broadband and other services.*

Digital technologies are both disruptive and transformative. For example:

Online services are displacing face to face services, with huge impacts on sectors such as retail, banking and education.

Broadband services and digital tools are enabling new patterns of work such as telecommuting for individuals and new forms of relationships between businesses including offshore outsourcing.

Digitisation of information and entertainment resources is destroying the market for many



traditional products such as books, newspapers and music on physical media such as CDs.

Online media is changing the way people find out about the places they want to visit, the experiences they want to have and the products they want to purchase.

Smart technologies are creating new opportunities for energy saving through efficiencies in our buildings and our energy grids.

People and businesses are becoming more demanding about the way and when they interact with their governments, for both decision making and service delivery.

Digital technology also offers opportunities for communities to thrive. It can provide:

- Unexpected new solutions to old public policy and community problems
- New ways of creating wealth
- Disruptive new communication channels.

Forward thinking and practical planning helps communities to deal with the disruptions that new technologies can create and to build on the opportunities of digital technologies. The digital future is a key pillar in creating a vibrant community future.

*Right now in Mandurah... Peel SeniorsNet is leading the nation in community online help.*

*Peel SeniorNet aims to provide a happy and safe environment for seniors to learn and expand their computer skills and networks. The aims of the Association include improving the quality of life of members by encouraging the use of computer skills and utilising the internet.*

*The association provides educational facilities to enable members to communicate with each other and friends and relations throughout the world using electronic means.*

*The Peel SeniorsNet is a dynamic and exciting group leading the nation in its programs. With some more targeted assistance from the City the association could dramatically increase their impact on Mandurah.*



# Opportunities for Mandurah to Benefit from Digital Technologies in Twelve Focus Areas

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Connected Households	Confident and capable people living in households with good broadband connections and access to digital services who are confident users who are able to be more flexible in how, when and where they work.
Local Information	Rich local information, delivered through interactive digital services, allows people to be more informed, supports greater community participation and helps to bring communities together.
Vibrant & Sustainable Living	Technology enabled buildings and infrastructure can reduce environmental impacts through better management of energy consumption and through reductions in required travel.
Community Health & Wellbeing	Online services in homes and community facilities can improve access to health and community care professionals. Online services and digital technologies can also enable many people with special needs to live independently.
Community Education & Skills	Access to education and training can be improved for students and learners of all ages through access to digital resources and online services in their homes, workplaces and other locations.
Community Safety & Security	Online services can provide better community access and sharing of information about local safety, security risks and critical incidents.
Engagement of the Socially Excluded	Online services can help socially excluded people to connect to other people, to access support services and to develop basic skills.
Democracy & Open Government	Digital tools can be used by governments to extend the way they engage with their citizens, to support collaborative decision making and to provide access to rich sets of government information online to improve transparency.
Online Government Services	Well designed online services are integrated, efficient and citizen centric. They can also be accessed 24 x7 at a time that suits the community
<b>Key Economic Sectors</b>	Digital tools and online services are critically important for larger businesses and are used to support customer interactions, supplier interactions and internal operations.
<b>SME Sector</b>	For smaller businesses, digital tools and online services support customer interactions and other operations.
<b>ICT Sector &amp; Digital Work Force</b>	The presence of successful local ICT businesses provides employment opportunities for professional creative people and provides important technical support for other businesses and organisations.

# Mandurah is Already a Great Community

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The City of Mandurah is well placed to create a vibrant future for its community. It is now a thriving regional city and a favourite holiday destination in Australia's fastest growing state, Western Australia. It has developed from a small fishing village to a bright, clean and modern city that is renowned for its lifestyle and its tourism experiences.

Mandurah is one of the fastest growing local government areas in Western Australia with a six-fold increase in population over the last three decades. The population is now approaching 70,000 people, living in an area of 173 square kilometres.

Mandurah is about 75 km south of Perth but recent upgrades to rail and road links mean that travel times are now less than an hour. Mandurah is also the northern most local government area in Peel which is Western Australia's smallest region, also including the shires of Serpentine-Jarrahdale, Murray, Waroona and Boddington. The City of Mandurah comprises approximately 65% of

Peel's population and 3% of its land area. Mandurah benefits from economic developments throughout the region and the city collaborates with its partner shires in Peel on many areas of economic, social and environmental development.

## Mandurah has many strengths

- Physical Location & Natural Beauty:

Mandurah has a stunning location next to the beautiful beaches of the Indian Ocean and the waterways of the Peel-Harvey Estuary. Nearby national parks and wetlands support important ecosystems and provide diverse outdoor recreation opportunities.

- Lifestyle:

Mandurah's residents value the city's wonderful lifestyle, which flows from its beautiful waterside location and pleasant climate.

- Image & Brand:

The city's image and brand are defined by its renowned lifestyle and location. The brand is strong and long standing, particularly throughout Western Australia.

- Physical Development:

The city has benefitted from many billions of dollars of private and public investment over recent decades that have created modern buildings and physical infrastructure. The residential developments have included new

contemporary apartment blocks, luxury detached housing and canal developments. There has also been new construction and upgrading of tourism, retail and other business premises. These developments have been accompanied by the expansion of transport and social infrastructure.

- Unique Waterfront Spaces:

One of the greatest assets created through development in Mandurah is the unique space around the waterfront.

### *What will households be like in a digitally mature Mandurah?*

*Mandurah's residents of all backgrounds and ages will have the understanding, confidence, skills and support to use broadband services and other digital tools in their day-to-day lives.*

*Most houses, apartments and residential homes, including those in lower income areas, will be connected to affordable broadband services.*

*Most households will have the types of affordable digital equipment that suited their particular needs, such as computers, interactive televisions or tablet devices.*

*The physical spaces in many homes will be well suited to home working, home-education and many other types of activities that are supported by digital technology.*

- Proximity to the Perth:

Mandurah's proximity to Perth and the upgraded transport links mean that people can reside in Mandurah and work in Perth.

- Gateway to the South West:

The excellent transport links from Perth have made Mandurah into an important gateway for WA's South West Region.

- Older Citizens:

Mandurah's older people are a strong local resource. Many have chosen to move to Mandurah after retirement and bring a passion for Mandurah, a desire to remain active and great life experience.

- Community Organisations:

Mandurah has a number of active and successful community organisations including sporting organisations and youth support organisations.

- Commitment to Sustainability:

The city and its community are committed to a sustainable future and take a pro-active stance on climate change.

- Offshore Connections:

A number of people who re-locate to Mandurah or who visit Mandurah come from outside of Western Australia. They bring connections to

people and businesses in other locations including international locations.

## Mandurah also faces some challenges

- Economic Diversity & Employment Opportunities:

Mandurah's economic base is currently narrow and offers a limited range of employment opportunities, particularly for people with professional qualifications.

- Global Trends:

Globalisation trends and the disruptive effects of digital technology are placing competitive pressures on certain businesses sectors such as retail and tourism.

- Anchor Facility:

Mandurah currently lacks a large private or public sector "anchor facility" such as a large manufacturing plant, a university or an organisational headquarters. Such facilities can provide significant economic and social benefits and enable clusters of other businesses to be supported.

- Capacities of Small Businesses:

Many of Mandurah's small businesses are well established but lack management and other capacities to thrive in a period change, brought

## How will government engage the citizens of Mandurah?

*The Mandurah City Council and other government organisations will use digital tools to provide new ways of actively engaging with Mandurah's residents and business community. These will include online forums to present new strategies, policies, plans and development proposals for the city.*

*Technologies such as three dimensional presentations and augmented reality will be used to show proposed developments.*

*Appropriate data about the city that is held by council will be made publicly available. The data will include geo-spatial data, environmental data, de-identified population data, financial data and infrastructure data. This will be used by existing businesses, potential investors and community organisations for planning and scenario modelling. This open data will also be used by software developers to create customised "Apps" about Mandurah.*

*The people and businesses of Mandurah will have access to improved, more convenient and more client-centric government services, delivered through online channels. The client-centric services will integrate the different but related services that are provided by different levels of government (local, state, federal) and by different departments within those governments.*

*The services will be simple to use, mobile biased and efficient and could go well beyond the basic websites offered by governments in 2012.*

about by new economic realities and technological disruption.

- Access to Higher Education:

There is currently limited access to higher education in Mandurah, particularly compared to the nearby southern suburbs of Perth.

- Cosmopolitan Experiences:

A key feature of many thriving lifestyle locations around the world is their cosmopolitan feel and “edginess”. Fremantle offers a good example. Mandurah is developing a clean modern image but it does not yet offer the cosmopolitan experiences that help attract and retain many people.

- Social Disadvantage:

New housing developments have seen an influx of people with high levels of financial assets and incomes. However in Mandurah there remain families and individuals who are socially disadvantaged.

- Sustainable Transport:

Transport within Mandurah and the broader Peel Region is very car dependent and only limited public transport is available.

- Opportunities for Young People:

Mandurah’s population profile has a lower proportion of young people. This is due to the limited local education, social and employment opportunities.

- Preserving the Local Advantages & Identity:

As Mandurah grows, there is a risk that inappropriate development will diminish the city’s natural assets and lifestyle advantages. This would damage Mandurah’s overall brand and identity. Similarly, development could see Mandurah merge with the suburbs of Perth, also diminishing the city’s separate identity.

- Fiscal Constraints

Like many governments over the coming years the City expects to be fiscally constrained reducing capacity to invest in digital initiatives.



*Right now in Mandurah...*

*MandurahToday.com is building a new business model and stimulating local retail activity.*

*Mandurah Today.com is a family owned business established in January 2011 when Artwell was only 14. The aim of the business is to create a customer reward program to benefit both locals and business owners. Mandurah’s own customer instant reward program promotes Mandurah businesses and benefits members by arranging discounts.*

*MandurahToday.com is demonstrating the development of new business models enabled by the internet and online technologies. By driving more customers to local retailers they are helping address the trend towards more online shopping.*

# Mandurah's Bright Future

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The people and City of Mandurah are determined to shape a strong future for their city. Their aspirations include:

1. Place:

Mandurah will have evolved, but by carefully building on its past and its heritage, it will remain a special and beautiful place. The heart of Mandurah will be its waterfront and a revitalised city centre.

2. Lifestyle:

Mandurah will still be a great lifestyle destination, but it will have an appeal to a wider range of people from different age groups, income levels, ethnic origins and other backgrounds.

3. Identity:

Mandurah will have a unique and well-regarded identity, based on its location, environment and lifestyle. It will be seen as being quite distinct from Perth.

4. Sustainability:

Lifestyles and developments will be sustainable. A high value will be placed on preserving natural eco-systems, landscapes and shorelines.

Climate change and other environmental threats will be proactively managed.

5. Economy & Employment:

Mandurah will have a broader economic base and range of employment opportunities, particularly for professionals, for creative people and for young people. Mandurah will have a skilled and productive work force. There will be higher levels of business innovation.

6. Education:

Educational access and achievement will be improved. The city's government and non-government schools will provide high quality education. There will be a much wider range of VET and university courses available for Mandurah's young people and other residents.

7. Health & Wealth Being:

The people of Mandurah will lead healthy and active lives. There will be diverse housing options to enable healthy living by people with diverse backgrounds and needs. People with special needs, including aged people and those with disabilities, will have good life quality. There will be good access to local health and related services.

8. Social Capital:

There will be a strong civil society with active community organisations. The level of social isolation will be reduced.

9. Collaboration & Co-operation:

There will be a good level of collaboration and co-operation between the private sector, government and community organisations in Mandurah.

10. Infrastructure:

Mandurah will have good infrastructure that meets community needs, supports environmental sustainability and is cost effective to maintain.

11. Community Safety:

Mandurah will be a safe place to live and work

12. Transport:

There will be good transport links within and beyond Mandurah. There will be greater availability of transport beyond private cars.

13. City of Mandurah Council:

Mandurah's residents and businesses will be supported by a forward-looking community and well-managed city council. The council will deliver effective and responsive quality services. It will be efficient and financially prudent.



# What Digital Futures Strategies Should be Pursued to Make Life Better in Mandurah?

Explor Consulting has identified eight strategies that the City of Mandurah should pursue to create its better future using digital technologies:

1. Become an active technology leader
2. Create public digital facilities and infrastructure
3. Create and present compelling digital content and stories
4. Build household capacity and confidence
5. Build small business capacity and confidence
6. Enable new business and employment opportunities

7. Support greater access to quality education and training
8. Tap into the opportunities and resources of older citizens.

Each of these strategies is important and each should be implemented through a series of projects and actions.

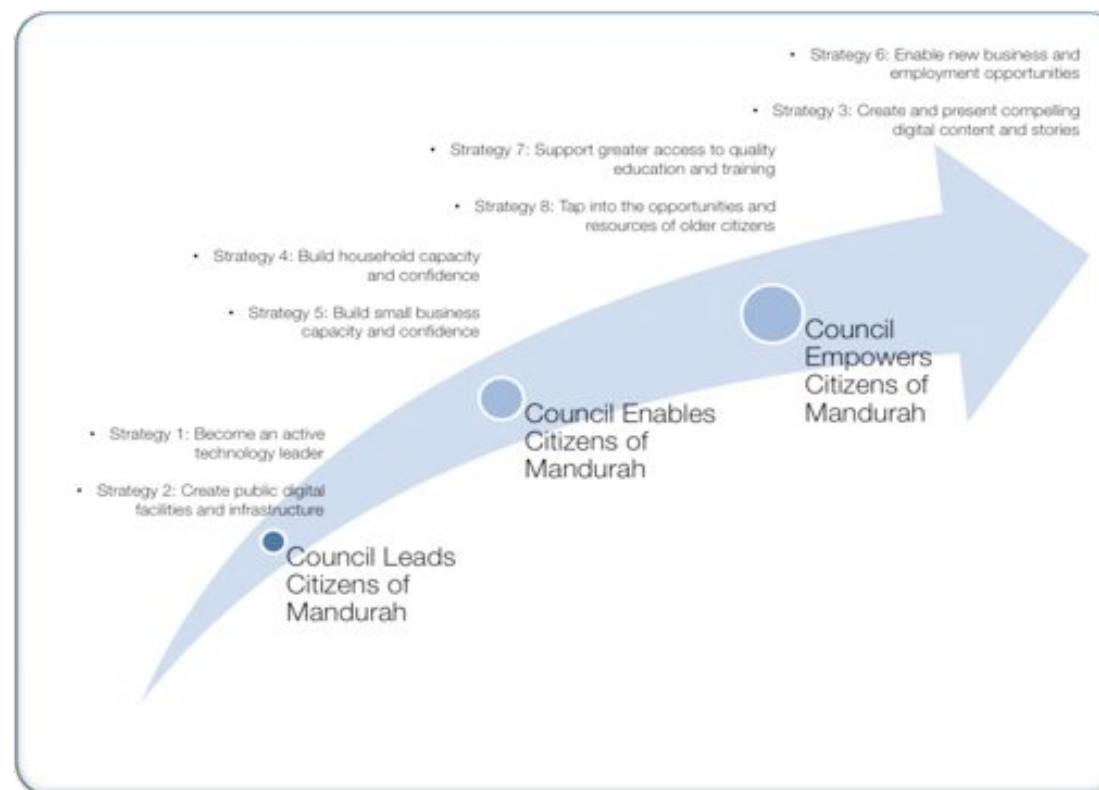


Figure 1: Council to Lead Digital Futures Strategy

# 1. Be An Active Technology Leader

Mandurah cannot simply drift into its digital future. There must be concerted leadership, continuous communication with the community, a suitable commitment of resources and effective management and monitoring of the various strategies.

The City of Mandurah should take on the leadership role. It should lead the city towards its digital future as part of its overall leadership of the city's economic, social and environmental development. It should ensure that the digital strategies are regularly updated and remain integrated with the city's other strategies and developments.

	Project/Action	Scope & Approach
1.1	Proactively Provide Leadership, Promotion & Advocacy	<p>The City, its leaders and its senior managers should adopt a clear digital futures strategy and then provide active leadership for its promotion and implementation. This should include:</p> <ul style="list-style-type: none"> <li>• Promotion to residents and other key community stakeholders</li> <li>• Advocacy to potential partners and funders including State and Federal governments</li> <li>• Firm implementation management including clear accountabilities and effective project management.</li> </ul>
1.2	Establish Benchmarks and Monitor Progress	<p>The City should actively monitor the city's progress in moving towards its digital future, achieving its vision and goals and where necessary, adjust its strategy. This should include:</p> <ul style="list-style-type: none"> <li>• Establishing relevant KPIs and measuring progress against the KPIs using a balanced scorecard approach</li> <li>• Regularly monitoring implementation issues</li> <li>• Reporting progress.</li> </ul>
1.3	Convene a City Digital Forum	<p>The City should convene a city digital forum that regularly brings together key stakeholders and local champions in implementing the digital futures strategy. The forum should assist the Council in:</p> <ul style="list-style-type: none"> <li>• Maintaining Mandurah's digital advocacy</li> <li>• Building networks and partnerships</li> <li>• Identifying new opportunities</li> <li>• Monitoring implementation progress.</li> </ul>
1.4	Building Upon Council's Digital Capacity	<p>The City should become an exemplar of a modern digitally enabled organisation and should continue to build its own internal digital capacities. The council should continue to refine its internal:</p> <ul style="list-style-type: none"> <li>• Management capacities from a digital perspective</li> <li>• Strategic plans with digital as a pillar</li> </ul>

Project/Action	Scope & Approach
1.5	Embracing Mobile Devices
<p>In becoming a modern digitally enabled organisation, the City should embrace work practices enabled by mobile technology. The council should progressively implement:</p> <ul style="list-style-type: none"> <li>• Work practices to identify digital opportunities</li> <li>• Technology systems and infrastructure to offer best of breed and world's best practice.</li> <li>• Wi-Fi in its premises</li> <li>• Use of appropriate mobile devices including tablet devices</li> <li>• Appropriate BYOD (Bring Your Own Device) programs for staff, contractors and volunteers.</li> </ul>	
1.6	Enhancing Council e-services
<p>The City should comprehensively review, update and extend the e-services it provides to residents and businesses. The enhanced e-services should:</p> <ul style="list-style-type: none"> <li>• Be convenient, integrated, efficient and easy to use for residents and businesses</li> <li>• Enable efficiencies and provide opportunities to simplify council work processes</li> <li>• Operate on different devices including mobile devices</li> <li>• Where possible, securely link to the services and data of other government service providers</li> <li>• Be e-service exemplars.</li> </ul>	
1.7	Introducing Smart Streets
<p>The City should study the impact and opportunity created by the mass deployment of low cost sensors. Sensors to manage traffic, parking, waste, environmental and other city services could be deployed at low cost. A technology scan and business case for deployment costs should be developed.</p>	

## 2. Create Public Digital Facilities and Infrastructure

Ubiquitous broadband access is the foundation for Mandurah’s digital future. The NBN will provide ultra-speed fixed services to homes and other private premises. There should also be public outdoor spaces and shared indoor spaces where people who are working, learning or enjoying their leisure time can access broadband services through computers and mobile devices.

This strategy should build on Mandurah’s Boardwalk Foreshore Wi-Fi Project and extend Wi-Fi access to key locations throughout the city. It should develop new digitally equipped building facilities and spaces to support education, tele-working and digital industries. It should upgrade the access to digital technology in existing community facilities.

Project/Action	Scope & Approach
2.1 Extend the Wi-Fi Access	<p>The city’s free access Wi-Fi network should be implemented and extended to further areas in and around the city. The network should be extended to relevant locations and configured so as to support online activities including:</p> <ul style="list-style-type: none"> <li>• Providing immediate and up to date information about the city to tourists and other visitors</li> <li>• Widening access to online education resources by students of all ages</li> <li>• Allowing for the creation and uploading of images, videos and other digital resources by artists, sporting groups and young people.</li> <li>• Creating valuable mobile digital access for businesses and their employees</li> <li>• Delivering immediate and up to date information for the community within the community</li> </ul>
2.2 Broaden the Role of Libraries and Other Facilities for the Community Accessing Online Services	<p>The city’s libraries and other community facilities such as Ac-cent Mandurah and the Billy Dower Youth Centre should have a strengthened role in enabling all residents to have access to online services and digital resources. These enhanced roles should be developed through measures including:</p> <ul style="list-style-type: none"> <li>• Providing free W-Fi within each facility</li> <li>• Providing mobile tablet devices for loan use within each facility</li> <li>• Providing access to a rich array of online resources, particularly educational resources.</li> </ul>
2.3 Create a New Digital Precinct	<p>Mandurah should seek to create a new high profile digital precinct. The precinct should comprise an integrated set of digitally enabled buildings and facilities for education, telecommuting and digital media production.</p> <p>The size, design, funding and operation of the digital precinct should be determined through a business plan.</p>

Project/Action	Scope & Approach
2.4 Develop an Iconic Outdoor Presentation Space that Creates a Huge Impact	<p>The city should seek to create an iconic outdoor presentation space, at an attractive location such as the waterfront, where spectacular digital media presentations can be made. The presentations should include many that are associated with the city's festivals and other events. They presentations should provide opportunities for young people and other artists to present creative digital works.</p> <p>Details of the presentation space, including its location, times of operations and management arrangements, should be determined through community consultation and planning.</p>



### 3. Create and Present Compelling Digital Content And Stories

Mandurah must build on its greatest assets: its people, its location and its heritage. There are many benefits in creating and presenting a rich array of digital content and digital stories about Mandurah to potential visitors, to potential investors and most importantly, to the people who live, work and learn in Mandurah. Digital content can be informative and engaging. Digital stories can also be creative, entertaining, artistic and edgy and their presentation can add to the overall vibrancy of the city.

An integrated approach should be followed using a powerful platform for hosting and presenting content and stories. The council should take a lead role in providing information to the community through digital channels. There should also be a major focus on incorporating digital technology into the city’s arts, culture and festivals programs. These programs should also be leveraged to stimulate digital media business and employment opportunities.

Project/Action	Scope & Approach
3.1 Establish a Common Platform for Hosting and Presenting Digital Content	<p>The city should establish a common platform to host and present digital content about the city, to be made available to residents, visitors and others. The platform should allow content to be presented in engaging ways for the different audiences. It should allow the content to be contributed by different groups including local businesses, community organisations, the City and other local institutions.</p> <p>The platform should incorporate the necessary suite of technical and easy to use content management services.</p> <p>The council should determine and implement an appropriate and sustainable business model for the platform. The business models to be considered should include the selection of an external service provider.</p>
3.2 Adopt a Digital First Policy for City Content	<p>The City should adopt and implement a digital first policy for publishing information and for undertaking consultations.</p> <p>The city should undertake a comprehensive review of its current approach and implement new processes, channels, roles and responsibilities. Where relevant, the city should use the common content platform (see 3.1).</p>
3.3 Introduce an Online Neighbourhood Watch	<p>The city should establish an online neighbourhood watch site for Mandurah citizens to report suspicious incidents behaviour and anti-social behaviour including graffiti.</p> <p>The city should consider using the common content platform (see 3.1) to support the site.</p>

3.4	Commission the Development of a Mandurah App	<p>The city should commission the development of a “Mandurah App” which provides residents and visitors with information about the city, including key attractions, major services and getting around. The information provided should be dynamic and up to date. Where relevant, the App should link to information hosted in the common content platform (see 3.1).</p> <p>The App should be commissioned through a competitive process with the objectives of achieving:</p> <ul style="list-style-type: none"> <li>• A quality App with high production values</li> <li>• A highly useable App with valuable information meeting the needs of the target audience</li> <li>• Value for money in the development of the App</li> <li>• Sustainability of the content presented through the App</li> <li>• Opportunities for digital media development in Mandurah.</li> </ul>
3.5	Create a Digital Media Hub	<p>Mandurah should seek to create a digital media hub as a part of the proposed digital precinct (see 2.3). The hub should provide an attractive shared workspace, including equipment and other facilities, for digital media professionals and digital artists. The hub should enable digital media firms who can be located intrastate, interstate or even overseas to employ Mandurah based digital media professionals.</p> <p>A realistic business plan should be prepared to determine the feasibility, extent, business model and funding requirements for the hub.</p>
3.6	Establish a Digital Artist Program	<p>The city should establish and fund a digital artists program, associated with the contemporary art centre, INQB8. The program should provide some developmental assistance, possibly including commissions or competitions. It should also enable access to digital facilities and resources, possibly through the digital media hub (see 3.5).</p> <p>The city should design the program and allocate funding after consultations.</p>
3.7	Use Digital Presentations for Festivals and Events	<p>The city should actively promote the use of digital technology for presenting festivals and other events throughout the city and beyond. These should range from large festivals such as Stretch through to smaller informal youth events such as skate boarding events. The presentations should include video streaming.</p> <p>The city should promote this through its existing programs and community support arrangements. Digital equipment and facilities should be made available through other elements of this digital futures strategy.</p>
3.8	Attract Outdoor Digital Productions to Mandurah	<p>The city should seek to attract high profile, spectacular outdoor digital productions. These could include 3-dimensional productions over the waterways near the city centre.</p> <p>The city should actively promote itself to relevant digital artists and provide some assistance to attract their productions.</p>

<b>3.9</b> Support the Creation of a Digital Heritage Program	<p>The city should support the creation of a rich set of digital resources that provide interactive and engaging content on the city’s heritage, including its indigenous heritage, its history and its environment. The resources should be hosted on the common content platform (see 3.1).</p> <p>The city should broker partnerships and projects to create the resources. These should involve:</p> <ul style="list-style-type: none"><li>• Schools</li><li>• Indigenous community</li><li>• Mandurah Community Museum</li><li>• Community organisations.</li></ul>
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## 4. Build Household Capacity And Confidence

Digital technologies offer new ways of living, working and learning and much of this occurs within people’s homes. There will need to be some changes to homes throughout Mandurah so that people have the physical spaces they require and the technical infrastructure to support different ways of living. These changes should also support more sustainable living and more independent living.

Project/Action	Scope & Approach
<p><b>4.1</b> Launch and Support a Campaign that Helps Households Get Online</p>	<p>Mandurah should support a community based campaign to help households get online, particularly targeted at people who lack confidence and the “how to” skills.</p> <p>The campaign should be based on “bottom up” support, provided by trusted local people. It should involve a mixture of practical information sessions and one on one support. The campaign should be largely based on partnerships involving local community organisations and it could draw on the volunteering resources of both older people and younger people.</p>
<p><b>4.2</b> Build capacity for home businesses</p>	<p>A small, targeted program should be established to help Mandurah’s growing sector of home based businesses thrive online.</p> <p>The program should be largely based on peer support including an online community. It should also support mentoring. The program could be delivered through partnerships with organisations such as “Mums of Mandurah”.</p>
<p><b>4.3</b> Hold a Smart Homes Design Competition and the Build the Model</p>	<p>Connected household living in Mandurah should be promoted through the design and building of an affordable and sustainable house, enabled by technology.</p> <p>A competition should be held to design such a house. The house should then be built and opened as a demonstrator before ultimately being sold.</p> <p>As a demonstrator, the house should be used to:</p> <ul style="list-style-type: none"> <li>• Promote the advantages of online living to Mandurah residents</li> <li>• Promote new house designs to Mandurah’s building and construction sector</li> <li>• Market Mandurah to the outside world as a digital and smart community.</li> </ul>

## 5. Build Small Business Capacity And Confidence

As businesses and individuals in Mandurah develop their capabilities to effectively use digital technologies, they will require practical assistance from locally based, trusted and competent people. The availability of this practical assistance must be developed and expanded.

Project/Action	Scope & Approach
<b>5.1</b> Organise Awareness Raising Sessions for Business	<p>The city should organise an ongoing program of practical awareness raising sessions, targeted at small businesses that have a low understanding of the importance of digital technologies to their business survival and growth.</p> <p>The sessions should be largely provided by trusted business peers rather than external experts. Where feasible, local business organisations and networks should be involved in delivering the sessions.</p>
<b>5.2</b> Establish an Ongoing Program of Business and Technology Mentoring	<p>The city should establish an ongoing program of business/technology mentoring for Mandurah’s small businesses. This program should involve trusted mentors who can provide practical advice and coaching about moving online to small businesses.</p> <p>The program could build on that offered as part of the Digital Enterprise Program. The program components should be:</p> <ul style="list-style-type: none"> <li>• Development of basic knowledge resources</li> <li>• Selection/accreditation of a small number of mentors</li> <li>• Promotion of the mentoring program</li> <li>• Seed funding, such as payment of first hour of mentoring advice for eligible business.</li> </ul>
<b>5.3</b> Establish Targeted Sectoral Support to Further Drive the Adoption of Digital Technology	<p>Targeted sectoral programs should be established to further drive the adoption of digital technology and online initiatives in key small business sectors. These may include the tourism, retail and building/construction sectors.</p> <p>The programs should be operated by formal industry bodies or networks. The city should facilitate the programs and provide a small degree of seed funding. The programs should:</p> <ul style="list-style-type: none"> <li>• Build on and go beyond other programs including the Digital Enterprise Program and the proposed Business/Technology Mentoring Program (see 5.2)</li> <li>• Enable businesses to access additional information and advice that is specific to their sector</li> <li>• Identify and facilitate opportunities for sector wide approaches, such as destination based online marketing.</li> </ul>



## 6. Enable New Business And Employment Opportunities

Mandurah’s goal of broadening its economic and employment base must be supported by its digital strategy. New enablers and incentives must be provided to encourage new types of business to establish and grow in Mandurah. Facilities and support must be provided so that people can work in Mandurah for employers and clients who are located elsewhere.

Achieving each of Mandurah’s digital futures goals will require a focus on change and innovation. Much of this innovation may come from small businesses, local community organisations and creative individuals. It is important that such innovation is supported and stimulated.

Project/Action	Scope & Approach
6.1 Seek to Create a Telecommuting Facility	Mandurah should seek to create a telecommuting facility as a part of the proposed digital precinct (see 2.3). An alternative location could be the Mandurah Railway Station. The facility should provide an attractive shared work space, including equipment and other facilities, for employees of different private and government organisations, particularly those with offices in Perth.  A realistic business plan should be prepared to determine the feasibility, extent, business model and funding requirements for the facility.
6.2 Investigate the Possibility of an Incubator	The city should investigate the possibility of establishing a business incubator, focused on digital media and related sectors. The incubator could be associated with the proposed digital precinct (see 2.3).
6.3 Review and Further Develop the Councils Online Marketing Strategy	The City should review and further develop its overall online strategy for marketing the city to potential investors, visitors and new residents.  The online communications strategy to target key community sectors with up to date information should also be explored further

## 7. Support Better Access To Quality Education And Training

The use of digital technology to support education and training must be increased so that access and achievement is improved. Importantly, there must be greater collaboration and use of shared services by the many education providers.

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Project/Action	Scope & Approach
7.1 Create a Shared Education Facility	<p>Mandurah should seek to create a significant shared education facility as a part of the proposed digital precinct (see 2.3). An alternative location could be the Peel Education Campus. The facility should provide contemporary spaces for learning and teaching, which enable externally based universities, TAFE institutes and other education organisations to deliver courses using various modes including high definition video streaming and other online services.</p> <p>A realistic business plan should be prepared to determine the feasibility, extent, business model and funding requirements for the facility.</p>
7.2 Actively Broker Relationships with WA Education Institutes	<p>The city should actively broker relationships with Western Australia's various universities, TAFE institutes and other education organisations to encourage the online delivery of courses in Mandurah through the proposed education facility (see 7.1) and other facilities such as the Performing Arts Centre.</p>
7.3 Establish Online Links with Overseas Universities	<p>The city should seek to develop links with overseas universities including the delivery of online courses from overseas campuses to Mandurah and vice versa. The city should build on current negotiations with South-East Asian universities.</p>
7.4 Promote Mandurah as a Regional Base for Professional Learning and Training	<p>The city should promote Mandurah as a regional base for professional learning and training using digital facilities such as those of the proposed education facility (see 7.1). The city should target schools, government organisations and private firms in the wider region.</p>

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## 8. Tap Into The Opportunities And Resources Of Older Citizens

Demographic trends mean that older citizens will become a growing proportion of Mandurah’s residents. Digital technologies should be used in ways which support those resident’s needs. This can also create an opportunity for Mandurah to become a leader in providing the facilities, technology and services that support quality living for older people.

Older citizens are also an important part of the city’s social capital and their knowledge, wisdom, experience and motivation should be drawn upon to help Mandurah move towards it digital future.

Project/Action	Scope & Approach
8.1 Research pilots for Aged Care	The city should establish linkages with health and aged care research and provider organisations, including the Curtin School of Nursing to promote health and wellbeing pilots for older citizens using digital technologies.
8.2 Champion Smart Homes for Independent Living	Quality independent living in Mandurah should be promoted through the design and building of an affordable and sustainable demonstrator home to support the needs of older people, enabled by technology. This demonstrator home should be designed and built in conjunction with research partners (see section 8.1). This project could be part of the Smart Homes project (see 4.3).
8.3 Support the Introduction of Digital Buddy Program	The city should support community organisations for older people to establish a “Digital Buddy” program where older people with higher levels of digital confidence could support and mentor others in the community with lower levels of digital confidence. The support provided by the city could include: <ul style="list-style-type: none"> <li>• Facilitation of the program</li> <li>• Promotion to the community</li> <li>• Small grants to develop knowledge resources.</li> </ul>

# What Will Help Mandurah Get There and What Might Hold the City Back?

In charting a way forward to its digital future, Mandurah must build on its opportunities and confront its particular challenges.

## Opportunities to Build On

Mandurah already has some great opportunities on which to build strategies for achieving its digital future:

1. **NBN Rollout:** The city is one of the first areas in Australia where the NBN is being rolled out.
2. **Free Wi-Fi Precinct:** Mandurah is creating a free W-Fi precinct in the city centre.
3. **Enthusiasm & Energy:** There is enthusiasm and energy for building a great digital future. The City is determined

to be an active leader and there are other organisations and institutions across the community that are committed to helping create this future.

4. **Location:** Mandurah's lifestyle location and proximity to Perth makes it an ideal location to live for people who work in Perth. There is a significant opportunity to support telecommuting so that people with Perth based employment reduce their travel and spend more time working from Mandurah.
5. **Universities:** Although Mandurah currently lacks a major university campus, the city is negotiating stronger with state based and South-East Asian based universities. Mandurah has the opportunity to build on these relationships, particularly as the city's population continues to increase.
6. **School Collaboration:** There is collaboration between Mandurah's existing schools. In particular, the government schools co-operate in offering a wide range of courses through the SCOPE consortium.
7. **Cultural Activities, Facilities & Festivals:** Mandurah has a rich and developing cultural with many activities, facilities and festivals.

## What will a digitally mature Mandurah be like to live in and enjoy?

*A rich array of dynamic content about Mandurah will be created and made available online.*

*Some of the content will be high quality, well produced material designed to attract international and Australian visitors and investors.*

*Some of the content will be diverse collections of digital stories about Mandurah: its location, its people, its community, its environment and its heritage.*

*There will also be innovative digital art which will be presented in a variety ways, ranging from mobile phones through to large outdoor waterfront exhibitions.*

*Other content could include practical, useful and important information for Mandurah's residents and visitors.*

*Many local community, cultural, business and education groups will be involved in creating and updating the online information.*

8. **Older People:** Mandurah's growing population of older people presents opportunities. There is a high proportion of active and capable older people who are motivated to contribute to the community. There are also economic

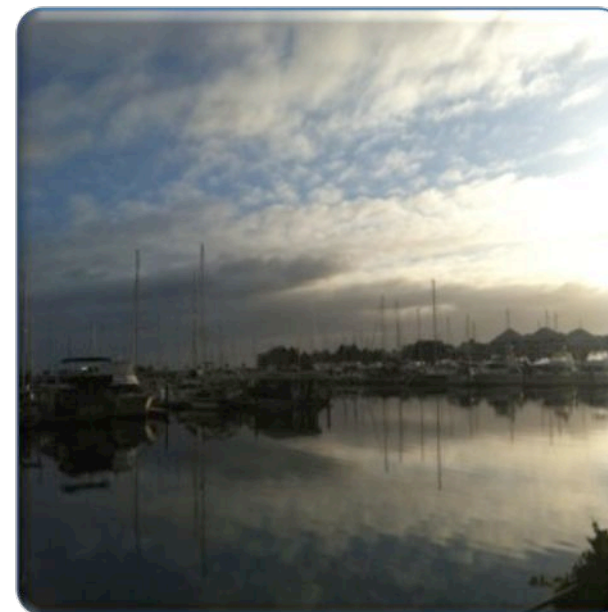
opportunities in developing expertise for enabling quality independent living for older people.

9. **Younger People:** There are similar opportunities for younger people. Many want to use digital technologies in creative ways and socially beneficial ways.
10. **Home Based Micro-Businesses:** Mandurah has a large number of home based micro-businesses. There are opportunities for these businesses to expand their markets, to build their knowledge and to build networks with partner businesses through online services.
11. **Digital Enterprise Program:** In 2013 and 2014, the Australian Government's Digital Enterprise Program will provide training and supporting for digital technologies to small business and community organisations in Mandurah.
12. **Unique Outdoor Spaces:** Mandurah has some unique outdoor spaces along its waterfront that could be an ideal venue for innovative performances and artistic presentations, including those using digital technology.

## Challenges to Be Confronted

Mandurah also has some challenges and these must be addressed when framing strategies for a digital future.

1. **Limited Understanding by Small Businesses:** Many of Mandurah's smaller businesses currently have a limited understanding of how to fully exploit the opportunities, and to respond to the threats, that digital technologies bring. Many businesses also lack the practical capacity to embrace online services.
2. **Limited Range of ICT Service Providers:** Mandurah currently has a limited range of businesses that provide information technology services.
3. **City at an Early Stage of E-Service Capacity:** The City is at an early stage with its own e-service capacity. However, this is being addressed through its information technology strategic planning.





# Initial Actions on the Road to Mandurah's Digital Future

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## Embracing the Digital Future

This plan has set out a vision for Mandurah's future, enhanced by broadband and digital technologies. It has also proposed strategies for achieving that future.

The City has the opportunity to embrace the vision and to start the city's journey towards its digital future. If the city commits to the vision, it must lead, communicate and convert the proposed strategies into actual actions.

## Starting the Journey

The first steps on the journey are for the council to focus on Leadership, Promotion & Advocacy [1.1] and then start Building Council Capacity [1.4]. There should be early work on building networks of stakeholder support within the city through the establishment of the City Digital

Forum [1.3], possibly facilitated by external experts. It is also important to start Monitoring Progress [1.2].

It is vital that (subject to available funding) early work occurs on building up the basic infrastructure, systems and access:

- Extend the Wi-Fi Access [2.1]
- Broaden the Role of Libraries and Other Facilities [2.2]
- Create a Common Platform for Hosting and Presenting Digital Content [3.1].

Early work should also commence on the strategy to Create and Present Compelling Digital Content and Stories:

- Online Neighbourhood Watch [3.3]
- Mandurah App [3.4]
- Digital Artist Program [3.6]
- Digital Presentation Of Festivals And Events [3.7]
- Digital Heritage Program [3.9].

Work should also be undertaken to rapidly establish the initial programs to build capacity and confidence for the community and small businesses:

- Help Households Get Online Campaign [4.1]
- Awareness Raising Sessions For Business [5.1]

- Digital Buddy Program [8.3].

## Moving to the Next Stages

Beyond the initial quick wins, there is further planning and partnering work that must be undertaken before many of the proposed projects can be commenced.

The strategies have a strong emphasis on providing carefully targeted "bottom up" support for households and small businesses. These proposed programs could commence in year one but they require further scoping and design, in conjunction with the stakeholders:

- Build Capacity For Home Businesses [4.2]
- Smart Homes – Design Competition / Demonstrator [4.3]
- Business/Technology Mentoring [5.2]
- Targeted Sectoral Support [5.3].

There is a key opportunity to develop a New Digital Precinct [2.3] which may include a Digital Media Hub [3.5], a Telecommuting Facility [6.1] and a Shared Education Facility [7.1]. These would require a substantial level of investment and it is important that robust business plans are prepared. This planning work should commence in the first year. A proposed project that may be related to the digital precinct is to Investigate the Possibility of an Incubator [6.2]. Similarly, the proposed projects for an Iconic Outdoor Presentation Space [2.4] and Outdoor

Digital Productions [3.8] require further planning and consultation.

An important element of the strategies is for the council to become an exemplar. When it has developed its own internal capacities, the council should plan and undertake key projects relating to its own services:

- Embracing Mobile Devices [1.5]
- Enhancing Council e-Services [1.6]
- Smart Streets [1.7]
- Digital First Policy For City Content [3.2]
- Online Marketing Strategy [6.3].

The council should also broker partnerships and pursue opportunities for education and older people:

- Brokering Relationships With WA Education Institutes [7.2]
- Establish Online Links With Overseas Universities [7.3]
- Regional Base For Professional Learning And Training [7.4]
- Research Pilots For Aged Care [8.1]
- Smart Homes for Independent Living – Design Competition / Demonstrator [8.2].

## Funding Opportunities

The Western Australian Government is encouraging businesses and individuals to

become part of the digital economy. This includes raising industry's awareness of the benefits of incorporating new digital technology and broadband connectivity to transform traditional business practices.

There is an emphasis on encouraging new business models which exploit digital technology to generate increased commercial activity whilst respecting the need for more sustainable business practices in a carbon constrained world.

The Department of Commerce website outlines some of these programs but at the time of writing this report the WA Department of Commerce have indicated that a range of new programs will be promoted over the coming months.

The Australian Government also has a range of programs – some of which the City has already accessed – to help communities expedite their pathways to an improved digital future. The Department of Broadband website outlines a number of funding opportunities.

