



# Digital Strategy

## 2017 – 2022



# Mayor's Message



The City of Armadale's Digital Strategy defines the guiding framework and ambitions of the City in a business focused manner to deploy and develop a 'Digital First' planning and thinking approach.

The Digital Strategy has been developed through consultation with internal and external stakeholders, and has created an actionable and sustainable strategy focused on delivering effective community outcomes. The aim of the Digital Strategy is to focus the City's digital ambitions and resulting innovation to deliver outcomes that will create economic opportunities and improved services to our community.

Local Government must embrace digital technology in a sensible manner. This Digital Strategy will firmly anchor the principles of 'Digital First' in the future design and delivery of our services for the benefit of our community.

**Henry Zelones OAM, JP**  
**Mayor City of Armadale**

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# A Digital Strategy for Armadale

## What is the Armadale Digital Strategy?

The Digital Strategy is an information strategy which links into the City's Strategic Community Plan 2016 - 2031.

It has been developed as a direct action from the City's Economic Development Strategy 2013 - 2017.

**Outcome Area 6:** *Infrastructure Needs (Infrastructure that supports sustainable economic development).*

**Strategy 6.2:** *Advocate appropriate information and communications technology (ICT) infrastructure to support industry and business.*

**Action 6.2.2:** *Develop a City of Armadale Digital Strategy.*

The City of Armadale Digital Strategy 2017 – 2022 provides a vision for a digital City of Armadale. The strategy outlines how the vision will be delivered based on strong guiding principles and planning in alignment with business and community needs. This provides the framework upon which digital strategies and actions will be pursued and implemented.

The City of Armadale recognises that such is the pace of change that this strategy must by its nature be fluid and flexible. As such the strategy is a statement of intent from the City of Armadale to embrace digital change. It contains both long and short term actions but recognises that every action is open to disruption and subject to change.

In developing this strategy we have looked at local and global research into digital technologies. We have drawn inspiration from other Councils and cities. We consulted widely across the City of Armadale while developing this strategy.

## Why a digital strategy?

Digital is pervasive – every day brings new stories about the latest internet business that is changing the world, the new digital app that our children are using to communicate, the newest “smart” gadget we need at home. The advent of wearable technology means even what we wear is becoming connected. Amazon, Apple, Google, Facebook, Twitter, Uber, Netflix; the list of new tools and new digital companies goes on.

We know technological advances will continue to change our lives and the City we live in. We know we must embrace and adapt to this changing world of digital disruption and smart city technology.

However, for all the technological change, have our underlying needs as individuals really changed? We may want to use the latest technology, but ultimately most of us don't aim to live in a “digital” city. Rather, we desire to live in a city that is safe for our families, has good infrastructure including public transport, parks and roads, provides good education and health services, offers good employment opportunities and has effective and efficient government.

A digital city isn't defined by how much digital technology it uses. A digital city is defined by its ability to provide a better place to live, learn, work and play by harnessing digital technology opportunities. A truly digital strategy must aim to deliver these outcomes for the City of Armadale incrementally.

# DIGITAL TODAY - WHAT STATISTICS SAY

AUSTRALIA RANKED



GLOBALLY FOR INTERNET PENETRATION IN **2014**

THE MEAN NUMBER OF HOURS SPENT PER WEEK ON THE INTERNET BOTH MALES AND FEMALES



THE AVERAGE TIME SPENT ON THE INTERNET VIA MOBILE DEVICE WAS **1 HOUR AND 40 MINUTES PER DAY**



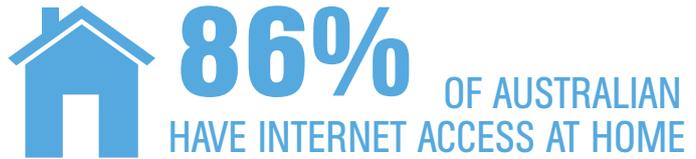
OF MOBILE USERS ARE ORDERING GOODS AND SERVICES



OF ALL **SME'S** TOOK ORDERS ONLINE IN **2013**



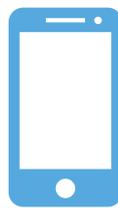
OF ALL **SME'S** RECEIVED PAYMENTS



OF AUSTRALIAN HAVE INTERNET ACCESS AT HOME

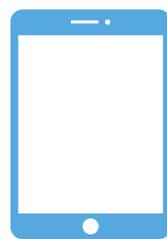


MOST HOUSEHOLDS WHO ACCESSED THE INTERNET DID SO THROUGH **A DESKTOP OR LAPTOP COMPUTER**



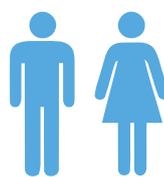
**86%** FOLLOWED BY HOUSEHOLDS WHO ACCESSED VIA **MOBILE OR SMARTPHONE**

MOST OF THEM ARE AGED BETWEEN **18-29** YEARS<sup>2</sup> OLD



**62%** AND HOUSEHOLDS WHO ACCESSED VIA **TABLETS**

**MANY HOUSEHOLDS ARE USING MULTIPLE DEVICES**



**85%** OF ALL AUSTRALIANS PURCHASED ONLINE IN **2013**

**2011**

ARMADALE WAS BELOW THE NATIONAL AVERAGE ON MANY IMPORTANT METRICS

**74%** OF ARMADALE HOUSEHOLDS HAVE INTERNET

**67%** OF HOUSEHOLDS HAVE BROADBAND

Over **18%** of all Armadale households had no internet connection in 2011.

<sup>1</sup> Australian Bureau of Statistic - <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8146.0>

<sup>2</sup> Sensis e-Business Report, Di Marzio Research 2015

# Our Vision

**By 2021 the City of Armadale will aspire to be using and implementing digital technologies across the City for the benefit of the whole community.**

While we will adopt a digital first philosophy to everything we do, the success of this strategy should not be judged on the strength of implemented technology. The strategy should be evaluated on how well it supports the overall City of Armadale Strategic Community Plan 2016 - 2031 and contributes to the creation of a connected city for future generations.

To achieve our vision we will focus on three key outcome areas:

1. Organisation Focus – operational efficiencies from channel shift and new capabilities.
2. Client Focus – new online services for citizens and business.
3. Organisational Innovation – a smart city with an emphasis on maximising asset utilisation.

# Our Guiding Principles

**Digital technologies will continue to evolve and change in unexpected ways. Therefore this strategy must be flexible and open to change and embrace new trends and technologies as they emerge. Our guiding principles provide the foundations needed in this disruptive age. The principles will guide how the City plans, implements and adapts to new digital technologies and trends.**

## Leadership

**The City of Armadale is committed to leading the community into the digital age.** It will do this by creating the digital vision for the City and improving its digital service capability. The City will take the lead on marketing and promoting the great digital initiatives happening in the City.

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## Collaborative Partnerships

**The City will strive to build lasting partnerships between all the City's key stakeholders to deliver digital outcomes across all industry and community sectors.** The City will engage the stakeholders that are best equipped to deliver digital success in key areas such as health and education. We will seek to collaborate with the broader community to ensure we capture the best ideas, skills and knowledge and feedback from all sections of our society.

## Openness

**Our approach will be open and transparent.** This means we will, where feasible, share data, knowledge and digital solutions.

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## Education and knowledge transfer

The digital strategy should deliver better outcomes for our whole community.

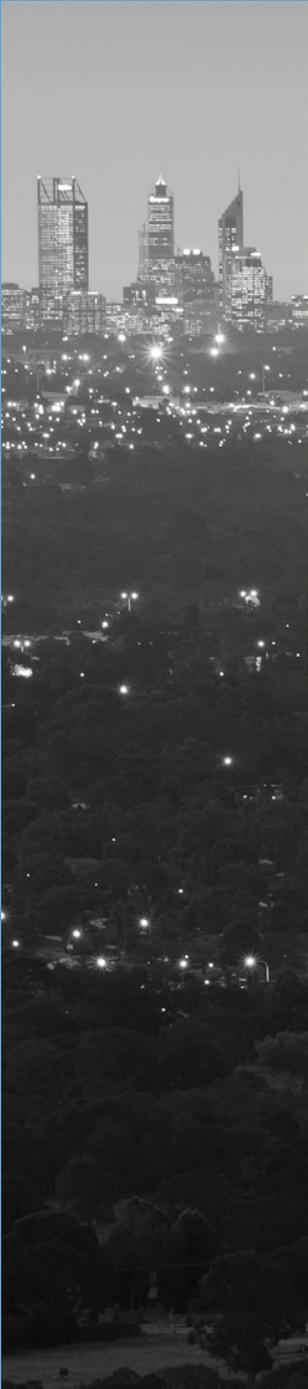
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## Innovation

**We encourage every industry to innovate as a means of creating a stronger economy.** The City will look beyond digitising existing services, activities and industries. We will look at how digital delivers value by enabling us to do things differently or more efficiently, to do new things and to eliminate old or outdated activities. An economy that embraces digital will be stronger, more profitable and more adaptable to change.

# Outcome One: Organisational Focus

Creating a Digital Organisation that seeks operational efficiencies from 'channel shift' and new capabilities



Digital technology has changed our lives enormously over the last 30 years. Since the rise of the internet in the mid 1990's digital innovation has accelerated, underpinned by some fundamental shifts in technology:

- Cloud computing is now a reality.
- Mobile technology use has become prevalent.
- Closed proprietary systems are being rapidly replaced by platforms that are built on open standards, with Application Program Interfaces (APIs) enabling systems to be connected to each other.

This digital revolution has swept through industry sectors, transforming business models, creating enormous opportunities for innovators, while destroying many established brands and companies. Customers have benefitted from better service delivery, more choice and more convenience. Customer expectations have changed forever.

**Until recently, Government in Australia, as elsewhere, has been slow to change.**

- Employees have been deskbound. They have been using old tools in client server environments while their colleagues in the private sector work from anywhere on tablets or smartphones.
- Some of the major ICT suppliers to local government have continued to maintain locked proprietary systems making it difficult for modern cloud based technologies to be adopted.

- In some government quarters, it was argued that adoption of this technology was fraught with risk and should be avoided.

**Today, government is rapidly opening up and actively undergoing digital transformation.**

Since the Global Financial Crisis, governments around the world have undergone massive financial cutbacks. Governments have to find ways to cut costs and become more efficient. At the same time, citizens are demanding better services, having become accustomed to great online experiences from the private sector. Digital transformation is no longer an option. It is a requirement.

Government has also increased its focus on digital transformation and innovation. Governments are now embracing social media, cloud computing and open standards. Ever since internet activist Tim O'Reilly put forward his thinking on Government as platform<sup>7</sup>, the best public sector brains have been busily re-thinking how public services can be delivered more efficiently using digital technology. This has unleashed a worldwide wave of government innovation including in the US, the UK, and even smaller countries like Estonia. In recent times the Australian Federal Government has also increased its focus on digital transformation and innovation.

<sup>8</sup> UK Government - [http://chimera.labs.oreilly.com/books/1234000000774/ch02.html#government\\_as\\_a\\_platform](http://chimera.labs.oreilly.com/books/1234000000774/ch02.html#government_as_a_platform)

## Strategy 1.1 Put in place the technology infrastructure, frameworks and strategies to enable digital service delivery

The City of Armadale can leverage much of the knowledge and experiences of other government organisations that have embraced digital technologies. With governments embracing openness and collaboration, sharing is commonplace.

Experiences, methodologies, and even software code is often shared free of charge. The UK government's Government Digital Office is a great example<sup>8</sup> of an organisation sharing knowledge. The City of Armadale has already embraced this philosophy.

For example, the City uses govCMS, an Open Source content management system, to run some of the City's websites.

The City of Armadale will develop a change process to drive the strategy outcomes.

An important success factor in digital success is a willingness to embrace openness and collaboration. This involves a cultural shift whereby the City communicates more openly with the community via tools such as social media, the provision of open data and the use of web tools to improve internal and external collaboration.

With these factors in place the City can look to drive operational efficiencies and move towards enriched external service provision.

### Actions:

- 1.1.1 *Conduct a formal review of the City's business systems and processes and implement approved outcomes.*
- 1.1.2 *Develop an information management strategy to improve the quality of corporate data and information.*
- 1.1.3 *Form a City of Armadale Digital Working Group to oversee the outcomes of the digital strategy.*
- 1.1.4 *Review social media management and investigate moving from a centralised to a distributed model.*
- 1.1.5 *Investigate digital mobile workforce enablement.*



<sup>8</sup> UK Government - [http://chimera.labs.oreilly.com/books/123400000774/ch02.html#government\\_as\\_a\\_platform](http://chimera.labs.oreilly.com/books/123400000774/ch02.html#government_as_a_platform) & <https://www.gov.uk/government/organisations/government-digital-service>

# Outcome Two: Client Focussed

## Online and Mobile-based Digital Services for Citizens and Business

**Organisations with the right technical infrastructure, strategies and partnerships will deliver superior online and mobile services. The use of mobile friendly, online self-service will provide much greater convenience to the community while also greatly reducing workload at council.**

### Digital streamlining of processes

Traditionally a generic council process would involve downloading a form, filling out the required information and returning it to the council office. Digitising this process would reduce the number of manual processes to one. Imagine the increase in customer satisfaction ratings and the operational cost savings if this could be done with all council processes.

Local governments must also look beyond their own services and develop digital capabilities across the community. This includes providing training partnerships.

Digital technology continues to enhance the lives of so many. However, we must acknowledge many in our community lack the skills to successfully navigate the digital landscape. Some older members of the community are ashamed that they can not use computers and refuse to even try. People in trades and professions as diverse as printing, banking and journalism are not reskilling and watch as their roles are eliminated

or move offshore. Small business owners are watching their businesses die as people switch to more digital savvy competitors.

***Armadale must continue to improve its economy by focusing on its unique economic attributes and physical location. As outlined in Council's Economic Strategy this includes clusters of logistics and transportation companies, construction companies and a large number of people working in health. It also has some unique tourism opportunities with its proximity to beautiful National Parks and Forests.***

**The City of Armadale recognises that it must lead the implementation of this economic development focused digital strategy.**

The forming of training partnerships, facilities and infrastructure (such as Free Wi-Fi) are important tasks to be fulfilled. However, leading by example and providing user-friendly digital services to the community is arguably the best way for Armadale to show digital leadership.

Armadale is already showing digital leadership in key areas. For example, in delivering its safer community strategy, the City has developed some new initiatives and partnerships, such as a putting in place a new CCTV network.

## **Strategy 2.1 User-friendly Digital Services: Develop easy to use efficient digital services that make it easier to transact with Council.**

As Federal and State government continue to improve digital service delivery, the community will expect to see the City of Armadale offering its services increasingly through digital channels.

The City of Armadale is committed to delivering new and better digital services year on year for the benefit of the community.

Consultations, bookings of facilities, event payments, grant and planning applications are all examples of services that can be readily digitised.

### **Actions:**

*2.1.1 Create a platform to allow electronic submission of building and planning applications.*

*2.1.2 Implement a digital platform to enable online community consultation and engagement.*

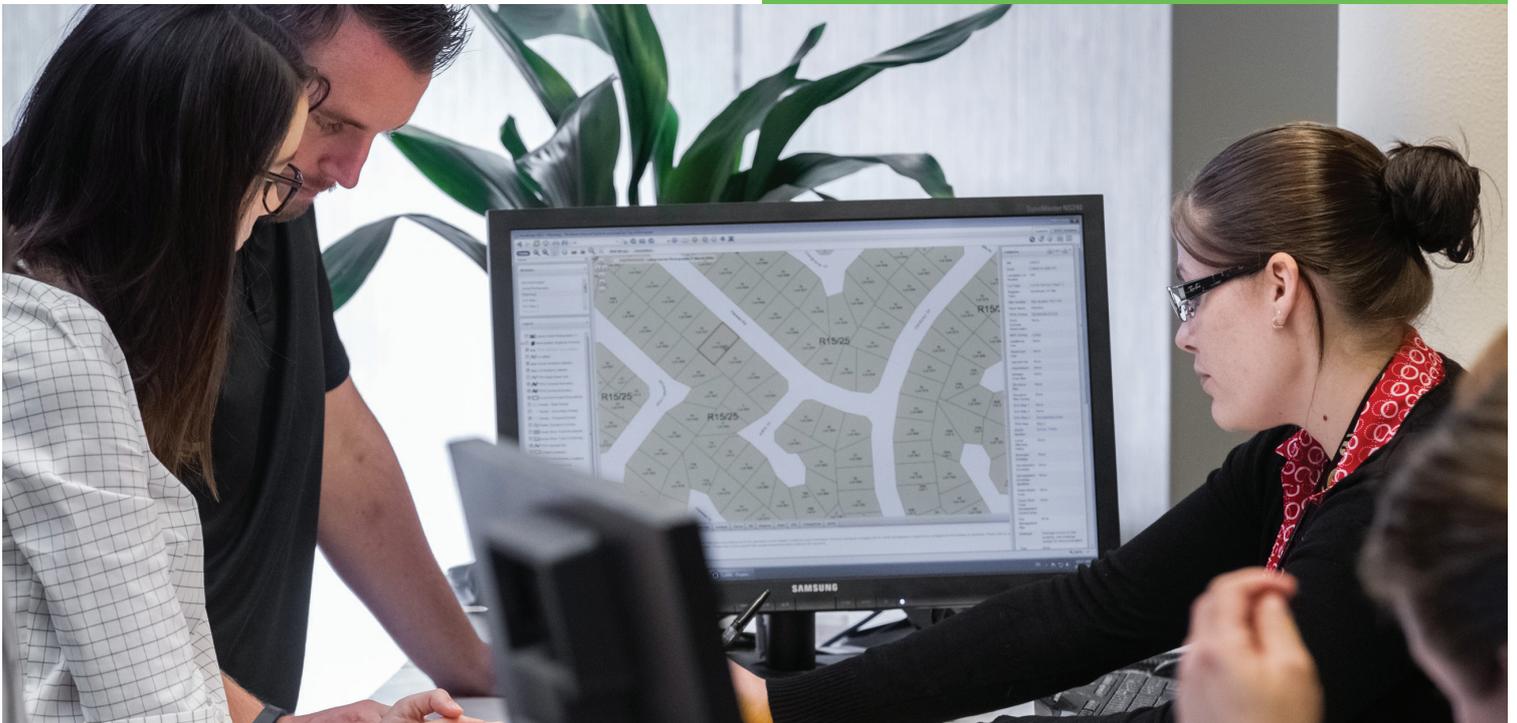
*2.1.3 Increase the number of transactions and interactions that can be performed online between Council and its customers.*

*2.1.4 Promote digital initiatives that create safer communities.*

*2.1.5 Promote and encourage the use of new and existing online services.*

*2.1.6 Review all City of Armadale web presences and reshape to present uniform customer centric digital services model.*

*2.1.7 Libraries continue to be at forefront of providing digital library services, and maximising technology opportunities for the benefit of the community.*



## Strategy 2.2 Improved Internet Access

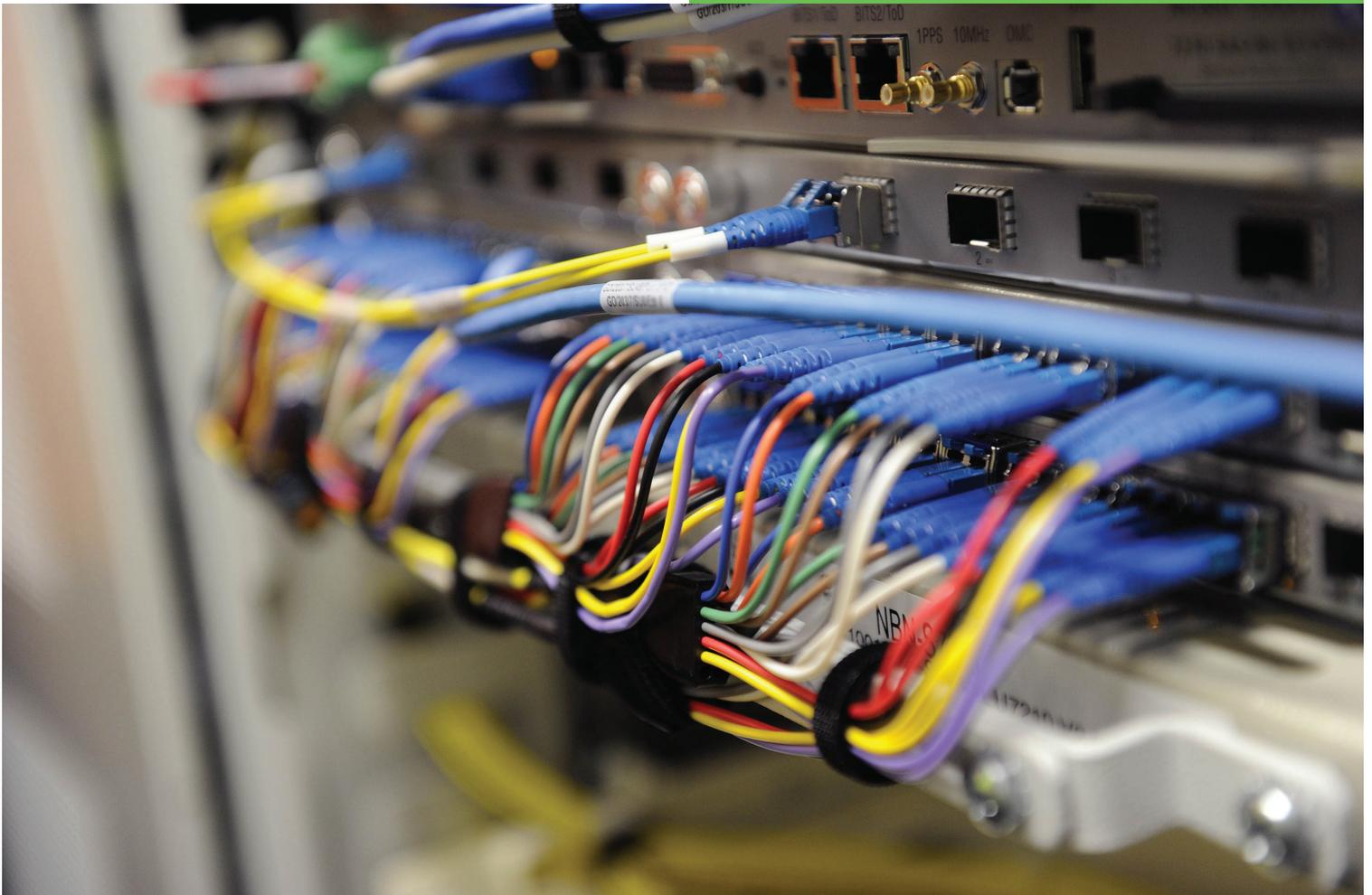
The Armadale region is currently in the build phase of the NBN rollout plan. Slow rollout of the NBN may negatively impact new business investment and the attraction of new residents (knowledge workers in particular).

As importantly, lack of broadband could further marginalise sections of our community as they will have poor access to services that are increasingly delivered online including health, education and government services.

The City will take a lead role in advocating for wide reaching broadband for the community with relevant partners.

### **Actions:**

- 2.2.1 Advocate with relevant partners to promote high speed broadband where it is not available.*
- 2.2.2 Advocate with NBN to maintain position in the current rollout phase and work with NBN Co to ensure the City and communities are prepared for NBN rollout.*
- 2.2.3 Promote NBN in areas where it has been introduced in conjunction with NBN Co.*
- 2.2.4 Develop free public Wi-Fi access in key public spaces within the City of Armadale.*



## Strategy 2.3 Innovation: Develop an Innovative Digital Economy.

It is not the remit of local government or other government organisations to be entrepreneurial or to develop new business ideas or innovations. However, the City, together with the community, must create the environment that attracts and sustains entrepreneurs, business owners and investors.

Entrepreneurs want clear regulatory frameworks, underlying infrastructure, and access to guidance and assistance to allow them to grow the digital businesses of the future. These businesses will sustain the City of Armadale economy in the future.

The City's Economic Development team are committed to recognising and rewarding digital leaders. It is also committed to improving its digital services to the business community.

### **Actions:**

*2.3.1 Implement Digital Business Awards in conjunction with Business Armadale.*



# Outcome Three: Organisational Innovation

A digital organisation that emphasises the use of digital technologies to deliver enhanced business and community outcomes.



The number of devices connected to the internet (the internet of things) is multiplying by the day. By 2020, more than 50 billion things will be connected to the internet. The reduction in the cost of sensors and tags means we will be able to connect with and collect data from everything from trees, to waste collection bins, roads, street furniture, cars and trucks. The list goes on and on.

A 2015 report in the UK <sup>21</sup> revealed that “smart in-building energy management systems and street lighting alone could save local councils across the country £402.3m.”

The report also found that: “67% of urban councillors were not aware of machine-to-machine

(M2M) technology and how best to take advantage of it, even though 77% of people living in urban areas said they would support their council's decision to invest in the internet of things (IoT) to improve public services.”

This echoes similar research from Gartner<sup>22</sup> which found the public sector trailing the private sector in adoption and understanding of the internet of things. It is understood that similar research has not been conducted in Australia, but it is likely the UK study reflects the situation in Australia also.

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<sup>21</sup> ComputerWeekly.com - <http://www.computerweekly.com/news/4500247803/Local-government-blind-to-internet-of-things-savings>

<sup>22</sup> ComputerWeekly.com - <http://www.computerweekly.com/news/2240242512/Public-sector-slow-to-pick-up-on-the-internet-of-things-says-Gartner>

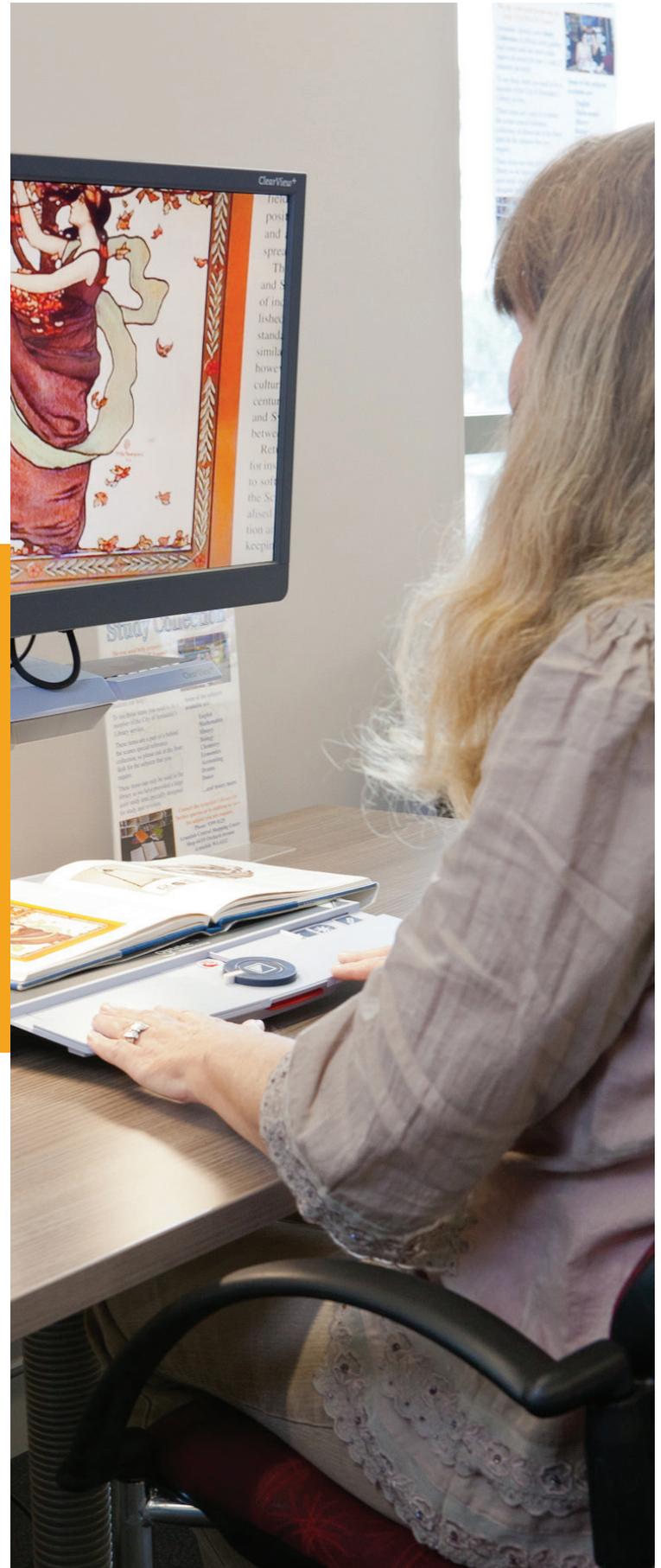
## Strategy 3.1 Community-wide Digital Education

Knowledge is the currency of the digital economy. The City of Armadale will work and collaborate with service providers focused on building the digital quotient in the city.

The City of Armadale will facilitate access to digital training and education to enable our community the opportunity to flourish in the digital age. Training could include basic internet training for residents and digital training and workshops for business owners to build their digital capabilities.

### **Actions:**

- 3.1.1 1 Develop digital training programs for seniors, youth and Aboriginal and Torres Strait Islander groups in partnership with training providers.
- 3.1.2 Develop digital training programs for business owners in the City in partnership with training providers.
- 3.1.3 Investigate and promote opportunities for webinars and online training courses for business owners.



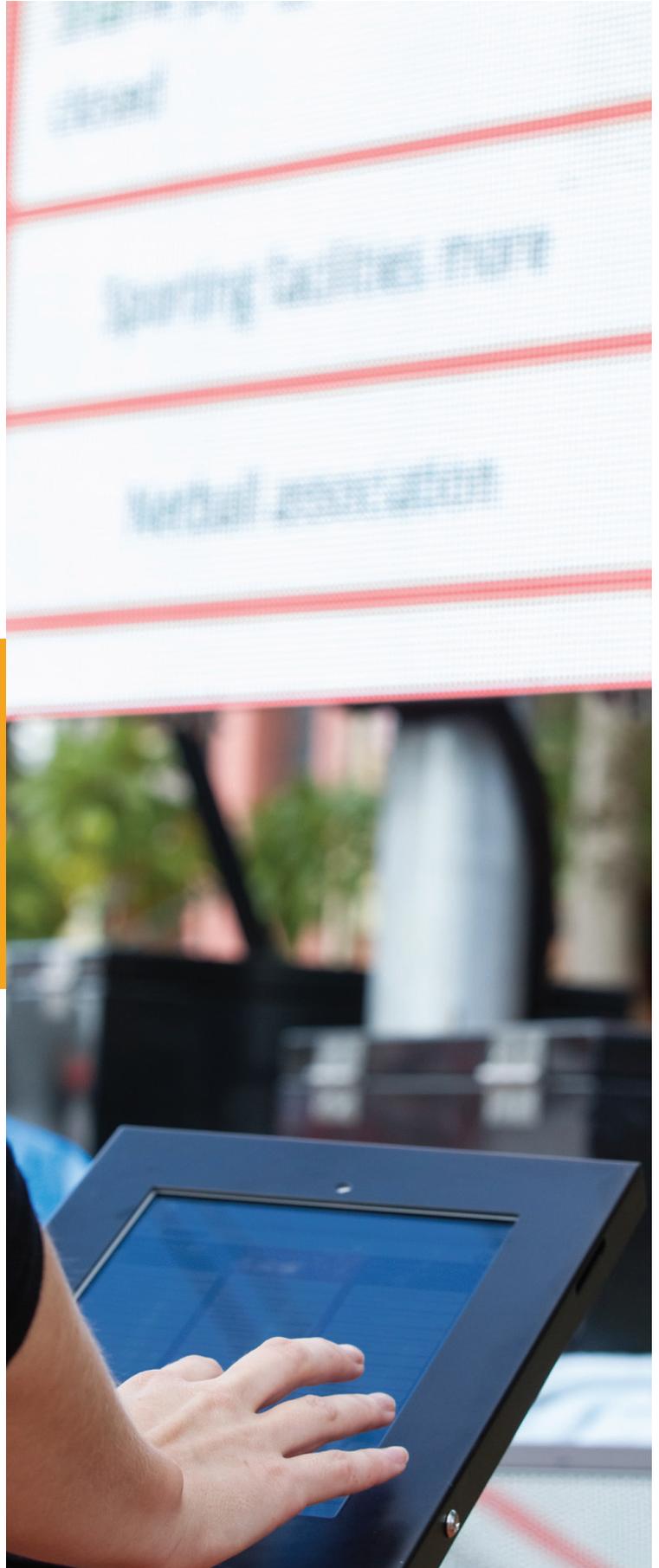
### **Strategy 3.2 Smart Technology: To improve the utilisation of City assets and provide innovation spaces for innovators within the City to collaborate and generate new ideas.**

The City of Armadale recognises the potential benefits of the Internet of Things (IoT) and is looking to understanding how it can benefit the City. The City recognises it will need to work with innovative businesses that understand data analytics, IoT technologies, and the latest web technologies and how to derive value from them.

A major digital opportunity the City of Armadale can focus on is maximising asset utilisation through the use of digital technology. In addition, by fostering a local community of smart, innovative businesses this will help to build the digital capability within the city and develop the skillsets required to develop and sustain a smart city.

#### **Actions:**

- 3.2.1 *Investigate running pilot programs to understand the Internet of Things.*
- 3.2.2 *Investigate opportunities for digital/business start-up/ co-working space in the City's Civic Precinct.*



# Digital Strategy :

## Overview of Actions & Timeframes

The Digital Strategy contains 22 actions which are scheduled to roll out over a five-year period, with short, medium and long term timeframes identified.

	ACTIONS	SHORT 12 - 18 months	MEDIUM 2 - 3 years	LONG 4 - 5 years
Organisation Focused	1.1.1 Conduct a formal review of the City's business systems and processes and implement approved outcomes.			
	1.1.2 Develop an Information Management Strategy to improve the quality of corporate data and information.			
	1.1.3 Form a COA Digital Working Group to oversee the outcomes of the digital strategy.			
	1.1.4 Review social media management and investigate moving from a centralised model to a distributed model.			
	1.1.5 Investigate digital mobile workforce enablement.			
Client Focused	2.1.1 Create a platform to allow the electronic submission of building and planning applications.			
	2.1.2 Implement a digital platform to enable online community consultation and engagement.			
	2.1.3 Increase the number of transactions and interactions that can be performed online between the City and its customers.			
	2.1.4 Promote digital initiatives that create safer communities.			
	2.1.5 Promote and encourage the use of new and existing online services.			
	2.1.6 Review all City of Armadale web presences and reshape to present uniform customer centric digital services model.			
	2.1.7 Libraries continue to be at forefront of providing digital library services, and maximising technology opportunities for the benefit of the community.			
	2.2.1 Advocate with relevant partners to promote high speed broadband where it is not available.			
	2.2.2 Advocate with NBN to maintain position in the current rollout phase and work with NBN Co to ensure the City and communities are prepared for NBN rollout.			
	2.2.3 Promote NBN in areas where it has been introduced in conjunction with NBN.			
2.2.4 Develop free public Wi-Fi access in key public spaces within the City of Armadale.				
2.3.1 Implement Digital Business Awards in conjunction with Business Armadale.				
Innovation	3.1.1 Develop digital training programs for seniors, youth and Aboriginal and Torres Strait Islander groups in partnership with training providers.			
	3.1.2 Develop digital training programs for business owners in the City in partnership with training providers.			
	3.1.3 Investigate and promote opportunities for webinars and online training courses for business owners.			
	3.2.1 Investigate running pilot programs to understand the Internet of Things			
	3.2.2 Investigate opportunities for digital/business start-up/ co-working space in the City's Civic Precinct.			

# How will we measure success?

The City of Armadale has committed to a total of 22 actions we will systematically work through over the next five years. Aligning each action item will be its Key Performance Indicator (KPI).

More broadly, the City believes the delivery of these actions will result in realistic digital outcomes.

System and information management actions will ensure the City of Armadale develops the infrastructure required for long-term digital success. In tandem, working groups and knowledge transfer activities will help create an innovative digital culture in the city.

Finally, completing the practical, service-delivery based actions will ensure the community are provided with improved digital services in both the short, medium and long-term.

## Predictions for the Future

*We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten. Don't let yourself be lulled into inaction." Bill Gates*

*By 2020, more than 5 billion people will be connected (to the internet), not to mention 50 billion things<sup>3</sup>*

*The "Industrial Internet" has the potential to add \$10 to \$15 trillion to global GDP over the next 20 years<sup>4</sup>*

*The economic value created by the "Internet of Everything" in the year 2020 will be (US) \$19trillion.<sup>5</sup>*

*The number of cars connected to the Internet worldwide will grow more than sixfold to 152 million in 2020 from 23 million in 2013. (HIS Automotive)*

*The worldwide installed base of smart meters will grow from 313 million in 2013 to nearly 1.1 billion in 2022. (Navigant Research)<sup>6</sup>*

### Report prepared for the City of Armadale by



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<sup>3</sup> World Economic Forum - <https://agenda.weforum.org/2014/01/are-you-ready-for-the-internet-of-everything/>

<sup>4</sup> Ge reports - <http://www.gereports.com/post/74545267912/analyze-this-the-industrial-internet-by-the>

<sup>5</sup> World Economic Forum - <https://agenda.weforum.org/2014/01/are-you-ready-for-the-internet-of-everything/>

<sup>6</sup> Forbes - <http://www.forbes.com/sites/gilpress/2014/08/22/internet-of-things-by-the-numbers-market-estimates-and-forecasts/>