

# WHANGANUI: DIGITAL BY DESIGN

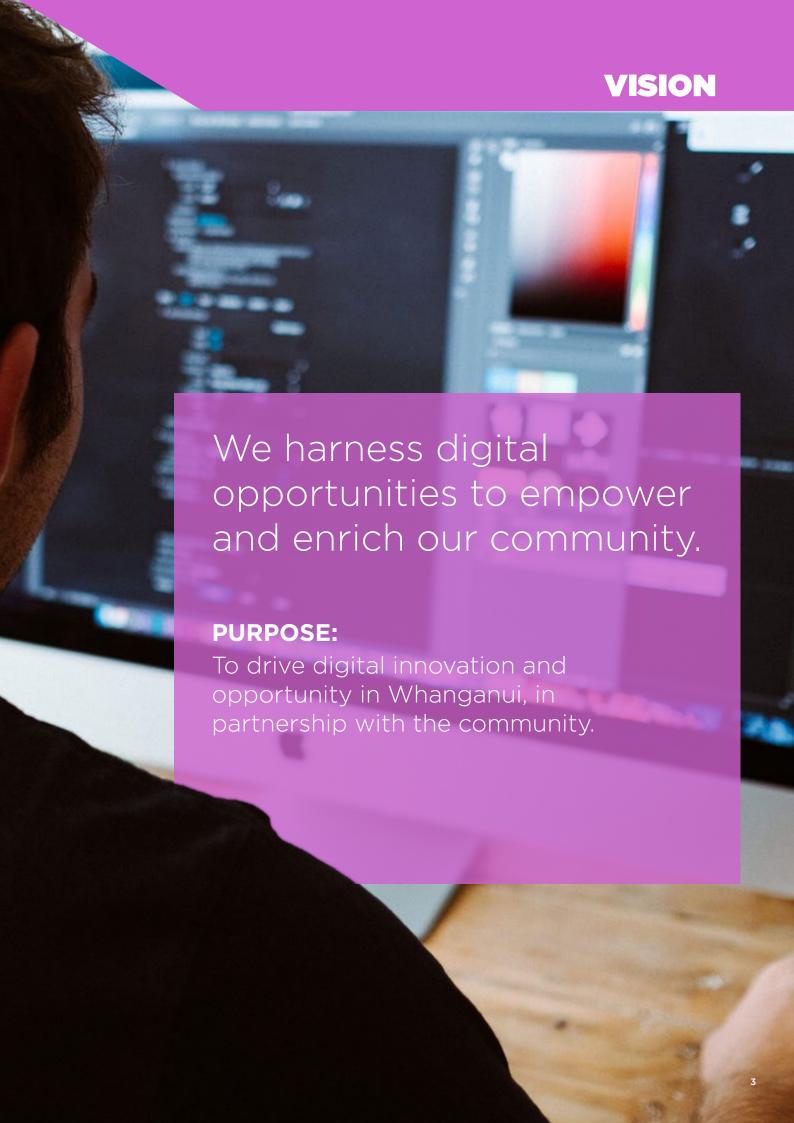
**DIGITAL STRATEGY 2019** 



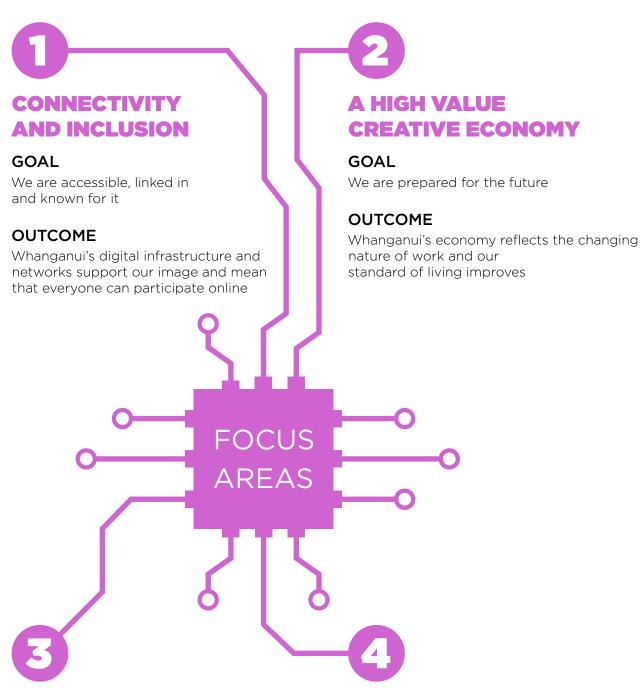
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# **STRATEGY - AT A GLANCE**



### **INNOVATION**

#### **GOAL**

We foster innovation and improvement through a digital lens

#### **OUTCOME**

Whanganui stays current with digital opportunities and has a reputation for innovation

### A DIGITAL COUNCIL

#### **GOAL**

Whanganui District Council is future-focused and enabling

#### **OUTCOME**

Working with Council is easy and our services and approaches are smart

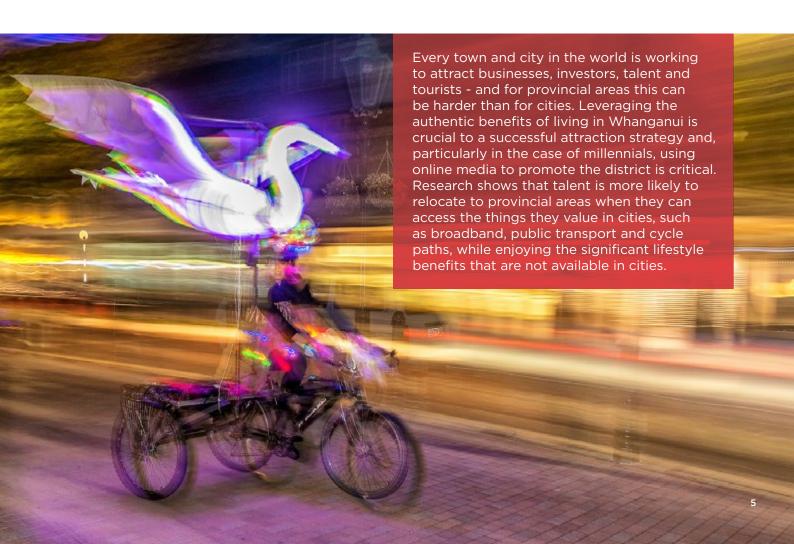
# INTRODUCTION

Technology is changing the world at an exponential rate. The World Economic Forum predicts that the Fourth Industrial Revolution, combined with other socio-economic and demographic changes, will transform labour markets in the next five years, leading to a net loss of over 5 million jobs in 15 major developed and emerging economies. Even the most optimistic experts acknowledge that there will be substantial job losses and that the nature of work will change significantly over the next decade.

The effect on communities will be considerable. Communities with a high number of low skilled workers need to plan carefully to ensure their workforce is upskilled to cope within a knowledge workforce. The effect on businesses is also significant, disrupting traditional models at an unprecedented rate and affecting both supply and demand chains. Attracting businesses and skilled workers is a competitive industry, with cities and districts all over the world vying for the best talent. Telling our stories well online is vital if we are to compete.

Without concentrated efforts to address broadband affordability and digital skills gaps in Whanganui, the digital divide will widen with a negative multiplier effect. Meanwhile, the natural environment is under extreme pressure, and technology is both a contributor to dangerous waste streams and a potential tool for positive change.

Neither technology, nor the disruption that comes with it, is an external force over which we have no control. We are all responsible for guiding the future of our district and the Digital Strategy aims to help Whanganui grasp the opportunity to shape the future, locally.



# **BACKGROUND**

Whanganui was part of the early rollout of UFB and has been working across the digital landscape since 2009. We were included in the world's Smart21 Intelligent Communities five times from 2012 – 2017 and made the world's Top 7 in 2016. Council has led and supported several projects across a variety of areas over this time – from facilitating new infrastructure builds to supporting digital equity programmes, running expos and hackathons, encouraging businesses to get digital, and more.

A cross sector governance group, the Whanganui Digital Leaders Forum, was set up on the advice of Crown Fibre Holdings and provided advice and information on what was happening across the region and beyond.

Whanganui also led a cross regional approach to government to lobby for what the regions needed in terms of infrastructure and was seen by many councils around the country as a leading New Zealand district in terms of being a smart and connected community.

A change of focus for Council shifted the type of digital work that was undertaken, and although Council and the community continued to do interesting and creative things in this space, there was no overarching strategy to coordinate this work.

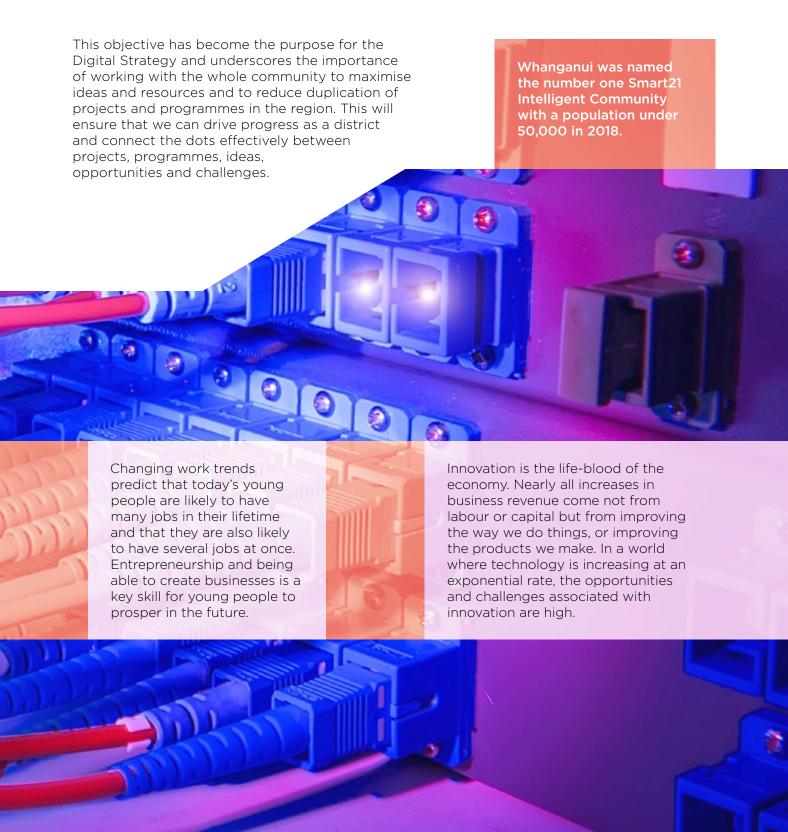
A review of the Leading Edge Strategy encouraged a rethink of Council's digital direction - generating renewed considerations around new priorities and opportunities. It prompted reflection on where and how Whanganui wants to position itself in the digital realm, as well as the kinds of tools and strategies that will be needed to achieve this.

# WHAT'S NEW? Council has some interesting. An award winning online. Real-time online monitoring.

Council has some interesting initiatives on the go - or due to start shortly

- → More open data including a new open access geospatial data repository.
- → A new app for the public to report issues -'Snap, Send, Solve'.
- → An award winning online gallery portal 'Explore the Collection'.
- → Investigations into augmented reality for our town centre.
- → Fibre as standard all new subdivision developments must now supply fibre.
- → Real-time, online monitoring of the Wastewater
  Treatment Plant
- → Connected lights traffic lights are now fibred back to Council and we have cameras installed to better understand traffic movements.





# WORKING WITH THE COMMUNITY

Driving digital innovation and opportunities in partnership with the community requires a framework that sets out what Whanganui wants to achieve and how we will get there. Leadership and collaboration are an integral part of the strategy and the Council will work with partners in the community to help drive Whanganui's digital future.

Council held a series of workshops in February 2019, engaging with stakeholders to identify the rationale for developing a digital strategy; our strengths and opportunities; our gaps and challenges; and new and innovative technology that could benefit or disrupt Whanganui. Stakeholders had free rein to share ideas within the context of:



Some strong ideas emerged from the workshops, with a desire to see Whanganui succeed by choosing to be 'digital by design', meaning that the district has a proactive approach to preparing for the future.

People were also keen to see Whanganui promoted as an innovative and digital district, with positive stories spread through online channels.

On the next page is some general feedback that came out of the workshops.

# RATIONALE - WHY HAVE A DIGITAL STRATEGY?

### What our stakeholders told us:

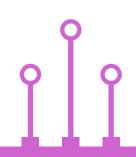
- → So we can be 'Digital by Design'.
- → To promote Whanganui.
- → To increase global connections.
- → To gain recognition as a digital district.
- → To take advantage of new technology and innovation.
- → To attract business, youth and talent - as well as retain and grow what we currently have.
- → To increase participation and inclusion.
- → To increase **resilience**.



# OUR STRENGTHS AND OPPORTUNITIES

### What our stakeholders told us:

- → Design our own digital future by **improving leadership**.
- → Community partnership in delivery of the Digital Strategy.
- → Build on existing broadband infrastructure.
- → Increase broadband network resilience.
- → Develop strong digital civil defence systems.
- → Value existing **high value**, **hi-tech** and **creative** companies and attract more.
- → Build on our **existing reputation** as a digital district.
- → Promote the Whanganui lifestyle for digital talent.
- → Grow digital education opportunities.
- → Improve digital skills for businesses.
- → Increase access for all.
- → Build on Council programmes and processes.
- → Understand and embrace new technology.
- → Collaborate to maximise resources.
- → Improve environmental sustainability.



The nature of work is changing and communities who are not prepared for the changes will suffer significantly, while those that do prepare have increased opportunities for success. Businesses that are online increase their revenue by 20%, and they employ more people and earn more revenue per employee. Attracting technology companies that produce high value, weightless exports and pay above average salaries is crucial for a high value, 21st century economy.



# **OUR GAPS AND CHALLENGES**

### What our stakeholders told us:

- → Current gaps in digital infrastructure (especially peri-urban and rural).
- → Loss of digital equality programmes such as Computers in Homes.
- → Failure to optimise digital technology for business, education and cultural opportunities.
- → Council online services and information are not yet broad enough and the services that do currently exist could be **better promoted**.
- → A general lack of community **vision and ownership** around technology and no one driving digital projects or keeping them on the agenda.
- → Need to tell more **Whanganui stories** in a digital format.
- → Digital leadership not included in marketing.
- → Potential for security and privacy breaches particularly with open data.
- → The speed of the technology revolution is challenging.
- → Resistance to change.
- → Potential lack of **prioritisation**.

Whanganui has a high speed, open access urban fibre network with 17 retail service providers for business connections and 13 for residential connections. This is world class connectivity. Currently it is free to connect the fibre to premises but this may change in the near future. In Whanganui we have businesses that upload and edit significant quantities of film and this can be done both at work and at home. In remote rural Whanganui we have a number of fixed wireless towers providing reasonably affordable connectivity at a speed that allows multiple device use, streaming video and reasonable uploading ability. This rural connectivity has been crucial in connecting residents who have been stranded during flood events and was, in fact, the only way many people were able to communicate with emergency services and the Council.

# PRINCIPLES GUIDING THIS STRATEGY

# **OPEN**

- → Open access infrastructure to promote competition
- → Open data to foster innovation
- Open access to information and images through creative commons to promote innovation

to get started

# **INCLUSION FOR ALL**

→ Ensuring everyone has the connections, devices, skills and engagement to connect

# SECURITY CONSCIOUS

→ Protecting privacy, understanding security risks and upskilling the community to protect themselves online

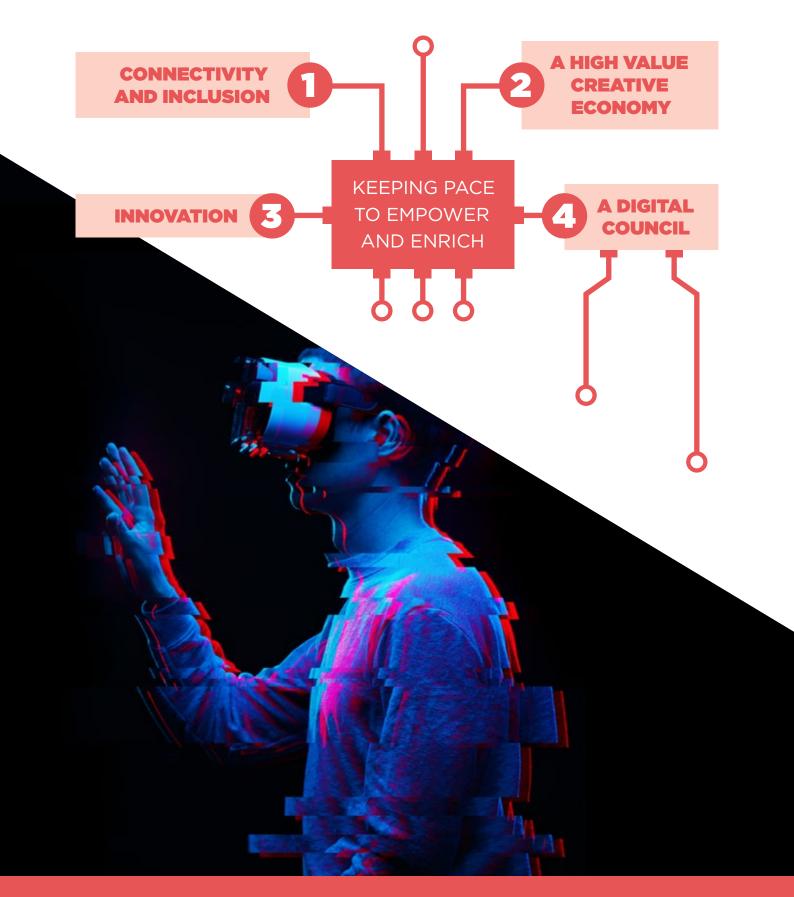
# **FUTURE PROOFED**

→ Working with the future in mind

# **RESILIENT**

→ Using technology to build a more resilient community

# WHANGANUI DIGITAL STRATEGY FOCUS AREAS



The exponential advance of the broadband economy has increased the exclusion of people who are unable to connect due to limits on finances, capability or location. The more services are available online, the more

those who cannot connect are disadvantaged. This results in reduced participation in society, from civic matters to education and employment, with correlated social and economic costs.

# 1. CONNECTIVITY AND INCLUSION

**GOAL:** WE ARE ACCESSIBLE, LINKED IN AND KNOWN FOR IT

**OUTCOME:** Whanganui's digital infrastructure and networks support our image and mean that everyone can participate online

### **Context:**

Although connectivity in the district is better than it has ever been, there are still significant gaps in the network that need to be addressed. This includes the 'peri-urban' area, where fibre should be considered, and other rural areas where there is still no reliable connectivity. Resilience is also critical - this means minimising the risk of outages (particularly during civil defence emergencies, when reliable communication systems are crucial). We need to make sure that we are not leaving people behind - whether as a result of limitations on finances, capability or location. Everyone in Whanganui should be enabled to participate - being equipped with the right access, skills and digital infrastructure. This has flow on effects for our community by making us more capable and connected across the board. We want to be known for our ability to keep pace and seek innovation - positioning Whanganui as a place where people want to be.

## **Strategies:**

- 1.1 Adequately resource the coordination and implementation of the Digital Strategy.
- 1.2 Seek funding to support Council and community-led projects and programmes that contribute to the goals in this strategy.
- 1.3 Provide more opportunities for crosssector and cross-regional collaboration on digital initiatives.
- 1.4 Identify gaps in our digital network and advocate for increased connectivity and resilience.

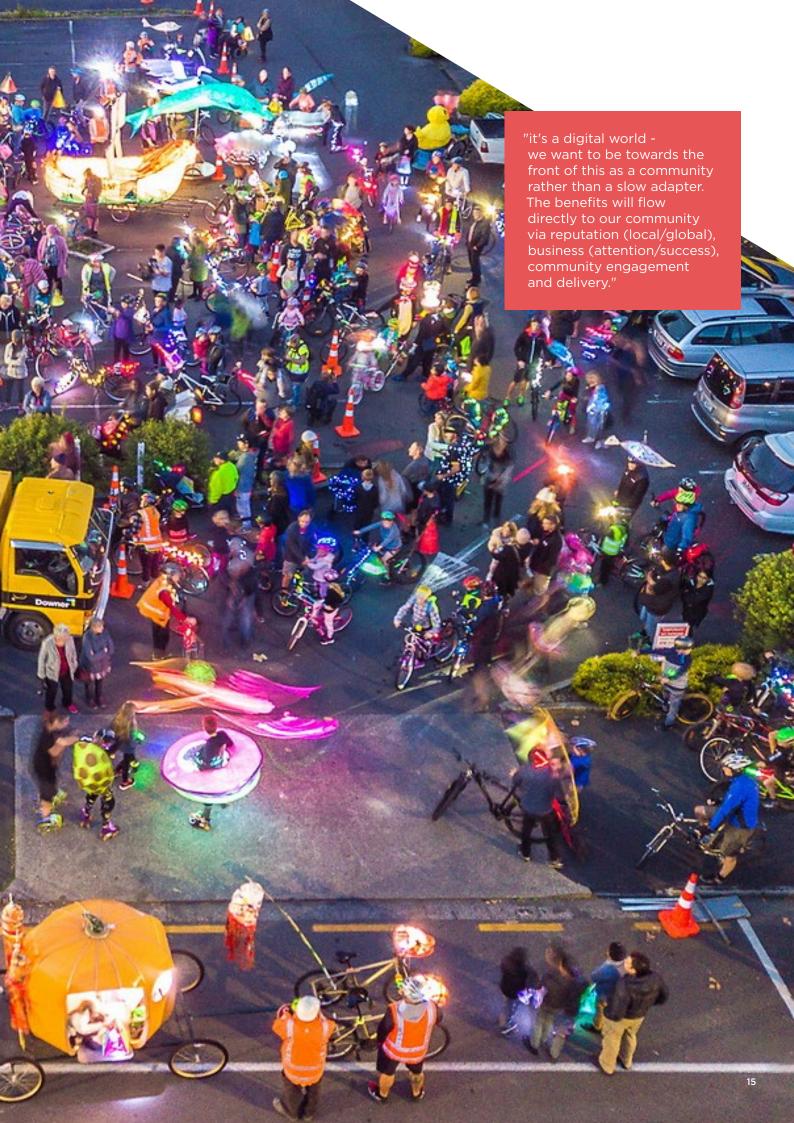
- 1.5 Support digital inclusion programmes and encourage new opportunities for free or subsidised devices and training.
- 1.6 Investigate the viability of a community technology hub.
- 1.7 Encourage increases in free wifi throughout the district.
- 1.8 Further develop Whanganui's image as a connected, innovative community and share this widely including through creative digital means.

### **Measures:**

We will use a mixture of indicators and examples to track implementation of this strategy and help tell the story of our digital progress. This will include a focus on the following:

- → Whanganui has dedicated digital resources.
- → Whanganui's reputation as a digitally connected district increases, over time.
- → We see positive trends in the 'retain, grow and attract' indicators of the district's Economic Development Strategy.
- → There is an increase in the number of people with access to the internet, and a device at home, over time.
- → There is an increase in the availability of wifi, over time.

- → The number of premises able to be connected to fast, reliable and affordable broadband increases, over time.
- → Network resilience is high and outages are reduced over time.
- → More Whanganui people state that they have at least a basic level of digital literacy.



# 2. A HIGH VALUE CREATIVE ECONOMY

**GOAL:** WE ARE PREPARED FOR THE FUTURE

**OUTCOME:** Whanganui's economy reflects the changing nature of work and our standard of living improves

#### **Context:**

Attracting high value businesses to Whanganui, developing pathways through education that recognise the changing nature of work, matching skills to changing business needs and getting businesses online are all necessary for Whanganui to be prepared for the future of work. Having a workforce that has 21st century skills provides employers with the talent they need, and reinforces Whanganui as a place where talent wants to live. Our Leading Edge Strategy also talks about nurturing an entrepreneurial culture and being recognised for our creativity. We want to support a knowledge economy, driven by innovation.

### **Strategies:**

- 2.1 Identify skills needed for the future of work and encourage the development of relevant courses, including e-learning opportunities.
- 2.2 Support platforms and initiatives to assist students to become 'future-ready'.
- 2.3 Develop and build on programmes to get businesses online.
- 2.4 Facilitate the use of digital technologies and smart approaches to drive innovation and productivity.
- 2.5 Foster a dynamic knowledge economy and workforce.

#### **Measures:**

We will use a mixture of indicators and examples to track implementation of this strategy and help tell the story of our digital progress. This will include a focus on the following:

- → The number of high value technology businesses in Whanganui increases, over time.
- → The number of Whanganui businesses that are online increases, over time.
- → The number of jobs in Whanganui with a knowledge work aspect increases, over time.
- → Our residents' satisfaction in relation to their standard of living will improve.

There are already many people, businesses and organisations working towards some of the goals in this strategy. Council and community leadership will need to support cross-sector connections to reduce duplication, help promote and build on what is working, identify what's missing, and find funding for projects and programmes that benefit the whole community. Leadership will ensure Whanganui can become 'digital by design' and prepare for the future.



# 3. INNOVATION

**GOAL: WF FOSTER INNOVATION AND** IMPROVEMENT THROUGH A DIGITAL LENS

**OUTCOME:** Whanganui stays current with digital opportunities and has a reputation for innovation

#### **Context:**

Communities that create the conditions that foster innovation can transform social. environmental, cultural and economic outcomes. This includes building highly collaborative cross-sector and community partnerships; ensuring access to funding and capital is available; creating an open data district; using new tools to future proof and safeguard our environment; and creating a reputation for innovation. Connectivity is about people and technology - and for innovation the role of connecting people with each other is as crucial as being connected to technology.

### **Strategies:**

- 3.1 Attract global pilot technology projects to Whanganui and become known as a technology testing 'centre of excellence'
- 3.2 Continue to release clean, accurate and machine readable open data.
- 3.3 Develop incubator programmes for startups and accelerator programmes for growing businesses.
- 3.4 Support clear government funding. angel and venture capital pathways for start-ups, growing businesses and research and development initiatives.
- 3.5 Work with stakeholders to find ways for technology to address waste and climate change issues.

### **Measures:**

We will use a mixture of indicators and examples to track implementation of this strategy and help tell the story of our digital progress. This will include a focus on the following:

- → The number of Council open data releases per year.
- → The number of digital / tech businesses supported through incubator or accelerator services.
- → Tech related / cross sector networking opportunities.
- → Businesses accessing government, angel or venture capital.
- → Technology pilot initiatives run in Whanganui. → Technology focused on measuring and reducing all waste is developed and used in Whanganui - including fresh and coastal water telemetry, soil testing and waste transformation technology.

Throughout human history, economic growth has always involved the consumption of more resources and the production of more waste. As humanity begins to push up against the limits of the ecosystem to provide resources and absorb waste, we need to find ways to continue to improve - with all of its positive impacts on the community - while reducing the environmental impact of that improvement.



# 4. A DIGITAL COUNCIL

**GOAL:** WHANGANUI DISTRICT COUNCIL IS FUTURE-FOCUSED AND ENABLING

**OUTCOME:** Working with Council is easy and our services and approaches are smart

### **Context:**

As technology improves, so does the opportunity for local government to show leadership in getting systems, processes and information online. This has been a real focus for Council and we have made significant progress.

Getting online ultimately saves ratepayers time and money and releasing information and data enables innovation. Council will also play an important role in identifying new trends that will affect the district and its visitors and residents. This includes examining opportunities and challenges for the district around transport, energy, the natural environment, the future of work, safety, resilience, big data and emerging technology trends

### **Strategies:**

- 4.1 Enhance Council's digital engagement, support and online services (including the use of interactive online tools) so that anyone can interact with Council whenever, and wherever they are.
- 4.2 Grow the transparency and accessibility of Council information and establish guidelines for open data approaches.
- 4.3 Establish internal and external working groups and opportunities to identify and pursue new trends in technology.
- 4.4 Embed a creative, digital focus in relevant Council work to celebrate Whanganui's arts, culture and heritage.
- 4.5 Continue to develop and use digital tools to build Council's resilience and improve safety.

### **Measures:**

We will use a mixture of indicators and examples to track implementation of this strategy and help tell the story of our digital progress. This will include a focus on the following:

- → Digital projects and programmes are included in Council planning documents.
- → We have more examples of innovation and digital capacity.
- → The number of Council services available online increases, over time.
- → The amount of clean, accurate, machine readable data released by Council increases, over time.
- → Council's approach to risk reduction increasingly uses digital tools.
- → A Council technology and innovation group is set up.
- → Council uses digital channels to connect with the community.
- → The 'My Council' programme and other interactive digital tools are launched.



# **NEXT STEPS**

### Implementation

A collaborative approach will be essential to the success of this strategy. This will involve the Council partnering with the community on delivery of the actions identified. Once the strategy is finalised a detailed action plan will be developed with our community partners including who will do what and when.

Funding will be sought in various ways - including from external sources and through partnership opportunities. Any Council funding commitments across the life of this strategy will be considered through the annual planning process.

#### Monitoring and review

Measurement will happen by tracking progress against this strategy's indicators and in telling the story of our digital innovation and success through the Annual Report. Monitoring performance in relation to other key strategic documents will also help our community to see where we have done well and if there are areas that need additional support. As delivery of this strategy will be achieved in partnership with the community we will weave the digital successes of our stakeholders and the wider district into our monitoring.

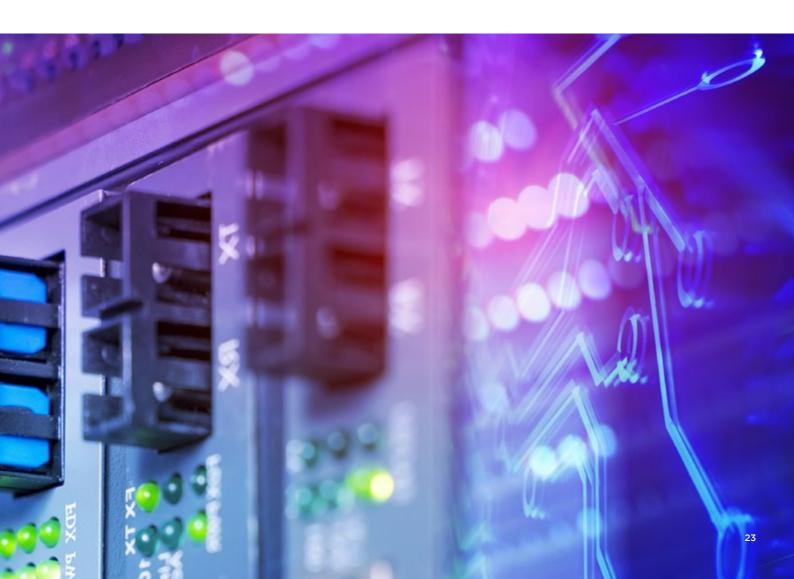


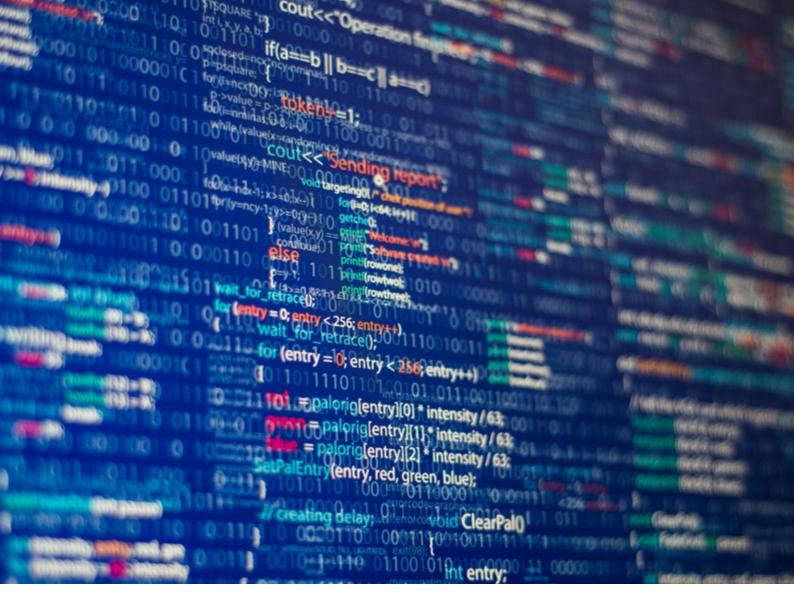
Council has several online services already and the live-streaming of public meetings is recognised around New Zealand as being one of the best for sound and camera work. Council is using digital photos to record protected trees and in other areas, such as animal control.

It's also using real time visual data to monitor and control key infrastructure, such as the town water supply and is implementing digital kiosks for improved customer service and better promotion of information and events.

Ultimately the Council is working towards a system called My Council that enables residents to access all their Council held information and Council services online. This relies on Council being able to connect a variety of internal systems. There are some challenges associated with positive identification of residents and customers so that Council can ensure each piece of existing information relates to a specific person, while safeguarding privacy.

Council regularly releases clean, open data in machine readable form for anyone to examine and use. This can help in the development of innovative applications and is underpinned by central government policy and global best practice. There is an opportunity to gather and release telemetry information measuring a variety of built and natural systems.







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**DIGITAL STRATEGY 2019** 



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