

Canterbury Digital Strategy 2016

A Work Programme of the
Canterbury Regional Economic Development Strategy
Connected Canterbury and the Canterbury Mayoral Forum



... a strong regional economy with resilient, connected communities and a better quality of life for all



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Foreword

Connected Canterbury is a collaboration between Aoraki Development Business and Tourism, the Canterbury Development Corporation, the Canterbury Employers' Chamber of Commerce, Enable Networks Ltd, Enterprise North Canterbury, Environment Canterbury, Grow Mid-Canterbury, the Selwyn District Council, Microsoft and Irrigation New Zealand.

During 2014, Connected Canterbury worked together to develop a draft digital strategy for our region. When the Canterbury Mayoral initiated work on its Canterbury Regional Economic Development Strategy (CREDS) in December 2014, Connected Canterbury saw an opportunity to connect to and leverage off this. We share the same vision, and the same sense of urgency, about getting fast broadband and mobile coverage across our region, and using this to enable economic development and social wellbeing.

As lead Mayor for the digital connectivity work programme of the CREDS, I am enormously grateful to Connected Canterbury, which has generously agreed to support me in developing and implementing the CREDS work programme. They bring knowledge, experience, and industry and community contacts that will be invaluable as we work together to progress the actions we've identified as priorities for 2016.

We are doing this because the availability, uptake and use of digital connectivity is critical to building a strong regional economy. Unless we grow Canterbury's economy, we cannot sustain our communities and ways of life. With the right technologies, we can preserve what we value from our past – and shape previously unimagined futures.

Just like the CREDS itself, this strategy has a big vision but is focused on short-term actions. The strategy will be reviewed after the 2016 local body elections and refreshed in light of emerging opportunities for 2017-18.

We invite you to 'catch the vision' and in your own way help create 'a fully connected Canterbury'.



Mayor Damon Odey
for Canterbury Mayoral Forum and Connected Canterbury



A digital snapshot

Broadband contribution to GDP is

15X*

the initial investment

*Strategic Network Group's estimate

75%

of

New Zealand households with access to UFB expected by 2019. NZ is growing fast among OECD countries

+10%

productivity gain from a better connected NZ through broadband access
Grimes (2012)

39.7%

of all new jobs in the US & Canada were enabled by the internet

Mobile services are around

17%

more

expensive to provide in NZ than overseas

NZIER Mobile Industry in New Zealand: Performance and Prospects – October 2014

50%

of

NZ's population has access to 4G services

3X

NZ

has triplicated its broadband speed since 2009

Mobile data consumption is expected to grow **50%** per year in the mid term

Cisco

48%

of

NZ's population will be able to connect to UFB by 2016

900,000

end users able to connect to UFB by 2016

Broadband penetration in OECD countries



NZ\$ 1,690,000,000

was the total telecommunications investment in 2013/2014

NZ\$ 34 billion

could be added to the NZ economy if all businesses were using internet to its full potential

Sapere Research 2014

1/2

of mobile devices in

New Zealand are now smartphones

NZIER Mobile Industry in New Zealand: Performance and Prospects – October 2014

32 GB

is the average data consumed per broadband connection

5.3

million mobile connections in New Zealand

1.39

million fixed broadband connections in New Zealand

700MHz spectrum auction completed with economic benefits of up to NZ\$2.4 billion for the NZ economy over 10 years

12,000,000,000 SMS sent in 2014

Canterbury Regional Economic Development Strategy

*... a strong regional economy with resilient, connected communities
and a better quality of life for all.*

Canterbury's Mayors want to minimise a downturn in the region's economy as the earthquake rebuild levels off, and ensure the long-term prosperity and social wellbeing of Canterbury and its communities.

That's why the Mayoral Forum developed and launched its Canterbury Regional Economic Development Strategy (CREDS) in August 2015 – available at <http://ecan.govt.nz/CREDS>

The CREDS has seven, interdependent work programmes, each with a lead Mayor. The digital connectivity work programme is led by Mayor Damon Odey (Timaru District Council).

Digital connectivity is key infrastructure for the other six work programmes. For example, digital connectivity enables:

- freshwater management, including precision irrigation, and environmental monitoring and reporting
- increased productivity in the agricultural sector
- value-added production and manufacturing
- traffic management and logistics
- enhanced experiences and safety for tourists and visitors to our region
- access to education, training, health and emergency services
- civil defence and emergency management
- e-commerce and online services (particularly important in rural areas)
- skilled professionals to move to our region; e.g. providing the ability to work remotely
- social connectedness – particularly important to attract and retain newcomers and their families to the agricultural workforce in our region.



The Mayoral Forum's objective is **a fully connected Canterbury, so the whole region can achieve the best possible results in health, education, social connectedness, economic growth and the environment.**

This Strategy outlines how the Mayoral Forum and Connected Canterbury are working together to achieve this objective during 2016.

Canterbury Digital Strategy

For Canterbury to be fully connected, we need:

- infrastructure – an integrated network that provides fast broadband and mobile phone coverage to every farm and community in Canterbury (whether by copper, fibre or wifi)
- retail packages that are fit for purpose and affordable
- uptake and use of digital technologies and online services to increase economic productivity and improve social outcomes in health, emergency services, education, social connectedness, road safety, civil defence and environmental sustainability.

Three principles have guided the development of the Action Plan that follows.

1. **Turn aspirations into action** – and clearly identify who will do what, why and by when.
2. **Respect our different roles and responsibilities.** Local government may be part of the infrastructure solution via council-owned lines companies, for example, or by making disused gas and sewer pipes available for laying fibre, or by permitting the installation of telecommunications infrastructure on council-owned land or buildings. But for the most part, local government's role is to facilitate and advocate for *market solutions*, leveraging off central government investment in telecommunications infrastructure.
3. **Less is more** – given inevitable resource constraints, priority must be given to the few actions that have potential to make the greatest difference.

Lead, advocate and co-ordinate

The first cluster of actions concerns **infrastructure**.

Since December 2014, the Mayoral Forum has been advocating to central government for investment in fast broadband in rural Canterbury.

Canterbury Maps prepared a map for each territorial authority and for the region as a whole, showing broadband and mobile coverage as at June 2015, with an overlap of current and planned irrigated land. The Mayoral Forum has urged central government to invest in infrastructure where this can make the greatest difference to regional economic development. In Canterbury, that is particularly where digital technology enables efficient control of irrigation infrastructure and freshwater management. In our region, water is gold. Digital technologies can help us use water wisely and well, for present and future generations.

In July 2015, the Timaru District Council and Alpine Energy supported and co-ordinated Canterbury registrations of interest to the Government's Ultra-Fast Broadband, Rural Broadband and Mobile Black Spot Fund extension programmes. At the same time, we have worked with Spark New Zealand to facilitate a market solution – an accelerated roll out of 4G mobile broadband across the whole of our region by December 2016. Spark recognised that digital connectivity is central to the Mayoral Forum's CREDS and stepped up to the challenge to help create a fully connected Canterbury. Local service providers have also been working with councils on innovative solutions to local needs, to help us achieve widespread coverage.

Local authorities are assessing whether over-regulation, or inconsistent regulation, is creating unnecessary barriers to infrastructure deployment. The Canterbury Planning Managers Group will

report to Chief Executives and Mayors in February 2016 on opportunities to address any barriers identified through district plan reviews during 2016 and 2017.

An immediate priority is to build a business case to Crown Fibre Holdings to fund a whole-of-region solution that joins up the UFB and RBI programmes and connects copper, fibre and wireless to create an integrated, resilient network for our region.

Connect local government

The second cluster of actions involves local authorities leading by example, for two reasons – first, and most importantly, to improve local government services and make it easier for ratepayers to access information and ‘do it online’. If we don’t have to visit a council office, or write a cheque and post it, we save time and money every time we need to pay our rates, register a dog or apply for a consent.

Secondly, providing information and services online drives uptake of digital technologies and assures private sector providers that investing in infrastructure and product development can be commercially viable.

Current initiatives to connect local government include:

- the ability to ‘do it online’; e.g., pay rates, register dogs, pay parking fines, order LIMs, and apply for building and resource consents and manage these through council processes
- online information about fire restrictions
- using digital technologies (including social media, mobile apps and text messaging) to notify hazards and civil defence emergencies
- information about river flows, consents, irrigation restrictions and air quality on the regional council’s website (<http://www.ecan.govt.nz>). River flows data, for example, is useful and potentially life-saving for anglers, kayakers, rafters and trampers.
- the Canterbury Maps portal (<http://www.canterburymaps.govt.nz/home#>) – a joint data-sharing initiative by the region’s councils. Data and maps can be freely downloaded, either on the website or ‘on the go’ via mobile apps.
- the Listed Land Use Register (<http://llur.ecan.govt.nz/Public/>) – a publicly available database that identifies sites where hazardous activities and industries have been located throughout Canterbury. Since September 2014, there have been over 54,000 views of the LLUR page.
- Environment Canterbury’s launch during 2016 of a Farm Portal to support and monitor nutrient management on around 6,000 farms in Canterbury.

Connected Canterbury is encouraging all Canterbury councils to sign up to and participate in the Open Data Charter. Making public information readily available improves accountability and transparency and deepens the practice of democracy. It also provides a rich resource to underpin business planning, innovation and social and economic development.

Inspire and encourage

The third cluster of actions is about inspiring the uptake and use of digital technologies. We want to increase the number of young people choosing careers in the technology sector and, more broadly, to grow a technologically literate, skilled workforce for an innovation economy.

- Connected Canterbury will work with tertiary education providers and the technology sector to identify work experience and employment opportunities for students, and to encourage and

support initiatives in schools (such as Code Clubs and Gigalabs) to foster students' interests in digital technology.

- The Canterbury Development Corporation will continue to work with the business sector to improve understanding of technology trends, services and products and their potential to improve productivity and business performance.

Our Action plan to **Lead, advocate and co-ordinate, Connect local government, and Inspire and encourage** during 2016 is detailed on pages 5-6.

Action Plan 2016

Lead, advocate and co-ordinate

WHAT	WHY	WHO ¹	WHEN
Communicate challenges, opportunities and priorities for digital connectivity in Canterbury to central government	To help ministers and officials understand why and how digital connectivity is critical to meeting objectives in the Canterbury Regional Economic Development Strategy	Mayoral Forum (Damon Odey)	Ongoing since December 2014
Continue to support and co-ordinate Canterbury councils' engagement with central government on UFB2, RBI2 and the Mobile Black Spot Fund	Present a common case for public investment in digital connectivity in Canterbury	Timaru District Council with the region's economic development agencies and Alpine Energy	Ongoing since June 2015
Review telecommunications consents barriers and consistency of approach across Canterbury councils	To remove unnecessary regulatory barriers to infrastructure deployment	Canterbury Planning Managers Group for Chief Executives Forum	February 2016
Build a business case to Crown Fibre Holdings (with Enable, Chorus, lines companies, EDAs, irrigation schemes and other major infrastructure providers) to fund a whole-of-region solution that provides back-haul and connects UFB and the RBI, fibre and wireless, to create a fully connected Canterbury	To prevent partial and piece-meal implementation of RBI and UFB and invest in a resilient, whole-of-region infrastructure solution	Mayoral Forum (Damon Odey) with Connected Canterbury Group	February 2016
Continue to work with Spark NZ to facilitate its accelerated roll-out and uptake of 4G mobile broadband across Canterbury	To improve access to reliable, affordable, fast broadband in rural Canterbury	Mayoral Forum (Damon Odey) and Environment Canterbury	December 2016
Update GIS maps of mobile and broadband coverage (prepared in June 2015) and overlay with current and future irrigated land to identify gaps in digital connectivity that may be a barrier to development and efficient water management	To maximise the value of public and private investment by directing this to where it can make the greatest contribution to agricultural productivity.	Canterbury Maps	December 2016

¹ Mayor Damon Odey convenes and chairs meetings of Connected Canterbury as required. CREDS work programmes report to the Mayoral Forum, which meets quarterly. The Mayoral Forum will next review progress with its CREDS reference group in June 2016.

Connect local government

WHAT	WHY	WHO	WHEN
Further develop online services provided by Canterbury councils; e.g. the ability to pay rates, dog registration, parking fines, order LIMS, apply for building and resource consents, and access information online about fire risk, civil defence, etc.	To provide better and more cost-effective public services and information 24/7, and improve communication, consultation and engagement	Chief Information Officers Forum for Chief Executives Forum	December 2016
Encourage all Canterbury councils to sign up and participate in the Open Data Charter	To make local government data available	Chief Information Officers Forum for Chief Executives Forum	December 2016
Further develop and promote regional online services, including Canterbury Maps, the Listed Land Use Register (contaminated land), the Farm Portal, Planting Canterbury, information about river flows, consents, irrigation restrictions, air quality, etc.	To make it easy for people to 'do it online' and access the information they need 24/7	Environment Canterbury	December 2016

Inspire and encourage

WHAT	WHY	WHO	WHEN
Inspire business uptake of UFB and access other current and available digital infrastructure (e.g. rural broadband, 4G)	To improve understanding of technology trends, services and products and improve productivity and business performance by enabling business to use current technologies	Canterbury Development Corporation	Project plan to be scoped by February 2016
Work with tertiary education providers and the technology sector to identify work experience and employment opportunities for students	To increase the number of students choosing a career in the technology sector and grow a skilled workforce for an innovation economy	Connected Canterbury Group with Mayors David Ayers (education and training) and Angus McKay (newcomer and migrant settlement)	December 2016
Encourage and support initiatives in schools, such as Code Clubs and Gigalabs, to foster students' interest in digital technology	To increase the number of students choosing a career in the technology sector and grow a skilled workforce for an innovation economy	Connected Canterbury Group	December 2016

For further information on the Canterbury
Regional Economic Development Strategy,
go to: <http://www.ecan.govt.nz/CREDS>

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