

Digital connectivity and the Provincial Growth Fund

Purpose

The purpose of this paper is to outline the Provincial Growth Fund (PGF) approach to investment in digital connectivity.

Vision

The PGF vision for digital connectivity is for regions to have access to cost-effective high speed broadband and mobile services to support business growth and employment and to enhance connectivity in remote areas.

Objectives

The PGF objectives for digital connectivity are:

- Extending the reach of digital infrastructure in the remotest areas of New Zealand
- Enhancing the performance (speed, capacity and reliability) of digital infrastructure for the West Coast and Milford
- Supporting local communities to access digital infrastructure.

Context

New Zealand is seeing rapid growth in the use of digital tools and technologies in businesses and communities. These increase the productivity and profitability of businesses across the economy by increasing labour productivity and extending the customer reach of businesses.

Research shows small and medium-sized New Zealand businesses that are highly digitally engaged are 6% more productive than their counterparts. Digital enablement can also help more people to gain sustainable employment and better paying jobs, while also retaining families in rural areas.

Digital enablement is a government priority. Digital enablement in its entirety encompasses online connectivity through digital connectivity infrastructure as well as the capabilities and opportunities for regional business, sectors and communities to access and use connectivity to support reaching their goals. Specifically, there are goals to grow the technology sector, support a diversified and high value economy, improve business uptake of ICT, and to close the digital divides experienced by some groups of people that can hold back their full participation in social and work life.

Digital connectivity includes all telecommunications network infrastructure, capabilities, platforms, systems, facilities and associated work for making online connectivity accessible by end users. The establishment of digital connectivity infrastructure is fundamental for digital enablement of the regions.

Gaps and Opportunities

Digital connection has become an expected part of doing business but it is not reliably available in some regions of New Zealand. Digital connectivity provides a means to

overcome some of the challenges faced by small, distant communities. Without it, these regions will be further disadvantaged by their remoteness.

Improved digital connectivity will provide a platform for regions to develop business and employment opportunities on an ongoing basis. For example, reliable digital connectivity can provide opportunities for people to work outside urban centres, gain sustainable employment, and help ensure regional talent can remain in the regions.

Digital connectivity also enables businesses, including those in key sectors, to make better use of existing and new digital technologies that improve productivity, extend market connections or provide new value to customers. High quality digital infrastructure will also support new businesses, including innovative digital start-ups, to emerge and grow.

The investment approach for digital connectivity is to reinforce and underpin other investments made in the regions by the PGF and businesses.

PGF Investment Principles

The digital connectivity investment plan is founded on the following principles, which align with the PGF objectives:

- Lift the productivity potential of the regions and focus investment on the surge regions
- Invest only in infrastructure which would not otherwise be deployed, or activities that would not otherwise occur (i.e. ensure 'additionality')
- Target gaps in broadband and mobile coverage to ensure these do not inhibit new business ventures or major sector growth initiatives in the regions
- Where practical, avoid funding 'infrastructure overbuild' that replicates network capabilities that already exist, are under contract for their deployment or have funding committed for their deployment
- Where practical, distribute investments to reduce disparity in the level of broadband availability across the regions.

These principles ensure digital connectivity investments reinforce/underpin other PGF investments, support regional businesses to remain abreast with technology, and can harness the advantages of digital connectivity to overcome the challenges of physical distance from markets.

Principles for local connectivity investment

The following principles are proposed for considering applications that relate to local connectivity applications.

Accessibility – initiatives helping to remove and/or reduce some of the barriers for local communities and businesses that may otherwise be unable to access and utilise digital connectivity and the opportunities it presents. For example, affordability of having a broadband connection may be a barrier for some households: one service that a digital hub could provide would be discounted or free Wi-Fi access for users.

Criticality – initiatives demonstrate that digital connection is a critical component for supporting a wider PGF investment, and/or other proposal that promotes regional goals.

Economically sustainable – initiatives are able to sustain themselves financially over time through securing necessary funding from other sources to continue when PGF contributions end.

Locally Based Priorities – what communities need for digital connectivity will vary from place to place and initiatives should be tailor-made to reflect the needs of local communities.

PGF investment in digital connectivity

A digital connectivity PGF investment plan has been developed which has three components.

- Expansion of the Rural Broadband Initiative Phase Two and Mobile Black Spots Fund
- West Coast and Milford Sound connectivity
- Local connectivity.

Rural Broadband Initiative Phase Two and Mobile Black Spots Fund expansion

This will support the tourism sector and people living in the remotest areas of the surge regions by expanding the Rural Broadband Initiative Phase Two (RBI2) and Mobile Black Spots Fund (MBSF) programmes and making broadband connectivity available to marae.

Cabinet has agreed to \$40 million of PGF investment for RBI2/MBSF expansion as follows.

Table One: RBI2/MBSF PGF investment

Investment Element	Funding Allocation
Surge region mobile coverage (including off-shore islands)	\$10.7 million
Surge region broadband coverage	\$22.9 million
s 9(2)(b)(ii)	\$5.9 million
Marae broadband coverage (for residual marae unserved in all regions)	\$0.5 million
All	\$40 million

Scope of the investment

A mix of network infrastructure investments is planned for extending the reach of digital infrastructure targeting surge regions, with an overall focus on productivity improvements for tourism and farming. PGF funding will also make broadband services available for an additional 5,400 rural end user premises located in the surge regions.

s 9(2)(b)(ii)

[Redacted content]

Marae are a focal point of many communities, and are especially important in rural New Zealand where there are generally few amenities locally. Marae are physical places where whānau, hapu, iwi and local communities can gather to support wellbeing, maintain cultural practices and foster a sense of belonging. Marae have the potential to be a major contributor to ensuring people in the regions have the abilities to take advantage of employment opportunities opened up through PGF sector investments.

Through the RBI2/MBSF expansion, 13 unserved marae will be covered as end user premises. The PGF will fund service to remaining marae in regional New Zealand (approximately 24) where broadband service is not available and upgrade another eight marae that have access to infrastructure but for which service below the RBI2 service standard. Achieving broadband coverage for the under-served marae would be prioritised to enable the first of these has broadband available during 2019, with completion of network infrastructure for all remaining marae by 2022. The first marae to receive upgraded coverage could have broadband available by the end of 2018.

West Coast and Milford Sound

The second part of the investment plan will also improve the broadband performance available to businesses and households in the West Coast and Milford Sound where the level of broadband investment through government broadband programmes has not been as great as most other regions.

The West Coast proposal provides an alternative connection path to the present Grey River corridor that currently connects all of the West Coast with the rest of New Zealand, and which is particularly prone to disruption in an Alpine Fault or similar seismic event. The specific investment elements for the West Coast and Milford Sound are as follows:

Table Two: West Coast PGF investment

Investment Element	Funding Allocation
West Coast – South Westland fibre loop between Fox Glacier and Lake Hawea	\$ 22 million
West Coast – Extend mobile coverage for tourist destinations with up to 6 additional sites (including the Paparoa Track and Pike29 Memorial Track)	\$ 5 million
Fiordland: Milford Sound highway fibre link	\$ 12 million
UFB extensions – expand UFB coverage to additional West Coast towns (including Haast), and accelerate UFB deployment for tourist towns etc	\$1 million
All	\$40 million

The West Coast and Milford Sound have been targeted for network infrastructure enhancements due to the importance that reliable digital connectivity has for tourism growth and farming. The West Coast region is experiencing significant growth in tourism and the number of visitors to Milford Sound is set to top one million in 2019, compared to about 875,000 visitors in 2017. Haast is another location of significant tourist growth. Additional digital connectivity investments would enable these areas to maximise the economic benefits from this tourism.

Digital connectivity is considered to be a major enabler for West Coast tourism, which is the key focus of the regional package. Further, relative to the rest of New Zealand, the West Coast and Milford would not receive the levels of investment that system resilience that all other parts of the country will receive, due to the country's sparse population and rugged terrain. The infrastructure enhancements proposed will also significantly improve the reliability of telecommunications in the region, and public safety for those travelling to Milford Sound and West Coast tourist destinations.

Local connectivity

The third investment priority is local connectivity to improve the accessibility of digital connectivity to support jobs, skills development and social inclusion. The scale of this investment is expected to be in the order of \$20 million over the lifetime of the PGF. It will involve applications being made to the PGF from the regions that address local needs, such as the development of marae and business hubs for business and community use to ensure locals can access the internet.

The concept of a digital hub is broad based, with the intention being that each digital hub would be tailored to suit the needs of local communities. While marae would be a focal point for PGF investment in local connectivity initiatives, the PGF is open to other arrangements, such as business/civic hubs in regional towns, and other approaches that communities bring forward to the PGF as a model that will work for them.

As noted, marae are a focal point of many communities, and are especially important in rural New Zealand where there are generally few amenities locally. Marae in particularly remote communities have the potential to serve as a central hub to provide digital connectivity opportunities for whanau.

Local governments have identified business/civic digital hubs as a means of strengthening the commercial heart of small communities. By providing a shared location for small business and local government activity there is scope for greater engagement and support around commercial opportunities in the region and a place to do business for people travelling through the region.

There are two elements of local connectivity initiatives that the PGF can invest in:

- Installation of broadband connection 'from the gate' to the end user premises. Consideration would be given to the PGF subsidising the establishment of broadband connections for end users where reducing the upfront cost for accessing digital infrastructure in this way would make a critical difference to whether a proposed local community or business initiative for the respective end users proceeds
- Part/full funding of the rental/subscription costs: consideration would be given to the PGF providing part or full funding of the rental/subscription costs for connection during the initial 5 years of the initiative. It would be expected that beyond this,

marae/digital hubs would be self-sustainable to continue funding rental/subscription costs.

Further to the three parts of the investment plan above, the PGF may make other investments that contribute to the digital economy and digital enablement through the other two tiers of the PGF: Tier 1 Regional Projects and Capability and Tier 2: Sector Investments. These initiatives will be progressed through existing PGF processes. The PGF may invest in:

- Digital enablement through projects in Tier 1: Regional Projects and Capability. Tier 1 includes training and development to ensure work readiness and community based initiatives to build skills, capability and capacity in regions. Digital literacy competencies are part of work readiness and will be progressed within the skills programme.
- Technology based business investments alongside technology organisations through Tier 2: Sector Investments. This includes initiatives that directly increase employment in technology related activities and those that support increased product sophistication, market connection and value add in businesses in key sectors within regions. Eligible projects may include those that enhance the productivity of businesses in the regions through the application of digital technologies. They may also include direct co-investment with technology businesses themselves to grow their businesses in the regions where these will increase economic activity and jobs to the regions.

Implementation

The implementation of the investment plan would be managed as two separate programmes.

The RBI2/MBSF expansion and West Coast infrastructure deployment priorities of the investment plan would be managed by Crown Infrastructure Partners (CIP) via existing tenders and contractual processes. A procurement process is already in place by CIP for expanding the RBI2 and MBSF programmes. The PGF investments in the expansion would be progressed through this process by CIP, with contracts between CIP and network partners for the necessary infrastructure expected to be concluded by mid-November 2018.

A funding agreement between the PDU and CIP would be developed for allocating PGF funds to CIP for paying contracted network partners as infrastructure deployment milestones are progressively achieved. Deployment of the proposed PGF funded digital connectivity infrastructure is planned for completion by the end of 2020.

The local connectivity priority would be managed by the PDU working with potential applicants.

Next Steps

PDU officials will continue to progress applications in line with these principles using the allocated funding for digital connectivity.