# Briefing to Incoming Minister
# Information Release

## Release Document

## December 2017

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# Briefing for Incoming Ministers

Minister for State Owned Enterprises
Minister of Finance
Minister of Broadcasting, Communications and Digital Media

November 2017

# Contents

# Crown Infrastructure Partners (CIP)

- Formerly Crown Fibre Holdings, the company's purpose was broadened (and name changed) to include infrastructure-related activities on 1 September 2017. CIP's purpose is to:

> 1) Implement the government's objectives in relation to improving the performance and availability of, and access to:
>
> (a) ultra-fast broadband;
>
> (b) rural broadband; and
>
> (c) mobile voice and data coverage,
>
> by co-investing with, or making grants to, private sector participants in order to deploy telecommunications network infrastructure; and
>
> 2) Investigate and implement commercial models, including those that will enable co-investment from the private or any other sector, to achieve the government's objectives for the deployment of water and roading infrastructure to support the timely increase of housing supply.

- Ministerial and Board governance:
  - Policy Minister (Minister for Broadcasting, Communications and Digital Media) and Shareholding Ministers (Finance and State Owned Enterprises)
  - CIP provides monthly reports to Ministers and MBIE/Treasury/DPMC [2]
  - Board of five directors; Chair - Simon Allen; 18 staff; CEO - Graham Mitchell

# Key people

Simon Allen

Simon Allen is Chair of Crown Infrastructure Partners. Simon is also Chair of Refining NZ, and a director of AIG Insurance. He is a highly regarded former investment banker with more than 20 years experience advising New Zealand's major industries. He formed ABN AMRO New Zealand as a green-fields operation in 1988, leading it to become one of the country's foremost registered banks.

Graham Mitchell

Graham Mitchell is Chief Executive of Crown Infrastructure Partners. He is an experienced senior executive with considerable background in the technology industry. Previously he has held CEO positions for both US and Australian private equity and venture capital funded technology companies. He has held numerous senior executive positions at Telecom New Zealand in both Australia and New Zealand. A chartered accountant, he also has a considerable corporate finance background.

Nick Manning

Nick Manning is GM Government and Industry Affairs at Crown Infrastructure Partners. He has been a practising commercial lawyer, chief policy advisor and independent consultant on broadband, infrastructure and digital communications policy and regulation. Nick led development of the UFB policy and implementation of the regulatory changes for the structural separation of then-Telecom in 2011.

# CIP has three key focuses

Crown Infrastructure Partners

## Ultra-Fast Broadband (UFB): $1.74 billion funding

- CIP funds partners through interest free securities to deploy the UFB network by the end of 2022
- Fibre-to-the-premises (**FTTP**) being deployed to ~1.8m households and businesses in 392 towns/cities
- Deployment 6% ahead of plan; 30 cities/towns complete; 60% population covered; $781m invested
- 38% uptake (40% expected by December); 12 cities/towns uptake >40%
- 129Mbps average speed, 220 Gb/month average downloads
- $966m still to invest; 521,000+ premises to build; 362 towns/cities left to complete by 2022

## Rural Broadband Initiative and Mobile Black Spots (RBI2/MBSF): $290 million funding

- CIP funds telecommunications operators through grants to deploy/upgrade networks by the end of 2022
- Enhanced broadband for ~74,000 rural end users (new speeds >20Mbps), ~3% population coverage
- 1,000km+ of state highway and 100+ tourist sites to receive mobile coverage
- Remaining ~1% rural population still to be covered, and there are further state highway and tourism sites that could receive coverage – expansion focus ($105 million funding available)
- Contracted: Rural Connectivity Group (Vodafone, Spark, 2degrees), 9 regional wireless operators (WISPs)
- Strong local Council and rural stakeholder interest

## Water/roading infrastructure: to improve the provision of housing supply: $600 million funding (proposed)

- Policy announced (July) that CIP funds “interconnection and network upgrades” for three-water and roading infrastructure to support the opening of new housing supply areas
- Focus has been on developing commercial models, establishing relationships: Councils, developers
- No decisions have been made or external actions taken to date – has been in an internal development phase
- Will be discussing with Ministers in conjunction with Treasury on future direction policy for this area

# Ultra-Fast Broadband (UFB) programme progress

Crown Infrastructure Partners

- All cities/towns to be built under the original UFB programme will be complete by the end of FY18, except for the following five areas:

| City/town | FY18 progress |
|---|---|
| Auckland | 81% |
| Wellington | 80% |
| Kapiti | 81% |
| Napier/Hastings | 82% |
| Palmerston North | 94% |

- The above cities/towns will be complete by end 2019
- UFB expansion (342 additional towns announced in January and August 2017) will be complete by end 2022, with Hikurangi (Northland) already complete

# UFB programme funding

Crown Infrastructure Partners

**Four UFB partners**

- UFB partners are Northpower Fibre (Northland), Ultra-Fast Fibre (Central North Island), Enable Networks (Christchurch) and Chorus (everywhere else in UFB footprint)
- CIP advances interest-free funding for a portion (50-100%) of 'communal' UFB network (the network down the street) to partners once the network has been built; the UFB partner funds the balance
- UFB partners are required to fully fund installations of the UFB service for residential customers
- UFB partners charge retailers a monthly wholesale fee and retailers charge end-users for the retail service
- Crown funding is repaid by UFB partners over time (refer slide 26)

**$1.55 billion appropriated**

- The Crown's total appropriated funding of $1.55 billion is enabling a total private sector co-investment of ~$5.7 billion, which makes the UFB programme the largest single infrastructure project in New Zealand's history

**Total investment $1.74 billion**

- CIP is actually investing a total of $1.74 billion in the UFB programme including the UFB expansions announced in January and August 2017 (an additional 10.5% of the population)
- The additional $190 million comes from funds returned from UFB partners under the programme

# UFB contracts

- CIP has contracts in place with UFB partners – to build the UFB network, and to operate it

## CIP UFB contract management

*Network build requirements*

- Quality, timing, capped CIP funding
- Network specifications

*Network operation requirements*

- Wholesale product price caps, product specifications
- Provisioning service levels
- Fault repair service levels
- Network performance
- Network availability

Network operation requirements will move to the Commerce Commission in 2020 as a result of the recent review of the Telecommunications Act 2001

## Retailers: Wholesale Services Agreements

- Governs relationships between retailers and wholesale fibre providers (Chorus and Local Fibre Companies (**LFC**s))
- Agreed by industry through Telecommunications Forum
- CIP has some limited oversight
- Contains installation standards
- Pricing, rebates, penalties (to retailers)
- General terms
- Product specifications

These agreements will expire by 2020. New agreements or extensions to be put in place by wholesalers and agreed with retailers

# UFB regional coverage

| Region | Pop. covered by UFB 1 (%) | Pop. covered by UFB expansion (%) | Number of cities/towns in region with UFB | Total pop. covered by all UFB (%) |
|---|---|---|---|---|
| Northland | 30% | 28% | 39 | 58% (1) |
| Auckland | 92% | 3% | 31 | 95% |
| Waikato | 51% | 26% | 54 | 77% |
| Bay of Plenty | 68% | 15% | 23 | 83% |
| Gisborne | 73% | 4% | 5 | 77% |
| Taranaki | 57% | 20% | 17 | 77% |
| Hawke's Bay | 71% | 12% | 11 | 83% |
| Manawatu-Whanganui | 60% | 18% | 35 | 78% |
| Wellington | 92% | 4% | 15 | 96% |
| Nelson / Tasman | 62% | 17% | 14 | 79% |
| Marlborough | 58% | 19% | 7 | 78% |
| West Coast | 22% | 43% | 21 | 65% |
| Canterbury | 76% | 8% | 64 | 83% |
| Otago | 63% | 21% | 38 | 84% |
| Southland | 46% | 29% | 18 | 75% |
| **Total across regions** | **75%** | **11%** | **392** | **86%** |

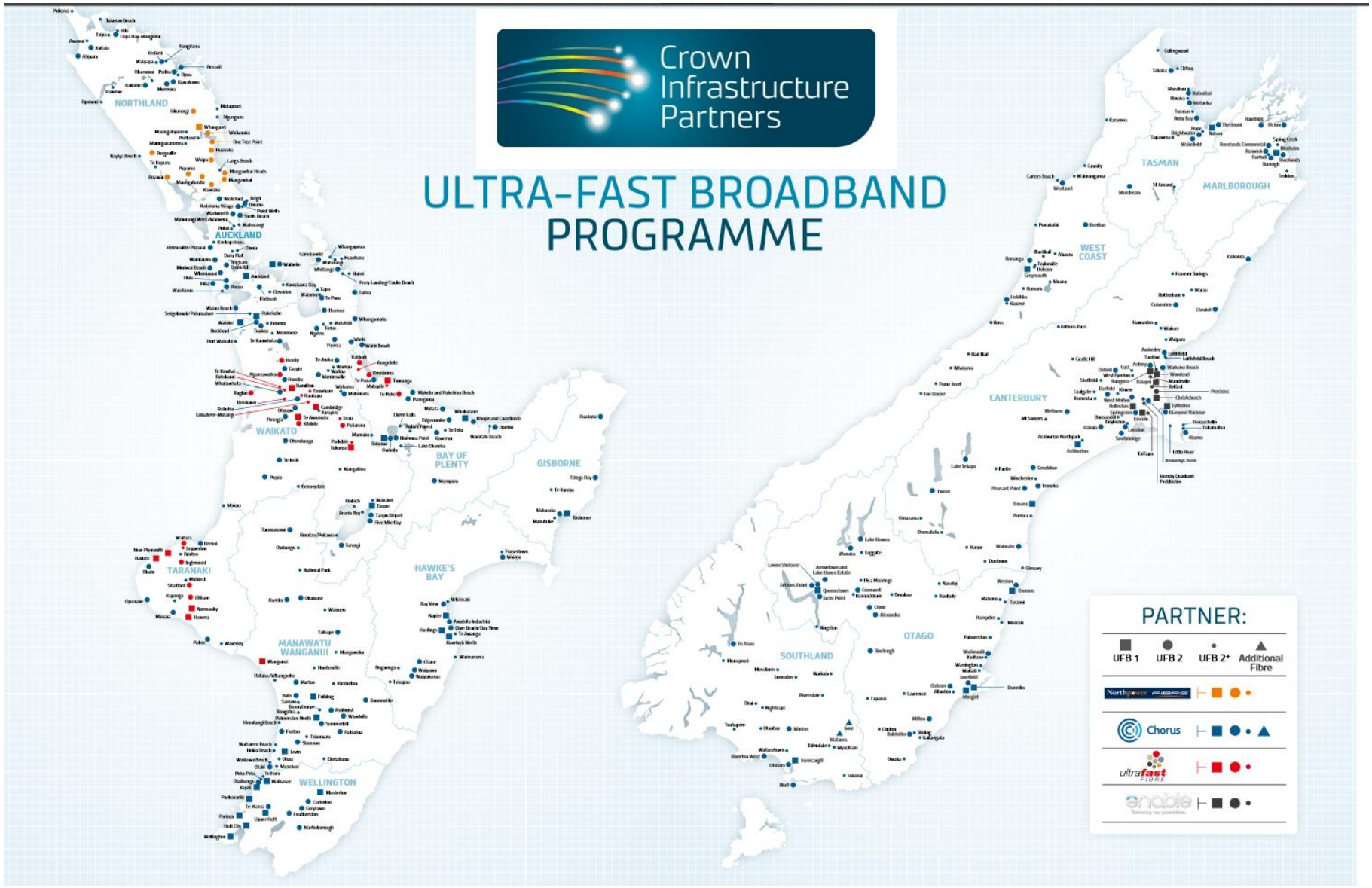
Note these figures are rounded

- Original UFB: 75.4% population (50 towns/cities(2))
- UFB expansion: 10.5% population (342 towns)
- **UFB overall by end 2022: ~86% population (392 cities/towns)**
- Private fibre 1% - another 4 towns (Chorus, four electricity lines companies) brings total fibre coverage to **~87% (total 396 towns)**

(1) The population percentage covered by UFB is lower in regions that have a high percentage of rural population

(2) Originally UFB was based on 33 'candidate areas' covering 50 towns/cities

# 392 towns and cities to receive UFB




- We can provide A3 versions of these maps

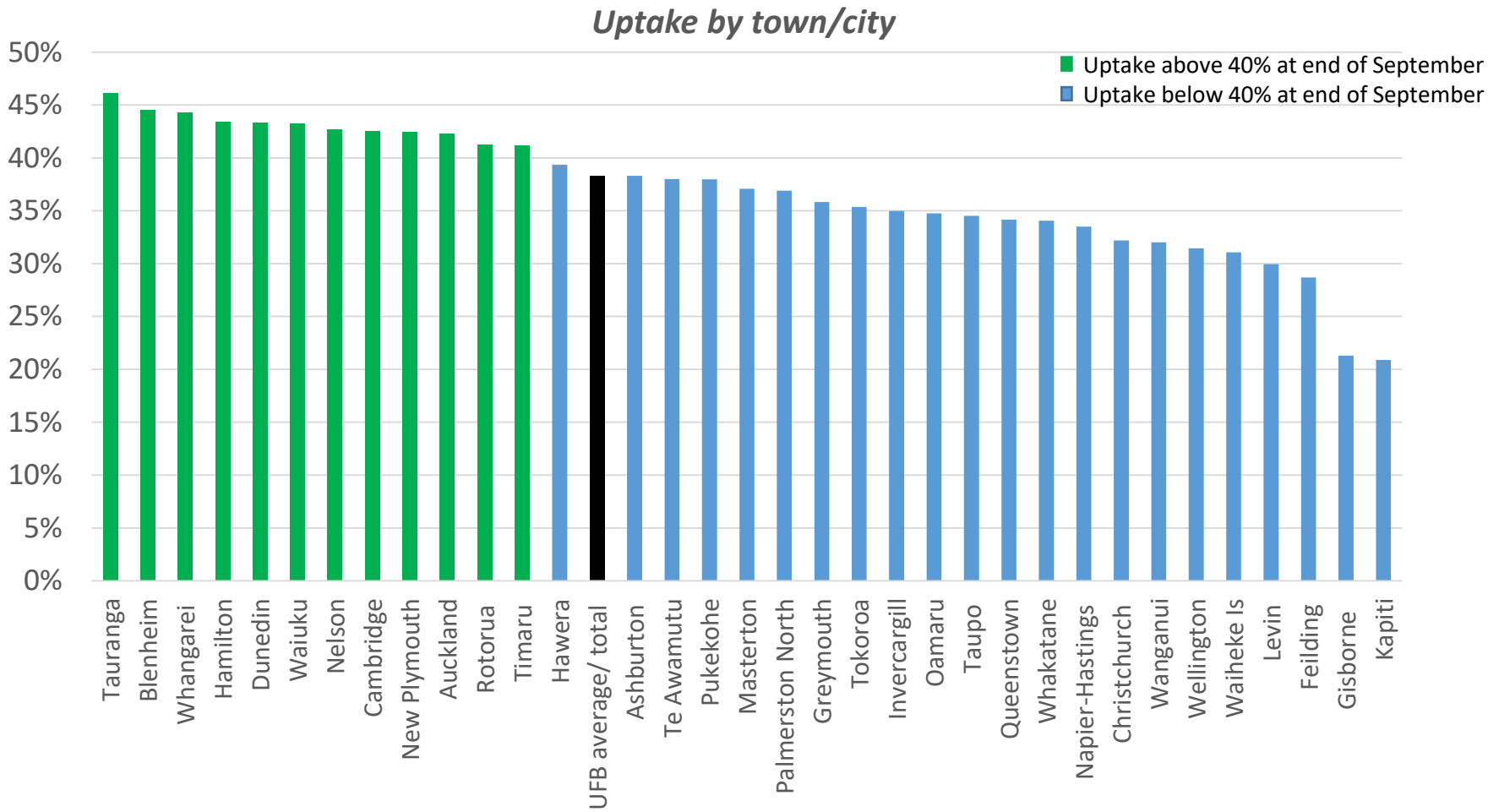
# UFB expansion – deployment now underway

- UFB expansion (January 2017 and August 2017) includes 342 new towns

| Towns with deployment underway | Towns to start by end FY18 |
|---|---|
| Hokitika | Ruatoria |
| Hikurangi * | Moerewa/Kawakawa |
| Waipu | Cromwell |
| Picton | Tologa Bay |
| Horotui | Opunake |
| One Tree Point | Kerikeri |
| Te Puna | Wairoa |
| Otaki | Waihi town + beach |
| Thames | Ruakaka |
| Ngāruawāhia | |
| Ōmokoroa | |
| Dargaville | |
| Stratford | |
| Whatawhata | |
| Ruby Bay | * completed |

# UFB uptake by town/city

- Uptake has exceeded expectations, and is currently over 38% nationally
- 12 cities/towns now have over 40% uptake






**Note:** Christchurch includes Rolleston, Rangiora and satellite towns

# Vibrant retail market for UFB

Crown Infrastructure Partners

## UFB 100/20 Mbps unlimited data product offers

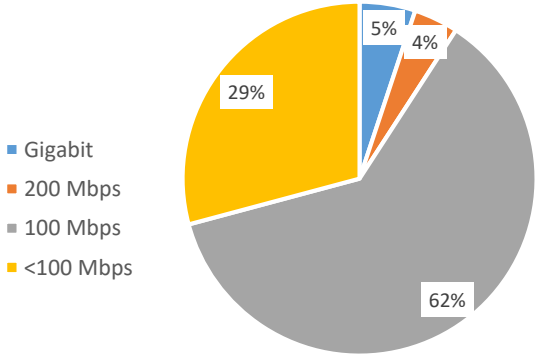
| Spark | vodafone | slingshot | Trust power |
|---|---|---|---|
| $94.99/mth. | $90.99/mth. | $84.95/mth. | $109.00/mth. |
| ***Promotion*** | ***Promotion*** | ***Promotion*** | ***Promotion*** |
| First 3 Months Free * | $300 joining credit | $5 discount included | 43" FHD Smart TV |
| Netflix, LightBox, WiFi | On Account mobile customer** Save $10 YES | FREE Chromecast | |
| $40 bonus | | | (Free TV if buy Power 24 mth) |
| **$69.16/mth** (incl. value of promotions for 12 months + fees) | **$57.24/mth** (incl. value of promotions for 12 months + fees) | **$77.70/mth** (incl. value of promotions for 12 months + fees) | **$59.63/mth** (incl. value of promotions for 12 months + fees) |

## UFB up to 1Gbps/500Mbps unlimited data product offers

| orcon | MyRepublic | Spark |
|---|---|---|
| $129.00/mth. | $119.00/mth. | $139.99/mth. |
| ***Promotion*** | ***Promotion*** | ***Promotion*** |
| | $59.99/mth First 6 months | First 3 Months Free * |
| | | Netflix, LightBox, WiFi |
| | | PLUS $40 BUY ONLINE CREDIT |
| (Free Xbox on 24 mth contract) | | |
| **$110/mth** (incl. value of promotions for 24 months + fees) | **$104.12/mth** (incl. value of promotions for 24 months + fees) | **$114.16/mth** (incl. value of promotions for 24 months + fees) |

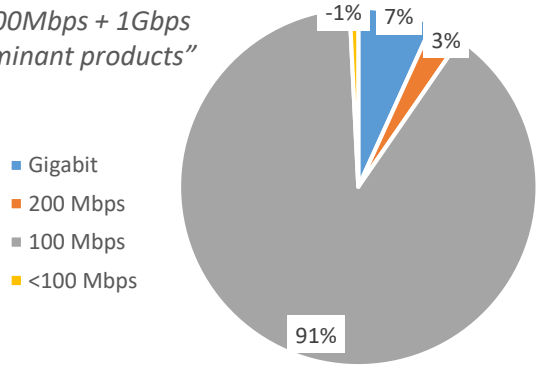
[5]

Total UFB Connections by Speed to Aug 2017




*"100Mbps + 1Gbps dominant products"*

Aug 2017 Connections by Speed

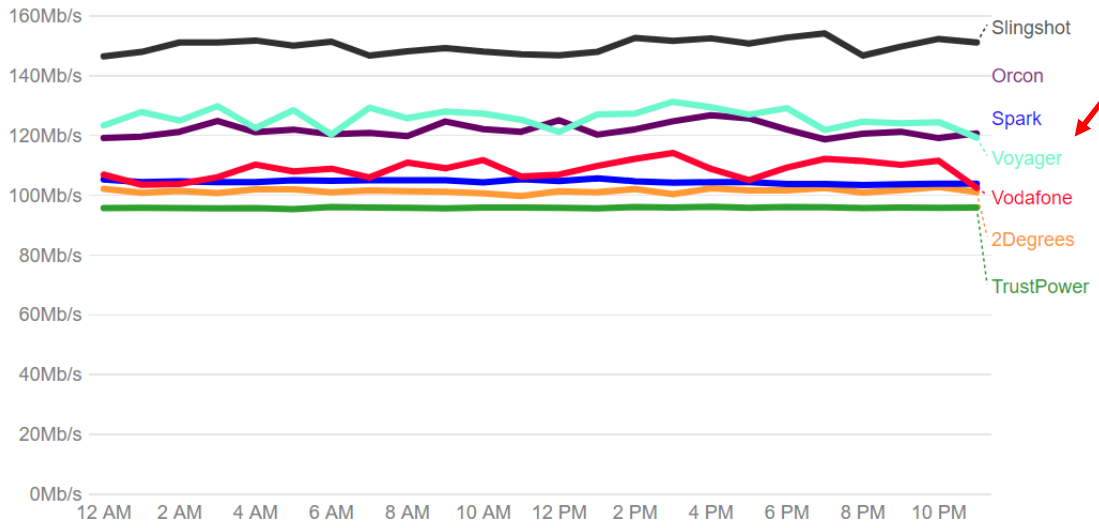


# Retailer and technology performance

## August 2017: Fibre Peak Speed

[2]

Median of Peak Speed for 100Mb/s Fibre services, by Time of Day

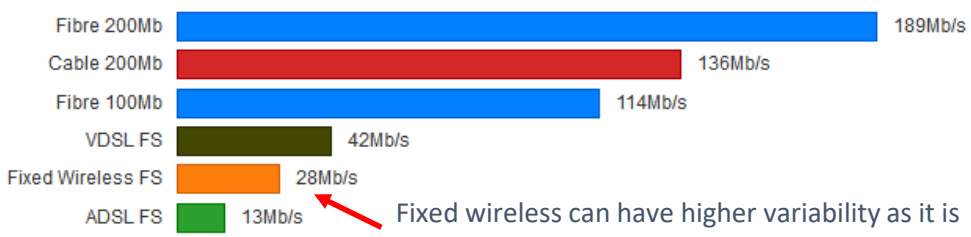



[2]

## August 2017 Peak Speed by Technology

Download Speed Only

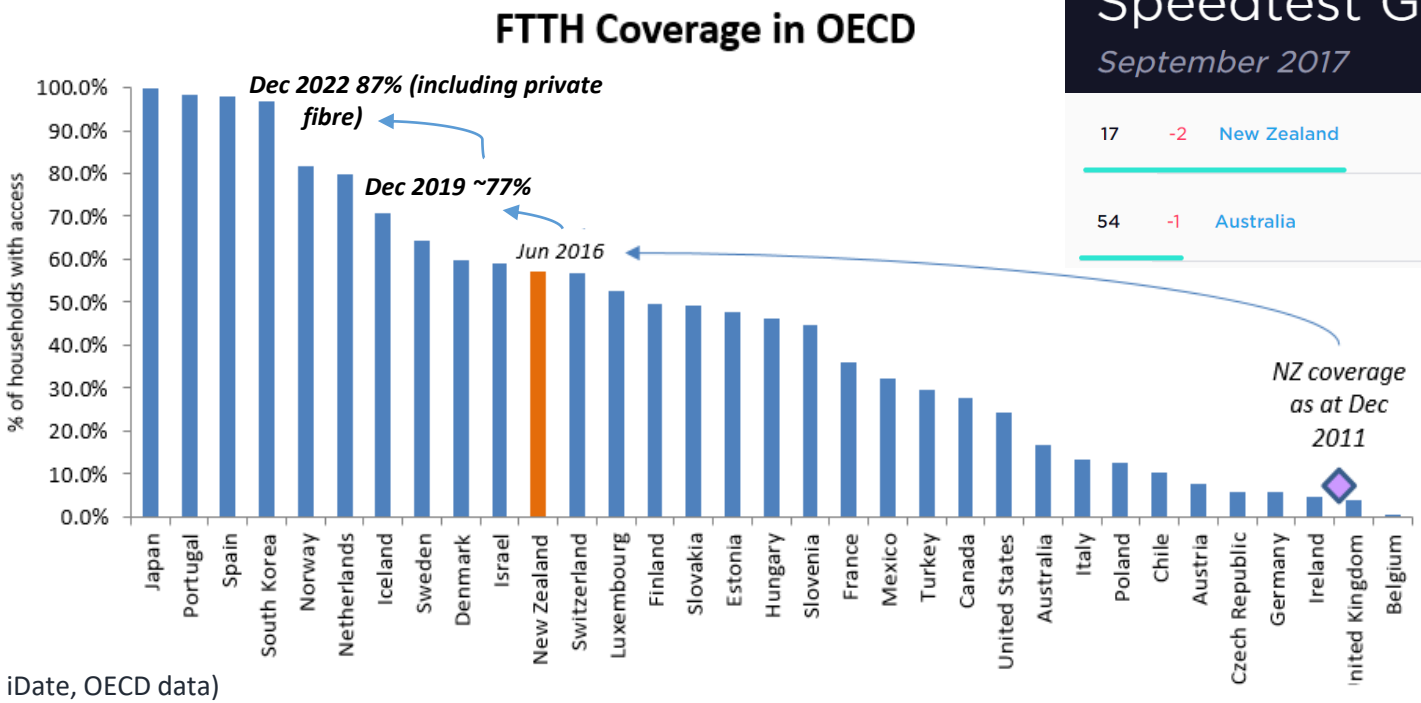
**Peak Hours** Business Hours Off-Peak Hours




Fixed wireless can have higher variability as it is contended, whilst ADSL is legacy technology and limited by longer copper lines from the street cabinet

# UFB deployment vs OECD

- NZ is currently 11th in OECD for fibre access




(Source: iDate, OECD data)


(Source: Speedtest.net)

| 2017 average peak download speed |
| --- |
| NZ: 70.8Mbps |
| Aus: 55.7Mbps |

(Source: Akamai State of the Internet Connectivity Report, Q1 2017)

Once UFB is complete, New Zealand will be in the top five in the OECD for fibre access

# Rural Broadband Initiative phase two (RBI2) and Mobile Black Spots Fund (MBSF)

Crown Infrastructure Partners

**Broadband in the regions**

- Provide high-speed broadband to the greatest number of eligible end-users in rural broadband regions
- Support the achievement of similar access to high-speed broadband across all regions
- Improve availability of mobile services in as many mobile black spot zones as possible, to support safety on state highways and to enhance visitor experience at key tourist destinations

**Funding**

- $290 million ($180 million from Telecommunications Development Levy, $110 million from UFB returned funds)

**Target**

- RBI2 targeted at rural end-users who can access less than 20 Mbps download speed across all regions *(~91,000 households & businesses identified as being in scope for RBI2*)
- MBSF mobile coverage targeted at areas identified as having 'black spots' (no coverage from any operator)
- State highways and tourist sites in scope

# Rural programmes: RBI2/MBSF partners

Crown Infrastructure Partners

## Rural Connectivity Group

$150m base contract in place – build planning now underway

Rural Connectivity Group

Spark™ 2degrees vodafone

Improved broadband >20 Mbps

- ~74,000 rural remote households/farms
- 400 – 454 new mobile towers

Improved mobile coverage

- 1000 km across 32 state highways
- 108 tourism sites nationally

*$100m committed expansion funding – coverage options being developed*

## Wireless Internet Service Providers (WISPs)

$9m base contracts in place – build and planning now underway

inspire.net — Local > Reliable > Fast > Broadband

PRIMO WIRELESS — CONNECTING TARANAKI

amuri.net

New Zealand Technology Group — Investing in tomorrow

0800 000 945 ultimatebroadband.co.nz

gisborne.net.nz limited — NETWORKING & BROADBAND SERVICES

Unifone

AoNet BROADBAND

wizwireless rural broadband

$8m base contracts in place with 9 WISPs:

- ~7k rural end-users to be covered with RBI2 broadband

*$5m committed expansion funding – CIP in discussions with existing and some additional WISPs*

**Key regional industry focus**

- Tourism
- Agriculture

**Public safety focus**

- Road accidents
- Search & Rescue

# RBI2 contracted coverage

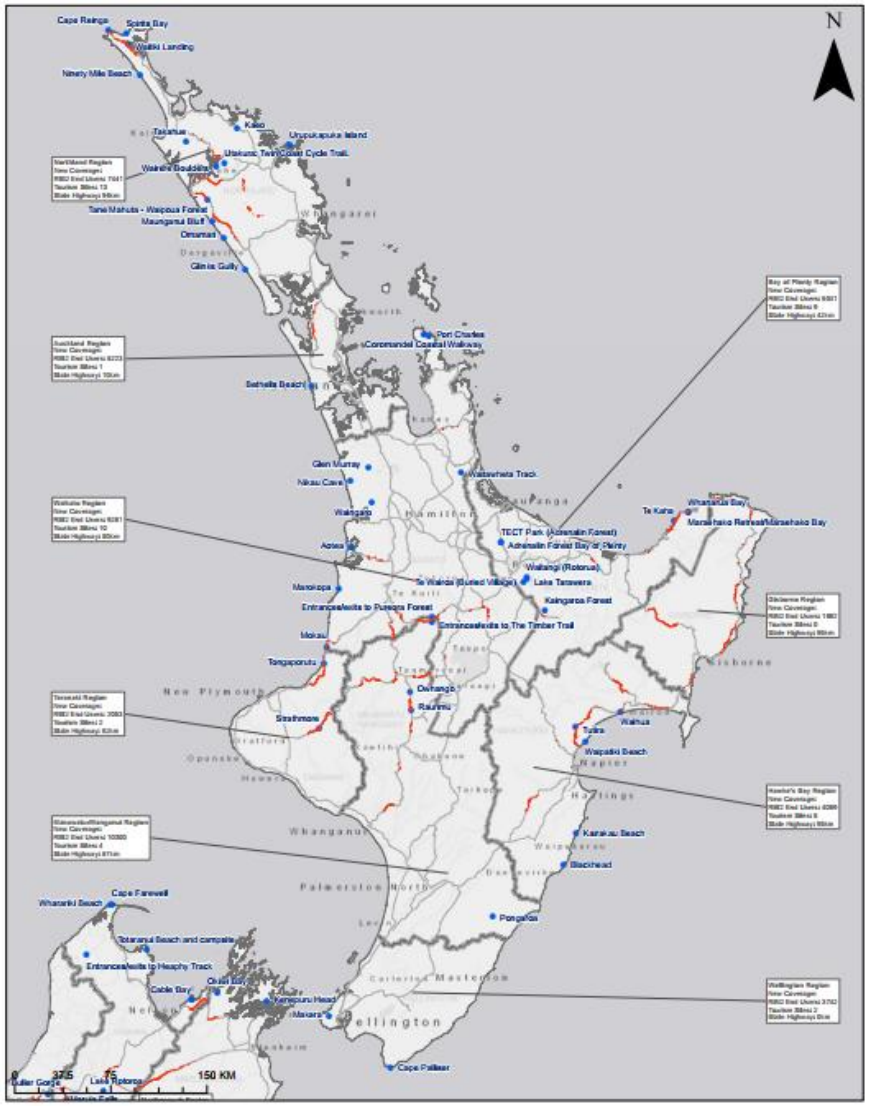
[2]

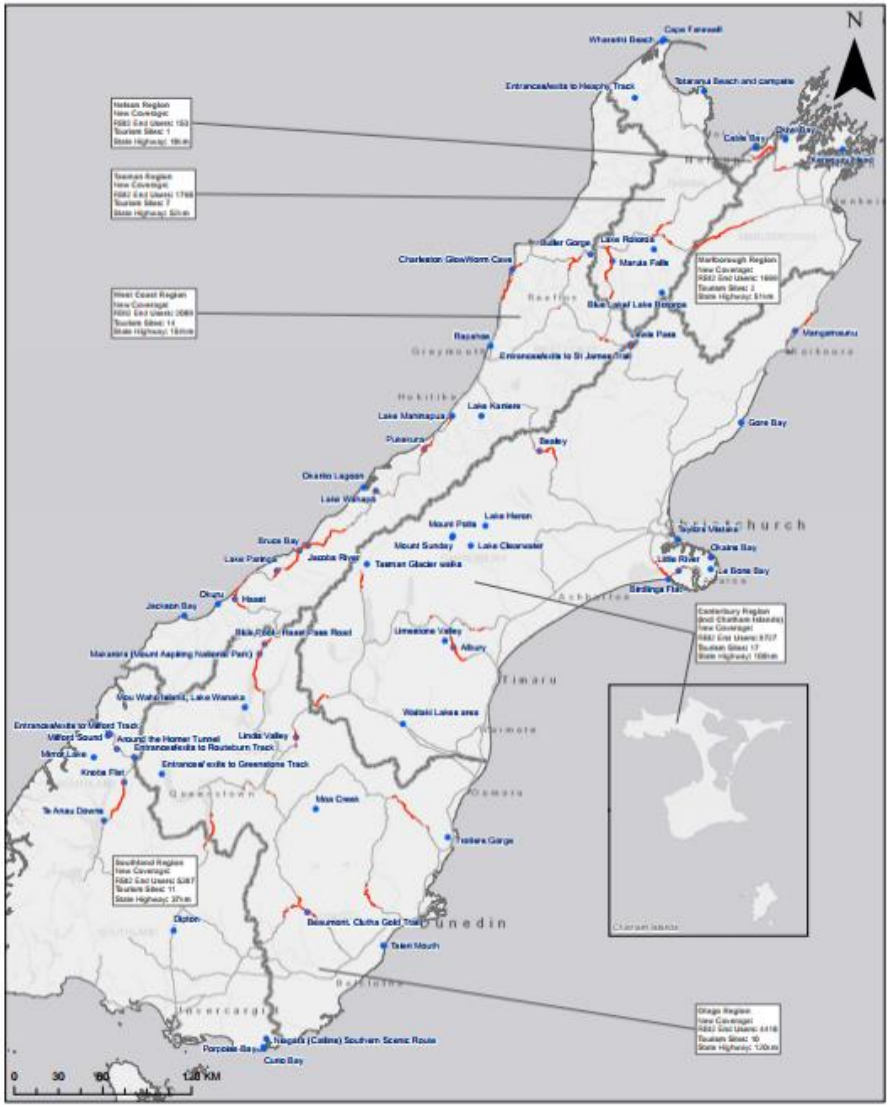
# MBSF contracted coverage

[2]

[2]

# 74,000 end-users to receive RBI2
# MBSF: ~100 tourist sites and ~1,000 km state highways




- We can provide A3 versions of these maps

# Regional investment

- The UFB expansion (regional towns) and RBI2/MBSF programmes will be investing up to **$727 million** including expansions in the regions, with private sector co-investment likely to be an additional **$670 million**
- Total public/private investment in the regions of **~$1.4 billion**
- On average the regional per capita investment is more than twice that of city/metro investment per capita

| Economic development regions | | | | |
|---|---|---|---|---|
| Region | UFB1 Cities/Metros [2] | | UFB+ RBI/MBSF [3] | |
| | Crown Funds $M[1] | $/pop | Crown Funds $M | $/pop |
| Northland | 26.2 | 500 | 61.0 | 905 |
| Bay Of Plenty | 88.9 | 417 | 29.2 | 608 |
| Gisborne | 13.7 | 392 | 4.7 | 610 |
| Hawkes Bay | 48.3 | 395 | 24.6 | 1,078 |
| Horizon | 65.8 | 370 | 54.4 | 881 |
| West Coast | 3.9 | 515 | 23.5 | 1,301 |
| Southland | 23.8 | 492 | 32.1 | 1,536 |
| **Total** | **270.7** | **412** | **229.5** | **931** |

| Other development regions | | | | |
|---|---|---|---|---|
| Region | UFB1 Cities/Metros | | UFB+ RBI/MBSF [3] | |
| | Crown Funds $M | $/pop | Crown Funds $M | $/pop |
| Auckland | 416.7 | 256 | 38.7 | 378 |
| Waikato | 101.2 | 412 | 114.6 | 854 |
| Taranaki [4] | 30.7 | 441 | 11.5 | 409 |
| Wellington | 169.5 | 379 | 22.9 | 849 |
| Tasman | - | - | 22.2 | 1,062 |
| Nelson [5] | 26.4 | 408 | 1.8 | 2,289 |
| Marlborough | 12.5 | 462 | 12.1 | 1,056 |
| Canterbury | 184.5 | 383 | 67.3 | 965 |
| Otago | 62.4 | 433 | 56.2 | 1,058 |
| **Total** | **1,003.9** | **323** | **347.3** | **776** |

[1] Excludes unallocated greenfields
[2] Includes major cities covered in UFB1
[3] Excludes RBI/MBSF expansion of $105 million
[4] Taranaki's Crown funding is lower because Ultra-Fast Fibre is investing without Crown funding
[5] Nelson region is a city-unitary authority with very low rural population

# Stakeholder engagement

Crown Infrastructure Partners

- Our focus has been on developing relationships with regional and rural stakeholders
- We have a range of established relationships in place to support CIP's activities (in addition to key partner, Government and industry relationships)

## Regional and rural relationships

- We have engaged with all Regional Mayoral forums across the country this year to introduce the RBI2/MBSF programme and provide updates on the UFB programme
- Strong relationships with all Mayors and council Chief Executives. Widespread support for broadband and mobile programmes
- Also working relationships with Councils
- Councils engaged and keen to support RBI2/MBSF and UFB in their areas – smaller regional/district Councils more engaged

## Regional stakeholder/peak body groups

- TUANZ
- InternetNZ
- Rural Health Alliance Aotearoa New Zealand
- Rural Women New Zealand
- Federated Farmers
- Rural GPs Network
- Young Farmers New Zealand

## Community stakeholders

- Connect Tararua / Connect Kumeroa
- Wainuiamata Rural Community Association
- Other community groups

# Summary: Outlook for FY2018

Crown Infrastructure Partners

A summary of CIP's key milestones and focuses is below.

These are all subject to discussion with and guidance from Ministers:

**UFB**

- Continuing roll out under the original UFB programme, and ramping up roll out under the UFB expansion. Continued focus on improving UFB connection times and customer satisfaction
- Key metrics by June 2018: uptake 44%, 660,000 connections, 70% population coverage, 1.35 million end-users, 51 towns/cities complete

**RBI2/MBSF**

- Commencing implementation, planning/scheduling for deployment
- WISP deployment well underway
- Mobile deployment second half CY2018
- Working with Councils on any further funding and/or land for towers

**Health and safety**

- Implementing health and safety regimes for RBI2/MBSF, with continued UFB improvement

**Infrastructure**

- Work programme will be established with Ministers following further discussion on policy priorities

# Annex 1 - CIP operating status and appropriations

# CIP operating status

[5]

- CIP received a positive performance review from Auditor General
- Audit NZ has CIP rated as very good (highest measure) in all areas

[5]

# UFB appropriation draws and capital returns

[5]

# Annex 2 – Communications schedule (indicative)

# Communications schedule (indicative)

- The indicative communications schedule below reflects practices in place to this point, but is subject to guidance from incoming Ministers
- For UFB1, we have typically held a city completion event with the Minister attending
- For UFB expansion, the Minister has typically issued a media release for new town starts, and this was proposed for town completions
- For RBI2/MBSF, the communications approach is to be discussed

[2]

# Glossary

# Glossary

| Term | Description |
|---|---|
| Average days to connect | Measures the average days from receipt of the order from the RSP by the UFB Partner to the date of installation. |
| Brownfields | Existing houses and business premises. |
| Central Office | The equivalent of a telephone exchange in the fibre world. |
| Connections (gross and net) | Gross connections are all new connections installed each month. Net connections equals gross connections minus disconnections minus fibre migrations plus/minus any restatements. |
| Day 1 losses | Accounting loss on day 1 when UFB investments are made reflecting the interest free nature of the investments (i.e. the loss represents the interest foregone). |
| End users | The recipient of a service that can connect to the network as defined under the Telco Act and WSA i.e. a single dwelling/household or business or branch of a business. For the avoidance of doubt a household is a single end user despite having a number of family members using the service. |
| End users able to connect to UFB | Individual residences, businesses, health and education which could connect to the UFB now and receive service. For areas to be available to the market UFB build needs to be complete & retail service providers need to be offering service. |
| Ethernet | Local area network technology that enables a broadband connection over a local network. |
| Greenfields | New subdivisions or infill housing. |
| Install Satisfaction | Measures satisfaction by end customer of the complete installation process. |
| Mbps | Megabit per second, or data transfer equivalent to 1,000 kilobits per/sec. |
| ONT | Optical Network Terminal, which connects the fibre-optic cable to the end-user's router (broadly equivalent to a modem). |
| Project To Date (PTD) | Cumulative total of current month and all previous month's performance for a given metric for the UFB Project. |
| Premise | A premise represents a single building structure (i.e. house, block of apartments, school, business complex etc). It is a payment point defined under contract and measured using APD (agreed premise database) where agreed or Network Deployment Plan. |

# Glossary

| Term | Description |
|---|---|
| Premises handed over | Premises that have passed contractor testing by partner and have been handed to CIP for UAT testing. A more auditable measure than UFB premises passed. |
| Premises completed | Premises that have passed CIP UAT testing and UAT certificates have been issued. The most complete measure of build completion. |
| Priority users | Businesses, schools and hospitals. |
| RBI2/MBSF | Rural Broadband Initiative Expansion and Mobile Black Spots Fund. |
| UFB connections | Number of end users that have connected to UFB service. There can be multiple end users per premise. NB: UFB connections exclude E-NNI connections which allow RSPs to connect their network to UFB, as these do not correspond to end users. |
| UFB Orders | Orders by RSPs for new connections to UFB (excludes change orders). |
| UFB Partners | Chorus, Enable, Ultra-Fast Fibre, Northpower. |
| Uptake | UFB connected end users divided by end users able to connect. |
| WISPs | Wireless Internet Service Providers participating in RBI2. |