



**NEW ZEALAND INSTITUTE FOR THE STUDY  
OF COMPETITION AND REGULATION**

# **TELECOMMUNICATIONS IN NZ: Regulating for Infrastructure Competition Reality BACKGROUND**

Bronwyn Howell,  
General Manager  
July 12 2013

#### **CORPORATE MEMBERS**

Contact Energy  
Fonterra Co-Operative Dairy  
Group  
Meridian Energy  
Powerco  
Telecom Corporation of New  
Zealand Ltd  
Victoria University of Wellington  
Westpac Institutional Bank

# WHY ARE WE HERE?

## A serious regulatory problem

- copper network regulatory processes jeopardise UFB network operator financial viability and government policy objectives
- government is investor, legislator and regulator
  - can change the ‘rules of the game’ at any time
  - ‘unpredictable’ (compared to commercial competitors)
  - jeopardises industry stability

## Hence a Regulatory Review



## JUST LIKE IN

2000-2001	Ministerial Inquiry leads to new Act
2003-4	LLU/Bitstream inquiry
2005-6	'Industry Stocktake'
2004-7	Mobile termination inquiry
2007	Functional separation
2009	TSO review
2010	Ultra-fast Broadband
2011	Structural separation
2012-13	Current impasse????



# IS THE REGIME PART OF THE PROBLEM?

## Contrasts with

- 1987 Act
  - only one significant review (1996)
  - no substantive changes
- international experience
  - e.g. Europe, USA



# SOME OBSERVATIONS

NZ regulator one of the least independent of the 150+ ITU countries with industry-specific regulatory offices

- only a handful (including NZ) require ministerial approval and/or legislative action for major recommendations to proceed

NZ Act is highly prescriptive

- names specific firms, networks and ‘products’ to be regulated
  - addresses copper networks only (w.r.t. broadband)
  - contrasts with fostering competition in specific markets (EU)
- specifies exact remedies and methodologies to be applied
- even minor changes require legislation



# PATH-DEPENDENT LEGACY

2001 Act arose from the perceived 'failure' of light-handed regulation

Assumes as a starting point

- a single firm with an extant dominant position
- enduring dominance unable to be ameliorated by infrastructure competition in the foreseeable future
  - the primary theoretical assumptions underpinning access regulation, structural separation

Subsequent changes build upon these core assumptions

- no clear path to deregulation
- fibre regulated as if it too is already enduringly dominant



# LEADS DIRECTLY TO THE 'PROBLEMS'

Repeated political intervention 'hard-wired' into the regulatory institutions

Underpinning assumptions invalidated by

- the UFB investment (real infrastructure competition)
- technological change

Technological uncertainty

- increases likelihood of problems (and hence political intervention) arising in the first place



# LOOKING FOR A WAY FORWARD

There are some things we can't change

- technological uncertainty
- the reality of infrastructure competition
- the government's intervention as investor (subsidiser) of the UFB

But we can change some of the regulatory settings

- to better cope with the current reality
- so that they that look forward and take account of future changes (that can be anticipated with reasonable certainty)





# THE CURRENT REALITY

A highly complex, technologically volatile industry

- constant technological change
- multiple operators, networks
  - genuine infrastructure competition is here already
  - albeit that fibre subsidies invalidate normal competitive assumptions
- extremely heterogeneous consumers
  - multiple applications driving demand
  - purchase internet connections, not technologies
  - for many the current network options are effective substitutes

A highly conflicted government investor/legislator

- cannot be assumed to act in the same manner as a commercial investor



# LOOKING FOR GUIDANCE

There is nowhere else like NZ (in the OECD, at least)

- politicisation of the regulatory process
- structural separation, access regulation mandated in both legacy and frontier fixed line technologies
- government subsidy of FTTH by way of public-private partnership
- the TSO (retail price cap and geographic averaging in face of emerging infrastructure competition)

But we might get some insights from

- Europe (transition to technology- and owner-neutral infrastructure competition)
- Australia (government funding)



# THE QUESTIONS

1. *Is the current framework sustainable?*

Insights from Europe (Justus Haucap)

NZ Comments (Reg Hammond)

2. *How to deal with the conflicts of government as investor regulator and legislator*

Insights from Australia (Rob Nicholls)

3. *How to think about the TSO in light of these issues?*

Insights from multiple perspectives on an uniquely NZ problem (Hayden Glass)

Comments (Chris Abbott)



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# THE OUTCOME FROM TODAY

## *Ideal*

Real, workable solutions to the current problems

## *Achievable*

Open thinking and discussion to inform

- the review processes
- submissions



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# **Is the Current New Zealand Regulatory Framework Sustainable? A European Perspective**

**Justus Haucap**

**NZISCR Workshop  
Wellington, 12 July 2013**

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**Düsseldorf Institute  
for Competition Economics**

Heinrich Heine University of Düsseldorf

# Regulation of Electronic Communications in Europe (EU)

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## How Regulation Works in the EU:

NRAs must ensure that electronic communications markets are competitive. For that purpose, NRAs must follow a **3-step-procedure**:

- (1) define the boundaries of the **relevant markets** (step 1) and
- (2) assess whether one or more market players are dominant on them, i.e. have **significant market power (SMP)** (step 2)).
- (3) If operators are found to have SMP, appropriate regulatory **remedies** must be proposed to ensure effective competition (step 3).

NRAs inform the European Commission and other NRAs within the EU of their findings and proposed measures.

# Regulation of Electronic Communications in Europe (EU)

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## Market Definition (I):

NRA's are expected to analyse seven markets (one retail, six wholesale) where competition is potentially not yet effective. These markets have been specified in the Recommendation on Relevant Markets ([IP/07/1678](#)):

- Access to the fixed telephone network (i.e., retail)
- Call origination on the fixed telephone networks
- Call termination on individual fixed telephone networks
- Wholesale access to the local loop
- Wholesale broadband access
- Wholesale terminating segments of leased lines
- Voice call termination on individual mobile networks

If a NRA notices consistent market failure in another market, it may regulate it, but has to justify its decision.

# Regulation of Electronic Communications in Europe (EU)

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## **Significant Market Power:**

Generally regulatory measures can be imposed only if the markets analysed are not effectively competitive. This is the case when a NRA finds that an operator has significant market power (SMP) and thus decides to impose appropriate remedies.

The notion of SMP is equivalent to the competition law concept of “dominance”, as defined in the case law of the Court of Justice of the European Union.



# Regulation of Electronic Communications in Europe (EU)

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## National versus Regional Markets:

The geographic market delineation may be regional or national.

NRAs in the UK, Portugal and Finland have defined regional markets.

In Germany and Austria, NRAs have (so far) only defined national markets, but remedies are contingent on the level of competition in a given region.

## Additional Features

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- 1) NRAs are, by and large, independent from the political process (i.e., no ministerial override or veto).
- 2) Specific guidelines on state aid for broadband (as of 19 December 2012), with the following principles:
  - **Technological neutrality:** the new guidelines take into account technological advances, acknowledging that super-fast (Next Generation Access) networks can be based on different technological platforms.
  - **Ultra-fast broadband networks:** to help achieve the Digital Agenda objective of delivering very fast connections (of more than 100 Mbps) to half of European households by 2020, the revised guidelines will allow public funding also in urban areas but subject to very strict conditions to ensure a pro-competitive outcome.
  - **Step change to connectivity:** to protect private investors, the guidelines require that any public investment must fulfill a so-called "step change": publicly financed infrastructure can only be allowed if it provides a substantial improvement over existing networks and not only a marginal improvement in citizens' connectivity.
  - **Reinforcement of open access:** when a network is realised with taxpayers' money, it is fair that the consumers benefit from a truly open network where competition is ensured.
  - **Transparency:** new provisions regarding the publication of documents, a centralised data base for existing infrastructure and ex post reporting obligations to the Commission have been introduced.

# Thank you for your attention!

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Twitter: @haucap

# The Australian National Broadband Network: Politics and regulation

Rob Nicholls

# Matters to be covered

- Key message
- Overview of Australia - both parties
- The regulatory steps taken
- The problems
- How Australia addressed the conflicts of government as investor regulator and legislator
- Key message again!

# Key message

- The capex is high and construction risk is a problem - do not create settings that will discourage investment and risk taking
- There are no "cookie cutter" solutions
- Although the principles of access regulation apply, there should be no expectations that every copper service will have an analog and not everything can be unbundled - let's learn to live with it

# Australia overview

- Telstra supplies exchange building space (colo) and duct access on a lease basis
- Telstra supplies the transit network on a services basis (including dark fibre)
- Telstra supplies lead-in conduits on a property transfer basis
- NBN pays Telstra on the basis of premises disconnected

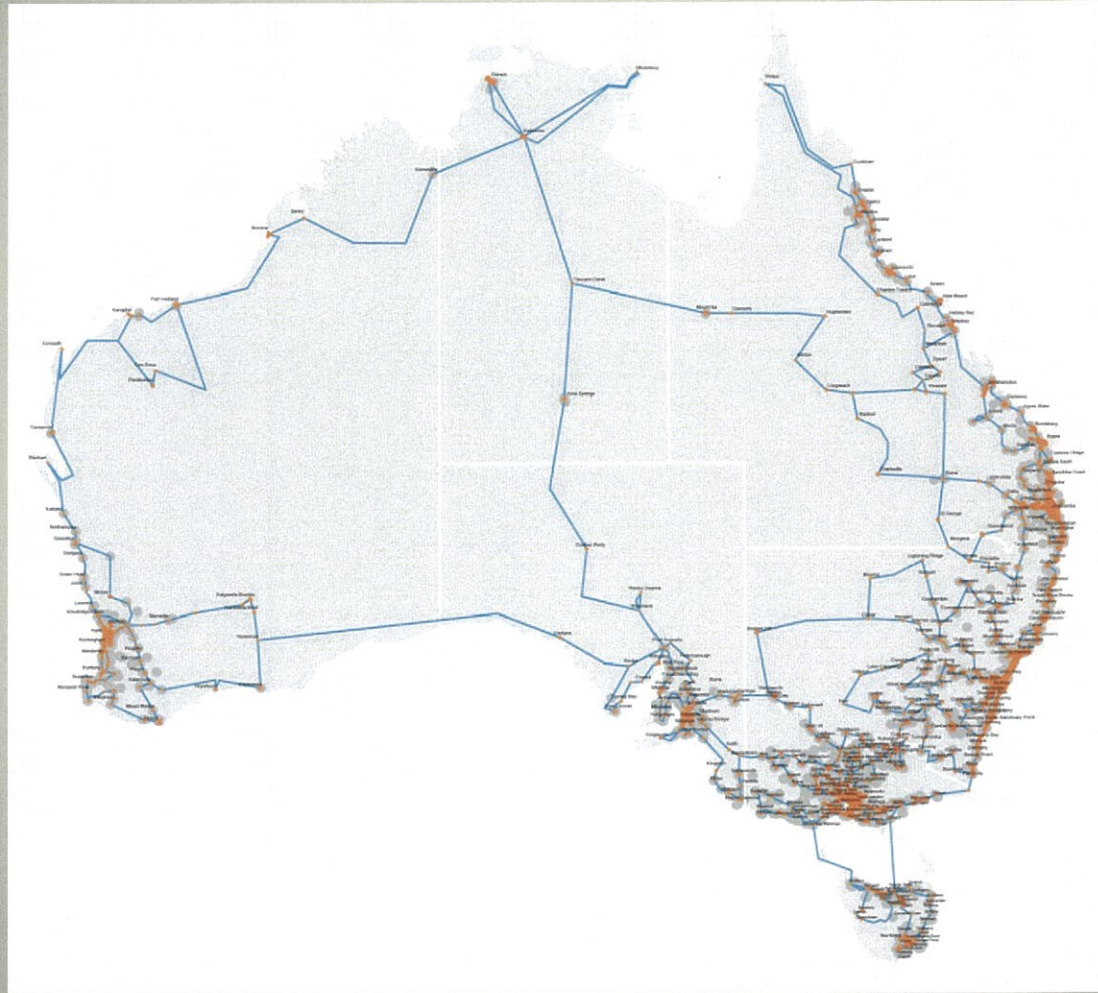
# The Australian National Broadband Network

## The Government's Policy

- Delivery of Broadband to 100% of Australian Premises (FTTP/FTTH)
  - Fibre optical cable to 93% of premises (100 Mbps down/ and an implied 40 Mbps Up)
  - Fixed wireless to approximately 4% of premises (25 Mbps down/5 Mbps up)
  - Satellite to approximately 3% of premises (25 Mbps down/5 Mbps up)
- By Government owned company (NBN Co) (until at least 8 years after network up and running) – NBN Co assumes construction risk
- Transition over ten years as fibre/other infrastructure installed and Telstra 'copper' decommissioned in fibre areas
- Telstra continues to provide copper services in wireless and satellite area



# NBN Coverage Map



# The National Broadband Network

- NBN as provider of the fixed access network
- Disincentives on non-NBN providers providing a local access line that delivers a 'superfast carriage service' to residential or small business customers if an NBN line is not there (including HFC cable) by price regulation
- NBN must be a wholesale only open access provider and offers a uniform national wholesale price
- Are very limited grounds on which NBN may discriminate against an access seeker
- Its access agreements must be publicly available

# The Australian National Broadband Network

## The Coalition's policy

FTTN (for fixed line service) – except

- greenfields (unless not commercially viable)
- areas where high maintenance costs or the condition of the copper renders FTTN unattractive/FTTP as the best alternative

Speeds for fixed line 'footprint' (90% of Aust population):

- By 2016: 100% Oz have access to download data rates 25 – 100 Mbps
- By 2019: between 50 and 100 Mbps download
- Upstream bit rates not specified

Pricing:

- uniform national wholesale prices in an NBN Co undertaking will become uniform national wholesale price caps for directly comparable products.

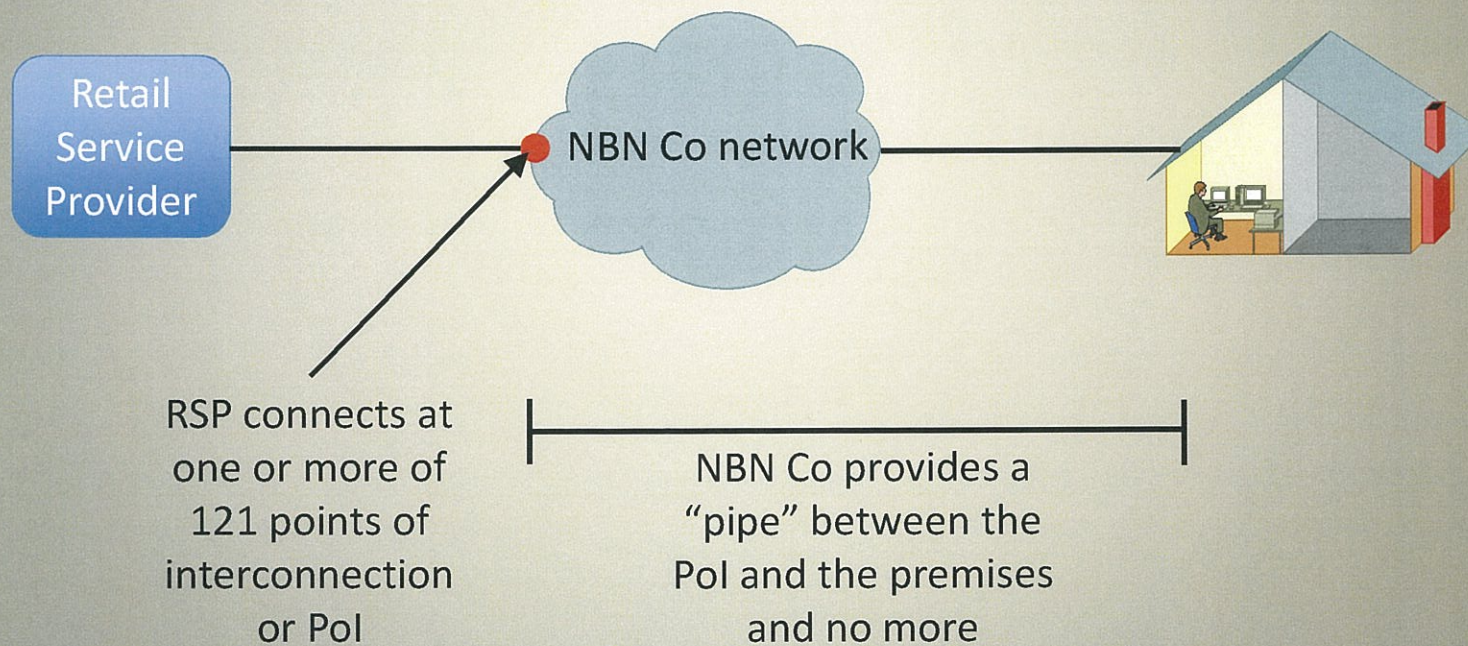
# The Australian National Broadband Network

## The Coalition's policy – Competition

- NBN as a national wholesale-only layer-2 bitstream access network available to all access seekers on transparent, non-discriminatory terms
- Where the NBN is rolled out using FTTN, existing communications services at a given node will cut over to NBN Co control on the same date.
- Completion of the NBN will implement the structural separation of Telstra.
- Remove or waive impediments to infrastructure competition (*in local loop*) introduced to provide a monopoly to labor's NBN

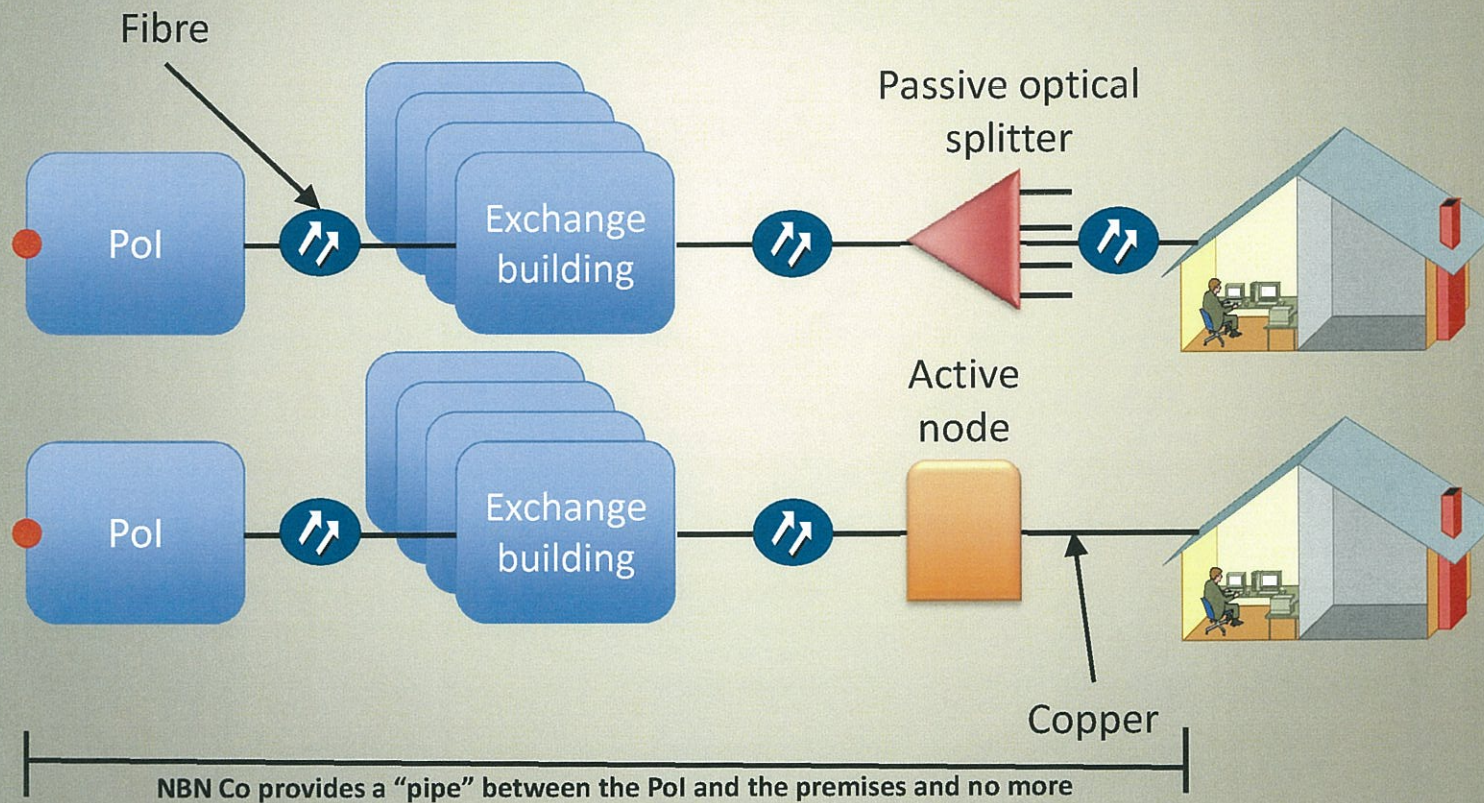
# The Australian National Broadband Network

- No change in overall architecture



# The Australian National Broadband Network

- Change in local architecture



# CCA – Part XIC

## Telecommunications Access Regime

Eligible services can be declared

If an eligible service is declared, standard access obligations apply

Terms on which the standard access obligations are complied with are subject to agreement

If agreement cannot be reached, terms are those set out in access undertakings, binding rules of conduct, access determinations and/or SFAAs

# Part XIC: The Access Regime

- Declaration – Objects of Part XIC: LTIE
- Standard Access Obligations (SAO)
- Exemptions
- Access undertakings
- Binding rules of conduct
- Access determinations



# CCA – Part XIC

## Telecommunications Access Regime

Access Agreement

Special Access Undertaking

Binding Rules of Conduct

Access Determination

Standard Form Access  
Agreement

# Functional/Structural Separation

- Under CCS Act, Telstra could:
- Functionally Separate
  - Separation of Telstra's wholesale/retail units
  - Undertaking to divest interest in HFC Cable/FOXTEL (each/both can be exempted by Minister)
  - Minister can limit allocation of spectrum licence
- OR
- Structurally Separate
  - Undertaking will not supply fixed line carriage service/control of company that supplies fixed line services to retail customers using telecommunications network by 1 July 2018.

# Structural Separation

- Telstra will not supply fixed line carriage services (or in a position to control) company that supplies) using a telecommunications network over which Telstra is in a position to exercise control.
- Taking into account:
  - Matter relating to transparency and equivalence in relation to the supply by Telstra of regulated services to Telstra wholesale customers and Telstra retail business units

# Regulatory steps taken

- Structural Separation Undertaking from Telstra that is actually a Behavioural Undertaking
- Special Access Undertaking from NBN Co - this and the Wholesale Broadband Agreement look like a RIO
- The SSU changed the wholesale game - rate card plus audit, equivalence of output (outcomes) with quarterly reporting for legacy services and DR process
- Migration Plan accepted by ACCC but "Required Measures" still in process

# THE PROBLEMS

# CONFLICTS

# Key message

- The capex is high and construction risk is a problem - do not create settings that will discourage investment and risk taking
- There are no "cookie cutter" solutions
- Although the principles of access regulation apply, there should be no expectations that every copper service will have an analog and not everything can be unbundled - let's learn to live with it

# The Australian National Broadband Network: Politics and regulation

Rob Nicholls





# Improving New Zealand's TSO arrangements

Presentation for ISCR Conference

July 12, 2013

# Outline

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- Background
- What is the problem we are solving
- Elements of the TSO
- Changes that should be reflected in the TSO design
- How big is our problem now
- What should we do about it

## Background

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- Background in law, commercial strategy and public policy, especially in telecommunications
- Consulting economist with Sapere Research Group
- Some interesting things:
  - Use of internet to drive economic performance (especially for periphery countries)
  - Uptake of fibre in developed markets
  - Telecommunications policy in emerging economies
  - Connectivity for rural and remote customers

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“

[New Zealand] is a laboratory in which political and social experiments are every day made for the information and instruction of the older countries of the world.

“

Asquith, 1<sup>st</sup> Earl of Oxford

1900

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How do we ensure **high-quality basic telecommunications services** continue to be **supplied in uneconomic areas** at an **affordable price**

# Elements of the TSO

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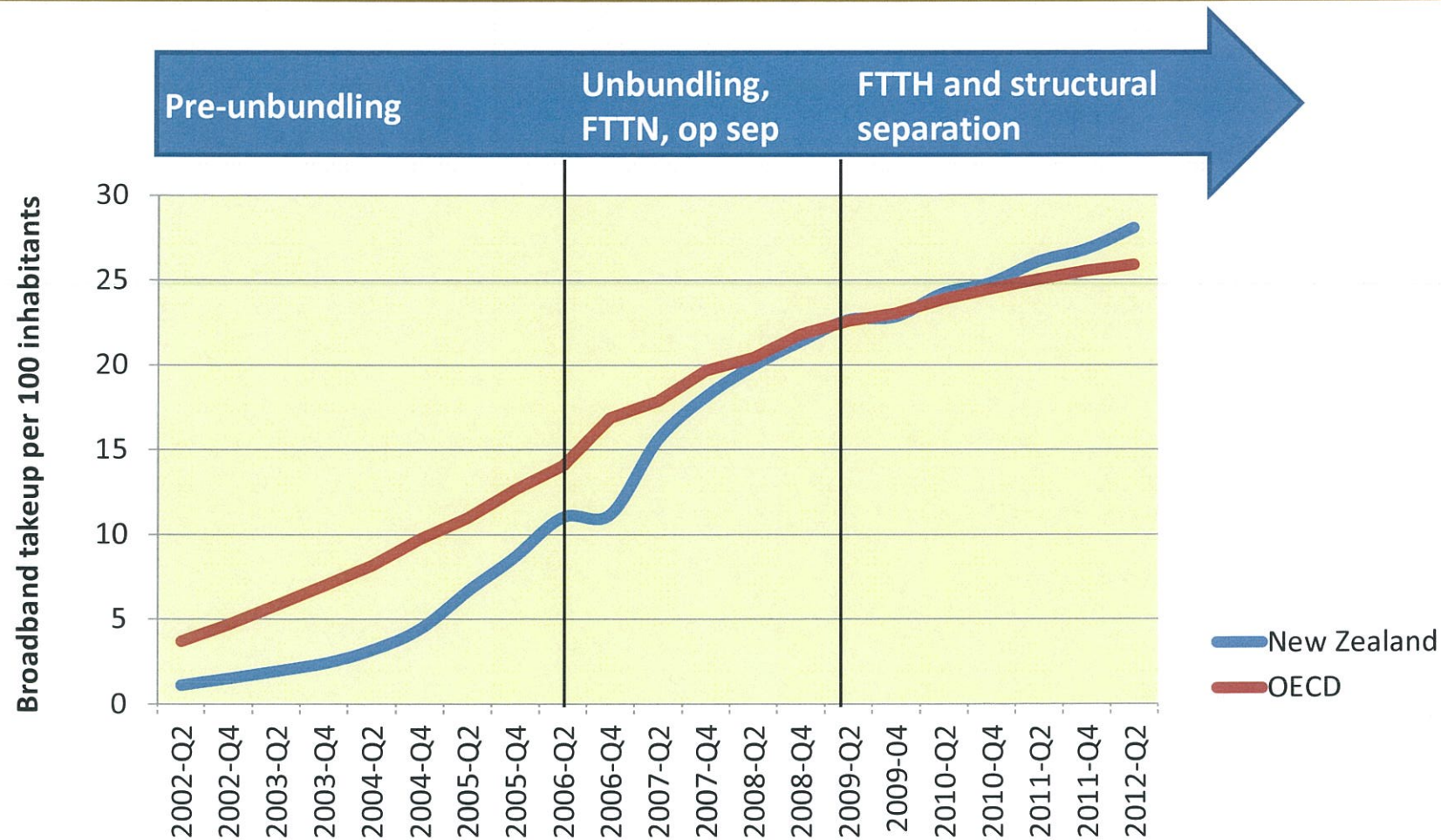
- Basic services
  - Voice service
  - Free local voice calling
  - Free local fax and dial-up calling
  - Directory listing
  - Directory assistance
  - Emergency calls
  - Slow dial-up internet
- High-quality
  - Quality measures
- Supply in uneconomic areas
  - Coverage requirements
- Affordable
  - Price cap

## Changes that should be reflected in the design

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- Customer
  - More and more mobile
  - Way more internet
- Technology
  - Mobile and satellite coverage, price, quality and ubiquity
- Competition
  - More competition across the board
  - More suppliers, more options, lower prices
  - Except local access
- Government
  - UFB and RBI
  - Structural separation

## Customer: Move to mobile and the internet



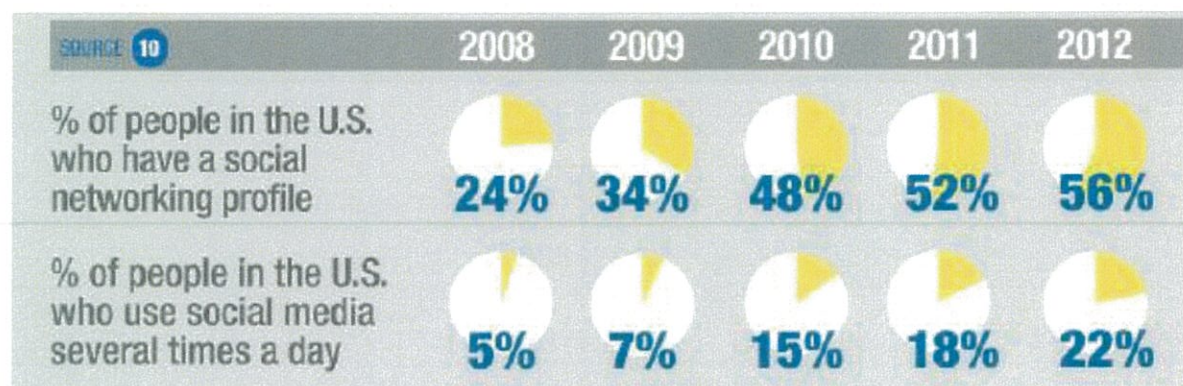
Sources: OECD, Sapere analysis



# Customer: Move to mobile and the internet

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## US participation in social media



Source: Mashable

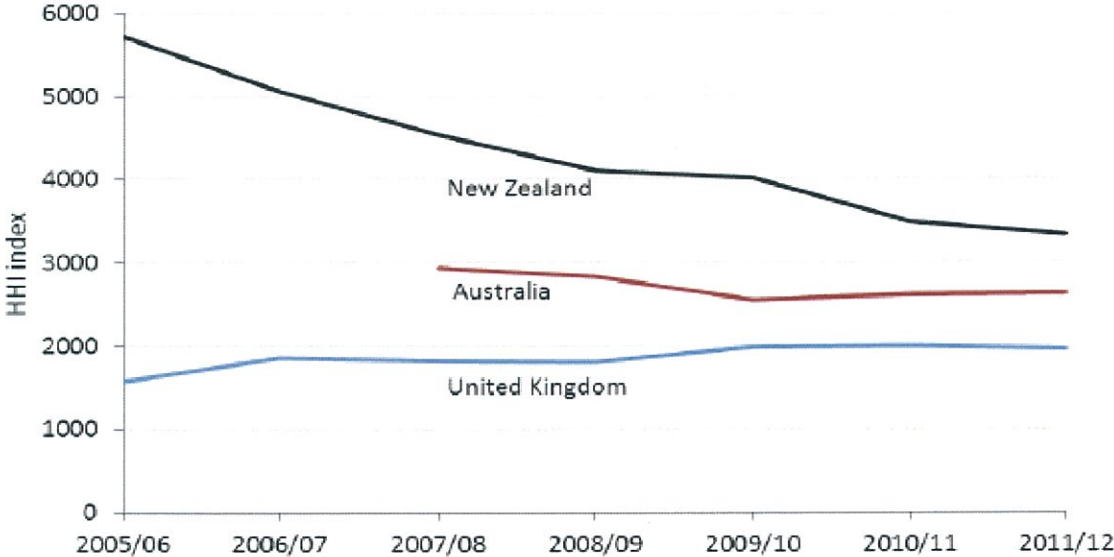
# Technology: Mobile and satellite improvements

Mobile and satellite	Fixed-line					
<h3>Broadband Regular</h3> <table border="1"><tr><td><b>\$49.95</b> a month</td><td><b>2GB</b> of data</td><td><b>Vodem Stick</b> \$29</td></tr></table> <p>Sign up for <input checked="" type="radio"/> 12 months <input type="radio"/> 24 months <input type="radio"/> Oper</p>	<b>\$49.95</b> a month	<b>2GB</b> of data	<b>Vodem Stick</b> \$29	<p>CHOOSE A PLAN —</p> <table border="1"><tr><td><b>30GB+</b> Unlimited National Landline Calls* <b>\$75/mth</b> <a href="#">VIEW PLAN &gt;</a></td><td><b>60GB+</b> Unlimited National Landline Calls* <b>\$89/mth</b> <a href="#">VIEW PLAN &gt;</a></td></tr></table> <p>*1hour per call. 12 month contract with \$199 early termination fee.</p>	<b>30GB+</b> Unlimited National Landline Calls* <b>\$75/mth</b> <a href="#">VIEW PLAN &gt;</a>	<b>60GB+</b> Unlimited National Landline Calls* <b>\$89/mth</b> <a href="#">VIEW PLAN &gt;</a>
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<h3>Satellite Plans</h3> <table border="1"><thead><tr><th>Lite</th><th>Regular</th></tr></thead><tbody><tr><td><b>\$49/month</b> +GST 1GB data cap 1Mbps download speed 512Kbps upload speed <a href="#">Contact Us</a></td><td><b>\$79/month</b> +GST 2GB data cap 2Mbps download speed 1Mbps upload speed <a href="#">Contact Us</a></td></tr></tbody></table>	Lite	Regular	<b>\$49/month</b> +GST 1GB data cap 1Mbps download speed 512Kbps upload speed <a href="#">Contact Us</a>	<b>\$79/month</b> +GST 2GB data cap 2Mbps download speed 1Mbps upload speed <a href="#">Contact Us</a>		
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Sources: Farmside, Vodafone, Orcon

# Competition: More, most places

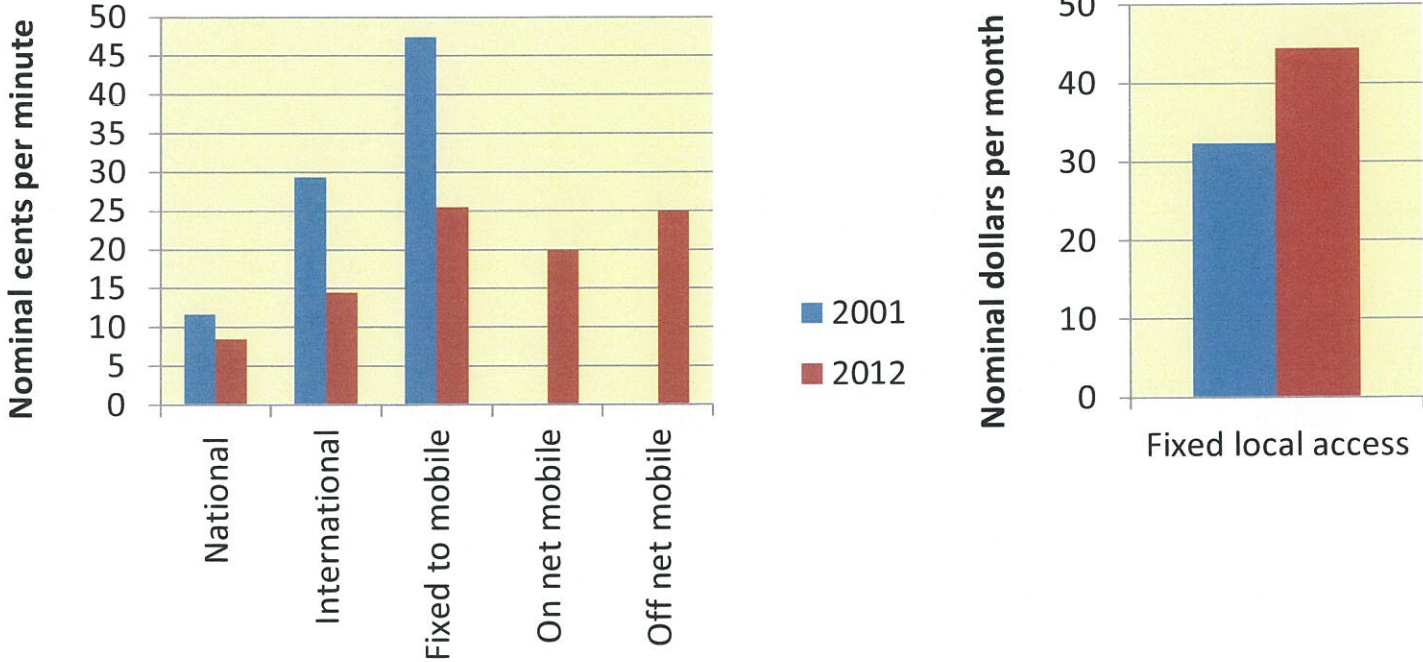
## HHI for retail fixed broadband services



Source: Commerce Commission

# Competition: Local access less good

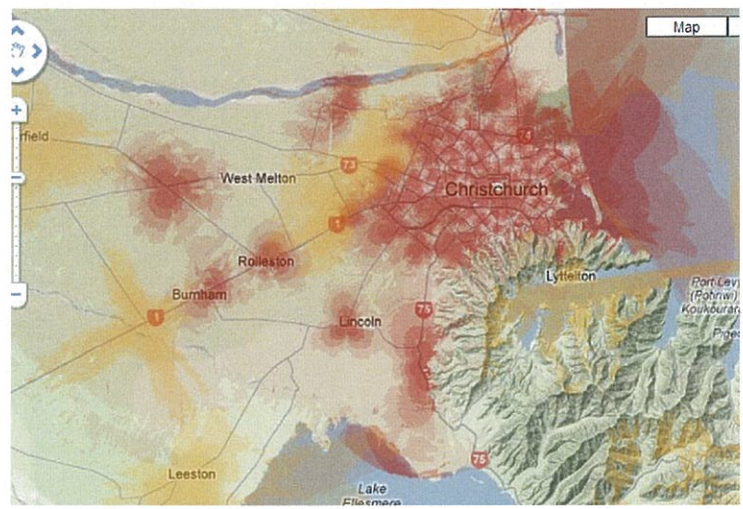
Prices for calling and fixed local access



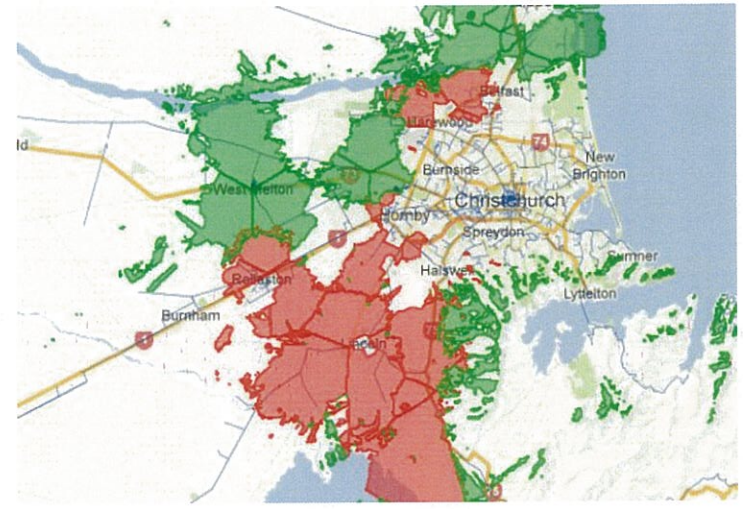
Sources: Telecom, MED, Commerce Commission

# Government: Rural Broadband Initiative

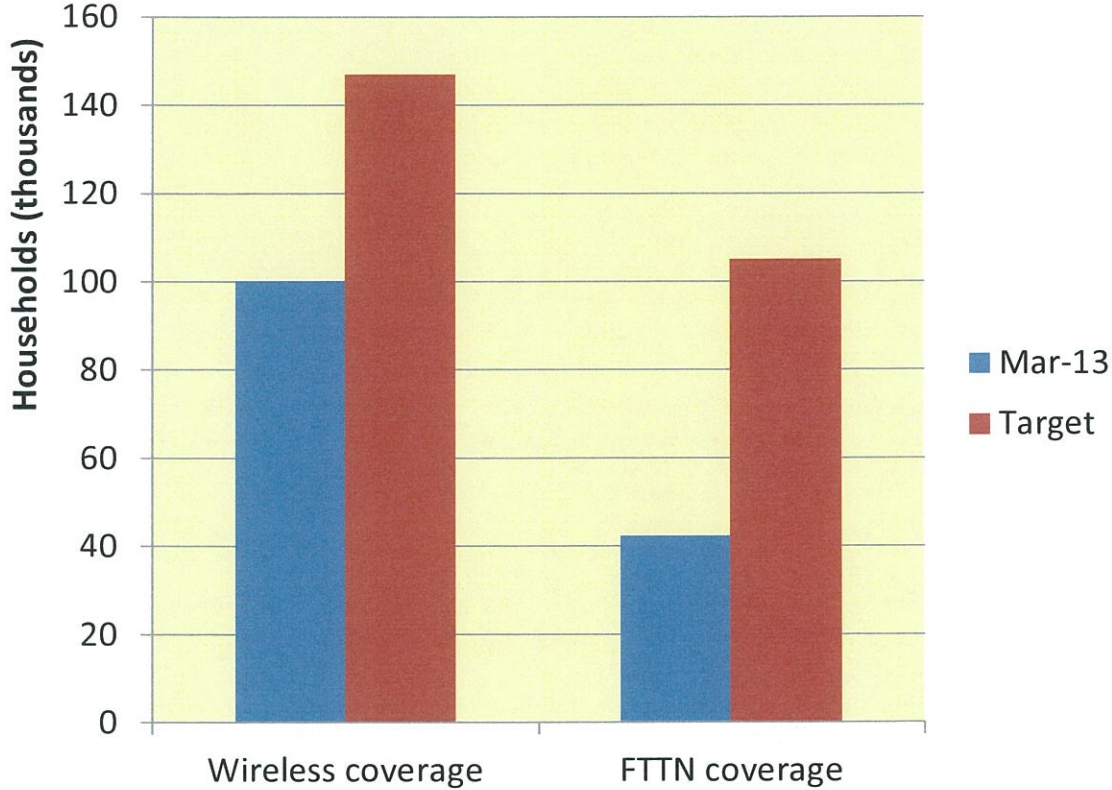
Current coverage



RBI coverage



# Government: Rural Broadband progress



## How big is the problem now

### Basic services

- The internet has changed the definition of “basic telecommunications services”
- Dial-up, fax and phone directories are on the way out

### Uneconomic areas

- RBI and UFB cover most households
- Leaves 41k households (2.2%)
- Plus any households that have never been connected
- Remember they are not contiguous

### Affordable price

- Ubiquitous affordable voice service is solved by mobile
- RBI and UFB set wholesale prices for broadband
- Query competitiveness of retail fixed local access

## What should we do about it

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- Update TSO service definition
- Scale back TSO service requirement to areas outside RBI and UFB coverage, i.e., the 2.2%
- Consider options for getting broadband to all
- Look more carefully at local access pricing
  
- This is not an urgent problem
- Quality information on locations and services is the first step



## Contact details

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If you are interested in how peripheral economics can take advantage of the internet

<http://themoxiesessions.co.nz>

@moxiesessions

# Measuring Up

Does the TSO meet best practice principles for regulatory design and implementation?



Chris Abbott, Vodafone

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# Principle One: Growth Supporting

Economic objectives are given an appropriate weighting relative to other specific objectives



## Principle Two: Proportional

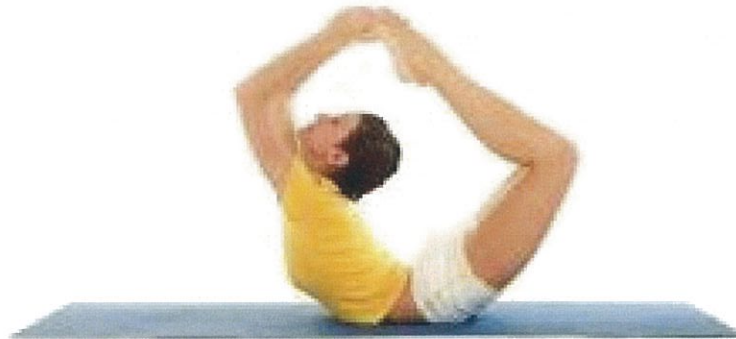
The burden of rules and their enforcement should be proportionate to the problem being addressed, and the benefits that are expected to result



## Principle Three: Flexible and durable

Regulated entities should have scope to adopt least-cost and innovative approaches to meeting legal obligations

The regulatory system has the capacity to evolve to respond to changing circumstances



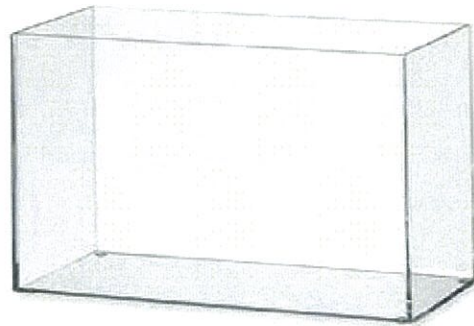
## Principle Four: Certain and Predictable

Regulated entities have certainty as to their legal obligations, and the regulatory regime provides predictability over time



# Principle Five: Transparent and Accountable

Rules-development, implementation and enforcement should be transparent



## Principle Six: Capable Regulators

The regulator has the people and systems necessary to operate an efficient and effective regulatory regime.

