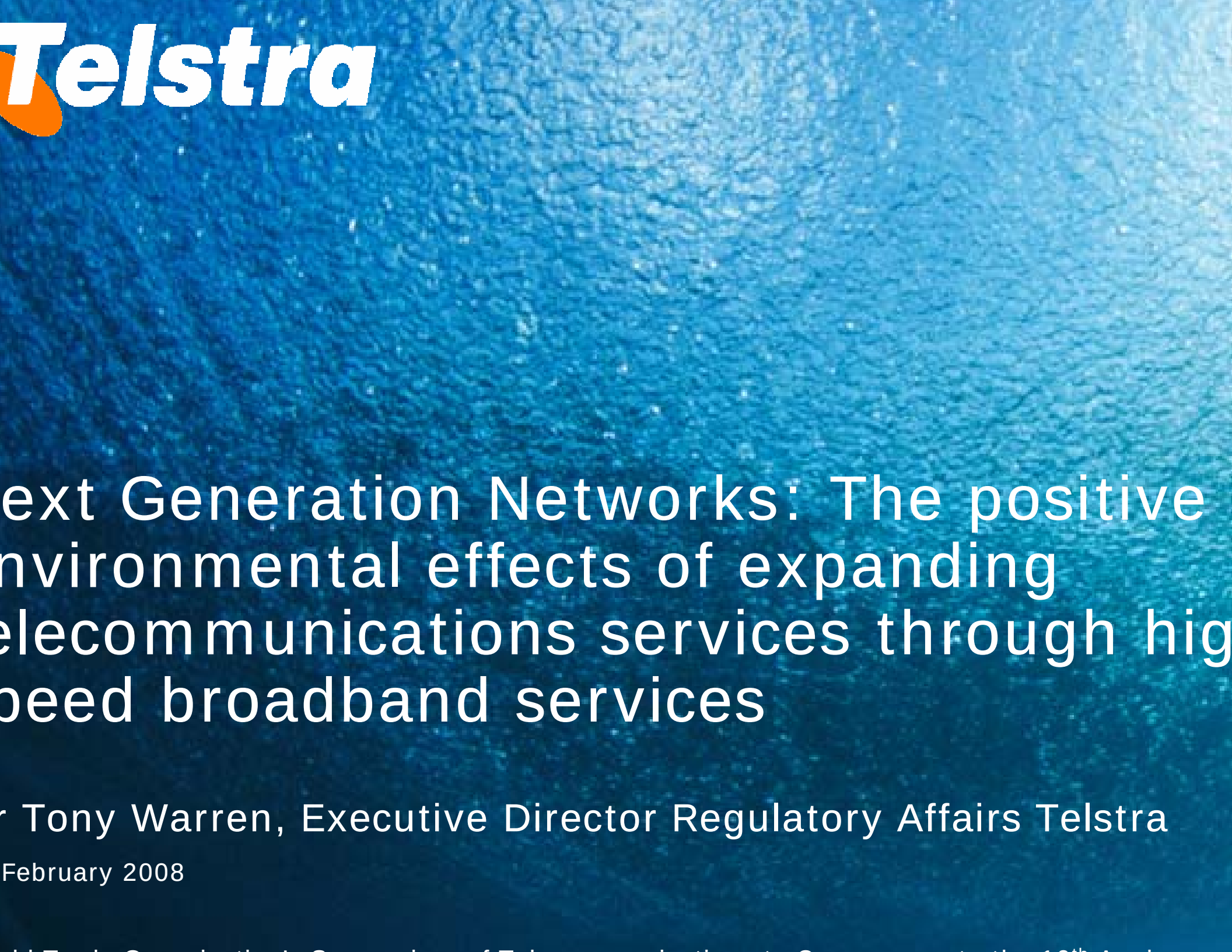


ext Generation Networks: The positive nvironmental effects of expanding elecommunications services through hig peed broadband services

r Tony Warren, Executive Director Regulatory Affairs Telstra

February 2008

Overview

Telecommunications liberalisation lack of progress in some markets

Telecommunications industry can enable the reduct of carbon emissions

Next wave of telecommunications liberalisation

Lack of telecommunications liberalisation progress

Liberalisation issues

1. Countries make promises to the WTO but fail to deliver

2. Countries make modest commitments

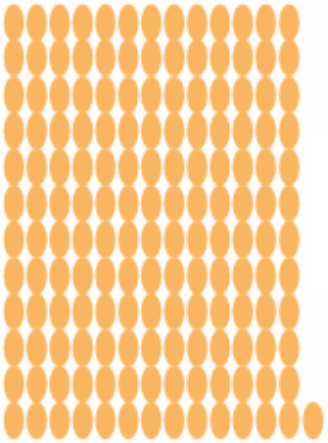
Competition is alive and well

1992

2 carriers

3 mobile operators

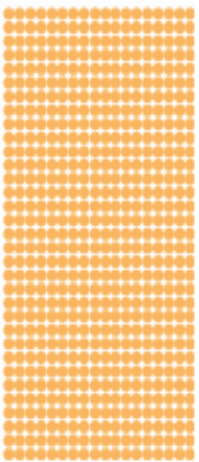
2006



157 carriers

4 mobile operators

23 mobile resellers



467 Internet Service Providers

Climate change opportunities using telecommunications

The telecommunications industry can...

Reduce Australia's total greenhouse gas emissions 4.9% by 2015

Generate financial savings for Australian businesse and households by up to A$6.6 billion per year (~ €4 billion)

Remote Appliance Power Management

blem: About 10% of house and office electricity is wa
devices on standby

portunity: Use the home and office networks, and use
ernal networks / intelligence to identify and manage
ndby wastage. Simplify turning standby off

nificance: 1.8 million tonnes CO_2 per year

Presence Based Power

oblem: About 15% of house and office electricity is w
appliances being on, but not being used

portunity: Use networked telemetry to make energy
ow the person. If they are not there, lights,
-conditioning and appliances go off until they return

nificance: 3 million tonnes CO_2 per year

De-centralised Central Business District

oblem: 75% of Australians drive to work, representin
national emissions and growing

portunity: Use networks to enhance teleworking, the
suburban business centres, and regional decentralisa
major business

nificance: 3.1 million tonnes CO_2 per year

Real time freight management

blem: About one-third of all freight kilometres are em

portunity: Use wireless networks to create an integra
ti-modal, multi-provider management system for fre
vehicles

nificance: 2.9 million tonnes CO_2 per year

Personalised public transport

blem: 75% of Australians drive to work representing
national emissions and growing

portunity: Use wireless networks to create an integra
lti-modal, multi-provider management system for pu
nsport... that starts at the front door with a call

nificance: 3.9 million tonnes CO_2 per year

High-definition video conferencing

blem: About half of air travel is for business and a
wing source of emissions

portunity: Provide full speed, full size, high definition
ference facilities that can be as good as an in-person
eting, yet save time, money and carbon

nificance: 6.5 million tonnes CO_2 per year

Photograph courtesy of Cisco Systems

It’s all about NGN investment

Appropriate regulatory settings for underpinning massive investments need for next generation networks still being debated… although light-hand regulation has resulted in investment while heavy-handed regulation has not!

What is common ground is that without liberalisati – without unfettered access to global technology, capital and expertise 3rd generation mobile networ will be difficult and next generation fixed networks will be impossible to put in place


NETWORK
NEXT
NET

Summary

Telecommunications liberalisation is essential for global economic growth and social development

Telecommunications can also make a significant contribution to ameliorating climate change

BUT it will only be with further liberalisation and p investment regulatory settings that the next generation networks necessary to achieve real carbon reductions can realistically be developed


Telstra