

# Connecting Australia

Changing the way we work:  
an economic study into how  
we work, live and connect.





## Introduction

From my background as an engineer, it is clear that anyone in technology – in fact anyone in business – has come to anticipate technological change as part of normal business planning.

Connectivity helps Western Australian wheat growers get their crops to the export ports on time. Connectivity helps a government department deliver services online. Connectivity helps a small Adelaide heavy manufacturing business receive orders and designs from a shipbuilder in France.

The digital backbone of the **nbn**<sup>™</sup> broadband access network is future-proofing Australian businesses by helping them stay connected. We are doing it now to be ready for the changes in the decades to come.

NBN Co's dedicated business team is here to help Australian businesses navigate the next wave of technological change.

Bill Morrow  
Chief Executive Officer  
NBN Co

# A nation in transition

When the Australian Bureau of Statistics (ABS) undertook the 2016 Census, it captured a snapshot of the social and economic impact of the largest nation-building project in Australia's history.

With this comprehensive data, and other data collected from the survey, OECD, and economic modelling, we could now measure how Australia's economy and society had changed in regions connected to the **nbn**<sup>™</sup> access network, and those that were not.

Economics and data analytics advisory firm AlphaBeta was able to measure the "**nbn**<sup>™</sup> effect" by analysing the behaviour of 24 million people and 10 million households.

This research establishes an important statistical baseline to measure the expected impact of Australia's digital transformation over the years and decades ahead.

Over the coming months, we will report further detailed results on the impact of the **nbn**<sup>™</sup> access network on:



Health



Education



Social connection



Industry



# Conducting the research

## Methodology

The fact that some households can now connect to the **nbn**<sup>TM</sup> access network access to the **nbn**<sup>TM</sup> access network, while others are still waiting to be connected, provides a timely opportunity to measure the impact of the **nbn**<sup>TM</sup> access network on people's lives.

AlphaBeta used multiple sources to gather evidence. The analysis draws on data from both the 2016 Census and a bespoke national Ipsos survey.

The census data is population data and represents the whole Australian population.

AlphaBeta and Ipsos ensured that the survey sample comprised a mix of people representative of the true Australian population by placing specific quotas on age, income, gender and geography, as per best practice.

Differences in the demographics of non-**nbn**<sup>TM</sup> connected and **nbn**<sup>TM</sup> connected regions were controlled for, such as income, education levels and regionality.

Census data collected from:



The **nbn**<sup>TM</sup> access network rollout data was used to crossmatch and compare ABS data for regions with a strong **nbn**<sup>TM</sup> presence against areas of low **nbn**<sup>TM</sup> presence.

AlphaBeta compared areas where the **nbn**<sup>TM</sup> access network rollout was more than 90 per cent complete with areas where the rollout was less than 10 per cent.

Using actual **nbn**<sup>TM</sup> rollout data for this study significantly improves the robustness of the results and distinguishes it from other studies.

Economic impact was then estimated using a computable general equilibrium model, allowing AlphaBeta to detect the impact of the **nbn**<sup>TM</sup> access network on how people connect, work and live.

**nbn**<sup>TM</sup> rollout completion data



Areas of economic impact as a result of the **nbn**<sup>TM</sup> access network



# How we work

## Growth in new businesses

2x 

In **nbn™** connected regions, the growth in the number of new businesses has accelerated at more than twice the annual pace of the national average since 2011 and at five times the pace of regions without the **nbn™** access network.

**+1%**  
nbn™ areas

**+0.2%**  
non-nbn™ areas

**+0.4%**  
nationally



Estimated number of new businesses due to the “nbn™ effect”.



New businesses



Self-employed

2021

27,400-79,700

48,600-92,600



2017

1,900-5,400

3,400-6,400



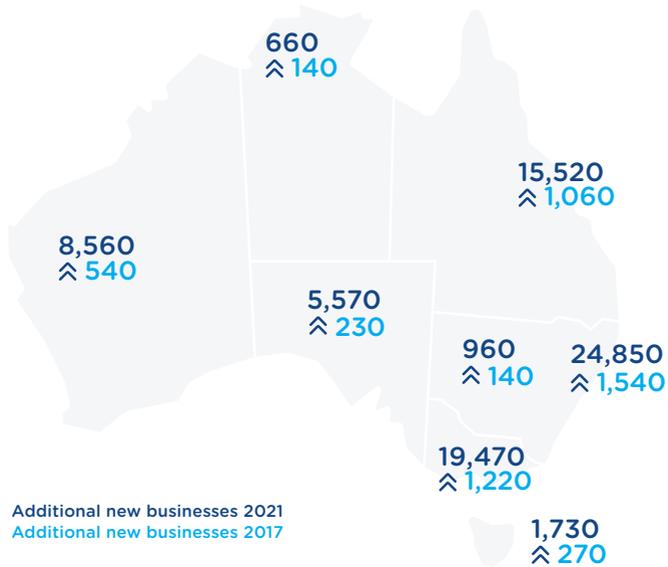
# Business boom

## Growth in new businesses across the country

Australia is in the grip of a nation-wide digital transformation, with the **nbn™** access network set to create up to 80,000 new businesses by 2021.

Regions connected to the **nbn™** access network are taking advantage of technology to start new businesses at twice the rate of the national average.

## Estimated new businesses due to the “nbn™ effect”



## Mackay breaks ‘boom or bust’ cycle

Mackay is one of the fastest-growing areas in Queensland for business despite a downturn in one of its traditional industries - mining.

With the rollout of the **nbn™** access network almost complete in Mackay, the region could counter boom-bust business cycles with the “**nbn™** effect” which is expected to contribute in 2021 to:



Estimated new businesses

700



Estimated new digital jobs

3420



Estimated additional self-employed people

780

Jarryd Townson from Split Spaces is one of the early adopters. He is the founder of a not-for-profit co-working space in Mackay offering local start-ups a flexible office space running over the **nbn™** access network.

This hub offers state-of-the-art facilities for local start-ups to reduce overheads by working flexibly, while providing them with access to video conferencing and collaboration tools to connect them with mentors and advisors around the world.

“To have that connectivity, the security of the internet connection and bandwidth that the **nbn™** access network provides is so important to our customers - it enables small businesses to get on with what they need to do.”

Jarryd Townson  
Split Spaces

# A digital workforce

## Growth in digital jobs

Access to fast broadband is predicted to help transform Australia's workforce in 2021 by contributing up to 148,000 additional digital jobs, such as software programmers, graphic designers and electronic trade workers.

In regions connected to the **nbn™** access network, the annual growth in digital economy jobs was almost five per cent, versus -0.2 per cent in non-**nbn™** connected areas.

**+4.8%**  
nbn™ areas



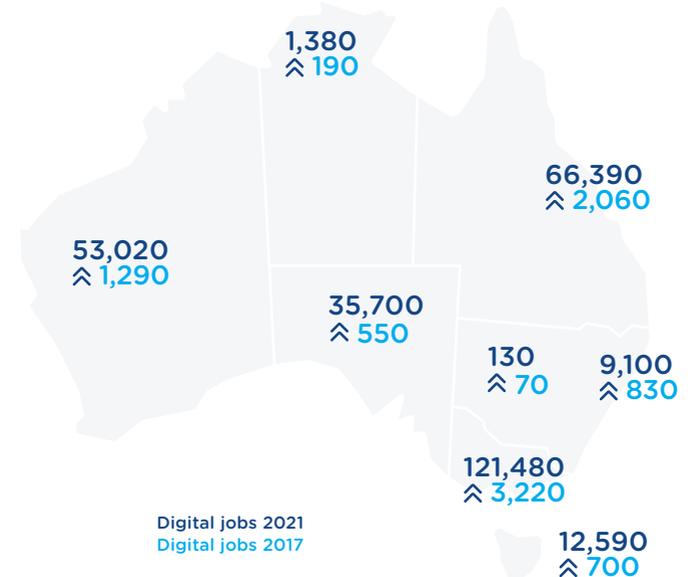
**-0.2%**  
non-nbn™ areas



**+0.9%**  
nationally



## Estimated new digital jobs due to the "nbn™ effect"



## Estimated number of new digital jobs due to the "nbn™ effect"



2021 **74,400-148,100**



2017 **5,000-9,700**

# New ways of working

## Growth in flexible working

The **nbn**<sup>TM</sup> access network is expected to help create a nation of flexible workers with up to 47,300 additional people working from home in 2021, compared to 3,000 additional workers in 2017.

In regions connected to the **nbn**<sup>TM</sup> access network, the annual growth in people working primarily from home increased by 4 per cent in 2017, versus 1.8 per cent in non-**nbn**<sup>TM</sup> connected areas.

**+4.0%**  
nbn<sup>TM</sup> areas



**+1.8%**  
non-nbn<sup>TM</sup> areas



**+2.5%**  
nationally



## Going it alone

Estimated growth in self-employed people due to the “**nbn**<sup>TM</sup> effect”



Estimated number of people working primarily from home.



2021 **21,400-47,300**



2017 **1,400-3,000**



## June 2018

This report was published by NBN Co, the company building Australia's broadband access network. The research was performed by economics and data analytics advisory firm AlphaBeta. AlphaBeta worked with strategic communications firm 89 Degrees East and a number of data providers including global market research company Ipsos to support the analysis. For detailed methodology, please visit [www.alphabeta.com](http://www.alphabeta.com).

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