

Media Release

2 July 2019

Fast broadband helping students prepare for jobs of tomorrow

The rollout of the **nbn™** broadband access network is helping to prepare the next generation of Australian leaders for the future workforce, according to research released by NBN Co today.

Bright Futures: Laying the foundations for the workplace of tomorrow, conducted by economics and analytics firm Alpha Beta and commissioned by NBN Co, is part of the Connecting Australia series exploring the economic and social impact of access to fast broadband. The report forecasts the future of education and jobs in Australia.

Key findings include:

- Increasing need for digital literacy: High growth jobs those that are becoming more prevalent, such as
 management and professional jobs demand digital literacy skills almost 7 times more frequently than
 occupations that are becoming less prevalent.¹
- Upskilling for the future: It is predicted that by 2030, three in four Australians will spend more time using STEM and entrepreneurial skills at work. Time spent on problem solving is expected to double to 12 hours per week, while use of STEM skills will almost double from five to nine hours per week.¹
- Enabling entrepreneurship: The nbn[™] access network is helping to power a rise in entrepreneurship, and helping to contribute an estimated additional 49,000 93,000 entrepreneurs by 2021, with 40% of these reported to be women.
- Adapting students: Primary school students in nbn[™]-connected areas spend 75 minutes more per week completing homework online than in those non nbn[™]-connected areas².

NBN Co's STEMpreneur initiative, undertaken in partnership with the Australian Business Council Network (ABCN), draws on this future of work focus to deliver a virtual education program to eight participating schools across Australia.

The program combines face-to-workshops and virtual mentoring to coach students as they develop a business idea to help overcome a challenge in their community using their STEM and entrepreneurial skills.

This year, there was a strong focus on the environment among participating schools. Their business ideas include a robotic ocean cleaner to keep the Barrier Reef free from rubbish, an air quality app to help local communities impacted by coal operations, and a website which informs tourists about the importance of water consumption and provides information about the dangers posed by Australia's unique wildlife.

The initiative culminated in students pitching their business ideas to a panel of STEM experts in June. Bowen Road Primary School in Hobart took top honours with their idea of autonomous drones that use thermal imaging cameras and sensors to detect the location and trajectory of bush fires to assist emergency services.



Kathrine Dyer, Chief Network Deployment Officer at NBN Co said:

"The world of work is set to transform in the next ten years so it is vital Australian students have access to infrastructure such as fast broadband to help them develop STEM and entrepreneurial skills no matter where they live.

"Since 2014 the **nbn**™ access network has connected around 220,000 regional households with children that had below average or no internet³, and has increased the average speeds⁴ in these households by 2.7 times, increasing to 3.3 times for remote households with children.

"We're proud to be equipping the business leaders and entrepreneurs of tomorrow with the infrastructure that helps them develop in-demand skills and stay ahead in a competitive market. We are also pleased to be partnering with ABCN to bring STEM skills to life for our participating schools."

Allegra Spender, Chief Executive Officer at ABCN said:

"We know the workforce is changing rapidly and it's vital for us to be partnering with businesses like NBN Co to help bring practical real-world learning experiences to Australian students.

"Connectivity allows us to do that, wherever the school is located. Creating STEM learning opportunities is particularly important in higher needs school communities where we know it can be more challenging for students to pursue these pathways. It's been especially rewarding to see these students engaging passionately with STEM and entrepreneurship to solve real problems facing their communities."

Robotics expert and STEMpreneur ambassador Marita Cheng said:

"As a young Australian leading a tech company, I'm keenly aware of the importance of STEM and entrepreneurial skills for students. With universal fast broadband becoming a reality, these core skillsets will only become more important in the workforce.

"I've loved hearing that so many students share my passion for technology and innovation through the virtual mentoring sessions and final pitch submissions. I'm sure there are some budding CEOs, engineers and tech entrepreneurs among the very bright students I've worked with."

The participating schools in the STEMpreneur initiative were:

- Para Hills Primary School, Adelaide, SA
- Islington Public School, Newcastle, NSW
- Bowen Road Primary, Hobart, TAS
- Larapinta Primary School, Alice Springs, NT
- Parramatta State School, Cairns, QLD
- Victoria Park State School, Mackay, QLD
- Canadian Lead Primary School, Ballarat, VIC
- Parkwood Primary School, Perth, WA

To download a copy of *Bright Futures: Laying the foundations for the workplace of tomorrow,* please visit www.connectingaustralia.com.au

For more information about the STEMpreneur initiative, check out our nbn™ blog page designed to educate parents and students on the importance of STEM and entrepreneurial skills, and access to fast broadband for the jobs of the future. ENDS



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Resources

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Notes to editors

- 1 Some of the findings on digital literacy and time spent on STEM and entrepreneurial skills build on and reference research conducted for the Foundation for Young Australians in The New Basics (2015) and The New Work Smarts (2017).
- 2 Inferred **nbn**™ connection (based on the percentage rollout of the individual's residential area, where people in areas with >90% rollout were assumed to be **nbn**™ users, while those in areas with <10% rollout were regarded non-**nbn**[™] users)
- 3 Below average internet refers to ADSL internet ranked as below average as well as dial up and alternative broadband (not fibre to the node / premises, satellite, fixed wireless or other ADSL).
- 4 Average internet speeds are based on an estimate of households per non-mobile technology per postcode in 2014 and 2018, comprising fibre to the node / premises, satellite, fixed wireless and ADSL.
- STEM is defined as Science, Maths and Advanced Technology skills
- Entrepreneurial skills include Communications, Interpersonal, Problem Solving and Judgment / critical thinking.
- Connecting Australia is a research series commissioned by NBN Co and completed by Alpha Beta to measure the economic and social impact of continent-wide access to broadband as the rollout reaches completion over the coming years.
- *An end user's experience, including the speeds actually achieved over the **nbn**™ access network, depends on the nbn™ access network technology and configuration over which services are delivered to their premises, whether they are using the internet during the busy period, and some factors outside of nbn's control (like their equipment quality, software, chosen broadband plan, signal reception, or how their provider designs its network). Speeds may also be impacted by the number of concurrent users on

nbn.com.au



the **nbn**™ Fixed Wireless network, including during busy periods. Sky Muster™ satellite end users may also experience latency.