Charles Sturt University

THE HOUSE OF REPRESENTATIVES
STANDING COMMITTEE ON
COMMUNICATIONS AND THE ARTS

Inquiry into Fifth-Generation (5G) mobile network technology

30 October 2019

Office of the Vice-Chancellor
Charles Sturt University

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Dr David Gillespie MP
Chair
The House of Representatives Standing Committee on Communications and the Arts
Parliament House
CANBERRA ACT 2600

Dear Dr Gillespie

INQUIRY INTO FIFTH-GENERATION (5G) MOBILE NETWORK TECHNOLOGY

On behalf of Charles Sturt University, I am pleased to provide this submission to The House of Representatives Standing Committee on Communications and the Arts for your inquiry into fifth-generation (5G) mobile network technology. 5G provides enormous opportunities for Australia and Australians, however it also poses great challenges, particularly to Australians living, studying and working in our regional cities, rural towns and remote communities.

I understand that the Committee is inquiring into and reporting on the deployment, adoption and application of 5G in Australia. 5G refers to the fifth generation of mobile technology, in line with the International Mobile Telecommunications-2020 (IMT-2020) Standard of the International Telecommunications Union and the associated releases of the 3rd Generation Partnership Project (3GPP).

It is widely recognised that 5G will transform the way we live and work, and provide as yet unknown future opportunities for economic prosperity, social inclusion and environmental sustainability. By enabling the next generation of the Internet of Things, 5G will help to operate our smart homes and manage our cities and provide new ways to experience study, healthcare and entertainment, and at the same time transform transport, logistics, manufacturing and professional services.

Charles Sturt University is Australia's largest regional university, with more than 43,000 students and approximately 2,000 full time equivalent staff. We are a unique multi-campus institution with campuses at Albury-Wodonga, Bathurst, Canberra, Dubbo, Goulburn, Manly, Orange, Parramatta, Port Macquarie and Wagga Wagga, as well as various study centres located throughout regional and rural south-eastern Australia.

While recent press and current commentary regarding 5G has focused on matters relating to national security (and are being addressed by the Parliament and the Government through other inquiries such as nationhood, foreign interference and cyber security), it is crucial for future prosperity that Australia effectively and efficiently deploy 5G technologies to ensure that our businesses, people and government have the technology capability and capacity to participate in the opportunities of the 21st Century.

It will be important to ensure that the roll-out of 5G in Australia enables access and equity for all Australians. It will be crucial to ensure that disadvantaged populations and lower SES people are not excluded from the opportunities that 5G promises. Indeed, without effective management of the emerging 5G telecommunications market by governments, the roll-out of 5G may inadvertently broaden and deepen the digital divide. Whereas, managed effectively 5G technologies provide opportunities for addressing generational social disadvantage by connecting communities, broadening the reach of education and training and strengthening healthcare delivery.

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Further, it will be important that government assist the private sector to acquire the capability, secure that capacity and deploy 5G across non-metropolitan Australia. As with social disadvantage, 5G promises exciting futures for Australians living, studying and working in our regional cities, rural towns and remote communities.

Deployed to ensure access and maintain equity, 5G has the potential to not only bring city and country together, it has the opportunity to reduce the digital divide between the bush and our capital cities. Which in turn, is highly likely to lead to a surge in migration from our capital cities to our regional cities and rural towns. While not directly related to the deployment of 5G, it will be important for governments, at all levels to plan for such population growth. It is not inconceivable that “borderless” business and employment facilitated in part by 5G availability could lead to a doubling of populations in regional cities such as Bathurst, Dubbo and Orange.

As the next generation of telecommunications technology, 5G will realise the promise of the Internet of Things (IOT). The integration of the IOT in our everyday lives will be enabled by the technological capability and capacity of 5G. 5G will be significantly faster than current mobile network technology, delivering more capacity and faster mobile data speeds for consumers.

Realisation of the IOT will lead to the creation of new business models and innovation of exciting products and services to meet these market needs, for example, the on farm, infield, remote management of irrigation, crops, animals and weeds. This in turn, will underwrite the establishment and development of the next generation of our new businesses and will guarantee our next wave of productivity and participation gains to transform the international competitive of existing industries and business.

Finally, as a provider of tertiary education and training, Charles Sturt University is extremely excited about the opportunities that 5G will provide for design and delivery of education and training, creative and innovative responses to student support, the ability to grow research collaborations and build institutional partnerships, as well as outreach and engagement with our local communities more than ever. The University, through initiatives such as engineering and the IOT, stands read to educate the 5G workforce of the future to ensure Australia has the knowledge and skills to not only deploy 5G but to harness its potential for economic prosperity, social inclusion and environmental sustainability.

I would be very pleased to provide further information to the Committee and would be available to provide evidence at any proposed hearings that that Committee may undertake in relation to the capability, capacity and deployment of 5G, as well as its application in business, government and above all else education and training.

Yours sincerely

Professor Andrew Vann
Vice-Chancellor