

February 10th, 2022

Comments to ACMA's consultation on "Exploring the future use of the 1880–1920 MHz band"

Dear ACMA,

Swinburne University of Technology thanks ACMA and welcomes the opportunity to provide its response to the above-mentioned ACMA's public consultation.

About Swinburne University of Technology

Swinburne University of Technology is a world-class university creating social and economic impacts through science, technology, and innovation.

Swinburne has three campuses located in the eastern suburbs of Melbourne — at Hawthorn, Croydon and Wantirna — offering tertiary education for higher education as well as Pathways and Vocational Education (PAVE). We also have a fourth campus in Sarawak, Malaysia. The National Institute of Circus Arts is located in Prahran, Melbourne and we also offer a range of qualifications online through Swinburne Online and Open Universities Australia. In 2019, we unveiled new locations in Sydney and Vietnam, each offering a small suite of sought-after Swinburne courses, and also opened an office in Nanjing, China — further connecting us to some of the fast-growing regions in the world.

Swinburne currently has 63 learning spaces that are equipped with DECT wireless microphone systems.

These wireless microphone systems provide audio to the in-room, online, hearing accessibility, and lecture capture systems and students.

This response focuses primarily on preserving DECT Quality of Service (QoS) for incumbent users in the 1880–1900 MHz band. It is crucial that any new technology in the overall spectrum 1880–1920 should not generate interference to, or disrupt, existing DECT users.

The viability of these and future DECT based products is reliant on continued equitable access to adequate spectrum in the 1.9GHz band in Australia. Swinburne University of Technology respectfully provides answers to ACMA's specific questions hereafter:

PMSE Production Intercom aka 'Talk-Back': The already heavy increase in use of the DECT band by the content production sector (web, theatre, adverts, films, sports, concerts, and general culture) has been caused by the reduction in the 520–694 MHz band available for PMSE Talkback which previously used that spectrum. Remaining spectrum in the 520–694 MHz band where available, is regarded as "clean spectrum" and reserved for radio microphones. Many touring productions use DECT as a universally available class licensed spectrum within Australia.

DECT-2020 NR and PMSE Performance Microphones: The number of radio microphones and In Ear Monitors required for a production varies greatly from a few to more than 150 and the 520–694 MHz band is essential to support such numbers. However, DECT-based microphones have been in use for many years primarily in conference and small events. The new DECT-2020 NR technology has been designed to deliver the higher performance required for microphones used by touring bands, recording studios, theatres, and broadcasting (including electronic news gathering). Places where available spectrum provides the right number of simultaneous talkback and radio microphone channels for the production. The use of DECT-2020 NR for performance microphones would therefore facilitate the ever-increasing demand for wireless microphones in all live & recorded entertainment and media streaming sectors.

What are possible planning scenarios and industry views on the overall future use of the 1.9 GHz band and its services:

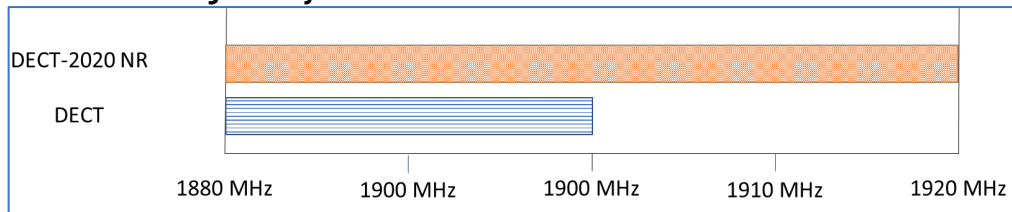
Use of DECT and DECT-2020 NR would not require any changes in the 1880–1900 MHz band. If the band was extended to 1920 MHz, this would provide new spectrum-compatible opportunities with an existing 'off-the-shelf' set of standards guaranteeing a very high level of spectrum sharing and spectral efficiency. As mobile operators extend their footprint in more and more frequency bands, the spectrum available to professional

stand-alone wireless-enabled services continues to shrink creating a need to secure spectrum for the long term in order to operate.

How much spectrum is required (distinguishing between the minimum viable and desirable) to provide the service?

A minimum of 20 MHz is desirable and ideally 40 MHz for DECT and its evolution.

In summary, we believe that the most efficient use of the spectrum is what ACMA describes in their Figure 15 with the whole band being used by DECT services:



Respectfully submitted,

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