



## **Vodafone New Zealand**

Re-planning options for frequency band within 1710-2300 MHz

Submission on MBIE Discussion Document

April 2020



## Summary

- (i) Vodafone welcomes the opportunity to comment on options for the re-planning for frequency bands within 1710-2300 MHz. Access to, and long-term certainty of, spectrum is essential to ensure that mobile operators continue to develop and invest in networks to meet customers' needs.
- (ii) Vodafone, along with other mobile operators, provides essential mobile and fixed wireless communications services to New Zealand people. The recent Covid-19 pandemic and past natural disasters showed the importance of such services at all times. Access to reliable connectivity will continue to be critical inputs to economic participation while New Zealand is operating under restrictions, and essential to our future recovery.
- (iii) Vodafone and other mobile operators' ability to provide these services is dependent on sufficient, reliable and long term access to radio spectrum. This submission outlines our responses to MBIE's discussion document on the re-planning options for frequency bands within 1710-2300 MHz.
- (iv) Vodafone supports RSM's proposal to allocate 1785-1805 MHz for radio microphone use, provided that this results in the clearing up of the 600 MHz band so it can be allocated for mobile use. However it is critical that the radio microphones operating in this band do not cause any harmful interference to mobile operations in the adjacent bands. We therefore propose that detailed study be carried out to determine the potential risk of harmful interference and guardband requirement to address this risk before the actual allocation to radio microphone use is made.
- (v) Vodafone supports RSM's effort in clearing the "L" and "LL" (1427-1518 MHz) band to accommodate mobile broadband. This band is an important part of the long term mobile and fixed wireless technology and roadmap, and should be cleared and allocated to mobile broadband as soon as possible.
- (vi) Vodafone also supports the proposal that the paired 2100 MHz band expansion (1980-2010 and 2170-2200 MHz) be reserved for technical trials for the time being, before a permanent allocation is determined in the future.

## Vodafone's answer to RSM questions

*Question 1. Do you agree with the RSM proposal to use the 1800 MHz duplex gap (1785-1805 MHz) for radio microphones? If not, what is a better use of this block of spectrum?*



Vodafone supports allocating 1785-1805 MHz for radio microphone use, provided that this results in the 600 MHz band being cleared so it can be allocated exclusively for mobile use. However the radio microphones operating in this band **must not** cause any harmful interference to mobile operations in the adjacent bands.

*Question 2. What size guard band would be appropriate for achieving compatibility between radio microphone use and mobile networks operating below 1785 MHz and above 1805 MHz?*

Vodafone proposes that detailed study be carried out in determining the potential interference and guardband requirement that is necessary to enable such usage without harmful interference before the actual allocation occurs.

*Question 4. Do you agree with RSM's proposal to use the lower portions of the Paired 2200 MHz band (2025-2081.5 MHz and 2200-2256.5 MHz) available for fixed links to enable clearing of the 'L' and 'LL' bands (1427-1524 MHz)?*

Vodafone supports RSM's effort in clearing the "L" and "LL" (1427-1518 MHz) band to accommodate mobile broadband. This band is an important part of the long term mobile and fixed wireless technology, and should be cleared and allocated as soon as possible.

*Question 12. What is the best value use for the Paired 2100 MHz band expansion?*

Vodafone supports RSM's proposal to keep the paired 2100 MHz band expansion for technical trials for the time being. This will give the industry and government more time to better understand technologies that can use this band, and the benefit they brings. The decision for long term use and allocation of these bands can be made in the future.