

**Ericsson's submission to the ACMA's
Discussion Paper *Exploring the future use of
the 1880–1920 MHz (1.9GHz) band***

February 2022

Introduction

Ericsson welcomes the opportunity to respond to the Australian Communications and Media Authority's (ACMA's) *'Exploring the future use of the 1880–1920 MHz band Discussion Paper'* (Discussion Paper).

Ericsson supports AMTA's submission in response to the Discussion Paper.

Below is a short market update and further comments in response to selected issues raised in the Discussion Paper.

Market Update

- The November 2021 Ericsson Mobility Report¹ found that:
 - 5G has cemented its position as the fastest deployed mobile technology generation to date, with an updated estimate of 660 million 5G subscriptions at the end of 2021.
 - By the end of 2027, 4.4 billion 5G subscriptions are forecast to represent roughly half of all mobile subscriptions at that time.
 - Mobile data traffic in Q3 2021 alone was more than all mobile traffic ever generated up until the end of 2016.
 - Broadband IoT has now surpassed 2G/3G as the segment with the largest share of IoT applications.
 - Currently, video traffic is estimated to account for 69 per cent of all mobile data traffic, a share that is forecast to increase to 79 percent in 2027.

General Comments

- Ericsson is concerned about how adjacent band co-existence will be managed.
- It is Ericsson's view that:
 - there should be no new compliance burden on 1.8 and 2 GHz spectrum license holders which may result in equipment or site modification.
 - a 1.9 GHz radio system, of high power, would need to be bespoke, to reduce the possibility of causing or receiving interference. This would therefore have time and cost implications in order to co-exist with adjacent spectrum licensed radios.
- Ericsson's focus in response to the issues raised in the Discussion Paper relate to the preliminary coexistence considerations.
- While we do not preference one technology over another, generally technologies with lower EIRP, lower antenna height and indoor use have less potential to cause interference to adjacent bands.

¹ [Ericsson Mobility Report November 2021](#)

Responses to Selected Questions Raised in the Discussion Paper

Issue 4

- > Are there any applicable coexistence scenarios not identified?
- > Are there any scenarios that are unlikely to be practically achievable (and hence the associated planning scenario should be discounted), or are there any that are readily achieved?

Response

- **Table 5** appears to underestimate the number of adjacent licensed receivers in the 1920-1980 MHz band (**2 GHz band**).
 - The concerns in this adjacent band are for:
 - receiver blocking on exiting and future sites; and
 - 1.9 GHz transmitter unwanted emissions causing interference to the 2 GHz receiver.
- For 1.8 GHz transmitter unwanted emissions into 1.9 GHz Base station receivers where 1.8 GHz Tx emissions could interfere with 1.9GHz BTS receivers, it would not be appropriate for a 1.9GHz operator to require a 1.8GHz Tx operator to install additional or modified equipment.