

Questionnaire on cross-border agreements (EU and non EU) in the 3.4-3.8 GHz band

5G / MFCN cross-border agreements:

- Do you have some MFCN use which is not in conformity with EU decision (xx) and when this legacy use is expected to switch-off?

40 MHz of the 3.4 – 4.8 GHz band is used by non-MFCN applications, for important Government Services. There are no current plans to remove this use from the band.

What are the status of cross-border agreements applicable to 5G/MFCN in the 3.4-3.8 GHz with each of neighbouring countries (EU and non EU)? Do these agreements include elements regarding synchronization and frame structures? Is there a difficulty regarding the synchronisation with legacy MFCN networks (e.g. WiMax)?

A Memorandum of Understanding (MoU) regarding cross-border coordination in the 3.4 – 3.8 GHz band is currently in place between the Administrations of Ireland and the UK (Ireland's only neighbour requiring cross-border coordination for this band). The MoU sets out measures for the coordination of Wireless Access radio services between both Administrations, and is based upon the principle of equitable access to the spectrum resource. Current technical conditions for coordination focus solely on a defined Power Spectral Density (PSD) limit, below which stations may be established on either side of the IRL/UK border or coastline without the need for coordination. In cases where the PSD limit is exceeded, a coordination process must be followed. There are no current elements within the MoU which deal with synchronisation and frame structures. No difficulty has yet been encountered in relation to synchronisation with legacy MFCN Networks. For further information, please refer to the MoU itself, which is available online, at: https://www.comreg.ie/media/2019/12/3400-3800-FWA-MoU-IRL_UK.pdf.

- How the risk of interference from 5G base station to 5G base station at the border is addressed? Is there any procedure for the case when real interference occurs (e.g. method of measurement, exchange of information, common measures, etc)?

Currently, the risk of interference from 5G base station to 5G base station is managed under the umbrella of the agreed PSD as set out within the existing MoU on the 3.4 – 3.8 GHz band which has been signed between Ireland and the UK.

In the event of the occurrence of real interference, affected parties (e.g. the network operators) are required to exchange information with a view to resolving the interference case by mutual agreement. The Administrations of Ireland and the UK have agreed to facilitate the exchange of information between operators in the event of interference, and a report of the interference and the details of the information exchanged is also sent to both administrations.

The MoU further states that receive stations in a neighbour country shall not claim protection from interference from transmit stations in cases where operation is such that the signal level in the neighbouring jurisdiction is either less than the trigger level described in the MoU or in cases where the transmit stations have already been coordinated according to the MoU.

All information exchanges for coordination are required to be in the format as set out in the HCM Agreement Appendix 2A. The affected Administration then has 30 days to assess the coordination request before notifying the Administration requesting coordination of its' assessment. Although no specific method of measurement has been agreed within the MoU, the Administration seeking coordination must furnish the affected Administration with any required further information when requested.

5G / others services cross-border agreements:

- Could you describe the elements of cross-border agreements regarding the coexistence between 5G and other services in the 3.4-3.8 GHz band, (concerned services, coexistence method, expected impact on 5G deployment ...)?

Although there are no current elements in the 3.4 – 3.8 GHz MoU relating specifically to the coexistence of 5G and other services, ComReg notes that the currently signed MoU focuses on Wireless Access services. Within the limits of the definition of the term “Wireless Access”, the MoU is technology neutral with regard to the type of Wireless Access Service which may be deployed in either territory, and ComReg notes that this may include 5G. In light of this, ComReg considers that 5G services, amongst other Wireless Access services, are covered by the general parameters as set out in the current MoU, and that coordination between 5G and other Wireless Access services is therefore possible under the current MoU. Notwithstanding this, however, ComReg also plans to incorporate, in the near future, specific aspects of 5G technologies into the MoU where this may be of benefit in further enhancing cross-border coordination on an “intra-Wireless Access” service basis.

With regard to other services outside of the domain of those falling under the term “Wireless Access”, ComReg further notes that the only other services available within this band in Ireland, aside from the previously mentioned Government Services, are offered on a licence exempt basis, such as, for example, VSAT (receive only) applications. Such licence exempt applications operate on a non-interference, non-protected basis, and ComReg has therefore never required coordination measures to be in place for such applications.

Cross border negotiation difficulties (EU and non EU)

- Do you meet any difficulty in current cross border negotiations (EU and non EU)?

No.

- Could such difficulty impact 5G deployment and why?

N/A.