

## Public Consultation on the Draft Radio Spectrum Policy Group Opinion on the strategy on the future use of the frequency band 470-694 MHz beyond 2030 in the European Union, August 2023

The Critical Communications Association (TCCA) leads the global development and promotion of standardised critical communications solutions for professional users. TCCA provides the forum for governments, regulators, manufacturers, operators, end-users – for any and every stakeholder in the critical communications sector – to discuss, debate, deliver and evolve the market for the benefit of all. Critical communications industries include Public Protection and Disaster Relief (PPDR), utilities, transport, mining and many other essential sectors for the protection of life and the safe functioning of our societies.

For many PPDR agencies, especially those in Europe, there is an urgent need to secure additional sources of harmonised PPDR broadband spectrum to augment current systems and/or ensure the successful migration from narrowband to mission-critical broadband at the appropriate time in the future, independent of local market conditions (i.e. avoidance of market failure). New broadband PPDR technologies will support interoperability and seamless connectivity with legacy narrowband systems. Spectrum needs for broadband are additional and complementary to that already used for narrowband.

At the national level, spectrum needs range from 20 MHz (10 + 10) up to 60 MHz<sup>1</sup> for mission-critical broadband communications. Member States will decide on the most suitable implementation model for delivering broadband PPDR services. Dedicated, commercial or hybrid network solutions are technically and operationally possible.

TCCA recognises the additional spectrum needs of critical communication users. Therefore TCCA's position<sup>2</sup> is that a co-primary allocation of the frequency band 470-694 MHz to Mobile Services should be considered, and a further consideration should be given for how this spectrum could best be used by mobile services to help meet the additional spectrum needs of mission-critical users, especially PPDR organisations, globally and, in particular, ITU Region 1. This additional mobile allocation would allow the critical communications sector, especially PPDR organisations, to better meet the growing need for spectrum in response to developing environmental, socio-economic and geopolitical challenges facing governments and societies that are evident today.

TCCA welcomes the opportunity to respond to the RSPG consultation regarding the strategy on the future use of the frequency band 470-694 MHz beyond 2030 in the European Union. TCCA appreciates the efforts of RSPG to enable flexibility in the use of this band to address the spectrum needs of several mobile applications such as PPDR, defence and other critical communication sectors. This can only be achieved by re-purposing a dedicated part of the band 470-694 MHz for use by mobile services in the 600 MHz band. Moreover, TCCA highlights the importance of the consideration for a compatible 600 MHz band plan (i.e. 3GPP bands 71 and n71) for such implementations in order

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<sup>1</sup> Study to determine the broadband frequency spectrum demand of the German public safety organisations in mobile broadband networks, TÜVIT, 2022

[https://www.bdbos.bund.de/SharedDocs/Downloads/EN/220511\\_study\\_broadband.html](https://www.bdbos.bund.de/SharedDocs/Downloads/EN/220511_study_broadband.html)

<sup>2</sup> TCCA spectrum position on World Radio Conference 2023 Agenda Item 1.5, 2022

<https://tcca.info/documents/July-2022-TCCA-spectrum-position.pdf/>

to protect spectrum already in use<sup>3</sup> by some PPDR agencies in Europe i.e. in 698-703 MHz (3GPP band 68).

As mentioned in the RSPG's draft strategy, the implementation of a dedicated band in 470-694 MHz would require a reduction of the currently available spectrum for Digital Terrestrial Television (DTT) and Programme Making and Special Events (PMSE) of 224 MHz by only 80 MHz. Clear trends in media usage behaviour show that the demand for spectrum for broadcasting is declining, especially due to an increasing use of non-linear video as well as new methods for intelligent use of the frequency band and new transmission technologies<sup>4</sup>. Therefore, the required DTT spectrum reduction for the implementation of a dedicated band in 470-694 MHz has been demonstrated to be technically feasible through a more efficient use of spectrum and at an acceptable effort in countries where DTT is not heavily used. Other countries with a heavier use of DTT can also technically free up the required spectrum by introducing changes in their network topology with an increasing use of Medium Power Medium Tower (MPMT) and Low Power Low Tower (LPLT) deployments.

Regarding the coexistence of Broadcast and Mobile Service, TCCA would like to point out that the protection distances considered in the RSPG Strategy do not take into account the use of new broadcast technologies such as 5G Broadcast or the use of other network topologies such as MPMT/LPLT. Therefore, new compatibility studies are required for re-assessing under which conditions both radio services can coexist.

TCCA appreciates the willingness of RSPG to implement flexibility in this band after 2030 but highlights the importance of European harmonisation for critical communications. On the one hand, too much flexibility has shown to be detrimental for PPDR and other critical communication sectors in the past. Due to its flexibility, the European Commission implementing decision (EU) 2016/687 resulted in a heterogeneous and insufficient allocation of dedicated broadband spectrum in Europe to meet the long-term needs of PPDR agencies. On the other hand, national coverage is critical for PPDR and other critical communication sectors to save lives and keep societies safe. This is only possible if the use of spectrum at a national level is not conditional on complex cross-border coordination or over-stringent protection measures. TCCA encourages RSPG to define personalised migration plans for each country to enable harmonised use of mobile service in 470-694 MHz throughout Europe. The harmonised spectrum in 380-400 MHz for narrowband PPDR emergency communications use in the EU has proven to be very beneficial for pan-European collaboration and coordination, especially on cross-border PPDR operations and enabling the free circulation of PPDR devices and equipment.

Environmental, societal and geopolitical changes are profoundly affecting critical communication users globally and in Europe in particular. On the one hand, the severity and regularity of natural disasters that PPDR organisations have to fight are increasing due to climate change; this is driving also the requirement for more energy efficient technologies. On the other hand, global crises such as the Covid-19 pandemic or the Ukraine war have shown the vital role of critical communications, providing resilient and secure communications and the ability to cooperate across borders. These global and regional challenges require urgent coordinated action from administrations to consider carefully the important needs of the critical communications sector, and most importantly PPDR

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<sup>3</sup> FM(23)002rev1 WG FM questionnaire to CEPT Administrations on the availability of spectrum for BB-PPDR  
<https://www.cept.org/ecc/groups/ecc/wg-fm/client/meeting-documents/file-history/?fid=74674>

<sup>4</sup> Perspektiven zur Nutzung des UHF-Bands 470-694 MHz nach 2030, Goldmedia, 2021  
[https://www.bundesnetzagentur.de/SharedDocs/Downloads/DE/Sachgebiete/Telekommunikation/Unternehmen\\_Institutionen/Frequenzen/Studien/StudieZukunftUHFBand.pdf?\\_\\_blob=publicationFile&v=2](https://www.bundesnetzagentur.de/SharedDocs/Downloads/DE/Sachgebiete/Telekommunikation/Unternehmen_Institutionen/Frequenzen/Studien/StudieZukunftUHFBand.pdf?__blob=publicationFile&v=2)



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spectrum and modernisation needs. Without these services, society and economies will struggle to function effectively and efficiently.