

TCCA Response to RSPG Draft 6G Spectrum Roadmap 27th March 2026 (RSPG26-004)

TCCA welcomes the opportunity to comment on the RSPG Draft 6G Spectrum Roadmap.

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. The publication of RSPG's 6G Spectrum Roadmap is therefore very timely.

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

In particular TCCA are pleased that PPDR is mentioned specifically as a potential candidate application of spectrum in the 470-694 MHz – acknowledging the requests expressed in previous TCCA responses to the 2025 RSPG consultation on the future use of this spectrum.

At the national level, spectrum needs range from 2 x 10 MHz up to 60 MHz[1] (Frequency Division Duplex) 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[2] 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 in the EU.

[1] 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
[2] TCCA spectrum position on World Radio Conference 2023 Agenda Item 1.5, 2022
https://tcca.info/documents/July-2022-TCCA-spectrum-position.pdf/

Given the significance of high profile EU initiatives and regulations such as EUCCS, NIS2 and CER legislation, TCCA appreciates the efforts of RSPG to consider PPDR and other mission critical verticals within the 6G spectrum roadmap.

TCCA welcome RSPG's approach towards opening up the use of the 470-694 MHz band for alternative applications in those countries who are already migrating away from terrestrial TV broadcast. 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 as well as Digital Terrestrial Television (DTT) and Programme Making and Special Events (PMSE). 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 to protect spectrum already in use[3] by some PPDR agencies in Europe i.e. in 698-703 MHz (3GPP band 68).

TCCA 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. RSPG's draft 6G Spectrum Roadmap appears to be moving in the right direction to address limitations of previous decisions.

TCCA remain committed to the advancement of PPDR communications into the era of 6G. Through proactive engagement in 3GPP, both as an MRP and via our extended membership TCCA is pro-actively involved in defining 6G standards for CNI applications – especially in the context of direct mode connectivity, air to ground systems and NTN – TN integration.

We remain available for further dialogue with RSPG in all areas of mission critical communications.

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TCCA

[3] 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