

EBU response to

Radio Spectrum Policy Group *Draft Work Programme for 2022 and Beyond*

The EBU thanks the Radio Spectrum Policy Group (RSPG) for this opportunity to comment on its [draft Work Programme for 2022 and beyond](#).

Efficient use of radio spectrum is key for the delivery of public value across the EU as well as for sustained economic growth. Whilst these two goals are sometimes opposed, broadcasters and wireless production systems (known as Programme Making and Special Events – PMSE) deliver both in their use of the lower UHF band.

As the representative of public service media across the EU, the EBU¹ is keen to stress that substantial social and cultural value is generated by use of radio spectrum. For its Members, this is derived from the use of radio spectrum for both programme production and content distribution. Although this is particularly obvious in the case of the UHF band, this same principle applies to other frequency bands.

For each item on the proposed Work Programme, the EBU has attempted to identify where important wider public policy goals should be the drivers of spectrum use decisions.

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Peer review and Member States cooperation on authorisations and awards

EBU will not comment on this Work Programme item.

WRC-23

WRC-23 will set the direction of spectrum management for the rest of the decade. Decisions need to be made taking into account the wider social and cultural public policy context, and not from a narrow spectrum management perspective only. The EBU would very much welcome the opportunity to comment on the draft Opinion on WRC-23 with a public consultation as this will most likely constitute the only possibility to publicly comment on this EU key positioning. The decisions taken at WRC-23 may very well condition future EU policies on spectrum, with the risk of pre-empting public debate on crucial social and economic infrastructures for the people of the EU.

¹ The European Broadcasting Union (EBU) is the world's leading alliance of public service media (PSM). We have 115 member organizations in 56 countries and have an additional 31 Associates in Asia, Africa, Australasia and the Americas. Our Members operate nearly 2,000 television, radio and online channels and services, and offer a wealth of content across other platforms. Together they reach an audience of more than one billion people around the world, broadcasting in more than 160 languages. We operate Eurovision and Euroradio services.

The RSPG should take into account wider EU policy objectives which may be impacted by proposed spectrum allocation changes before it forms its Opinion on proposals for EU positions for WRC-23.

The EBU notes that one of the most important agenda items of WRC-23, agenda item 1.5, will decide on the future status of the 470-694 MHz band. This band is intensively used throughout Europe, both for Digital Terrestrial Television (DTT) and for wireless production systems (known as Programme Making and Special Events – PMSE). DTT provides public value to all the people of the EU. It is efficient to deliver linear services to very large audiences, it provides near-universal reach (92% population covered in average, in many countries 98% or more), it is free-to-air, and it is resilient in times of crisis and emergency situations. Today no other platform on its own can offer the same public value to society as DTT in the UHF band.

Besides, enhancements to DTT, such as the progressive transition to DVB-T2, deployment of new compression standards allowing the introduction of Ultra-High Definition (UHD) services, as well as new technologies such as standalone 5G Broadcast, which has great potential in reaching a large number of citizens on mobile devices (e.g. their smartphones, cars), can be introduced in the UHF band under the current regulatory framework provided by the GE06 Agreement and by the EU Decision 2017/899 on the use of the 470–790 MHz band in the Union.

Furthermore, this frequency band is extensively used for wireless microphones and other audio systems (audio PMSE) across all Member States. PMSE applications are used not just by broadcasters and professional content producers, but across civil society, in cultural and sports venues, places of worship, conference facilities and so on. It is also important to underline that the requirements for PMSE application continue to increase whereas the available spectrum remains limited. The UHF band is indispensable for meeting these requirements.

Decisions taken at WRC-23 will impact on the future use of this band. The EBU notes that the RSPG Work Programme proposes that an RSPG Opinion on a “Strategy on the future use of the frequency band 470-694 MHz beyond 2030 in the EU” is discussed after the adoption of the RSPG Opinion on WRC-23. The EBU strongly believes that it is the strategy on the future use of the UHF band – taking into account socio-economic and public policy considerations - which needs to drive regulatory decisions at WRC-23 and not the other way round.

“Good offices” to assist in bilateral negotiations between Member States

The EBU will not comment on this Work Programme item.

Mobile technology evolution – experiences and strategies

The EBU would like to recall that, in the past 20 years, the amount of spectrum used by terrestrial broadcasting services was halved while, thanks to technological evolution, the TV programme offer on DTT has been vastly increased. Analogue television was replaced by DTT and then phased out across the EU. The spectrum previously used by television broadcasting in the 700 and 800 MHz bands was re-allocated to 5G and 4G, respectively. To a large extent this was justified by a need to ensure availability of mobile broadband services in rural areas.

However, appropriate mobile broadband services are still not a reality in all rural areas across the EU.

The EBU notes that the current deficiencies in mobile coverage of rural areas, where it exists, should be resolved by further investment in network infrastructure, not with additional spectrum in the UHF band. Furthermore, phasing out obsolete MNO technologies such as 2G from the

900 MHz and reorganisation of the sub-1 GHz mobile bands would enable large contiguous frequency blocks – their effective capacity could be almost tripled. without any reduction of the spectrum available to DTT and PMSE services.

The EBU therefore encourages the RSPG to consider the approaches mentioned above, which could be realistically implemented within a decade.

Digital decade 2030

The EBU notes and supports the important policy goals set in the Path to the Digital Decade that all European households will be covered by a Gigabit network and all populated areas covered by 5G in 2030.

Achieving these connectivity digital targets will require the development of fibre networks that are essential for both the indoor connectivity and as a backhaul in mobile networks: Most of the data-hungry internet use such as the use of audiovisual content or services occurs indoors, in a static mode thanks to fibre connections complemented by WiFi delivery. Mobile broadband technologies such as 3G, 4G or 5G are essential for internet access on the move which results in much smaller data consumption.

The EBU finally recalls that the EU Decision 2017/899 on “the use of the 470-790 MHz frequency band in the Union” (UHF Decision) Article 4 outlines that the 470-694 MHz band is reserved for DTT at least until 2030. The digital decade policy goals do not require the use of that band.

The development of 6G and possible implications for spectrum needs and guidance on the rollout of future wireless broadband networks

The development of 6G is still at a very early stage of R&D. With respect to spectrum use RSPG might provide guidance to the industry that 6G technology would need to be able to share spectrum more efficiently than the previous generations of mobile systems. This would increase the overall efficiency of spectrum use and minimise the need for complex and costly clearance of the bands from the incumbent use to allow the rollout of future 6G networks.

Strategy on the future use of the frequency band 470-694 MHz beyond 2030 in the EU

The EBU notes that, in many/most EU Member States, this band is still used for DTT and that will be required to deliver public service media content well into the 2030s. This both reflects the market situation and the needs of the people of Europe, and more widely ITU Region 1². This is also aptly enshrined in EU law: the UHF Decision asks “Member States to ensure availability **at least** until 2030 of the 470-694 MHz (‘sub-700 MHz’) frequency band for the terrestrial provision of broadcasting services”.

In this band, broadcasters are deploying enhancements to DTT, such as DVB-T2 and new compression standards which will allow transmission of UHD content, as well as developing new technologies such as standalone 5G Broadcast – for social as well as economic benefits for the people of the EU.

It is currently too early for any EU Member State to foresee whether and by when online delivery of media content might be as resilient, as universally available, as sustainable, and as

² See [ITU-R BT.2302-1\(03-2021\)](#) 'Spectrum requirements for terrestrial television broadcasting in the UHF frequency band in Region 1 and the Islamic Republic of Iran'

affordable for all EU citizens as DTT is; and when migration to online platforms by all citizens, including the most vulnerable, will have proceeded to the extent that DTT may no longer be required. Furthermore, regulatory stability is essential for the ongoing innovation in the UHF band to continue.

Any review of the UHF band beyond 2030 must take this into account.

However, the EBU underlines that whilst, formally, this item of the RSPG Work Programme would enable an RSPG Opinion to be adopted before WRC-23 actually takes place, it seems difficult to see how it would usefully feed in the forming of the RSPG Opinion on WRC-23 as the latter will have already been adopted. Since it seems that this item of the RSPG Work Programme cannot be discussed before the RSPG Opinion on WRC-23 is adopted, it would make more sense to postpone it to at least 2025 – as part of the review recommended in the “Lamy Report”.

Role of Radio Spectrum Policy to help combat Climate Change

The EBU and its Members agree that all parts of society need to examine and, where necessary, modify, their activities so as to minimise or eliminate impacts on the climate. Particularly in the context of audio-visual content delivery to consumers, the EBU notes recent studies (e.g. Locat project³) that find delivery of live, linear content to large numbers of viewers to be far more efficiently achieved by broadcast networks (particularly DTT) than by unicast based distribution.

Ensuring that sufficient spectrum is allocated to low-energy use networks, such as broadcast networks, will help to reduce the overall energy use of IT and communications infrastructure.

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³ <https://thelocatproject.org/>