



## LOWER UHF SPECTRUM PRIORITIES FOR BEST USE

Public Service Media (PSM) deliver high-quality content and services to inform, educate and entertain all people in the EU, wherever they are. Audiences need to continue enjoying our services across all platforms, whether broadcast or on the internet. PSM are embracing digital and driving innovation on all platforms – including in broadcasting, the value of which remains undisputed in bringing content to EU households.

The lower UHF spectrum (also called “sub-700MHz band”) spans from 470 to 694MHz and is used by all EU countries to provide free-to-air Digital Terrestrial Television (DTT) services to their audiences. DTT and satellite are tied in first place as the preferred way to watch live television, with 29% each of the viewing public in the EU. In contrast, IPTV consumption remains at 20%. Linear television viewing remains stable, at more than 3h30min per day, since 2015, with peaks of over 5 hours.

The next ITU World Radiocommunication Conference (WRC-23), in November / December 2023, will consider revising part of the Radio Regulations, the international treaty on management of radio spectrum that deals with the lower UHF spectrum. As preparations take place for WRC-23, the EBU urges negotiators to protect the current agreement (discussed under WRC-23 agenda item 1.5). Below we outline the reasons why this is the best outcome for all.

### 1. Current rules foster shared and efficient use

The UHF band is extensively shared by DTT and wireless microphones. These audio “[Programme Making and Special Events](#)” (PMSE) are indispensable not only for broadcasting but also for use in theatres, concert halls, festivals, stadiums, or any other professional content production.

Regulatory flexibility exists under current rules at both international and EU level, with the [ITU Geneva GE06 agreement](#) and the [UHF Decision](#). These take into account current and potential users of the lower UHF spectrum.

# 43%

*of households within the EU watch TV via DTT on the lower UHF band, this equates to 80 million households*

Imposing a co-primary allocation to broadcasting and broadband-based mobile services can only be detrimental to the delicate balance found in each Member State that enables both broadcasting and PMSE to share the lower UHF spectrum.

Studies and real use cases have shown that broadcasting and broadband-based mobile services cannot operate on the same frequencies in the same or adjacent areas without causing harmful interference to each other<sup>1</sup>.

<sup>1</sup> See e.g. [Report ITU-R BT.2301-3](#) “National field reports on the introduction of IMT in the bands with co-primary allocation to the broadcasting and the mobile services” or February 2022 [RSPG Progress Report of the Sub-Group on “Good Offices”](#)

Interference can be reduced by geographically separating the broadband-based mobile services from the broadcasting services, but the required separation distances are very large (and in some cases, several hundred kilometres). The consequence would be that, in densely populated Europe, each country's use of the UHF band would have a significant effect on neighbouring countries.

Sharing in the lower UHF spectrum already exists and cannot be improved with co-primary allocation: this would only end up with broadcasting and PMSE forced out of the band – the only one used for DTT.

## 2. Benefiting all with an inclusive and green broadcast option

DTT on lower UHF spectrum is simple and cheap: plugging in a TV set offers immediate access to hundreds of programmes. EBU [research](#) shows<sup>2</sup> that PSM costs, on average, a little more than €3 per month per person in the EU; when it comes to commercial free-to-air television, it is funded by advertising. DTT on lower UHF spectrum is reliable in all situations: even in natural or manmade catastrophes, broadcasting never fails.

DTT on lower UHF spectrum is a green distribution delivery method. [A recent study](#) shows that DTT distribution consumes substantially less energy, when compared to IP-delivered methods.

## 3. DTT as a key enabler of innovation

DTT is by nature a digital solution. Digitization has been pushed from the outset by PSM, as it is simple to use and allows more innovation. This is how PSM have also developed hybrid approaches to distribution, combining broadcasting and broadband with e.g. Hbb or DVB-I. Upcoming innovations however include Ultra-High Definition (ensuring even better quality of user experience) and 5G broadcasting<sup>3</sup> (to bring broadcast's robustness, reliability and quality to mobile devices).

These innovations developed by PSM are all grounded on using the lower UHF band – by their very nature, as these innovations have a link to broadcasting, and because broadcasting is the vector to ensure they have a universal reach.

## 4. Changing spectrum rules will not improve rural broadband

The European Commission DESI 2021 report shows that “[t]he total EU harmonised radio spectrum for terrestrial services capable of providing wireless broadband electronic communication services amounts to 4340MHz”<sup>4</sup>. In particular, substantial UHF spectrum resources (i.e., the 700MHz, 800MHz, and 900MHz bands) are already available for mobile services. These allocations, largely of spectrum previously used by DTT and PMSE, were justified by the need to develop rural broadband.

The current deficiencies in mobile coverage of rural areas can only be resolved by further investment in network infrastructure, not with additional spectrum in the UHF band. Where mobile network capacity needs to be increased, this can be achieved by network densification and using the higher frequency bands that are much better suited for this purpose and that are already available for mobile services<sup>5</sup>.

*No matter where in Europe, broadcasting use of spectrum is the cheapest way for people to access reliable information and share important events every day.*

*The European Broadcasting Union (EBU) is the world's leading alliance of public service media. The EBU has 112 member organisations in 56 countries who operate nearly 2 000 television, radio and online channels/services, reaching an audience of more than one billion people in 160 languages.*

**EBU Brussels**

[brussels@ebu.ch](mailto:brussels@ebu.ch) | T +32 2 286 9102  
[@EBU\\_Policy](#) | [website](#)

<sup>2</sup> Available for all – creation of a login required

<sup>3</sup> See ETSI [standard](#) LTE-based 5G terrestrial broadcast system.

<sup>4</sup> See European Commission Digital Economy and Society Index ([DESI](#)) 2021, page 42.

<sup>5</sup> See DESI 2021, page 43.