

The background is a vibrant, abstract digital scene. It features a dark blue base with numerous glowing lines in shades of cyan, yellow, and red. These lines intersect and radiate from various points, creating a sense of depth and movement. Scattered throughout are small, colorful particles and bokeh effects, adding to the futuristic and technological atmosphere. On the right side, there are large, semi-transparent circular shapes that appear to be part of a larger graphic or interface.

EBU

OPERATING EUROVISION AND EURORADIO

TECHNOLOGY & INNOVATION

Get an edge

FUTURE SPECTRUM CHALLENGES FOR SATELLITE BROADCASTING IN EUROPE

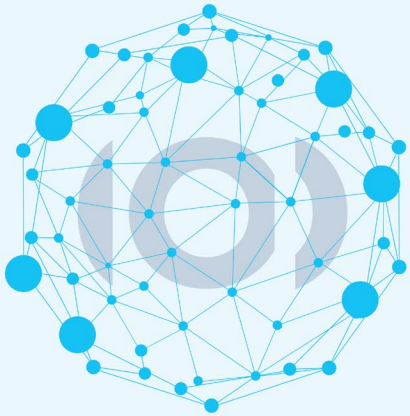
ELENA PUIGREFAGUT, EBU T&I

19TH NOVEMBER 2021

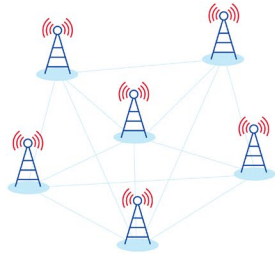


THE EBU COMMUNITY IN NUMBERS

The European Broadcasting Union
is the world's leading alliance
of Public Service Media



COMPOSED OF



115
MEMBER
ORGANIZATIONS

IN **56**
COUNTRIES



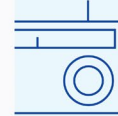
OPERATING

493



TV CHANNELS

703



RADIO STATIONS

593



LOCAL WINDOWS



ONLINE SIMULCAST
CHANNELS AND STATIONS

1323



EXCLUSIVE ONLINE
LINEAR SERVICES

267

PROVIDING CONTENT IN



159
LANGUAGES

TO A POTENTIAL AUDIENCE OF

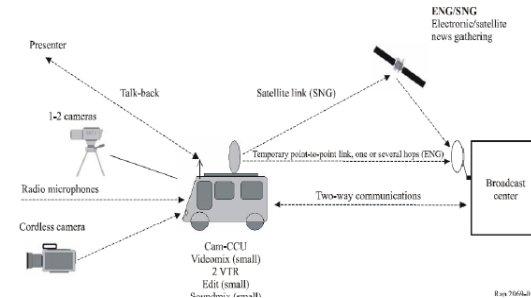
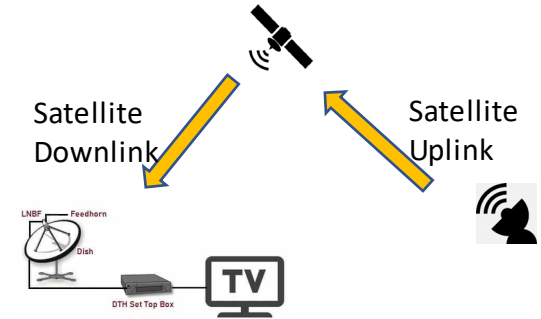
1.07

BILLION PEOPLE



OTHER WRC-23 ITEMS OF CONCERN FOR BROADCASTERS

Agenda Item		ISSUE
1.2	To consider identification of the frequency bands 3 300-3 400 MHz (Region 2 and amend footnote in Region 1), 3 600-3 800 MHz (Region 2), 6 425-7 025 MHz (Region 1), 7 025-7 125 MHz (Globally) and 10.0-10.5 GHz (Region 2) for International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution 245 (WRC-19)	Uplink of part of the C-Band ENG use
1.3	To consider primary allocation of the band 3 600-3 800 MHz to mobile service within Region 1 and take appropriate regulatory actions, in accordance with Resolution 246 (WRC-19)	Downlink of the C-Band
9.1c	Study the use of International Mobile Telecommunication system for fixed wireless broadband in the frequency bands allocated to the fixed services on primary basis, in accordance with Resolution 175 (WRC-19)	The Ku-Band, core band for Direct-To-Home (DTH) satellite TV services



WRC-23 AI 1.2 & 1.3 - THE IMPORTANCE OF THE C-BAND

- › C-Band downlink offers extremely good performance to rain fade and geographic reach
- › Considerable differences in use of these bands around the world
- › It is essential for EBU Members for distribution of their international services (BBC World Service, RTP International, RTVE International, RFI, etc) and for contribution of special events (Eurovision services like F1, Football World Cup, Olympic Games, etc...)
- › Main difficulties:
 - › Sharing spectrum with mobile IMT services (e.g. 4G/5G) demands large separation distances (up to hundreds of km) to avoid interference to satellite services - difficult to implement in most cases
 - › Receive-only satellite dishes are not necessarily registered, so they can not claim protection



WHY THE EBU IS ACTIVE

- › The EU identified the band 3 400-3 800 MHz for mobile broadband (EC decision C(2014)2798), as one of the pioneers' bands for “5G”
- › Many European countries have already auctioned the band and satellite services had to stop the use due to technical incompatibility to share the spectrum with 5G
- › Within Europe, EBU members' use is now confined to upper parts of the downlink band, i.e. 3.8-4.2 GHz
- › However, the European Commission has also an eye on the 3.8-4.2 GHz for 5G services and some countries around the world have already allowed access to mobile services
- › EBU works frequently with satellite operators, and works towards cooperation in international regulatory fora

WRC-23 AI 9.1c - THE IMPORTANCE OF THE Ku-BAND

- › The Ku Band is key for satellite Direct-To-Home (DTH) reception, contribution and distribution to head-ends for all EBU Members. Also, for Eurovision services.
- › As with C-band, receive-only satellite dishes in Ku band are not necessarily registered, cannot claim protection and are vulnerable to interference
- › Although the WRC-23 agenda item does not specify any particular frequency band, it could carry risk for the Ku band. This still depends on the studies undertaken and EBU is monitoring progress



MANY THANKS!

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