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Alliance of TV, Radio and Culture Broadcasters comments
on the
(Draft) RSPG Opinion "beyond 2030"

via E-Mail: cnect-rspg@ec.europa.eu

Radio Spectrum Policy – Unit B4

Electronic Communications Networks and Services Directorate
Directorate-General for Communication Networks,
Content and Technology (CNECT)
European Commission
BU 33 07/65
B-1049 Brussels

Vienna, on the 24. August 2023

(Draft) RSPG Opinion Strategy on the future use of the frequency band 470-694 MHz beyond 2030 in the EU (RSPG23-021 FINAL)

Dear Sir or Madam,

The Alliance of TV, Radio and Culture Broadcasters (Allianz der TV-, Radio- und Kulturveranstalter) is a joint initiative of affected industries that need the UHF band for interference-free transmission and media production. We have set ourselves the goal of long-term, exclusive preservation of "our" frequencies.

On 14 June 2023, the Radio Spectrum Policy Group (RSPG) started a public consultation on its (Draft) Opinion for a strategy on the future use of the frequency band 470-694 MHz beyond 2030 in the EU.

The public consultation has three different possible scenarios and a couple of recommendations.

5G Broadcast is an LTE-based 5G terrestrial broadcasting system whose specifications are published in ETSI TS 103 720 V1.1.1 (2020-12). Digital terrestrial television (DTT) is a technology for terrestrial television in which television content is broadcasted by radio waves from terrestrial television stations to TV sets of consumers in a certain digital format. From our point of view this is why – as a broadcasting technology – it is already included in the term "Digital terrestrial television" ("DTT") and therefore a separation between DTT and 5G Broadcast does not seem neither advisable nor reasonable.

Regarding the **possible scenarios** we would like to state the Following:

We fully agree with scenario 1 (Prevalent broadcasting) which means in principle the retention of the status quo (NO Change). Therefore, in this scenario Broadcasting remains the most widespread mean for accessing linear audio-video and – as noted before – includes 5G Broadcast as innovative DTT technology in standalone downlink only (SDO) for linear audio-video distribution (similar to DVB, ATSC, ISDB et cetera).

We also welcome scenario 2 (Broadcasting [DTT and 5G Broadcast], Mobile limited [SDL]). In this scenario the most widespread platform for accessing linear audio-visual content in the 470-694 MHz band would still be DTT. PMSE would be specifically addressed and 5G Broadcast would exist as DTT in a given country. As in Scenario 1, Scenario 2 would help enable blending the benefits of broadcast and unicast networks via HbbTV, DVB-I but also even more enables hybrid distribution scenarios with 5G Broadcast and broadband to bring together live and on demand distribution as IP-native technologies. This would also allow the reception of free-to-air broadcast services in increasingly ubiquitous mobile devices, including vehicles, via 5G Broadcast and enable new use-cases like seamless switching between networks or broadcast on-demand.

Opening the band to new all-IP downlink-only complementary services, including ancillary downlink-only services to licensed media distributors (e.g., scheduled contents) and new downlink-only complementary services (e.g., emergency warning systems) under EU or national flexibility schemes would benefit citizens and the cultural industry.

Both scenario 1 and scenario 2 – as we understand it – would ensure more and advanced services for citizens, long term certainty for broadcasters and infrastructure companies and flexibility.

Scenario 3 (Broadcasting limited, Mobile [Full FDD band plan]) on the other hand would lead to a dis-harmonization of the 470-694MHz band in Europe. In this scenario, there is less (up to no) need for broadcasting in the 470-694 MHz in a given country, which gives the opportunity for introduction of, for example, mobile broadband by implementation of the 600 MHz band plan, including uplink transmission. This seems to be a departure from a single spectrum policy in our view. The continuation of the tried-and-tested common spectrum policy is more advantageous in our view. A departure from this and a shift to the national level would need lengthy bilateral and multilateral coordination for each individual member state. Even if a solution is found, the result would be less efficient than a common spectrum policy.

Therefore, we advocate for the continuation of a single spectrum policy.

What struck us as slightly biased is that there are **no requirements in the draft opinion when it comes to scenario 2 and 3**, but an extensive list of demands to be met regarding scenario 1.

When it comes to the **recommendations** we would like to say that, although we basically welcome the note of RSPG that a harmonized implementation of a mobile band plan including uplink (e.g. 600MHz) up to 2030 is not possible in the European Union, there is still a bias concerning the time horizon there.

Instead, we advocate for a neutral wording when it comes to the RSPG recommendations Strategy on the future use of the frequency band 470-694 MHz beyond 2030 in the EU, without any limitations.

There are also a few **other RSPG statements** that we would like to address:

In the RSPG draft opinion, there is said the following:

"An interleaved spectrum usage of DTT roof-top reception and 5G Broadcast would generate interference from 5G Broadcast to DTT fixed reception, as shown in the 700 MHz and 800 MHz bands, if 5G Broadcast is deployed over a dense network (low tower). To mitigate this interference, filtering would need to be installed after the DTT receiving antenna. In opposite to the 700/800 MHz cases, the use of interleaved spectrum will require filters adapted to the local circumstances (i.e. local DTT channels), which would imply cost and technical challenges."

We would also like to emphasize that with an interleaved spectrum usage any dense deployment – regardless of the technology (e.g., DVB, ATSC, Mobile Networks...) – can cause interference for other less dense deployed networks. 5G Broadcast does not require a dense deployment scenario a priori, it rather depends on coverage requirements, use cases and other requirements - as with any network planning for DTT.

This means that the above RSPG statement is only true to an extremely limited extent and is not limited to 5G Broadcast only. From our experience, this generally occurs with network compaction and this phenomenon occurs locally on a very limited basis. Instead of pointing out negligible or easily avoidable problems, we may suggest focusing on the innovative aspects and what is necessary to support innovation. This lies namely in the following ways:

- Making HbbTV mandatory in TV sets
- Making 5G chipsets supporting 5G Broadcast mandatory in mobile devices, including vehicles
- Requiring mobile network operators to enable free-to-air mode in those devices having 5G Broadcast chipsets

Regarding the "envelope concept" the RSPG opinion states the Following:

"The "envelope concept" relies on the equivalence of spectral power density, allowing the notification of assignments to the Master International Frequency Register (MIFR), corresponding to a digital plan entry in the GE06 Plan, with characteristics different from those appearing in the Plan (i.e. other than T-DAB or DVB-T), for transmissions in the broadcasting service or in other terrestrial services, provided that such assignments meet the following conditions:
1. they must not cause greater interference than that caused by any digital entry in the GE06 Plan (i.e. the new terrestrial application must not exceed the power spectral density of the digital entry);
2. they must not require more protection than the digital entry of the GE06 Plan would need;
3. the aggregate interference from the digital Plan entry implementation (notified assignment) should not exceed the interference envelope (levels) derived from the characteristics of the digital Plan entry."

and furthermore:

"For cases where a Member State intends to implement this alternative usage, under the flexibility framework set out by Article 4 of Decision (EU) 2017/899, this Member State needs to enter into cross border negotiation with neighbouring countries and cope with the requirements to preserve their broadcasting needs at the border and the equitable access, noting that the GE-06 envelope concept does not apply for mobile service which includes uplink. In consequence, even if the broadcasting /PMSE capacity needs are preserved at national level, the replanning of the national broadcasting frequency maps will require adequate time for the country concerned to conduct cross-border coordination negotiations."

As we understand it, the envelope concept uses the equivalence of the power spectral density of different transmission systems. If we would want, for example, run a 5G Broadcast Sender (SDL) instead of a DTT transmitter with the former using a performance/filter/ radiation pattern causing the same or less interferences, it would meet all requirements towards domestic and foreign senders and could therefore be operated under the envelope concept.

For a Mobile Service with Uplink frequency negotiations with the neighboring countries would need to take place. In this case there is no possibility to operate this uplink under the envelope concept because there are no existing GE06 entries available.

We kindly ask you to consider our input in the final document.

With best regards,

Allianz der TV-, Radio-, und Kulturveranstalter



Michael Wagenhofer

Spokesman of Allianz der TV-, Radio-, und Kulturveranstalter