

Warszawa, 2015.04.10

The future of UHF spectrum in the 694-790 MHz ("700 band") and 470-694 MHz bands

Position of **Cyfrowy Polsat S.A.** regarding the future use of the UHF (470-790 MHz) band as part of the European Commission's consultations of the future use of the UHF (470-790 MHz) band

1. Respondents' profile

I am responding as the individual company.

2. Confidentiality

Your contribution will be considered public and will be published unless you mark it as confidential. In this case your contribution will be used to provide a summary of the consultation results but will not be published individually.

Please DO NOT consider my contribution as confidential.

Your name will be linked to your contribution unless you mark it as anonymous. In this case your contribution will be published without your name.

I DO NOT prefer to remain anonymous.

3. The citizens' dimension

SOME QUESTIONS INTENTIONALLY LEFT BLANK

If part of the current TV spectrum were allocated to wireless broadband services with the aim of providing broadband coverage in more locations and higher connection speeds, the gradual shift from TV to wireless broadband use may cause temporary degradation of digital terrestrial TV (DTT) services (less channels/quality or more noise). (Please note this shift would not affect TV based on cable, satellite or fixed broadband platforms.) Would you agree to such a shift and if so for how long would you accept such a degradation?

- I do not think a shift of part of the current TV to wireless broadband is necessary
- because I don't see the need for network coverage in more locations and higher connection speeds.
 - I see the need for network coverage in more locations and higher connection speeds but not at the expense of TV services.**
 - I see the need for network coverage in more locations and higher connection speeds and would be ready to accept a temporary degradation of TV services for a few days.

- I see the need for network coverage in more locations and higher connection speeds and would be ready to accept a temporary degradation of TV services for a few weeks.
- I see the need for network coverage in more locations and higher connection speeds and would be ready to accept a temporary degradation of TV services for a few months.

If part of the current UHF broadcasting spectrum were allocated to wireless broadband services with the aim of providing better broadband coverage and higher connection speeds, would you accept a permanent reduction in the amount or quality (standard definition and not high definition) of free-TV channels available via DTT? (Please note this shift would not affect TV based on cable, satellite or fixed broadband platforms.)

- Yes, I would be willing to lose the availability of some free DTT channels in exchange for better wireless broadband services.
- No, I would not be willing to lose any current digital terrestrial television free DTT channels for a better wireless broadband services.**

If part of the current UHF broadcasting spectrum were allocated to wireless broadband services with the aim of providing better broadband coverage and higher connection speeds, would you be willing to purchase new TV equipment (TV set, decoder) needed to function on the adapted DTT networks. (Please note this shift would not affect TV based on cable, satellite or fixed broadband platforms.) If so within which timeframe would you be willing to do so?

The recent transition from analogue to digital signal necessitated equipment replacement expenses to be made. Another similar compulsory replacement before the end of the lifetime of the present equipment (10-15 years) would require public financing. However, such public financing would need to cover not only the main TV set but also additional TV sets (in kitchens, bedrooms and holiday homes) and antenna systems, including community aerial installations.

- No, I would not be willing to purchase new TV equipment in exchange for better wireless broadband services.**
- Yes, I would be willing to purchase new TV equipment in the next 5 years if this means having better wireless broadband services.
- Yes, I would be willing to purchase new TV equipment in the next 10 years if this means having better wireless broadband services.

4. Potential repurposing of the 694-790 ('700') MHz band

What long-term advantages and disadvantages do you see in using the 700 MHz band for wireless broadband services in the Union?

- 1) **Advantages:** a rapid and inexpensive growth in wireless data transmission network coverage that can be achieved with little investment outlays.
- 2) **Disadvantages:** limitation of development of universally accessible television broadcast, rapid saturation of coverage networks, resignation from or considerable delay in development of more frequency-efficient and quality-stable access technologies in bands above 1GHz.

What merits do you see in a coordinated EU approach for changing the use of the 700 MHz band in the Union from broadcasting to wireless broadband services?

There are no merits in a coordinated change of the use of the 700 MHz band from broadcasting to wireless broadband services throughout the Union. The regional agreement Geneva-06 permits the operation of mobile equipment in the television bandwidth provided that a specific emission mask and parameters (generic mobile) are observed. This legal regime permits broadband access to be implemented in television bands in countries where the development of terrestrial digital television does not justify its further maintenance, and to leave this medium in countries where it is socially important.

In your opinion what should a potential EU coordination cover?

First: EU borders – implementation must be EU wide, including EU border states with implementation problems. The EU-border states such as Poland, Lithuania, Latvia, Estonia should not be treated as “no harmonized service zone” where only interferences between EU and non-EU services are managed. Territory with over 50 million of Europeans cannot be the guard band zone.

Second: Ensuring the European and Member States cultural policy as well as the equal access (which shall also ensure the basic level of freely accessible content services – provided technologically neutral)

Should there be a common EU deadline for making the 700 MHz band available for use for wireless broadband services across the EU?

- Yes
- No

Please provide justification of your answer on a common EU deadline including cost assessment.

Differences in the terrestrial television implementation times, share of this television in the content access market, licensing method and license period, geographical specificity of the Member States and various population density structure, all have such a result that appointing one date will be a compromise that will be accompanied by unreasonable social costs. The agreement Geneva-06 allows broadband access to be implemented in the countries that resign from the terrestrial television.

Which date would you propose for such a deadline [The Lamy report proposes a deadline of 2020 +/- 2 years]?

To be discussed after the review in 2025.

Should there be measures at EU level mandating use of the latest, most spectrum-efficient technologies for DTT equipment (such as DVB-T2, HEVC etc.)?

- Yes
- No

Which date would you propose to mandate such spectrum-efficient technologies?

The review of television technologies should be carried out in 2025 at earliest.

5. Ensuring regulatory certainty for current users of spectrum

Should there be a common EU deadline for safeguarding primary use of the 470-694 MHz band for DTT and further use for wireless microphones and other wireless audio equipment?

- Yes
- No

Which date would you propose for such a deadline [The Lamy report proposes a deadline of 2030]?

The review made in 2025 at the earliest should enable assessment of the possible date of liquidation of terrestrial television, if such liquidation is considered justifiable at all.

6. Flexibility of use of sub-700 MHz (470-694 MHz) spectrum

[The Lamy Report recommends a „flexibility option“ in the band 470-694 MHz. This means that broadcasting use would always have priority in this band, yet specific channels or locations not used for terrestrial broadcasting or wireless audio applications (PMSE) could become available for broadband applications depending on national circumstances.]
Do you support flexible downlink-only use of the 470-694 MHz band also for wireless broadband services, which safeguards primary use of this band for DTT according to national circumstances?

- Yes
- No

What scenarios and conditions should be studied to allow flexible downlink-only use in the 470-694 MHz band? In particular, should these include primacy for the provision of audiovisual services to mass audiences?

An additional downlink for the purposes of broadband access in the UHF band could be admitted before 2030 provided that undisrupted terrestrial broadcast television service is ensured.

7. Harmonisation of use of sub-700 MHz (470-694 MHz) spectrum in the long-term, the European approach and the International Telecommunication Union (ITU) context.

Do you see merits in a common EU position on the UHF band for World Radiocommunication Conference 2015?

- Yes
- No

What should be the EU position with regard to the 470-694 MHz band for World

Radiocommunication Conference 2015?

No change.

What should be the EU position with regard to the 470-694 MHz band for World Radiocommunication Conferences beyond 2015?

Required further flexible spectrum use options studies.

What measures would be needed at national and/or EU and/or ITU level to safeguard flexible downlink-only use in the 470-694 MHz band?

Extensive and reliable technical studies on compatibility between broadcasting and mobile service shall be conducted. The studies shall include all potential deployment scenarios, including High Power – High Tower. This flexible option for downlink-only should be only introduced in obligatory EU / ITU regulation when proved to safeguard non-interfered operation of broadcasting in this band.

8. Market review of the state-of-play of broadcasting and wireless broadband services

Should there be a common EU deadline for conducting a review exercise regarding market developments?

Yes

No

Which date would you propose for such a deadline [The Lamy report proposes a deadline of 2025]?

2025

What objectives, scope and method should such a review exercise pursue?

The objective should be to define the admission of UHF for mobile service. The review should concern the use of the UHF band by television, the spectrum use by telecommunication operators and an analysis of advancement of work on new technologies, both in telecommunications and television.

9. Other comments

Do you have further comments related to the Lamy Report?

Do you have further comments regarding relevant issues in the context of the future use of the UHF band (470-790 MHz)?

- **A growth in penetration of end-user devices such as smartphones and tablets that radically increase the use of data transmission (48x more than a traditional mobile telephone!) is undisputable. The growth in demand is spread very unevenly and concerns mainly urban and suburban areas.**

- Telecommunications operators have not taken advantage of development opportunities in their frequency resources.

No real actions are being taken that would be aimed at recovering the frequency below 1GHz from inefficient voice services in the 2G technology and at allocating this band for broadband transmissions. The potential to make more dense the topology of networks of telecom operators also remains untapped. Instead, an attempt is made at giving the cheapest solution to the growing demand for data transmission at the cost of the television industry which makes a more efficient use of the spectrum.

- A spectrum resource is key from a perspective of market access of each telecommunications operator offering services in mobile access technologies. However, the model in which retail services are generated directly on the basis of this resource leads to a dispersion of frequency blocks among multiple operators. At the same time, the regulation of wholesale access being even more difficult in mobile networks than in land-line networks results in a low degree of success of MVNOs and, consequently, weakens the competitiveness of the retail market.

- The solution to the above problem may be to allocate new frequencies with the aim of providing wholesale services with a mandatory provision of the capacity so generated, on equal terms to operators (both MNOs and MVNOs) who want to render retail services.

- The model of one coverage network operated by one operator would make it possible, owing to a larger spectrum resource used in such a network, to generate higher quality wholesale services and then to provide them, on defined terms subject to regulation, to interested MNOs and MVNOs.

- Wholesale network offered in a new frequency band and available throughout Europe would facilitate achievement of the objectives to lower the costs of access to data transmission for European Union citizens who travel across various countries. Additionally, it would be the most effective example of implementing a policy of uniform electronic market in Europe.