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RE: REPLY TO A PUBLIC CONSULTATION on the Draft RSPG Opinion on a Radio Spectrum Policy Programme (RSPP) by the company České Radiokomunikace a.s.

Date: March 26, 2021

Place: Prague, Czech Republic

Introduction:

České Radiokomunikace a.s. is the leading operator of terrestrial networks for television and radio broadcasting and the main provider of a wide portfolio of telecommunication services in the Czech Republic. České Radiokomunikace a.s. (hereinafter referred to as CRA) provide nationwide television and radio broadcasting for public and all major commercial providers of television and radio broadcasting.

Digital Terrestrial Television (hereinafter referred to as DTT) is the most preferred platform for television reception by households in the Czech Republic that is used by **54.4% of households** (Source: Nielsen Atmosphere research, the results of the Continuous Research of the Q4 2020). At the same time DTT is the only platform that provides to households free to air TV reception. The high popularity of DTT among households did not change even after the release of the 700 MHz band that was performed via the transition from DVB-T to the more frequency-efficient DVB-T2 standard when households had to buy a new TV or a set top box compatible with the new broadcasting standard. This is clear evidence of the high popularity of the DTT platform in the Czech Republic which remains very stable.

According to the *Draft RSPG Opinion on a Radio Spectrum Policy Programme (RSPP)*¹ (hereinafter “**Draft Opinion**”), it is crucial that a new RSPP benefits the internal market, EU economy and society as a whole. Also, the *Draft Opinion* identifies Audio-Visual Media as one of the policy initiatives to which Member States shall, in cooperation with the Commission, ensure sufficient spectrum is available based on spectrum needs.

Terrestrial broadcasting services, including free television, are a key pillar of the distribution of Audio-visual Media (see Annex I, Annex II below) and, as such, are crucial for European citizens, essential for upholding European values and are vital for the European Content and Cultural industry.

¹ https://rspg-spectrum.eu/wp-content/uploads/2021/02/RSPG21-014final_Draft_RSPG_Opinion_on_RSPP.pdf

Therefore, we are concerned to note that this *Draft Opinion* looks like a missed opportunity for the European Content and Cultural industry as it does not:

- Emphasize terrestrial broadcasting services as a EU strategic sector, there by failing to recognize its communicative, social, economic and culturally irreplaceable character.
- Ensure that the EU approach to the WRC-23 preparation is consistent with the UHF Decision² by making the defense of the European strategic sector of Content and Cultural industry as a top European priority.

Europe decided the long-term use of the UHF in its UHF Decision (Decision (EU) 2017/899 of the European Parliament and of the Council of 17 May 2017 on the use of the 470-790 MHz frequency band in the Union – hereinafter “**UHF decision**”) and it is important that Europe abide by this decision. The Decision sets a clear framework until at least 2030 by ensuring continued access to the sub-700MHz band for terrestrial broadcasting whilst providing flexibility under precise terms.

The UHF decision, together with the ITU allocation and GE-06 plan, set a regulatory framework which provides *long term certainty* for the European Audio-visual Media industry and *scope for innovation*:

- *Long term certainty* is needed by the European Media industry to allow it to keep investing in European content and its own distribution, elements key for national resiliency, sovereignty and independence.
- *Scope for innovation* that allows the **European Broadcasting industry** to maintain its amazing and proven **innovative** track record and meet the following milestones:
 - Quality increase with the **real UHD content** on the horizon;
 - Innovative **on demand content** services using hybrid solutions; and
 - Increase its reach by serving handheld devices and cars with the brand new **5G Broadcast service**.

The European broadcasting industry is walking this path to the future alongside keeping the free, universal and accessible distribution of content to Europeans; content that is local, diverse and plural; content that informs, educates and entertains. Terrestrial broadcasting competes with other distribution services whilst complying with its public policy service objectives.

Changing the current regulatory framework (UHF decision, GE-06 and ITU UHF allocation) would have an unpredictable impact on the European Audio-visual Media industry, reducing competition and possibly eliminating part of the European Audio-Visual ecosystem. As BNE we are not sure that the impact of eliminating the free television from more than half of European households, as may happen if spectrum is not accessible for terrestrial broadcasting, has been assessed; Also, we are not aware of any cost-benefit analysis of the real incremental value that any alternative use of the sub-700 MHz band may bring to the citizens in front of the current one. As article 7 of the UHF decision recognizes, we believe that European policy makers should take into account the social, economic, cultural and international aspects affecting the use of the sub-700 MHz frequency.

A. With regard to Article 2.1 Spectrum sharing:

CRA welcomes any initiative that enables innovation and efficient use of spectrum; in this respect spectrum sharing looks like a promising way forward. However, we would hope that any implementation of any spectrum sharing pioneer initiatives and bands will take into consideration the

² Decision (EU) 2017/899 of the European Parliament and of the Council of 17 May 2017 on the use of the 470-790 MHz frequency band in the Union.

regulatory stability necessary to allow businesses to successfully invest with certainty of an acceptable return and allow continued innovation by those with currently allocated spectrum. In this regard, CRA is also sure that the implications of any sharing impact on existing use and related services must be examined and considered carefully before any decision is taken.

CRA delivers services in the sub-700MHz band, 470 – 694MHz. This band is a good example of successful sharing between different services. The band is primarily used for terrestrial broadcasting³, but is effectively shared with PMSE and radio astronomy; encompassing a large number of diverse and different services and technologies.

On the case of the sub-700MHz, leveraging on the investigated technical possibilities and approaches, European policy makers need to be fully aware about the total incompatibility of spectrum sharing between terrestrial broadcasting and IMT technologies using FDD or TDD. As seen for the 800MHz and 700MHz bands, sharing is not an option and use of these bands resulted in terrestrial broadcasting being moved from the bands. As such the decision, if the intention is to implement a full FDD or TDD IMT option is a case of one service or the other.

In conclusion, having in mind that the sub-700MHz band is already efficiently and effectively shared and that it is not possible to introduce IMT services on the band without eliminating the current services, we are sure the **RSPG will agree that the sub-700MHz is not a candidate band for additional spectrum sharing studies and will remain accessible to current users as the UHF Decision defines.**

B. With regard to Article 3.4. Broadcasting and PMSE of the Draft Opinion:

Regarding the Article: „The RSPG is of the view that the future of broadcasting and PMSE in regard of the UHF Band 470-694 MHz shall not be subject of a new RSPP (see also section 6.6)“:

- Draft Opinion does not state the reasons why “the future of broadcasting” and “PMSE” may no longer be part of the new multi-year radio spectrum policy programme. This is an inadmissible breach of the general principle of technology neutrality if the RSPG recommends that the RSPP does not address “future of broadcast” and “PMSE” in the future, but at the same time the RSPG assumes that the RSPP should explicitly address the new “5G” technology.
- 5G technology cannot be preferred to the detriment of other technologies (especially the more energy-efficient DVB-T2 technology - see the comments on Article 3.6 for more details).
- The general regulatory principle of promoting technology and service neutrality is emphasized in the Code (Article 25 of the Directive 2018/1972 that is related to technology neutrality and energy efficiency) as well as in the current RSPP (Article 2 (1) (e) of the EP Decision and Council No 243/2012/ EU).
- In the section 3.4 of the *Draft Opinion*, in the second bullet, according to article 4 of the UHF Decision, an “at least” is missing. Our proposal is to leave the text as follows (bold text to be added): “*The current Council and European Parliament Decision is providing legal certainty until **at least 2030 to terrestrial broadcasting including conditioned national flexibility.***” This is in line with the UHF Decision.

With regard to the Article: „The UHF 470-960 MHz band is on the agenda for the upcoming WRC23 conference and RSPG intends to provide a recommendation to the EC on an EU

³ Analog TV more 10 years ago, DVB-T since about 10 years and DVB-T2 from now on. Worthy to say that all technological transition have been done sharing the same band, with no need to occupy other bands.

position accordingly in its opinion towards WRC23. The current Council and European Parliament Decision is providing legal certainty until 2030 to terrestrial broadcasting including conditioned national flexibility“

- It is not clear from the Draft Opinion what should be the content of the RSPG recommendation regarding the EU position for WRC23 conference. It is necessary to specify the content of the RSPG recommendation in more detail and to consult it again.
- We present the following detailed comments on the future of terrestrial broadcasting until 2030 and after 2030).
 1. Sub 700 MHz band is guaranteed for DTT **at least** until 2030 (See: Mr. Lamy's Report⁴, the EP Decision and the UHF Decision)
 - a. No changes can occur in this period as it was only in 2020 that the 700 MHz band was released via the transition to more frequency-efficient DVB-T2
 - i. The protection of investments of network operators who invested in new networks and DVB-T2 technologies only in the years 2019-2020
 - ii. The protection of investments of households that had to replace/purchase new TV receivers for DVB-T2 reception
 - iii. Even after the change (the release of the 700 MHz band and the transition to T2), the DTT and the sub 700 MHz band now use more than 54% of households
 2. The sub 700 MHz band should be maintained for the DTT after 2030
 - a. Since 2010, the DTT has lost 43% of its frequencies in the UHF band (800 MHz, 700 MHz). Since 2010 the frequency losses have been addressed by the following technological innovations
 - i. 2011 - transition from analogue broadcasting to more spectrally efficient DVB-T technology, TV viewers and network operators had to invest in completely new technologies
 - ii. 2020 - transition from DVB-T to more spectrally efficient DVB-T technology, TV viewers and network operators had to invest in completely new technologies
 - b. The inefficient use of frequency spectrum by Mobile Network Operators
 - i. Frequency Division Duplex (the same frequency spectrum range for Uplink and Downlink); although Uplink is used significantly less and this spectrum remains unused
 - ii. MNOs have not finished any of the older mobile technologies (2G, 3G) that are less frequency efficient than newer technologies (4G, 5G). 2G was launched in the Czech Republic in 1996; it has been in operation for 25 years and there are no plans to terminate this technology and change the use of frequencies using 2G for frequency more efficient technologies of 4G/5G. This is in contrast to TV broadcasting where TV viewers (more than half of the population) and TV network operators have had to by forced way completely replace TV receivers or TV broadcasting networks twice in the last 11 years.
 - c. At the present time or in the near future there is no more efficient technology than DVB-T2 for wireless distribution of television content to the mass market - to millions of households in the small frequency range of sub 700 MHz (224 MHz band). Mobile Networks Operators are not able to process full-scope TV broadcasting in

⁴ Pascal Lamy. Report to the European Commission. Results of the Work of the High Level Group on the Future Use of the UHF Band (470-790 MHz).

the order of a higher spectrum volume (more than 1 GHz of spectrum is allocated for MNOs in the Czech Republic) and the part of sub 700 MHz band will not ensure television services in the range in which it is provided by DDT.

- d. Further loss of spectrum for the DTT would lead to the phasing out of this platform
 1. There would have to be performed another frequency re-farming - retuning with a negative impact on the TV viewers
 2. The number of broadcasting networks would have to be limited which would lead to a reduction in the TV programs offer with an impact on the competitiveness of the DTT platform
 3. The future development of the DTT would be hampered, leading to a dampening of the entire DTT platform due to forced regulatory intervention; not due to a market demand
 - e. Linear TV remains the dominant way of consuming audio-video content with stable predictions
 - f. DTT can combine linear and non-linear content distribution and the interactivity via HbbTV (Hybrid Broadband Broadcast TVÚ, which can provide similar services like IPTV, however, the majority of the content is distributed efficiently only once by broadcast via DTT)
 - g. DTT is the only wireless platform that can provide this
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3. The continuation of the DTT in sub 700 MHz band after 2030 is important for ensuring TV reception for more than half of households in the Czech Republic using the DTT on a long term basis.
 - a. The DTT is the only Free to Air platform with strong social reasons
 - b. The loss of spectrum would mean the termination of the DTT platform and the need to pay for TV reception for about half of Czech households
 - c. The termination of the DTT would mean a reduction in competition on the TV market and most likely can be reasonably assumed that the price of current Pay TV services could increase due to the loss of competition
 4. Key advantages of the DTT compared to mobile networks for which the 700 and 800 MHz TV bands have been released
 - a. High safety of the DTT
 - i. Technological diversity (independence from mobile networks)
 - ii. Technological neutrality
 - iii. Independence from the Internet that is often the target of a cyber attack
 - iv. DTT infrastructure is part of the critical infrastructure of the state that thus has control over safety and quality parameters
 - v. Impossibility to spoof broadcasting content
 - vi. Network independence from content production
 - vii. High efficiency spectrum use) – delivery of 46 TV channels (39% in HD resolution) via a 4 x 33 Mbps data stream for an UNLIMITED number of viewers
 - viii. High Service Level Agreement for provision of DTT networks means high reliability of TV reception for viewers
 - b. High efficiency of the DTT
 - i. Low demanding character of the DTT (green technology) for electricity consumption with the elimination of CO2 in comparison to other platforms

- ii. The highest efficiency of the spectrum usage and the highest bit/Hz efficiency
- iii. Unlimited number of TV viewers without the need to increase the spectrum/technology /electricity consumption/
- c. Standardized "universal" DTT service
 - i. Televisions and STB are equipped with a DVB standard tuner, the viewer does not need any additional devices
 - ii. The access to Public Broadcast Services and Commercial Broadcast Services without any contract, it is sufficient just to have a TV set
 - iii. High signal coverage (even rural areas where MNOs have no reason to build networks)
 - iv. High availability - SLA (networks of MNOs do not guarantee SLAs)

C. With regard to article 3.6 and article 6.2 of the Draft Opinion (Sector spectrum needs in response to combat climate change):

With regard to article 3.6: „Based on the results of assessments (for both ECS and non ECS) in accordance with the methodologies to be developed and other sector specific developments, the European Commission in cooperation with Member States should ensure that adequate spectrum is made available under harmonised conditions to support EU initiatives to combat climate change and improve energy saving“

With regard to article 6.2: „The RSPG supports the policy objectives to reduce the Union's carbon footprint, goal of zero emissions of EU economy, digitalisation/automation economy sectors by enhancing the technical efficiency and energy efficiency of wireless communication networks and equipment. RSPG is of the view that the following recommendations may support those objectives“

- Regarding the fact the e.g. DVB-T2 technology is more spectrally efficient and therefore more energy efficient than linear television broadcasting provided by 5G technology it is not clear why the RSPG assumes in article 3.4 that "future of broadcasting" should not be the subject of the new RSPP. The preference of 5G technology in the new RSPP to the exclusion of more efficient technologies for the distribution of audiovisual content (DVB-T2) is in the contradiction with the environmental objectives that the RSPG itself declares.

D. With regard to article 6.6. Audio-visual Media Policy of the Draft Opinion:

Regarding the article: “The RSPG supports smooth transition to new technologies and convergence of services.”

- Related to „new technologies“: We do not agree with the fact that the key parameter for the support of the RSPG should be that the technology is "new". A new technology (e.g. 5G) may in some respects be less spectrally efficient and more energy intensive, less scalable and less robust than other, existing (non-new) DVB-T2 technology. If technology neutrality is a general regulatory principle, then discrimination against technology on the basis of whether it is "new" or "old" appears to be unjustified.
- As stated in the article 25 of the Code Preamble (Directive 2018/1972), the principle of technological neutrality “does not preclude taking into account that certain transmission media have physical features and architectural features that may be improved in terms of service quality, capacity, maintenance costs, energy efficiency, management flexibility, reliability, robustness and scalability and in the ultimately performance that may be reflected in the measures taken to achieve various objectives of the regulation.” However, the criterion

is not "newness" but for example energy efficiency, reliability, robustness and scalability - in all these parameters, however, the current DVB-T2 technology is more advantageous than the "new" 5G technology as for linear broadcasting services.

- With regard to "convergence of services": we also disagree with the fact that the key parameter for the RSPG support is supposed to be "the convergence of services." As Pascal Lamy states in his report called *Results of the Work of the High Level Group on the Future Use of the UHF Band (470-790 MHz)*: „Secondly, on the supply side, terrestrial broadcasting and mobile broadband platforms are likely to co-exist for a long time, in order to ensure that supply meets demand. DTT will retain its essential role as a competitive platform for the delivery of linear audiovisual services to mass audiences with nearly nation-wide coverage. I conclude that convergence of both platforms is not on the practical policy agenda yet... Members of the High Level Group agreed that the principal future scenario is based on platform co-existence, not convergence.”
- The RSPG did not provide any objective reason to deviate from Mr Lamy's recommendation; considering his convincing conclusions that the central future scenario is not convergence but coexistence.
- The requirement for convergence is in conflict with the requirement for resilience and security of distribution platforms (attack of one platform, e.g. by a cyber attack does not have to endanger technologically different platforms). I.e. even in terms of requirements for reliability, safety and robustness (as defined by the Code), it is not clear why the RSPG intends to prioritize convergence over coexistence, moreover, contrary to P. Lamy's recommendation.
- Moreover, looking at market reality, citizens already have this convergence; indeed, the convergence is at device level and citizens do not care about networks and spectrum. Citizens are interested in having better services and eliminating competition by a regulatory decision does not sound as the best strategy to grant them. In this sense, we understand that policy makers seek better services provision (including necessary network diversity and redundancy needed for emergencies, as the pandemic has demonstrated) and, to provide citizens with value, the optimum competition between platforms.

We hope that you will use our information for preparation of the RSPG Opinion on a Radio Spectrum Policy Program (RSPP).

Best regards.

Marcel Procházka
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České Radiokomunikace a.s.

Annex I: The European audiovisual sector is strategic

- European AV market (turnover) is 110 Bn€ (source EAO Yearbook 2019/2020).
- SVOD is growing rapidly but still accounts for only 5% of the AV market (source EAO ib.)
- The AV sector contributed €46.9 Billion of GDP in Europe in 2018. (source AVdata4Europe, researched by EY)
- The role of broadcasters is essential. For example, Public Service Media invest each year €19.5 Bn in content creation; 89% of the TV output is of domestic or EU origin (source EBU –how PSM deliver value 2019).
- The film and audiovisual sector employs more than 1 million people and another 1 million through indirect jobs (source AV data 4 Europe, researched by EY)
- This is part of a wider economy of the Content and Cultural Industry which in total represents about 7% of EU GDP.
- This wider group includes sectors like PMSE, live performance and Radio, and has agreed on a policy platform asking in particular to
“Take decisions on critical resources such as spectrum allocation regarding the use of the UHF band on the basis of a comprehensive examination of the impact on cultural and creative sector growth and jobs, particularly in the context of the upcoming World Radio Conferences, of the European Electronic Communications’ Code or any revision of the Radio Spectrum Policy Program” (source the Wider Spectrum Group)

Annex II: Terrestrial broadcasting is the backbone of the European Audio-visual media sector because:

- It is the key for the access to the mass audience (counter example: BBC3 market share went from 22% to 8% among 16-34 when it left DTT and went nonlinear; and now considering going back to ‘linear’ - source BBC news May 2020)
- It is a regulated area facilitating the respect of qualitative and quantitative policy objectives such as public service, pluralism and universality
- It provides the broadcasters a fully neutral network where their content is emphasized, and where they are not subject to gate keepers.
- While the terrestrial television platform is well established in all Member States, it is true that penetration varies between Member States. However, a strong European broadcasting industry benefits all Members states who can be active in the Audiovisual Market.