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TO: CNECT-RSPG@ec.europa.eu

Confindustria Radio Televisioni response to the Public Consultation on the Draft RSPG Report on 6G Strategic vision

Confindustria Radio Televisioni (CRTV) is the association of Italian radio and television broadcasters.

Established in June 2013, CRTV includes among its members Italy's major national broadcasters: EI Towers, Elemedia (GEDI), GMH, La7, Mediaset, Persidera, Prima Tv, Qvc Italia, Radio Italia, CN Media, RAI, Il Sole 24 ore, RDS – Radio Dimensione Suono, Rete Blu, RTL 102,500 Hit Radio, Sportcast, Tivù, Paramount Global Italy, Warner Bros. Discovery Italy. Satellite operator Eutelsat Italy is aggregated member. Major local TV and radio broadcasters are represented in CRTV through the Association of Local Televisions and the Association of Local Radios FRT.

All major categories of the broadcasting industry are represented in CRTV: public and private broadcasters, national and local broadcasters as well as platform and network operators. The sector has overall revenue of about 9,8 billion euros and a workforce of approximately 90,000 employees, of which about 30,000 direct (CRTV estimates).

CRTV collaborates with all competent Ministries, Political Institutions, and Regulators, both national and EU. The Association's activities are aimed at contributing to the creation and maintenance of fair rules that allow the sector to grow, innovate and continue to play its important role in the modernization process of the country.

BROADCASTER TV:

Discovery Italia Srl
Gmh Spa
La7 Spa
Mediaset Spa
Qvc Spa
Rai Spa
Rete Blu Spa
Sportcast Srl
Paramount Global
Italia Srl

RADIO NAZIONALI:

Cn Media Srl
Elemedia Spa
Gruppo Sole24 ore
Radio Dimensione
Suono Spa
RadioMediaset Spa
Radio Italia Spa
Rai Spa
RTL 102,500 Hit Radio Srl

EMITTENZA LOCALE:

Associazione Tv
Locali
Associazione Radio
FRT

PIATTAFORME

SATELLITARI:
Eutelsat SA
Tivu Srl

OPERATORI DI

RETE:
EI Towers Spa
Elettronica
Industriale Spa
Persidera Spa
Prima Tv Spa
Rai Way Spa

PARTECIPAZIONI IN:

Confindustria
Auditel
IAP
AER
Eurovisioni
Osservatorio TuttiMedia
ITU - International
Telecommunication
Union

Comments are provided below for each section of the report.

1 Executive summary

1.1 Input from stakeholders

Confindustria Radio Televisioni has responded to the previous public consultation on 6G matters but it seems that no reference to its considerations is present in the draft Report.

It is important to consider broadcasters point of view among the active stakeholders as they rely on the 470-694 MHz spectrum as the last resort for the provision of free universal TV which - in some countries as Italy - cannot be substituted by any other distribution means.

1.2 Conclusions

Any request for new spectrum allocation for frequencies below 1 GHz needs to be accompanied by a careful assessment of the correct use of the already assigned spectrum. No other spectrum below 1 GHz should be assigned to services that can be reorganized with an improvement of efficiency.

The request of additional frequencies for mobile services is illogical when the spectrum already assigned is used in an inefficient manner. As an example, with reference to the past process for the assignment to mobile operators of 700 MHz Wireless Broad Band, it should be noted that in the Italian 5G auction the 3 SDL slots (738-743, 743-748, 748-753 MHz) remained unassigned due to participants' lack of interest. This happened also in other Member States.

While a further reduction of the broadcasting spectrum beneath 694 MHz for mobile services would endanger the survival of the broadcasting platform beyond 2030, at the same time the benefits for mobile operators would be negligible and a better use and reorganisation of 694-960 MHz bands would better fit the purpose of finding frequencies for new mobile applications.

The requirements of the mobile sector are changing, and this will be even more true after 2030. 6G is requiring large contiguous blocks of spectrum and there will be limited

demand for further assignments of 2x5 MHz or 2x10 MHz as previously happened for 800 MHz and 700 MHz bands. Therefore, any possible need of the mobile sector could be addressed with a more efficient use of existing allocated frequencies and not with new allocations.

Moreover, the mobile sector's storytelling refers to sub-700 MHz band for connectivity "*covering also sparsely populated areas and reaching "deep-indoor"*". This same claim was used for 700 MHz and 800 MHz band allocation to IMT applications. 700 MHz and 800 MHz bands are more than sufficient to cover these needs, also without any new allocation.

2 5G development and lessons learnt

No comments.

3 Early policy initiatives on 6G

The same approach as for 5G should not be used for 6G. Low frequencies are no more necessary for coverage purpose. Any spectrum need below 1 GHz would lead to an inefficient use of such frequencies and it would cause an irreparable damage to broadcaster services that rely only on 470-694 MHz frequency band to guarantee universal free-to-air television to population.

Coverage of mobile services in rural areas can be achieved only with new infrastructures. Spectrum is already available and frequencies have been already allocated but still not fully exploited. Problems of rural areas coverage are not connected with the availability of additional spectrum, but rather with market failure conditions where expensive infrastructural investments rarely show positive return of investments.

4 Drivers and enablers for 6G

4.2 6G usage scenarios and their implications on spectrum

"Ubiquitous connectivity is expected to provide affordable connectivity and, at minimum,

¹ "Spectrum, inclusion and sustainability: why WRC-23 matters" - By Xhoana SHEHU, Policy Manager, ETNO – July 2023

basic broadband services with extended coverage, including sparsely populated areas. Typical use cases include, but not limited to, IoT and mobile broadband communication. Networks to serve this usage scenario could be built in the low bands (preferably with carrier aggregation of networks < 1 GHz). Connectivity could be enhanced through interworking with other systems, e.g., non-terrestrial networks.”

Ubiquitous connectivity cannot be achieved through a single technology. Internetworking with Wi-Fi and non-terrestrial networks is absolutely necessary. In any case, low-band spectrum is not a driver or enabler for 6G.

This usage scenario could be built in low band with already allocated spectrum in 900 MHz, 800 MHz and 700 MHz bands.

4.3 Sustainability

Any sustainability assessment for the allocation of new spectrum must take into account the carbon footprint of existing incumbent services compared to 6G under equal conditions. The carbon footprint of a digital terrestrial network with universal coverage is an order of magnitude lower than any IP network capable of providing the same quality performance and audiovisual consumption to the entire population.

5 Spectrum sharing solutions

All the studies provided so far and conducted by ITU-R in preparation for the WRCs starting from 2007, have shown that sharing between IMT and any other service is difficult or completely impossible. This means that any MHz allocated to and sometimes not used by IMT – such as SDL allocations - or not strictly needed for IMT is taken away from other services for which it is vital. A thorough analysis and an assessment of the real usage of the frequencies already allocated to mobile services must be carried out before considering a request for additional spectrum.

6 Strategic Role of Non-Terrestrial Networks in 6G

This is a very important issue, which is being studied in preparation for WRC-27 under AI 1.13. The role of non-terrestrial networks in 6G, or even 5G, must be assessed after the conclusion of WRC-27. It is premature to make any assessment at this stage.

7 Role of authorisation regime

7.3 Single-market dimension

It is appropriate to recall what is stated in the Opinion "Strategy on the future use of the frequency band 470-694 MHz beyond 2030 in the EU": *"RSPG recognises the possibility that, for the use of the 470-694 MHz band, a single scenario may not be applicable to all Member States. Therefore, RSPG recommends any future EU regulatory action to facilitate, to the extent feasible, the implementation of various scenarios among Member States, emphasizing the pursuit of compatible uses and focusing on the means to achieve them."*

8 Input from Research and Development

Same comments as section 7 apply.

9 Input from equipment manufacturers and operators

9.1 Views from equipment manufacturers

9.2 Views from operators

Please consider also other users of spectrum (incumbent users such as broadcasters) input.

10 Spectrum for launching 6G in EU and paving its initial development

The questions to be answered are:

- which frequency band is most useful to launch 6G in Europe, considering the objectives of the new generation of IMT systems?
- can rural areas be better covered by the new MSS systems compared to terrestrial IMT?
- what is the minimum continuous spectrum block considered necessary?

IMT is a family of technologies developed for mobile service to connect mobile devices. Mobile devices have a higher replacement rate than any other device operating with different technologies. Therefore, there is no technical reason why each technology in the IMT family needs a specific spectrum allocation in low, medium and high bands.

The main challenge for the latest generation of IMT technology, the so-called IMT-2030, is the ability to develop a network based on the frequency bands already identified for IMT.

In any case, the current EU framework in UHF band remains applicable. This means that art. 4 of Decision (EU) 2017/899 apply.

It is worth reiterating what is stated in the Opinion "Strategy on the future use of the frequency band 470-694 MHz beyond 2030 in the EU": "*RSPG recognises the possibility that, for the use of the 470-694 MHz band, a single scenario may not be applicable to all Member States. Therefore, RSPG recommends any future EU regulatory action to facilitate, to the extent feasible, the implementation of various scenarios among Member States, emphasizing the pursuit of compatible uses and focusing on the means to achieve them.*"

10.1 Densification of public mobile networks

10.2 Spectrum for 6G for launching phase

10.2.1 How to respond to 6G spectrum needs

The IMT family is expected to grow by 2030 with the newcomer IMT-2030, also called 6G. Despite the general assumption that a new generation of a system, replacing the old one, should reuse the spectrum already assigned, it has always been the case that at each stage of the evolution of the IMT family, new spectrum was required in the low, medium and high bands, independently of the characteristics of the new system and the new functionalities it makes available. A recent contribution to ITU-R WP5D has shown that, at least for ITU-R Region 3, less than half of the spectrum identified for IMT is currently assigned/used by operators. Furthermore, WRC-27 AI 1.7 provides for studies to be carried out for a possible identification of IMT for 6G in the 4, 8 and 15 GHz bands. Despite an assessment by the GSMA of the need for at least 500 – 750 MHz of additional spectrum for 6G deployment in the above-mentioned bands, the preliminary draft CEPT brief does not support identification for IMT in any of these bands. It simply means that, differently from what has been done so far, frequencies for 6G deployment need to be



found in the spectrum already allocated to the mobile service and identified for IMT.

Moreover, it is essential to pursue technology neutrality for all services to guarantee the most efficient use of the radioelectric spectrum. At the same time the regulatory framework should help new technologies evolution setting the phasing out of older ones which do not use any more the spectrum in an efficient manner.