



Association of Wireless Production Technologies e.V.

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By e-mail (CNECT-RSPG@ec.europa.eu)

Re: Response to the Public Consultation on the Draft RSPG Report on 6G Strategic vision

Dear RSPG team and members,

APWPT welcomes the opportunity to comment on the Radio Spectrum Policy Group's (RSPG) consultation on the Draft RSPG Report on 5G Strategic Vision:

APWPT is an independent EU-based association, working for the benefit of all professionals who use PMSE-related radio spectrum ([www.apwpt.org](http://www.apwpt.org)). APWPT has been very active for more than ten years in various regulatory proceedings with the European Commission - EC, Radio Spectrum Policy Group - RSPG, European Conference of Postal and Telecommunications Administrations - CEPT and national regulators to secure PMSE protection against interferers in international organizations on standardization, e.g. ETSI, ECC/CEPT and ITU-R. For instance, APWPT has provided its input<sup>1</sup> in the consultation on RSPG17-037 (long-term strategy on future spectrum needs and use of wireless audio and video PMSE applications) and the Lamy Report.<sup>2</sup>

PMSE (wireless audio and video equipment) is the first part of any production chain, i.e. any harmful interference affecting these low-power devices will have an immense influence on the quality of the content production such as live broadcast, music and sports events, conferences, etc. All these events are increasing in numbers and quality to deliver the expected user experience. All this content production demands a high volume of free spectrum.

## 1. GENERAL COMMENTS

APWPT welcomes the initiative from RSPG to support the development and deployment of 6G in Europe by proactively identifying and addressing spectrum needs.

APWPT considers that the draft report offers a narrow perspective, focusing solely on 3GPP public mobile networks for 6G. It appears to address spectrum needs primarily for public mobile implementations of 6G

technology, with no consideration for the potential entry of other 6G technologies, particularly for their application in private local networks supporting vertical markets.

APWPT considers that as more spectrum is reallocated to public mobile operators, it risks creating a de facto monopoly over connectivity services. This means that diverse sectors such as PMSE, utilities, intelligent transport, and PPDR may be forced to rely solely on contracts with mobile operators to meet their connectivity needs. While it could be argued that competition exists among multiple MNOs, this arrangement effectively eliminates choice and diversity in connectivity solutions, potentially stifling innovation.

APWPT agrees with the RSPG that spectrum sharing is a strategic pillar of spectrum management. APWPT also welcomes the RSPG's initiative to focus on inter-service spectrum sharing, i.e., spectrum sharing between different radiocommunication applications. PMSE has a long history of sharing spectrum with broadcasting in the TV-UHF band in Europe and other regions.

Given the RSPG's emphasis on inter-service spectrum sharing, APWPT questions the characterisation of 'intra-operator sharing' (where an MNO uses its own spectrum for both 4G and 5G services) as a form of sharing (Section 5.2.2). By definition, sharing means "having or using something at the same time as someone else". When an MNO uses only its own spectrum with its own equipment, regardless of the technology used, there is no involvement of a third party. Therefore, this practice does not meet the basic definition of sharing.

Consequently, the APWPT has two general suggestions:

If the report aims to facilitate the launch and operation of networks and services aligned with the 6G vision, its scope should be expanded to include all alternative 6G technologies that support this vision. Otherwise, the title should be revised to accurately reflect what it is really about, the strategic vision on the deployment of specific 3GPP standardized public mobile networks.

To clarify the definition of spectrum sharing and delete examples where the definition of spectrum sharing is being failed

## **2. SPECIAL COMMENTS**

### **COMMENTS ON SECTION 2**

APWPT notes that Section 2 is overly focused on public mobile 5G networks, neglecting non-cellular 5G approaches such as DECT NR+, which are well suited for URLLC and mMTC communication services. The section reduces mobile systems exclusively to MNO-operated networks and equates 5G technology exclusively with 3GPP standards, ignoring other viable technologies. Furthermore, the description of "Dynamic Spectrum Sharing" (DSS) as "spectrum sharing" is misleading as it involves a single user - the MNO - using its own spectrum, which is not the true definition of spectrum sharing.

#### **a) Section 2.4 Locals and verticals**

APWPT recognises the growing demand for spectrum to support vertical and local networks and agrees with the RSPG that this demand will continue to grow and needs to be addressed in future spectrum strategies.

However, the RSPG appears to prioritise the discussion around private networks requiring wide or national coverage. APWPT believes that the need for such extensive coverage for private networks is likely to be minimal and questions whether RSPG has data to substantiate the comparative demand for wide or national coverage versus the local needs of private networks.

For the vertical PMSE, the overall trend is one of increasing PMSE demand at the largest events, and for an increasing number of those large events. (see also ECC Report 323). The innovative PMSE industry is always looking into new possibilities and technologies to cover the increasing demand. Please note as well, although we would be able to use 6G as a technology, we still need dedicated frequency spectrum assigned for private network use.

APWPT agrees with the RSPG that European harmonisation of the 3.8-4.2 GHz frequency band is a key enabler to support the needs of vertical industries in 6G. However, if 6G technology ends up requiring 200 MHz of channels for operation, as suggested by several MNOs, this band will not be able to accommodate the deployment of a significant number of local private networks. It is also important to emphasise that the 3.8-4.2 GHz band is specifically designated by the EC mandate for local coverage and not for wide area or national coverage. Ensuring compliance with this mandate is essential to maintain the intended purpose of the band.

#### b.) Network Integration

APWPT would like to point out that the sentence "leveraging the strengths of non-3GPP and IMT technologies" in the third paragraph of this section incorrectly implies that IMT technologies are exclusively 3GPP technologies. This interpretation is inaccurate, as previously clarified in the General Comments.

## COMMENTS ON SECTION 5

APWPT welcomes the initiative from the RSPG to explore innovative sharing solutions to make a more efficient use of the spectrum, as long as the priority and quality of service requirements of PMSE use cases can be ensured at all times.

#### 5.2.2) Intra MNO sharing

APWPT emphasizes that 'intra-MNO sharing,' where an MNO uses its own spectrum for both 4G and 5G services, does not constitute a valid example of sharing. Sharing, by definition, involves "having or using something at the same time as someone else." When an MNO exclusively utilizes its own spectrum with its own equipment, regardless of the technology deployed, no third party is involved. Thus, this practice fails to meet the fundamental definition of sharing.

#### 5.2.3) Inter service Sharing

PMSE has a long history of spectrum sharing with broadcasting in the TV-UHF band in Europe and in other regions. The establishment of such a common usage is possible in Europe thanks to the GE06 agreement for cross border coordination of DTT channels<sup>3</sup> and due to the predictable behaviour of broadcasting service. This successful sharing scheme has on the one side maximize the efficient use of the spectrum and

on the other side has allowed audio PMSE manufacturers to produce application specific cost-effective equipment to satisfy the demands of the production sector.

Access to quality, interference-free spectrum is key for PMSE. Quality of Service requirements of PMSE use cases must be met at any time when spectrum sharing applies.

APWPT wishes to emphasize that clearing the band of fixed links to introduce SDL is not a valid example of an inter-service sharing solution. Its inclusion in this section is irrelevant, except to underscore that coexistence with MNOs in such cases is not feasible.

APWPT welcomes RSPG's proposals on European harmonization policy to promote interservice and cross-technology sharing where appropriate. However, APWPT emphasizes that cross-technology sharing is only feasible if the technical conditions are truly technology-neutral and not based on standards tailored to a specific technology.

## COMMENTS ON SECTION 7

### Section 7.1) Technology neutrality

APWPT agrees with the RSPG that technology neutrality is essential for future access to ECS spectrum. However, APWPT believes that the RSPG draft report reflects a limited interpretation of technology neutrality. The example of intra-MNO sharing suggests that the RSPG's understanding is centred on a specific set of standards for a specific technology (3GPP) rather than a truly neutral approach.

## COMMENTS ON SECTION 8

### 8.5) 6G Spectrum ecosystem stakeholders, roles and motivations

APWPT notes that this section implicitly assumes that 6G will rely exclusively on public, 3GPP-based technologies. APWPT advocates the inclusion of alternative standardised technologies, such as DECT NR+ and Wi-Fi, among others, as part of the 6G technology landscape. These alternatives can evolve to effectively meet user needs without the need for a full-scale 3GPP network.

### 8.6) On Spectrum access options for stakeholders to establish local 5G/6G networks

APWPT notes that this section again confirms the RSPG's view on 3GPP technology as the only viable option for 6G. It assumes that the deployment, operation and management of 6G technology will be so complex that small vertical players will need to rely on an MNO or a third party with expertise in 3GPP technology to access and benefit from 6G. This overlooks the potential for alternative technologies that could better meet the diverse needs of vertical stakeholders and be easier to deploy, install and maintain.

APWPT believes that even if alternative technologies were available in 6G to better serve the diverse needs of vertical stakeholders, the continued reallocation of spectrum to public mobile operators increases the risk of creating a de facto monopoly over connectivity services. This spectrum policy would ultimately force sectors such as PMSE, utilities and intelligent transport to rely solely on contracts with mobile operators for their connectivity needs. While the presence of multiple MNOs may suggest competition, this approach

effectively limits the choice and diversity of connectivity solutions, potentially stifling innovation and the development of tailored services.

## COMMENTS ON SECTION 10

### 10.1) Densification of public mobile networks

APWPT believes that the costs and sustainability impacts of network densification for public mobile networks cannot be assessed from a single perspective, as the draft RSPG report does. The analysis must also take account of the fact that cost savings to MNOs from the allocation of additional spectrum will be at the expense of services and users displaced from that spectrum, who will bear the associated clearing and relocation costs. Moreover, it is not only about associated cost as e.g., but also PMSE cannot just leave the spectrum below 1 GHz due to physical reasons (e.g., propagation, body absorption).

General comments to the frequencies below 1 GHz -The basic question is what are the goals?

Coverage:

The frequency bands below 1 GHz serve best for coverage but cannot support high-capacity networks and due to allocation to MNO's do not support local private networks. Coverage issues are based on missing infrastructure and cannot be solved by assigning additional frequency bands. In case of that not all MNO's have access to those bands a reallocation of the existing frequency band should be considered.

High-capacity networks:

New networks should focus on high-capacity networks. Networks supporting that are connection through wires (incl. fibre), satellite and mobile networks above 3 GHz.

APWPT would be pleased to be able to contribute further to this discussion. Please do not hesitate to contact us.

Yours sincerely,

Wolfgang Bilz / Dr. Jochen Zenthofer  
*Chairman of the Board of APWPT e. V.*