To:
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5G-MAG response to the TRAI Consultation on Regulating Converged Digital Technologies and Services – Enabling Convergence of Carriage of Broadcasting and Telecommunication services

The 5G Media Action Group (5G-MAG) welcomes the opportunity to respond to the Consultation Paper on Regulating Converged Digital Technologies and Services – Enabling Convergence of Carriage of Broadcasting and Telecommunication services, dated 30.01.2023.

We note that the Consultation Paper includes comprehensive background information and an analysis of the current regulatory framework both in India and internationally at the ITU level and in selected territories. This response aims to provide further information about the scope of 5G-MAG activities, in particular on those relative to the TRAI Consultation.

5G-MAG is a global industry association fostering collaboration across the media and telecommunication industries to engage with global standards and technologies for media applications. Within our membership we count several public service and commercial broadcasters and service providers who already recognize the benefits of standards with a global ecosystem footprint. 5G-MAG became a market representation partner of 3GPP, the standards setting organization behind the development of the global mobile standards (including 5G), whose technologies are present within devices such as smartphones, tablets, wearables, connected cars, etc.

A key area of work within 5G-MAG is around direct-to-mobile (D2M) - broadcast delivery to 3GPP devices. The 3GPP ecosystem is mature, promising, and with a proven track in terms of global device support. 5G-MAG is maintaining the ETSI standard on 5G Broadcast to deliver Television and Radio services. We also draw TRAI's attention to the fact that 5G is being studied for professional production of audiovisual media content including in non-public networks alongside regulatory conditions including suitable spectrum allocations and licensing conditions.

5G-MAG members are driving several work items related to these topics (www.5g-mag.com/workitems). We also invite TRAI to find information about our work in terms of:

- Standards : www.5g-mag.com/standards
- Development and Implementation: https://developer.5g-mag.com
- Comprehensive materials : www.5g-mag.com/explainers
- Trials: www.5g-mag.om/trials

Additional considerations:

- We would like to point out that, in addition to the 5G Broadcast trials mentioned in paragraphs 3.48-3.50, a number of other trials have either taken place in recent years or are still on-going, while further trials may be under preparation. A summary of 5G Broadcast trials by European Public Services Broadcasters is provided in the EBU Technical Report TR044.

- Furthermore, the ITU-R Working Party 6A is currently working on a new report ITU-R BT.[TRIALS-NEW.TMMB] to collect summary description of trials of new technologies for terrestrial multimedia broadcasting for mobile reception using handheld receivers in the broadcasting bands.

- Standalone LTE-based 5G terrestrial broadcast system is defined in ETSI TS 103 720. 5G-MAG is leading the work to update this ETSI specification and align it with the 3GPP Release 17 specifications.

- The ITU-R undertook to include the system defined in ETSI TS 103 720 as 'System L' in ITU-R Recommendations and Reports describing the Terrestrial Multimedia Mobile Broadcasting systems, in particular:
    - Recommendation BT.1833-4 (12/2022)
    - Recommendation BT.2016-3 (12/2022)
    - Report BT.2049-8 (09/2022)
    - Report BT.2295-4 (09/2022)

- To facilitate standalone 5G Broadcast network deployments adequate spectrum allocations and licensing conditions should be put in place. The current work in 3GPP RAN4 to define channel bandwidth of 6, 7, and 8 MHz alongside the definition of suitable frequency bands within the range 470-694/698 MHz will enable standalone 5G Broadcast deployments in different regions in compliance with the existing DTT channel arrangements.

- Work has also been carried out in several publications to develop frequency and network planning and evaluation approaches for 5G Broadcast, including compatibility with the existing DTT systems:
    - EBU Technical Report 063
    - EBU Technical Report 064

- Finally, we draw TRAI's attention to the fact that 5G is being studied for several other media-related applications (as an example, please check the 5G-MAG Work Items). In particular, for professional production of audiovisual media content, including the use of non-public network architectures:
    - Non-Public 5G Networks for content production
    - Deploying Stand-alone Non Public 5G Networks for media production
    - 5G NPNs for media production in collaboration with third-party networks

- Non-public 5G networks require suitable spectrum allocations and licensing conditions, including local and short-term licenses, and in some cases access to the numbering resource.

For inquires in relation to this response please contact:

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