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Re: Høring av forslag til endringer i fribruksforskriften

## Dear Norway Nkom,

IEEE 802 LAN/MAN Standards Committee (LMSC) thanks Nkom for issuing the consultation and the opportunity to provide feedback on "Public consultation - proposal for regulations on the amendment of the free use regulations".

IEEE 802 LMSC is a leading consensus-based industry standards body, producing standards for wireless networking devices, including wireless metropolitan area networks ("Wireless MANs"), wireless local area networks ("WLANs"), wireless specialty networks ("WSNs"), and wireless regional area networks ("WRANs"). We also produce standards for wired ethernet networks, and technologies produced by implementers of our standards are critical for all networked applications today.

IEEE 802 is a committee of the IEEE Standards Association and Technical Activities, two of the Major Organizational Units of the Institute of Electrical and Electronics Engineers (IEEE). IEEE has about 400,000 members in over 160 countries. IEEE's core purpose is to foster technological innovation and excellence for the benefit of humanity. In submitting this document, IEEE 802 acknowledges and respects that other components of IEEE Organizational Units may have perspectives that differ from, or compete with, those of IEEE 802. Therefore, this submission should not be construed as representing the views of IEEE as a whole<sup>1</sup>.

## Comments regarding proposed changes for UWB

The studies in ECC Report 327 show that UWB operates with very low risk of causing interference to other services, due to the extremely low transmit power levels, low activity factors, and other technical characteristics, which support high spectral reuse factors and effective sharing on the spectrum. UWB has proven to be an effective complement to other wireless technologies.

With respect to the proposed updates to the regulations for UWB equipment, IEEE 802 LMSC support that Nkom adopt these changes. Expanding the use of radio determination, position tracking and tracking and data collection using fixed devices in outdoor areas will add great public value. UWB is widely deployed in consumer devices such as smartphones and laptops. This has enabled a large number of use cases with significant value to consumers and significant positive economic impact. Fixed devices work with mobile devices to enhance many of these valuable services. Enhanced indoor operation will improve the robustness of these applications in industrial and crowded environments [1, 2, 3].

IEEE 802 LMSC recommend that Nkom also consider additional changes with respect to vehicular use proposed in the update to ECC Decision (06)04.

# Comments regarding proposed changes for RLAN

IEEE 802 LMSC are supportive both of Nkom's proposals to mirror in national legislation EC's implementing decision 2022/179/EU (ECC/DEC/(08)04 of 2 July 2021) with respect to use of wireless systems, including WAS/RLAN, in the 5 GHz bands [4].

<sup>1</sup> This document solely represents the views of the IEEE 802 LAN/MAN Standards Committee and does not necessarily represent a position of either the IEEE, the IEEE Standards Association or IEEE Technical Activities.

#### Conclusion

IEEE 802 LMSC thanks Nkom for providing the opportunity to provide this submission.

# Respectfully submitted

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### **References:**

- [1] "IEEE Standard for Low-Rate Wireless Networks," in IEEE Std 802.15.4-2020 (Revision of IEEE Std 802.15.4-2015), pp.1-800, 23 July 2020, doi: 10.1109/IEEESTD.2020.9144691.
- [2] "IEEE Standard for Low-Rate Wireless Networks--Amendment 1: Enhanced Ultra Wideband (UWB) Physical Layers (PHYs) and Associated Ranging Techniques," in IEEE Std 802.15.4z-2020 (Amendment to IEEE Std 802.15.4-2020), vol., no., pp.1-174, 25 August. 2020, doi: 10.1109/IEEESTD.2020.9179124.
- [3] IEEE 802.15 WSN<sup>TM</sup> Task Group 4ab (TG4ab) 802.15.4 UWB Next Generation: https://www.ieee802.org/15/pub/TG4ab.html
- [4] "IEEE Standard for Information Technology--Telecommunications and Information Exchange between Systems Local and Metropolitan Area Networks--Specific Requirements Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications," in IEEE Std 802.11-2020 (Revision of IEEE Std 802.11-2016), pp.1-4379, 26 February 2021, doi: 10.1109/IEEESTD.2021.9363693.