Your response

Question	Your response
Question 1: Do you agree with the prioritisation of the agenda items, as shown in Annex 5, and if not why?	No response.
Question 2: Ofcom is supporting the following three priority bands for IMT identification in the RRs: **24.25 – 27.5 GHz** **40.5-43.5 GHz (as part of a wider global 37-43.5 GHz tuning range)** **66 – 71 GHz** **If you don't agree with any of these bands, or think we should be promoting other bands, please provide justification for your views.**	Confidential? – N Wi-Fi Alliance is opposed to identification of 66-71 GHz band for IMT because it would be premature and counterproductive. Identifying 66-71 GHz band for IMT would do little to achieve international harmonization. Instead, such action would create regulatory uncertainty which, in turn, would be highly disruptive to existing operations and discourage ongoing research and development of other types of 5G, multi-gigabit technologies (e.g., WiGig). To date, few sharing and compatibility studies have been carried out on the 66-71 GHz band. This can be explained by the fact that many countries have identified this and adjacent bands for implementation of licence-exempt 5G (e.g. WiGig) technologies. In the United States, the FCC decided to maintain the unlicensed use of the 64-71 GHz band and even to expand these operations on to aircraft in flight. Similarly, the Radio Spectrum Policy Group of the European Union (RSPG), in their Second Opinion on 5G networks stated: *"10. The RSPG is of the opinion that general authorised frequency use can be an important breeding ground for innovation and contributes towards a dynamic market environment. The application of a general authorisation regime is foreseen in the 66-71 GHz band which could be an important band for 5G."*[1]

[1] *See* RSPG Second Opinion on 5G Networks

	Information provided by ITU-R also confirms plans to implement Multiple Gigabit Wireless Systems (MGWS) systems in this frequency band.[2] Furthermore, it is important to recognize the nascent state of 5G ecosystem in the 60-70 GHz frequency range. Multi-gigabit devices are just beginning to be introduced into the market. Growing demand has been driving technological developments towards much higher throughputs (20 Gbps and higher) which can be attained only with corresponding spectrum capacity. It is difficult to predict, prior to WRC-19, how technologies, spectrum needs, market demands and other factors will evolve in this frequency range. In the absence of this understanding, an international-treaty level regulatory action on the 66-71 GHz band at WRC-19 under agenda item 1.13 would be premature and counterproductive.
Question 3: What are your views on the suitability of the currently identified bands for HAPs and do you think there is a requirement for additional spectrum? Recognising that we support 26 GHz as a global band for IMT under agenda item 1.13, what are your views on the bands currently under study for HAPs, both globally and in ITU-R Regions?	No response.
Question 4: What are your views on the bands within scope of Agenda Item 1.16 and their suitability for Wi-Fi and Wi-Fi like services? Do you agree that Ofcom should support the CEPT position of No Change? If not, please provide evidence to support your view.	Confidential? –N ***Regarding 5725-5850 MHz band*** Wi-Fi Alliance commends recent Ofcom decision to extend Wi-Fi access in the 5 GHz band to an additional 125 MHz in the 5725-5850 MHz band ('5.8 GHz band'). With this action, UK joined several Region 2 and 3 countries that allow RLAN operations in the 5.8 GHz band. Billions of WAS/RLANs have been deployed in this frequency range without any cases of interference reported to the ITU. In the meantime, the need for additional Wi-Fi spectrum in mid-band is significant and continues to grow (see Wi-Fi Spectrum Needs Study). Based on this evidence, it

[2] *See* ITU-R Doc. 5-1/32, Recommendation ITU-R M.2003-2 and Report ITU-R M.2227

	would be appropriate for Ofcom, at WRC-19, to propose extension of RLAN operations in the 5.8 GHz band to Region 1 countries consistent with its domestic decision. ***Regarding 5150-5250 MHz band*** WRC-03 adopted constraints on RLAN systems in the 5150-5250 MHz ("5.1 GHz band") in order to protect a single Mobile Satellite Service network (i.e., Globalstar) feeder-uplink operations. Since WRC-03, some countries (e.g., Canada, Japan, US) have authorized RLAN operations at higher EIRP level and relaxed the indoor-only restriction in the 5.1 GHz band. With appropriate power limits and antenna elevation angle constraints, these countries have demonstrated that it is possible to limit power radiated towards satellite receivers in this band, while allowing much needed spectrum access for RLANs. Note that one administration (i.e., US) that allowed RLAN outdoor operations in 5.1 GHz band is also the notifying administration for the Globalstar network (HIBLEO-4FL). Based on years of real-world operational experience, there is no reason to constrain RLAN operations to indoors-only theoretical limits developed over 15 year ago.
Question 5: Do you agree that UK support the inclusion of the updated Recommendation M.1849-1 ("Technical and operational aspects of ground-based meteorological radars") in footnote No.5450A? What are your views on the requirement to include a reference to ITU-R Recommendation ITU R M.1638 1 in footnotes No.5447A and 5.450A and the potential impact upon Wi-Fi (and similar technologies)?	Confidential? – N ***Regarding ITU-R Recommendation ITU-R M. 1849-1*** Wi-Fi Alliance is opposed to the inclusion of ITU-R M.1849-1 in footnotes No. 5.447A and 5.450A because it is simply unnecessary. First, it is important to note that ITU-R M.1849-1 is outdated. Currently Revision 2 is the ITU-R working version of Recommendation M.1849. Thus, incorporation by reference of ITU-R M.1849-1 in to Radio Regulation at WRC-19 would require subsequent regulatory revision(s) at future WRCs. Second, for the bands referenced in footnotes No. 5.447A and 5.450A, the coexistence between WAS/RLAN and the radiolocation service is regulated by No. 5.446A. Inclusion of ITU-R M.1849-1 will not provide any additional protection to the meteorological radar systems and would perpetuate regulatory confusion and ambiguity. ***Regarding ITU-R Recommendation ITU-R M. 1638-1***

	Wi-Fi Alliance is opposed to the inclusion of ITU-R M.1638-1 in footnotes No. 5.447A and 5.450A. CEPT has carried out a significant amount of work to study coexistence between RLANs and new radar systems (not included in Recommendation ITU-R M.1638-0), in particular bi-static radars and fast frequency-hopping radars which operate in 5250-5850 MHz range. Neither CEPT Report 57 nor Report 64, however, provide recommendation on appropriate mitigation techniques necessary to protect these radars. In fact, currently, the only realistic mitigation technique identified to protect radars from RLAN interference is the Dynamic Frequency Selection (DFS). However, the existing DFS techniques at 5 GHz have not been designed to protect radars that are referenced in ITU-R M.1638-1 (e.g., bi-static radars and fast frequency-hopping radars). Thus, inclusion of ITU-R M.1638-1 in in footnotes No. 5.447A and 5.450A would impose an impossible regulatory requirement which would preclude existing and future RLAN operations in the 5 GHz band. This would be detrimental to billions of RLAN devices already deployed in 5 GHz and to the future of RLAN industry as a whole. Moreover, such action would contradict Resolution **764** (WRC-15) objective to ensure that no undue constraints are imposed on the services referenced in Nos 5.447F and 5.450A footnotes (i.e., including Mobile service (RLAN)).
Question 6: Do you agree that UK support a position of not making changes to the Radio Regulations to reference specific bands for M2M/IoT usage?	No response.
Question 7: What are your views on the potential removal of the limitations listed above?	No response.
Question 8: What are your views on the approach we are proposing to take in respect of ESIMs and are there any additional factors that you think we should take into account?	No response.
Question 9: What are your views on the establishment of regulatory provisions, in Article	No response.

22, that cover non-GSO operation between 37.5 and 51.4 GHz?	
Question 10: What are your views on the various issues under consideration under Agenda Item 7, particularly in respect of the bringing into use of non-geostationary satellite networks (i.e. Issue A)?	No response.
Question 11: What are your views on Agenda Item 9.1.1?	No response.
Question 12: What are your views on the potential establishment of satellite pfd limits, in the 1 452 – 1 492 MHz band, to protect terrestrial use?	No response.
Question 13: Do you have any views on the bands being studied and are there any other considerations which you think should be taken into account? What are your views on the appropriateness of the current emission limits in the band 3 700 – 4 200 MHz?	No response.
Question 14: Do you agree that no changes to the RRs are required, under Agenda Item 9.1.7, and that managing the unauthorised operation of earth station terminals (deployed within its territory) should be addressed by the national administration concerned?	No response.
Question 15: What are your views on the need for additional fixed satellite service allocations in the band 51.4 – 52.4 GHz?	No response.
Question 16: What are your views on Agenda Item 1.8, particularly the need to enhance maritime safety, set against the need to respect the	No response.

international spectrum allocations and the protection of passive services in adjacent bands?	
Question 17: What are your views on Agenda Item 1.9.1, particularly the need to respect the current integrity of the AIS?	No response.
Question 18: What are your views on Agenda Item 1.9.2, particularly the need to take into account current national users in the bands defined by RR Appendix 18?	No response.
Question 19: What are your views on Agenda Item 1.10 and do you think that any changes to the Radio Regulations may be necessary?	No response.
Question 20: What are you views on Agenda Item 1.11, and do you agree that no specific identification for rail communications is required in the Radio Regulations?	No response.
Question 21: What are you views on Agenda Item 1.12 and do you agree that there is no requirement for specific identification to ITS in the Radio Regulations?	No response.
Question 22: What are you views on Agenda Item 9.1.4 concerning radiocommunications for sub-orbital vehicles?	No response.
Question 23: What are your views on Agenda Item 1.1, recognising that licensed amateur operators in the UK already have access to parts of the 50 – 54 MHz band?	No response.

Question 24: What are your views on Agenda Item 1.2 concerning power limits for MetSat, Mobile Satellite and EESS, and the linkage to agenda item 1.7?	No response.
Question 25: What are your views on Agenda Item 1.3, particularly on any limits required to protect terrestrial use?	No response.
Question 26: What are your views on Agenda Item 1.7 considering spectrum needs for short duration satellites, noting also the potential linkages to Agenda Item 1.2?	No response.
Question 27: What are your views on Agenda Item 1.15, particularly on the protection needs of passive services?	No response.
Question 28: What are your views on Agenda Item 9.1.6, particularly on the categorisation of WPT and whether WRC action is required?	No response.
Question 29: Do you have any comments concerning the Standing Agenda Items, where not covered elsewhere in this document?	No response.
Question 30: Are you aware of any specific issues, not covered elsewhere in this document, which are likely to be raised in this part of the Director's Report and of which you think Ofcom should be aware?	No response.
Question 31: Do you have any comments on Agenda Item 9.3 considering Resolution 80?	No response.
Question 32: What changes to the Radio Regulations have you	Confidential? – N

identified that would benefit from action at a WRC and why? Do you have any proposals regarding UK positions for future WRC agenda items or suggestions for other agenda items, needing changes to the Radio Regulations, that you would wish to see addressed by a future WRC?	Wi-Fi Alliance urges the UK to oppose any attempts to have a new Agenda Item associated with the 5925-7125 MHz range. Consideration of the 5925-7125 MHz range under a WRC-2023 Agenda Item would be highly disruptive to future planned RLAN deployments / services and would further delay provision of high-speed internet which is of paramount importance to society. In adopting the ECC Work Item (5925-6425 MHz) there was an expectation that spectrum above 6425 MHz may be considered for future RLAN deployments. Wi-Fi Alliance is concerned that there could be proposals associated with identifying this band/range for IMT which should be opposed. We do not believe that a WRC-2023 Agenda Item is needed considering previous WRCs agreed a MOBILE allocation for this range. We have already expressed concern associated with the 2020 timescale assigned to the EC Mandate so having a 2023 date assigned to any WRC-2023 Agenda Item would raise even more concern particularly since this would mean a third WRC with no guarantee that access to this band for RLAN would be enabled.