Your response

Question	Your response
Question 1: What interest do you have in deploying outdoor or standard power Wi-Fi or other licence exempt RLANs in the Lower 6 GHz band? Please provide details of the types of expected deployments.	WBA is a not-for-profit organization and has been active in Wi-Fi space since its inception in 2003. WBA's vision is to drive the seamless and interoperable services experience via Wi-Fi within the global wireless ecosystem for carriers, consumers, enterprises and cities. WBA is one of a few AFC services providers already approved by U.S. FCC and we intend to offer this service in the UK also to support the growing need for Standard Power licence exempt 6 GHz connectivity. Standard Power applications will play a role at least in the following: A) **Public and private outdoor venues:** open-air stadiums, public parks, city infrastructure, all benefit from cost-effective and seamless connectivity enabled by extending the ubiquitous Wi-Fi infrastructure B) **Enterprise connectivity:** large campuses benefit from robust connectivity, and Standard Power licence exempt 6 GHz allows extending indoor RLANs to campus-wide high bandwidth, ubiquitous and cost-effective connectivity. Standard power enabled via AFC, while essential for outdoors, can also enhance indoor connectivity. Standard power allows 6 GHz logistical networks for warehouses covering both indoors and outdoors. C) **Industrial automation:** Wi-Fi is becoming more and more of the go-to technology for automation and real-time monitoring. Higher channel count and low latency permit communication with a large array of end points while keeping deployment costs low D) **Broadband expansion:** Fixed Wireless Access has become an important way to bring Broadband to areas not economical for fibre deployment U.S. and Canada have authorized use of AFC. Their au-

Question	Your response
	thorization of connectorized antennas and weatherproof Standard Power Access Points (APs) are a good model for regulatory flexibility. Users are familiar with Wi-Fi and that makes adoption smoother. Users can benefit from self-provisioning of their own private or public network. This provides a lot more independence than having to provision a device onto an MNO network
Question 2: Are you interested in providing or developing AFC databases for use in the Lower 6 GHz band in the UK?	WBA is already approved by thew FCC for providing AFC services in the U.S.. WBA intends to offer AFC services in other regions also including the UK
Question 3: Do you have any views on the operational considerations of setting up and running AFC databases?	WBA has already invested in AFC and is highly interested in leveraging the investment in as many regions as possible. Key for the UK would be to harmonize their rules with large markets to ensure reuse of already validated AFC services
Question 4: Do you have any views on how we should manage the approval process for AFC databases and, in particular, whether we should rely on parts of the FCC process rather than requiring the whole process to be re-run in the UK?	WBA fully endorses the approach of following U.S. FCC lead on this and benefit from regulatory harmonization to keep development costs low and reduce time to deployment. It makes sense to leverage investments that have already been proven to function and expand the benefits of this technology to everyone in the UK. A closely aligned AFC query model can potentially obviate the need for full scale retesting
Question 5: Please provide any other comments on our proposals for extending access to standard power Wi-Fi and outdoor use, including the overall approach, any details on technical parameters and the running of the AFC databases in this band.	AFC support for outdoor and indoor deployments, as noted in response to question 1, would enrich 6 GHz licence exempt deployments. It is important for extending ubiquitous experience. AFC database should support flexible allocation of power for up to 4W EIRP. AFC for indoor deployments would account for Building Entry Loss (BEL) when determining a channel availability. Composite devices with Low Power Indoor (LPI) and Standard Power can support either or both modes. For deployments not enabling AFC, LPI remains available simplifying decision making process when acquiring new Wi-Fi equipment

Question	Your response
Question 6: Do you have any comments on our proposal to use a "phased" approach, or on the alternative to wait for European harmonisation?	For a phased approach, an advance notice from Ofcom can allow infrastructure enablers (Service Providers, MNOs, etc.) to provision for potential changes in spectrum allocation in the future. There can be strategies where equipment accessible later for firmware updates would get refreshes to spectrum allocation changes. For low end equipment that may not be accessible after sale or deployment, equipment vendor could potentially limit it to spectrum range that is expected to survive a potential spectrum change in the future. Client (or end point) devices wouldn't need any special provisioning since their behaviour is primarily based on resources that APs may advertise or provide
Question 7: Do you have any comments on the above suggestion to manage any "legacy" Wi-Fi devices, or alternative suggestions?	WBA agrees with Ofcom that the potential risks posed by "legacy" devices are low. APs designed to support upper 6 GHz band will be high-end products and will most likely be feature-rich and already provisioned for field upgrades with latest software. MNOs and ISPs could make necessary adjustments to spectrum use by these products at the end of phase 1 should Ofcom decide that licence exempt users need to change their use of the upper 6 GHz band. If Ofcom believes that safeguards are needed, such safeguards could be introduced for low-end APs that are not remotely manageable. A cut-off date for operation on the upper part of the 6 GHz band could be preprogrammed by equipment vendors as part of the product design
Question 8: Do you have a view on the amount of spectrum that should be prioritised for Wi-Fi under the prioritised spectrum split option? Please provide evidence for your view.	WBA has previously advocated for entire 6 GHz band of licence exempt use for reasons stated in response to question 6. With Ofcom's consideration of up to 400 MHz in the upper part of the 6 GHz band, same set of use conditions as the lower part of the 6 GHz band should be fine. However, use of entire 6 GHz band for large campuses and industrial automation is highly recommended. It will be important to make these licence exempt use cases an integral part of the regulation
Question 9: Do you have any comments on our plan for a "phase 1" when Wi-Fi will be introduced?	WBA is encouraged by thought leadership at Ofcom and is highly supportive of an immediate action to enable Wi-Fi within 2025

Question	Your response
Question 10: One variation on "phase 1" would be to only authorise Wi-Fi in client devices to "seed" the market. Would you have any views on this, or suggestions for other variations?	WBA supports Ofcom's phase 1 rollout proposal, including immediate authorisation of APs to enable upper part of the 6 GHz band for licence exempt use. There is pent up demand for additional spectrum for Wi-Fi, and Ofcom should follow through on this proposal expeditiously. UK Voluntary National Specification (VNS) will provide a clear path for vendors to certify and bring products to market quickly. Ofcom can also use this as an example and lead alignment within Europe via updates at ETSI BRAN and revising EN 303 687 to support Wi-Fi in the upper 6 GHz band and facilitate harmonised product design for all of Europe
Question 11: Do you have any comments on our plan for a "phase 2" when mobile will be introduced?	For phase 2 transition, in case Ofcom decides to prioritise part of the upper 6 GHz band for mobile, Wi-Fi deployments will need to follow a transition plan to change their use of upper 6 GHz band. Ofcom should set the expectations on anticipated device behaviour for phase 2 up front and before initiating phase 1. This will allow equipment vendors to pre-provision possible rules change for phase 2 for equipment that may be deployed in the field during phase 1 and is unmanaged after it is deployed. For managed equipment, a transition period can be specified up front that can allow vendors to avoid disruptions to their customers when to ensure smooth phase 2 transition
Question 12: Do you have a view on the amount of spectrum that should be prioritised for mobile under the prioritised spectrum split option? Please provide evidence for your view.	Best measure is Ofcom's own Q4'2024 market data update that shows annual mobile traffic growth has fallen sharply to just 7% - and it even includes Fixed Wireless Access (FWA). Smartphone-driven mobile broadband traffic growth is at least flat at this point. It is unclear why mobile would be allocated additional upper 6 GHz spectrum given the state of growth of data over mobile networks. To the contrary, Wi-Fi use is continuing to surge and is already in widespread deployment in various regions. Ofcom will have clearer picture for phase 2 if it so chooses to take time and observe what the rest of Europe ends up deciding

Question	Your response
Question 13: Do you have any evidence or views about the geographical extent of mobile networks' likely deployment in Upper 6 GHz?	-
Question 14: Do you have any comments on our proposed phased approach to authorisation of both Wi-Fi and mobile in the Upper 6 GHz band?	Ofcom is demonstrating strong thought leadership with the phased approach and recognizing the fact that UK users can benefit from licence exempt 6 GHz Wi-Fi immediately. For all the use cases included in response to earlier questions, it makes perfect sense to proceed with the phased plan immediately. Ofcom will still have time to observe developments on mobile side, and then make appropriate decisions for phase 2
Question 15: Do you have any comments on our proposal to not include very low power portable devices in the Upper 6 GHz band at this stage, but to keep this under review?	WBA supports enabling licence-exempt use across all three classes of Wi-Fi products to include Low Power Indoor (LPI), Standard Power (SP), and Very Low Power (VLP) in the upper 6 GHz band. VLP is needed for high performance portable and wearable devices that are an important set of the product suite. WBA is excited about the possibility of opening the band to LPI products as soon as possible, but also strongly recommends Ofcom to follow up with VLP regulations shortly after
Question 16: Do you have any comments on our proposal to authorise the use of low-power indoor Wi-Fi access points and client devices to use 6425–7125 MHz?	WBA is supportive of Ofcom's innovative approach in authorizing licence exempt 6 GHz products. Ofcom should use the same rules for upper part of the 6 GHz as lower
Question 17: Do you have any comments on the proposed technical conditions?	WBA strongly recommends that the regulation for Client devices in the upper 6 GHz band is the same as the lower 6 GHz band including access mechanism[1]. Since Client devices really follow the AP they are connecting to, there is no point in adding unnecessary constraints just because the channel being used is in the upper 6 GHz band
Question 18: Do you have any comments on the proposed VNS draft?	WBA appreciates Ofcom's VNS guidance as a thoughtful way to provide an interim solution to facilitate timely deployment of 6 GHz Wi-Fi equipment. With respect to

[1] This response has been prepared by Policy & Regulatory Affairs Workgroup at Wireless Broadband Alliance (WBA). Not all individual WBA members support the positions set out in the document.

Question	Your response
	the lower and upper 6 GHz bands, upper mirroring the lower will be essential for enabling Wi-Fi products for UK users expeditiously. VNS should actually be expanded to include VLP devices as soon as Ofcom is able to work on the VLP rules
Question 19: Do you have any suggestions for an appropriate mechanism for enhanced sensing, or comments on the proposed solution above?	Wi-Fi has for a long time implemented designs that are centered on coexistence with a host of other technologies. Mobile networks with transmit powers 50–60 dB greater than Wi-Fi, and yet requiring protection from Wi-Fi may not be necessary. The ECC PT1 studies cited to support interference concerns are based on unrealistic deployment scenarios. In practice, both Wi-Fi and mobile networks make use of various spectrum bands and are engineered with built-in resilience. If the Upper 6 GHz band is viewed as supplementary spectrum for both ecosystems, then adding further complexity such as enhanced sensing should be unnecessary. A lot of this coexistence is already handled in upper layer protocols and applications that handle switching between Wi-Fi and mobile data. Perhaps further clarity on new usage scenarios that are being envisioned can help
Question 20: Do you agree with our proposal to restrict Wi-Fi from transmitting in the 6650-6675.2 MHz band to protect the radio astronomy service? Please provide any technical evidence to support your view.	Imposing restrictions on Wi-Fi is unnecessary and WBA would recommend against doing so. Geographic exclusion zones or coordinated access would be much more intelligent approaches to keep this band available in vast majority of the country where radio astronomy is not a concern. This band is a key part of Wi-Fi channel planning for high density deployments, and ensuring its availability needs to be prioritized
Question 21: Do you agree with our assessment of Wi-Fi coexistence with existing users of the band? If not, please provide details.	WBA agrees with Ofcom's assessment that Wi-Fi coexists well with existing users in the 6426-7125 MHz band. We recognise the significant effort that resulted in ECC Report 364 content. It is a thorough assessment of sharing and compatibility issues with WAS/RLAN use in the 6425–7125 MHz band, with some scenarios likely not realistic for deployments. (Please refer to response to question 20.)

Question	Your response
Question 22: Do you have any evidence about the costs to operators of moving fixed links in and around "high density" areas (such as urban centres) to other bands?	-
Question 23: Do you have any comments on our initial assessment of our likely approach to coexistence between future mobile use and current users in the Upper 6 GHz band?	A recent data snapshot suggests that FWA has gained considerable interest among the operators who are seeking IMT in the Upper 6 GHz, but note that WRC-23 captured a different priority, as noted by Ofcom as well. Other assumptions such as use of 3.5 GHz site grid with a higher percentage of base stations above the rooftop also appear to be changing. ECC Report 366 doesn't capture these either. Assumptions behind studies for coexistence requirements between mobile base stations and satellite receivers leading up to WRC-23 will likely not hold true any longer. WRC-23 actually resulted in an ITU Radio Regulations treaty that expects adherence to it to ensure spectrum coordination and prevent interference with satellite communications. This is to our collective benefit that we adhere to the terms of this treaty
Question 24: Do you have any other comments on our policy proposals or any of the issues raised in this document?	WBA thanks Ofcom for its thought leadership as well as its engagement in CEPT discussions related to 6 GHz use. WBA supports Ofcom's phase 1 rollout proposal, including immediate authorisation of APs to enable upper part of the 6 GHz band for licence exempt use