

Your response

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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.	[X]
Question 2: Are you interested in providing or developing AFC databases for use in the Lower 6 GHz band in the UK?	[X]
Question 3: Do you have any views on the operational considerations of setting up and running AFC databases?	The database should be centralised and a collaborative development model between ISP's and MNO's (multi tenant), and would be considered to be paramount to allow for a more distributed operation load. This could also breed innovation and could lead to a more robust solution due to the diverse nature of networks. From a security standpoint the AFC database would need to adhere to stringent security protocols to ensure the safeguarding of sensitive data – this would include regular audits by an independent to ensure system integrity. Finally from a scalability standpoint the infrastructure put in place needs to meet the demands of future technological advancements and be adaptable to evolving regulatory landscapes.
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?	Our opinion is that we should borrow from the elements, where applicable from the FCC, especially in terms of architecture, security and testing. Furthermore establishing a clear set of criteria, of what FCC approvals can be used as evidence vs re-run, would be considered to be the optimal path and speed up the overall delivery of the solution.

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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.	[X]
Question 6: Do you have any comments on our proposal to use a “phased” approach, or on the alternative to wait for European harmonisation?	The phased approach seems to be the most sensible off the 2 options. We would consider that waiting for EU harmonisation could add significant delay towards 6GHz adoption within this new band.
Question 7: Do you have any comments on the above suggestion to manage any “legacy” Wi-Fi devices, or alternative suggestions?	None
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.	We think that the proposal of spectrum allocation is both fair and sensible. Our view is that enabling the expansion up to 320MHz with Wi-Fi priority will enable a fair share policy between MNO and ISP's. The need for more spectrum is not something that is new, but with the introduction of Wi-Fi 7 and emerging low latency applications such as AR/VR, cloud gaming, low latency remote workers, and multi gigabit to the premise, we cannot realise these demands with the current spectrum we have available. We also have to consider the option of manufacturing low cost CPE aimed at the average home user. These devices traditionally will only have 2-3 spatial streams and having more, wider channels available is a key enabler of broad market accessibility. Additionally in larger MDU and high density living environments, frequency re-use and channel planning also become critical.

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Question 9: Do you have any comments on our plan for a “phase 1” when Wi-Fi will be introduced?	We think that Phase 1 is a sensible approach, in particular the early authorisation of LPI Wi-Fi. This will allow for a practical balance between consumer spectrum benefits in the near term, with a vision for flexibility for mobile deployments and EU harmonisation in the long term.
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?	We don’t think there is any point of only allowing the market to be seeded with client devices. Our thoughts are that this will only weaken the potential benefits of early access, as there no practical benefit of having mobile client devices without a way in which to access the spectrum. We also think that strong guidance for device manufacturers should be in place to allow for support for enhanced sensing/AFC as this should allow for a more graceful upgrade path to cater for Phase 2 and better manage “legacy devices”.
Question 11: Do you have any comments on our plan for a “phase 2” when mobile will be introduced?	This seems to be both a sensible and pragmatic approach. However it would be considered essential for both mobile and CPE Wi-Fi equipment manufacturers that there is long term clarity on the constraints that might apply in Phase 2: Coexistence Parameters AFC
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.	No
Question 13: Do you have any evidence or views about the geographical extent of mobile networks’ likely deployment in Upper 6 GHz?	Due to the propagation characteristics of 6GHz we envisage the use will be highly localised and primarily focused on dense urban, high traffic areas and therefore we think it is unlikely to be utilised in rural/suburban areas due to these characteristics.

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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?	The proposed phased approach should allow for data to be gathered from Wi-Fi deployments and this data can then be used to best understand any refinements that could be made to allow for cohabitation.
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?	We consider this to be a sensible approach and would welcome a data-driven review process in favour of a non data-driven review. Also the consideration of portable/mobile devices as AP's in conjunction with AFC would pose a greater risk of interference to incumbents. The option for the mobile device to have use of upper 6GHz could be supported by the introduction of GPS and polling update and exclusion zones via AFC.
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?	[X]
Question 17: Do you have any comments on the proposed technical conditions?	No
Question 18: Do you have any comments on the proposed VNS draft?	[X]
Question 19: Do you have any suggestions for an appropriate mechanism for enhanced sensing, or comments on the proposed solution above?	We believe that the packet would need to be encrypted to prevent spoofing and add a degree of integrity to the enhanced sensing mechanism – we understand the complexity and implications of an encrypted packet, but without encryption it opens up networks to making mis-informed decisions due to this potential exploit. A possible solution would be to pre-authorise/authenticate a CPE on the AFC database. During boot the CPE would retrieve the certificate to enable sensing packet decryption.

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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.	Yes In a previous response we mentioned that Earth Exploration Satellite Services (EESS) and Radio Astronomy require the use of some spectrum some times, for example, the Methanol (CH₃OH) line studies and MERLIN measurements using 6650-6675 MHz.
Question 21: Do you agree with our assessment of Wi-Fi coexistence with existing users of the band? If not, please provide details.	Yes
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?	No
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?	No
Question 24: Do you have any other comments on our policy proposals or any of the issues raised in this document?	No