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.	No Comment
Question 2: Are you interested in providing or developing AFC databases for use in the Lower 6 GHz band in the UK?	No Comment
Question 3: Do you have any views on the operational considerations of setting up and running AFC databases?	No Comment
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?	No Comment
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.	No Comment
Question 6: Do you have any comments on our proposal to use a "phased" approach, or on the alternative to wait for European harmonisation?	GSA's view is that the entire 700 MHz in the Upper 6 GHz band should preferably be made available for use by mobile (IMT) networks operating with full base station EIRP, unhindered by sharing with licence exempt WAS/RLAN (Wi-Fi) operations in the band. Ofcom's proposed phased approach for early authorisation of LPI Wi-Fi use across the entire Upper 6 GHz band will introduce a risk that the band would not be usable by mobile

Question	Your response
	(IMT) networks in the future. This would be due to co-channel interference between indoor/outdoor mobile (IMT) networks and WAS/RLAN (Wi-Fi), unless this can be prevented through a robust regulation and a harmonised, standardised technical sharing mechanism. The issue of interference is of particular concern as the technical feasibility of future European harmonised mechanisms for spectrum sharing between WAS/RLANs and mobile (IMT) networks is by no means certain, and CEPT studies of the signalling mechanism proposed by Ofcom have indicated that it will have low efficacy and would result in mutual interference between the two technologies. Should Ofcom decide to allow WAS/RLAN in any part of the Upper 6 GHz band, it is imperative that it is conclusively demonstrated that any such WAS/RLAN use does not materially impact future mobile (IMT) network operations, both indoors and outdoors, co-channel and adjacent channel. Allowing any WAS/RLAN deployment will limit the usefulness of the band for IMT networks which could slow down mobile growth, including the launch of 6G technology in the UK. Unless robust and reliable techniques for sharing between licence-exempt WAS/RLANs and licensed mobile (IMT) networks are developed, with technical requirements and test procedures that are specified in harmonised standards, and with equipment properly tested for compliance, it is not possible to ensure successful co-channel coexistence between Wi-Fi and mobile (IMT) network operations in the same geographical location without detrimental impacts to both technologies.
Question 7: Do you have any comments on the above suggestion to manage any "legacy" Wi-Fi devices, or alternative suggestions?	As acknowledged by Ofcom, Wi-Fi devices that are proposed to be authorised as Phase-1 in 2025 (or later) to use the entire Upper 6 GHz band ("legacy" devices) will not be equipped with the ability to implement the as-yet-to-be decided and specified technical sharing mechanisms which might be harmonised in Europe in the future. GSA's opinion is that Ofcom's proposal to simply rely on the natural churn of such legacy Wi-Fi equipment authorised in Phase-1 is not a reliable approach to manage the potential risk of harmful interference to and from future mobile (IMT)

Question	Your response
	network deployments, and will negatively impact the incentives for investment in mobile networks in the Upper 6 GHz. Furthermore, Ofcom's notion that suitable sharing signalling mechanisms can be introduced to ensure that Wi-Fi equipment stop transmissions in the Upper 6 GHz band in the future do not account for the uncertainty in the efficacy and feasibility of such future sharing mechanisms (see also our response to Q6). GSA is also concerned about the option proposed by Ofcom whereby "legacy" Wi-Fi access points (APs) would be required to consult a simple web-interface (e.g., from 2030) to confirm they can continue to use the band. "Legacy" Wi-Fi equipment could not only constitute fixed devices/APs but also client devices/handsets that can act as access points, which raises the question of how it could be ensured that "legacy" client devices stop operating in a band in which they have been configured to operate Nor is it clear how a sharing mechanism (whether based on radio signalling or a web-interface) can be reliably introduced to legacy equipment when equipment has already been deployed prior to any specifications of the mechanism itself or of its testing. In summary, GSA considers that where any WAS/RLAN use is permitted in the Upper 6 GHz band, it is imperative that it is conclusively demonstrated that such use does not materially impact any future mobile (IMT) network operations, both indoors and outdoors.
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.	Spectrum in the Upper 6 GHz is key for 5G-Advanced and the launch of 6G. This band will facilitate larger block sizes (e.g. 200 MHz per network) compared to those available in current harmonised bands. This would be particularly beneficial for targeted new services and applications that require larger bandwidth. Upper 6 GHz spectrum responds to capacity and coverage needs for IMT immersive communications usage scenarios and helps reduce capex by enabling the reuse of existing base station sites. It is important not to create artificial spectrum scarcity which could result in expensive spectrum auctions and could drive up the costs of the transmitted traffic unit (£/GByte).

Question	Your response
Question 9: Do you have any comments on our plan for a "phase 1" when Wi-Fi will be introduced?	See our response above to Q6 and Q7 regarding GSA's concerns regarding Ofcom's plans for Phase-1 authorisation of Wi-Fi, its material risk of harmful interference to and from mobile (IMT) networks in the Upper 6 GHz band, the creation of an uncertain interference environment for the introduction of IMT in the band, and its negative impact on incentives for investment in mobile network infrastructure.
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?	GSA's view is that the entire 700 MHz in the Upper 6 GHz band should preferably be made available for use by mobile (IMT) networks. Consequently, GSA's opinion is that such a "seeding" approach would not be beneficial.
Question 11: Do you have any comments on our plan for a "phase 2" when mobile will be introduced?	The Upper 6 GHz band would enable mobile growth, evolution of 5G-Advanced and the launch of 6G in the UK due to its characteristics to support high capacity and wide area coverage, especially in urban and dense environments. Upper 6 GHz should be awarded under similar licensing conditions to the 3.5 GHz in the UK. A licensing approach similar to that for mmWave (26/40 GHz) would not be appropriate and would not incentivize investments by MNOs in the band. Without additional mid-band spectrum, MNOs will not be able to offer certain emerging mobile services in a cost-effective manner citywide. Over the long term this will impact the ability for industry and society to realise the full socio-economic benefits of mobile networks.
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.	GSA's view is that the entire 700 MHz in the Upper 6 GHz band should preferably be made available for mobile (IMT) networks and that Ofcom should consider supporting further IMT identification from within the range 7125-8400 MHz through the WRC-27 process for 6G expansion.
Question 13: Do you have any evidence or views about the geographical extent of mobile networks' likely deployment in Upper 6 GHz?	The Upper 6 GHz band is expected to be deployed in the same base station grid as 3.5 GHz and to provide similar indoor and outdoor performance to support high capacity and wide area coverage, especially in urban and dense environments.

Question	Your response
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?	GSA considers that the economic benefits generated from use of Upper 6 GHz need to be carefully considered before deciding whether the spectrum should be authorised for use via licences for mobile networks or via licence exemption for WAS/RLANs, or through a sharing approach (phased or otherwise), given that the increase in GDP from enabling new technologies, applications and services is significant. To this end, it is important for Ofcom to clearly set out their views with regards to spectrum needs in the UK, to be delivered by each of IMT and Wi-Fi, as a foundation for justifying the need for the authorisation of the two technologies individually or on a shared basis (if needed). Such an analysis is currently lacking. As commented above in the responses to previous questions, GSA is not supportive of the phased approach of introducing Wi-Fi use in the Upper band 6 GHz band. GSA is concerned that Ofcom's proposal to introduce Wi-Fi in the Upper 6 GHz band – as would be the case of allowing any licence exempt deployment – without an existing robust sharing mechanism will significantly limit the usefulness of the band in the future. In general GSA does not support country-specific spectrum solutions which will not facilitate economies of scale in the IMT device ecosystem.
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?	GSA has strong reservations with regards to Phase-1 authorisation of any licence exempt equipment (LPI or VLP) and therefore considers that the introduction of VLPs would further increase the risk of mutual interference with IMT in the Upper 6 GHz band and would add to the uncertainties for the future of this band and the negative impact on incentives to invest in mobile infrastructure.
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?	See GSA's earlier responses above with regards to concerns about the Phase 1 introduction of Wi-Fi equipment in the Upper 6 GHz band.
Question 17: Do you have any comments on the proposed technical conditions?	No Comment.

Question	Your response
Question 18: Do you have any comments on the proposed VNS draft?	No Comment.
Question 19: Do you have any suggestions for an appropriate mechanism for enhanced sensing, or comments on the proposed solution above?	GSA notes that Ofcom has a strong preference for a solution "to adapt mobile base stations to transmit signals that can be readily understood by Wi-Fi devices". GSA is concerned that such a solution would contradict the principle of technology neutrality and also points to studies at CEPT which have indicated that this solution would result in a substantial probability of false negatives and could thus not be relied upon for the avoidance of harmful interference.
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.	No Comment.
Question 21: Do you agree with our assessment of Wi-Fi coexistence with existing users of the band? If not, please provide details.	No Comment.
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 Comment.
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?	GSA considers that Ofcom's initial assessment of the likely approach to coexistence between future mobile use and current users in the Upper 6 GHz band is broadly along the right lines. GSA considers that the protection of RAS in the Upper 6 GHz band should account for site-specific propagation effects and antenna characteristics, as well as RAS usage patterns, in order to avoid unduly restrictive technical conditions for the introduction of mobile networks in the band.

Question	Your response
Question 24: Do you have any other comments on our policy proposals or any of the issues raised in this document?	GSA's opinion is that it is necessary to ensure that mobile network operators have sufficient access to dedicated, licensed spectrum in order to be able to continue providing widespread positive socio-economic benefits. In Europe and in the UK, the Upper 6 GHz band is critical for mobile growth. GSA is concerned that the phased band sharing scenario will significantly hamper the deployment of IMT in the UK, as it will negatively impact mobile evolution and innovation in the country, including a timely launch of 6G technology. GSA is of the view that the approach of opportunistic use by Wi-Fi of the entire Upper 6 GHz band in areas where mobile service has not yet been deployed would lead to an uncertain interference environment and very limited use of the Upper 6 GHz band by mobile services.