Your response

Question	Your response
Question 1: Do you have any comments on our proposals to gather additional antenna parameters, and would you prefer Ofcom to specify a small number of antenna pattern 'envelopes' or for users to provide details of the specific antenna parameters in use for Ofcom to assess? Please provide reasons for your views.	Confidential? – ~~Y~~N Earth station antenna radiation patterns or use of sidelobe envelope masks will support coordination and enable an assessment to be made on interference from mobile system transmissions into wanted signals received by earth stations and will be required for coordination purposes. A small number of 'generic' antenna radiation patterns or 'masks' for mobile antennas could be acceptable provided they highlight potential issues under worst case conditions and indicate whether further detailed coordination may be required. Evaluation of maximum radiated power levels in the direction of earth stations (or levels arising due to topographical diffraction) can help identify whether sharing is acceptable should transmitters be located just beyond the areas around earth stations identified as 0 MHz contiguous spectrum and bandwidth in maps shown as figure 3.1.
Question 2: Do you have comments on the suggested approach to enable user-led coordination in certain circumstances?	User-led coordination evaluations must be transparent in demonstrating that they will not cause unacceptable interference to existing and future earth station services. In the event of disagreement, Ofcom coordination should prevail.
Question 3: Do you have any comments on our proposal to increase the power level of our Low Power product by 3dBm in the 3.8-4.2 GHz band?	Operators must demonstrate that such an increase in transmitted power will not cause unacceptable interference to existing and future earth station services. It is noted that this increase is expected to apply for low power operations in urban areas so is unlikely to affect rural based earth stations. Note 38: states Ofcom will take steps to ensure that any existing assignments that would wish to make use of this higher power do not cause harmful interference to other users in the band.
Question 4 Do you have any comments on our proposal to remove the requirement for	This applies to lower power indoor deployments and would be acceptable:

licensees holding a Low Power 3.8-4.2 GHz licence to keep a record of the address at which mobile terminals connected to an indoor base station will be used?	a) given that such terminals are restricted from operating within the zones (identified in Figure 3.1) around earth stations, b) and defined so that unacceptable levels of interference will not arise into existing and future services
Question 5: Do you agree with our proposals to assume synchronisation between users, and coordinate base station to terminal instead of base station to base station in the 3.8-4.2GHz band? If no, please explain how other measures could increase sharing of the band.	It should be noted that Earth stations are not synchronised with mobile systems so this should have no impact on reductions in separation distance or protection zones for earth stations. Where earth stations are involved. Ofcom must maintain the current unsynchronised approach to coordination in 3.8-4.2 GHz band.
Question 6. Please indicate whether you support our preferred option of coordination at -88 dBm/20 MHz (based on I/N of + 3dB, at 1.5m) or a more conservative alternative of -91 dBm/20 MHz (based on I/N of 0dB at 3m), with reasons for your view.	This option of coordination relates to base stations and may need to be adapted to account for interference into earth stations. Our preferred option is for the more conservative option of coordination is based on -91 dBm/20 MHz to offer protection under worst case conditions. Earth station carrier bandwidths, especially for VSAT in-routes, are often much less than 20 MHz so the avoidance of high-power spectral density 'peaks' within the proposed 20 MHz band should also be restricted. Large bandwidth interferers could effectively produce both cochannel and adjacent channel interference to narrower bandwidth carriers.
Question 7: Do you agree with our proposals for an increase in BEL in 3.8-4.2GHz? If no, are there alternatives which you consider could better achieve similar results?	No comment. Building entry loss is not applicable for earth station antennas.
Question 8: Do you agree with our proposal that adjacent band protection for Shared Access users is in future limited to considering only the first 5 MHz above and below UK Broadband assignments?	Yes, provided transmissions are suitably filtered. A 'mask' to define permissible out-of-band emissions would be useful.
Question 9: Do you agree with our assessment that, in circumstances where localised shortages of spectrum have occurred, pricing can be used to influence requested spectrum amounts?	Yes
Question 10: Do you agree that we should take measures to reflect the impact of bandwidth, power levels and urban/rural location in our pricing approach for the 3.8-4.2	Yes, such measures can help provide protection by discouraging higher power and bandwidth users from potentially affecting operations

GHz band? Do you think there are other factors we should be taking into account?	close to earth stations in the shared access band.
Question 11: How do you consider the illustrative prices would impact your spectrum requirements and future deployment plans in the 3.8-4.2 GHz band? Please provide evidence in support of your view.	It is a disincentive that could help provide protection by discouraging higher power and bandwidth users from potentially affecting operations close to earth stations in the shared access band.
Question 12: Do you have any comments on our proposals to clarify the circumstances in which exceptions are available, the tests we will apply, and how this supports user flexibility outside our overarching rules?	This is acceptable subject to appropriate coordination demonstrating that interference levels will not cause harm to earth station operations. Interference levels should be assessed on the combined total from potential interferers. An increase in heights and higher medium powers from 41 dBm/20 MHz up to 52 dBm/20 MHz in rural areas is a concern for earth stations as it would increase the potential for harmful interference. Interference could be mitigated by appropriate base station antenna coverage/directionality.
Question 13: Do you agree with our overall approach based around refining our existing coordination framework for Shared Access, whilst monitoring future opportunities for more user led and outcomes led coordination where evidence suggests it would be of benefit?	✂
Question 14: Do you agree with our assessment of the potential impact on specific groups of persons?	No comment
Question 15: Do you agree with our assessment of the potential impact of our proposal on the Welsh language? Do you think our proposal could be formulated or revised to ensure, or increase, positive effects, or reduce/eliminate any negative effects, on opportunities to use the Welsh language and treating the Welsh language no less favourably than English?	No comment
Question 16: Do you have any other comments on the proposals set out in this document?	Innovations and developments ✂are leading to ✂services, such as TT&C on drifting satellites as they move to new orbital locations ✂ The assumption that operational antennas remain pointing to a fixed orbital slot in the sky may not always be valid.

Please complete this form in full and return to sharedaccessresponses@ofcom.org.uk.