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
Question 2: Do you have comments on the suggested approach to enable user-led coordination in certain circumstances?	As a satellite service provider and satellite teleport operator, Speedcast has some concerns regarding user-led coordination, both from a technical and practical point of view. Firstly, other users of the spectrum may incorrectly assume that our receivers can tolerate the same C/(N+I) as a cellular service. In actuality, we require zero increase above the natural noise floor, in order to receive C-Band signals from geostationary satellites at our teleports. Additionally whilst the approach appears viable in theory it may be problematic in practice. For example, what happens when a user that initially agrees to tolerate interference and signs an agreement suffers more interference than expected and incurs a period of service interruption (affecting customer experience and requiring cost and resource to manage) . Will such a user be able to rescind their agreement and recoup the costs incurred, and will OFCOM intervene? We are concerned that there will be further resource spent on such user led coordination and dispute management, and we are of the view that it would be beneficial if OFCOM could develop guidelines on how to handle the various scenarios that may arise from such user-led coordination.
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?	In principle, the 3dB EIRP increase is acceptable, however, together with the proposal to remove address recording, Speedcast does have concerns that

	interference will increase and the sources of such interference would be difficult, if not impossible, to locate. As such Speedcast requests that any other use of the 3.8-4.2GHz spectrum is **sufficiently physically separated from our existing teleport operations in Aberdeen**, so as to have a non-measurable increase in the system noise floor. This would provide some degree of protection to existing licensees such as Speedcast. Speedcast also has some concerns about the potential impact on the Receive performance of our Earth Station antennas using the same frequency block for satellite downlink. We propose that OFCOM undertakes technical analysis to test this point – Speedcast will be happy to work with OFCOM on this.
Question 4 Do you have any comments on our proposal to remove the requirement for 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?	Speedcast would accept the proposal for relaxed record keeping for mobile terminals **only if** the physical separation of the entire network (including maximum radius of terminal operation) was consistent with achieving no measurable increase in the system noise floor at Speedcast's Aberdeen teleport. (For example, to protect against interference from a mobile terminal operating on high ground 35km from Aberdeen, working into a cellular system a farther 40km away. Such interference would be intermittent in nature and difficult to troubleshoot, yet could seriously impair the business-critical communications of our clients' remote operations).
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.	
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.	Whilst we recognise the innate ability of cellular systems with adaptive FEC and OFDM to deal with relatively high N+I environments, we are specifically concerned with safeguarding the receive noise floor levels within the environs of our Aberdeen teleport facility. We would support the -88dBm/20MHz coordination level as a new default case, **with the caveat that a radius of increased protection is extended around our Aberdeen**

	facility to ensure no increase in system noise floor at that facility.
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?	
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?	
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?	
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 GHz band? Do you think there are other factors we should be taking into account?	
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.	Speedcast understands that the revised price structure would only apply to shared access users and not to existing Permanent Earth Station licensees such as Speedcast. We seek OFCOM's confirmation on this point. We hold the view that the guiding principle adopted should be that existing licensees should be "no-worse-off" under the revised approach to shared access. We do have concerns that despite maintaining the fee structure for existing Permanent Earth Station licences, indirect costs will arise, for example from having to manage and locate sources of interference (which would be a more complex exercise due to the relaxed record keeping requirements) or managing user led coordination. We propose that OFCOM seeks feedback from existing licensees every 6 months for at least 2 years post-implementation to determine if they are being negatively impacted in any way by the revised measures.

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?	
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?	In principle, the overall approach is acceptable. Speedcast requests that OFCOM engages existing Permanent Earth Station licensees from the offset to share details on the technical and operational requirements of satellite operations and to participate in testing of the new measures. Speedcast has worked closely with regulatory authorities in other jurisdictions on similar exercises and believes that similar collaboration will be beneficial here in the UK.
Question 14: Do you agree with our assessment of the potential impact on specific groups of persons?	
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?	
Question 16: Do you have any other comments on the proposals set out in this document?	Whilst Speedcast welcomes OFCOM's proposals to promote more efficient use of the 3.8-4.2 GHz band, we do request confirmation that existing Permanent Earth Station licensees will not be worse-off as a result of the revised approach. We also have some concerns about not having been involved in technical testing of the proposals (to determine whether there may be unintended operational impact on existing licensees) and the practicality of a more user-led process for coordination and allocation. On the first point, whilst Speedcast understands that this consultation focuses on shared access of the 3.8-4.2 GHz band, we request for confirmation from OFCOM that conditions for existing licensees, including Permanent Earth Stations licence holders, will continue as-is. This should include the same degree of protection from interference, licence

	fee structure and renewal criteria and process of the licences. In other words, there should not be any added cost or resource required from existing licensees as a result of decisions made for shared access of this band. We propose that OFCOM obtains feedback from existing licensees as well as shared users every 6 months for at least the first two years of implementation to enable further refinement of the approach taken, if needed. We are also keen to ensure that sufficient physical separation of any and all other users of the 3.8-4.2GHz spectrum is implemented around our Aberdeen teleport facility. The boundary of physical separation could be implemented as a radius of 100km centred on 57.206N, 2.210W, or it could be defined in a more granular basis that factors in propagation across the surrounding terrain. Speedcast's Aberdeen teleport supports customer in Europe, Africa, Middle East and South America, and the physical separation will safeguard against any increase in the system noise floor at the Aberdeen teleport, so as to allow the teleport to continue to be used for the delivery of strategic and business-critical communications from the UK, with minimal risk of interference from base stations or mobile terminals.

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