## Your response

## Question

Question 1: Do you agree that Ofcom should consider working with relevant industry partners to develop a voluntary testing standard, and publishing a list on our website of static indoor mobile phone repeaters that comply with our licence exemption requirements?

## Your response

Confidential? – N We do not agree.

Although we agree that a voluntary testing standard could be beneficial in tackling illegal repeaters, we do not support the validation process or the publishing of a list of compliant repeaters without limiting the size of deployments permitted. We consider that Ofcom should impose limits on the size of installation in a single premises to prevent large scale deployments that have a high parasitic impact on donor cells and will exacerbate congestion. This will result in a degradation of performance to existing users in the cell. Even under the existing licence exemption, UK case studies have been published where large premises (up to 16,000 square metres) are now served by a multiple repeater solution. We note that Ofcom refers to repeaters as being a solution for home coverage problems. In fact, we believe that use of the premises is broadly irrelevant, but extending use to commercial property without limiting the scale of deployment will cause congestion problems. The consultation appears to have no regard to the possible problems caused by large scale deployments.

Alternative approaches are available. Ofcom should instead find ways to support and encourage the deployment of properly engineered small cell solutions for in-building coverage that would create new coverage cells and add to total network capacity, avoiding degradation of service to existing users in the outdoor cells. The MNOs have invested considerable effort in defining the JOTS NHIB framework to bring neutral hosts into the indoor market and now is the time to concentrate efforts on making that a success and offering viable alternatives for buildings of all sizes.

This should not prevent the deployment of isolated repeaters for smaller indoor coverage areas, which have a limited impact on donor cell capacity, and we agree that such solutions are useful in rural areas where demand is low and alternatives may not be practical. In urban and other built up areas there should be scope for building stakeholders to invest in a properly engineered solution which adds new

	capacity to the network, instead of diluting existing capacity.
	Our suggestion as to a limit would be a single repeater per operator per premises.
Question 2: Do you agree that we should modify IR 2102.1 to allow for 'provider specific' mobile phone repeaters? If you do not agree, please explain your reasons.	Confidential? – N We do not agree. We do not support any further relaxation of the licensing regime which would encourage the proliferation of repeaters in urban and built up environments where their parasitic impact on donor cells will cause congestion to be exacerbated. Ofcom should consider limiting the deployment size, as noted in question 1.
Question 3: Do you agree that we should make 'multi-operator' mobile phone repeaters complying with the technical requirements outlined above (and set out in the draft UK Radio Interface Requirement IR 2102.3 at Annex A3) licence exempt? If you do not agree, please explain your reasons.	Confidential? – N We do not agree. Same response applies as to question 3.
Question 4: Do you agree with our provisional view as set out in paragraph 3.48 above? If you do not agree, please explain why you think the requirement is not necessary.	Confidential? — N We believe that Ofcom may have underestimated the scope of handsets which currently cannot make VoLTE calls. We believe certain operators have/had a practice of not enabling VoLTE on 3 <sup>rd</sup> party provided handsets — i.e. those purchased from a handset supplier rather than the MNO directly.
	However, once the issue of VoLTE support is addressed sufficiently, we do support the removal of the requirement to support 2G/3G from all inbuilding coverage solutions at the same time, including DAS solutions with dedicated base stations and small cell solutions. We do not support making an exception only for repeaters. Allowing 4G only (or 4G/5G) operation will reduce cost for all in-building solutions.
Question 5: Do you agree that it would not be appropriate to allow the use of licence-exempt repeaters in the 2.6 GHz band? If you do not agree, please explain your reasons.	Confidential? – N We agree

Question 6: Do you agree that we should
allow the use of static indoor mobile
phone repeaters (on a licence-exempt
basis) in the paired 700 MHz mobile
band?

Confidential? – N We agree