

Consultation response form

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

Consultation title	Ofcom's future approach to mobile markets
Full name	[X]
Contact phone number	[X]
Representing (delete as appropriate)	Self / Organisation
Organisation name	Netmore IoT Solutions / Netmore Group
Email address	[X]

Confidentiality

We ask for your contact details along with your response so that we can engage with you on this consultation. For further information about how Ofcom handles your personal information and your corresponding rights, see [Ofcom's General Privacy Statement](#).

Your details: We will keep your contact number and email address confidential. Is there anything else you want to keep confidential? Delete as appropriate.	Nothing
Your response: Please indicate how much of your response you want to keep confidential. Delete as appropriate.	None
For confidential responses, can Ofcom publish a reference to the contents of your response?	Yes

Your response

Question	Your response
Do you agree that the key potential market developments over the next five to ten years are those set out in Section 5? Are there any other key developments we should consider?	Broadly we agree. We have a financial analysis from independent consultants showing that private mobile networks benefit not only the customer but also the efficiency of the incumbent MNOs. We believe Ofcom should strongly encourage the growth of such networks and also be ambitious in terms of their scope. There is no fundamental reason why – under the right conditions - they should be limited only to large campus sites and office

	<p>blocks. Let the market decide once market opening measures are in place to make this possible (see below).</p> <p>A second area is IoT where Ofcom should enable much more spectrum for open use particularly by LoRaWAN – an obvious step would be to copy other regional ISM bands around 900MHz and open them here to create a much greater spectrum resource for LoRaWAN and other technologies.</p>
<p>Do you agree that competition among MNOs is likely to continue to play a key role in the delivery of good outcomes, as outlined in Section 6?</p>	<p>Yes but at the same time Ofcom’s spectrum auction policy with spectrum caps has had the effect of raising an incredibly high barrier to innovative operator entry while also disapproving its own academic theory that monetary auctions are the best means of allocating scarce spectrum resources.</p> <p>UK mobile is today a small, closed club (where Ofcom is even open to further consolidation). The auction process in effect protects the interests of the incumbents and shares out spectrum (via spectrum caps and the huge price of entry) only to those incumbent MNOs, ossifying a 1990s industry structure and making a mockery of the philosophical basis used to justify spectrum auctions in the first place.</p> <p>There are signs of hope at least. The n77 band Shared Access initiative is a good first step to enabling a more diverse and agile mobile sector. This spirit of market opening to smaller innovative players should now be extended to mainstream spectrum.</p> <p>Sadly, the 700MHz auction was a missed opportunity to foster alternative industrial and utility 5G networks as we see developing in the USA. “UK PLC” is now unfortunately poorer with less resilient critical infrastructures than otherwise could have been the case.</p>
<p>Do you consider that there are likely to be significant wider external benefits (externalities) from a quicker or more widespread rollout of high-quality networks than that which the market is likely to deliver,</p>	<p>We are not a position to predict innovation across the whole sector. What we do know from Scandinavia is that commercial property owners are at the start of adding digital value to their properties and property management With some of the largest we are piloting in-</p>

<p>as discussed in Section 6? If so, please provide clear examples to help explain your answer.</p>	<p>building private 5G networks and other operators are also active in several countries.</p> <p>A financial analysis conducted by a leading international firm of consultants showed that private indoor 5G networks will generate clear capex (& ROCE) benefits for the incumbent MNOs as well as benefits for the landlord, tenants and, most obviously, the private network operator itself.</p> <p>In the interests of overall economic development and mobile sector efficiency, Ofcom should take decisive action to reduce barriers to the growth of the private operator market as we set out below.</p>
<p>Do you agree with our views on how competition across the value chain may evolve over the next ten years, and the potential implications for the delivery of good outcomes, as outlined in Section 6?</p>	<p>Broadly yes but the process is not helped by Ofcom's spectrum auction policy which has the effect – presumably unintended – of freezing out small innovative players and ossifies the 1990s industry structure.</p>
<p>As set out in Section 6, do you agree that quality of experience will become more important in the future? Do you agree that developing better information on quality of experience for customers will help further the delivery of good outcomes?</p>	<p>-</p>
<p>Do you think there is more that could be done to reduce barriers to customers receiving good indoor coverage (see Section 6)? If so, please outline what steps could be taken and what impact those steps would be likely to have.</p>	<p>The landlord neutral host model needs roaming, or preferably MOCN or MORAN, to work successfully.</p> <p>Enabling this (with suitable but not discriminatory safeguards) should be required of MNOs given the huge imbalance in market power between the incumbent oligopoly and the small new entrants. BAI has a bottleneck facility in the London Underground and while we applaud their success, they are a different case to the next wave of indoor and local network innovation that new technology is enabling.</p> <p>This regulatory measure would be directly analogous to PIA and related measures in fibre which after a slow and shaky start are now working well and encouraging huge investment into modernising the outdated fixed infrastructure. Also analogous to the earliest days of telephony liberalisation where mandated interconnect seemed like an</p>

	<p>adventurous step at the time yet now it is impossible to conceive of the sector without this basic facilitator of growth and diversity.</p>
<p>Do you agree that clarifying our future regulatory approach will help encourage investment, as outlined in Section 7?</p>	<p>Clarity is good for investment provided of course what is clarified is an open sector and suitable measures to encourage pro innovative investment rather than protect the legacy structures.</p> <p>Infrastructure funds and real estate investors are willing to back improved mobile networks indoors and perhaps in (rural or unserved urban) local areas but need regulatory stability with roaming / interconnect as the key issue.</p>
<p>Are there any other potential barriers to the delivery of good outcomes over the next five to ten years that we have not considered? If so, please outline what these are likely to be, with supporting examples/evidence where possible, and any suggestions for how they might be reduced.</p>	<p>The fundamental issue for private network and indoor 5G in our view is roaming / interconnect with the incumbent oligopoly.</p> <p>Ending the spectrum auction model at least for pro-innovation bands would help longer term as discussed above. Similarly extend unlicensed spectrum further – unlicensed spectrum works fantastically well.</p>