

Your response

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Section 2: The quality of mobile connectivity we want to see What are your views on the use of the Map Your Mobile good performance metric and how should the measure evolve over time?	Confidential? – Y The use of the Map Your Mobile “good performance” metric, based on real-world crowdsourced data, is strongly supported. It can provide a more meaningful reflection of user experience than theoretical coverage predictions. However, the metric should evolve in the following ways: - Incorporate contextual factors such as rurality, terrain, and population density to avoid unfair comparisons between dense urban and dispersed rural areas. - Include service reliability and consistency alongside raw coverage (e.g. dropped connections, handover failures). - Reflect indoor usability in each element of the key to make it clear to users what they can expect in terms of performance. - Add to the FAQs section based on user feedback. It will help other people using the service as they’re likely to have similar queries but may not submit them. - Evolve the platform based around user queries to improve user experience. It should also be recognised that, while crowdsourced data can provide a better reflection of real-world experience than theoretical coverage predictions, it may be inadvertently biased towards urban areas, where higher population densities generate a greater number of samples. In rural areas, particularly where coverage is poor or unavailable, limited data may be collected. As a result, the available sample may not be sufficiently representative or robust to support meaningful comparisons between urban and rural areas. "Good" should also be clearly defined on the Map your Mobile Checker.

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	Additionally, independent mapping surveys suggests that headline figures may not always reflect users' real-world experience. A survey commissioned by Neath Port Talbot Council found that measured levels of "good" coverage varied significantly between mobile network operators, ranging from approximately 32% to 83% and may not be reflective of the information being provided to Ofcom by MNOs. This demonstrates that the picture of mobile performance can differ depending on the source and methodology used to collect the data, combined with variations in topography and landscape.
Section 3: Market-led improvements in mobile network quality What information do customers need about network quality to choose the best network for their needs, and where are the main gaps in current provision of that information?	Confidential? – N Customers need clear, location-specific information that enables them to compare the performance of individual mobile network operators against their own requirements. This should include: - operator-level performance data - indoor and outdoor coverage - network reliability and downtime - performance during periods of peak demand - information based on real-world experience, rather than predicted coverage alone - Option to select more than one MNO to easily see a comparison between providers in one search - Option to select county/postcode not just search by postcode and then select a premise to enable understanding of coverage which are important to the user e.g. work, travel, other people they are responsible for such as elderly parents etc. Current provision does not provide sufficient clarity on real-world indoor coverage, network reliability or performance during periods of high demand. Crowdsourced data also has inherent limitations and may be affected by device, user and geographic bias, particularly in rural areas where fewer samples are available. A complementary approach to data collection is therefore required.

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How well does Map Your Mobile currently meet customer and stakeholder needs, and what specific improvements would make it more useful?	Map Your Mobile generally meets customer and stakeholder needs and is a significant improvement on previous mobile checkers by Ofcom. Specific improvements include customer decision-making around the locations and journeys that matter most to them, particularly home, work and transport. The information is presented in a clear and accessible way, allowing users to identify which network is most likely to meet their needs without requiring an understanding of technical network data. Whilst this is generally available, additional measures such as usability during peak demand would be useful to provide a more accurate picture of usability which some users may benefit from. The service would also benefit from greater public awareness. Consideration should also be given to whether Ofcom requires stronger powers to obtain relevant performance information from mobile network operators and seek improvements where persistent shortcomings are identified.
Section 4: Connectivity in busy areas - What do you think are the biggest barriers to achieving better mobile performance in town and city centres and why? - What do you think should be Ofcom's main priorities for our future work in this area?	The main barriers to improving mobile performance in town and city centres are capacity constraints caused by high user density, difficulties securing suitable sites, and concerns around commercial viability. Building density and construction materials can also affect signal propagation and indoor coverage, particularly in heavily built-up areas. Ofcom's priorities should include supporting the deployment of small cells, encouraging infrastructure sharing, and access to suitable street-level assets. Greater use of neutral host infrastructure and Open Access Agreements could help address congestion and capacity issues in urban areas. Local authorities can benefit from existing standardised guidance on the development and implementation of Open Access Agreements, informed by best practice from authorities that have already secured them with operators (such as the guidance from Infralink / Scottish Futures Trust and for the Swansea Bay

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What information would stakeholders, especially local authorities / planning authorities find useful for Ofcom to provide further insights on and why?	City Region, shared learning from the approach taken by the City and County of Swansea Council). Digital Champions also play an important role by using local knowledge to identify coverage and capacity issues, coordinate activity across local authority functions, and lobby mobile network operators to encourage investment to address areas where capacity is a known issue. This approach taken by the Swansea Bay City Region has proven to be effective in building positive working relationships with MNOs. To minimise planning delays, MNOs could benefit from earlier engagement with planning departments particularly where there is likely to be objections from communities. Submitting requests for pre-planning consultations would allow planning teams to work with the MNOs/infrastructure providers prior to submitting full planning applications and allow for any potential barriers to be rectified quickly, decreasing the likelihood of objections. Useful information from Ofcom would include forward-looking insights on spectrum use and future network requirements. This would help local authorities identify priority areas, support infrastructure deployment and make better-informed planning decisions.
Section 5: Connectivity in indoor, shared public places - What do you think are the biggest barriers to achieving better mobile performance indoors and why? - What do you think should be Ofcom's main priorities for our future work in this area?	The main barriers to improving indoor mobile performance are the impact of building construction materials on signal penetration, the limitations of higher-frequency spectrum, and the lack of commercial incentives to invest in dedicated in-building solutions. Ofcom's priorities should include promoting shared in-building infrastructure, supporting wider deployment of solutions such as distributed antenna systems, and encouraging closer alignment between mobile connectivity requirements and building regulations. Consideration should be given to whether appropriate in-building mobile infrastructure should form part of planning or regulatory requirements for new public venues and other large, shared spaces.

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What information would you find useful for Ofcom to provide further insights on in relation to connectivity indoors and why?	Ofcom should also consider the implications of the transition away from traditional landline services, particularly in areas where both mobile and fixed broadband connectivity are poor. This is especially important for vulnerable users and those who rely on mobile connectivity as a back-up for services such as telecare when the primary broadband connection is unavailable. Further insight would be valuable on locations where users may be at greater risk because of poor indoor mobile coverage, limited broadband availability and increasing reliance on internet-based communication services. This would help local authorities and other stakeholders identify priority locations and support more targeted intervention.
Section 6: Connectivity on trains - What do you think are the biggest barriers, technical and commercial, to achieving better mobile performance on trains? Which are most significant and why? - Do you agree with our proposal to work with government to support improvements in train connectivity?	The main barriers to improving mobile connectivity on trains are the technical challenges associated with maintaining reliable connections and cell handovers at speed, limited mobile infrastructure along rail corridors, and the commercial viability of investing in areas with relatively low or intermittent demand. Of these, infrastructure availability and the ability to maintain a consistent connection throughout a journey are likely to be the most significant. We strongly support Ofcom working with government to improve train connectivity. This should include coordination with rail operators, infrastructure providers and mobile network operators, with a focus on track-side infrastructure and ensuring that connectivity improvements are considered alongside wider rail investment. Low Earth Orbit satellite technology will play an important role in improving connectivity where terrestrial 4G and 5G coverage is limited, particularly when balancing cost, quality of service and reliability. Welsh Government has been trialling satellite handover technology on the 460 bus service between Carmarthen and Cardigan, with early feedback indicating a reliable service and limited interruption in areas without mobile coverage. Consideration should therefore be given to whether the findings from this work could

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What information would you find useful for Ofcom to provide further insights on in relation to connectivity on trains and why?	inform similar approaches on the rail network, including through engagement with Transport for Wales. We also understand that ScotRail and Transport for Wales may already be considering train connectivity in a more structured way. Ofcom should also consider transport connectivity more broadly, rather than rail in isolation. Reliable mobile coverage is important across road, bus and rail networks, and further work could include drive-by or route-based surveys to provide a clearer picture of users' real-world experience. Useful information from Ofcom would include route-level data on coverage, reliability, handover performance and areas of persistent poor connectivity. This would help transport authorities, local authorities and operators identify priority locations and better coordinate future investment.
Section 7: Connectivity in rural areas - What do you think are the biggest barriers to achieving better mobile performance in rural locations and why? - What do you think should be Ofcom's main priorities for our future work in rural locations and what outcomes should we aim to achieve? - What solutions (technical, commercial, policy or delivery) could improve rural mobile performance?	The main barriers to improving mobile performance in rural areas are limited commercial viability, inadequate backhaul infrastructure, challenging terrain and the higher cost of serving dispersed populations. Seasonal increases in visitor numbers can also place additional pressure on networks in rural and coastal areas where capacity is already limited (a notable and well publicised example being Tenby, Pembrokeshire). Ofcom's priorities should include eliminating total not-spots, improving all-operator coverage and supporting the wider deployment of low-band spectrum, including 700 MHz, to extend the reach of 4G and 5G services. The intended outcome should be reliable "good" coverage across rural areas, rather than reliance on national averages that may conceal persistent local gaps. Potential solutions include greater use of low-frequency spectrum, targeted public intervention in less commercially viable areas, further expansion of the Shared Rural Network, innovative shared infrastructure and neutral host models, and the use of Low Earth Orbit satellite technology for backhaul in remote locations. Emerging partnerships between mobile

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What information would you find useful for Ofcom to provide further insights on in relation to rural connectivity and why?	network operators and satellite providers may offer further opportunities where terrestrial infrastructure is difficult or uneconomic to deploy. Ofcom should adopt a more proactive role in supporting investment and improvement in areas where market-led delivery is unlikely to be sufficient. This should include consideration of how operators can be supported or incentivised to improve coverage in locations that are commercially challenging. Further information would be valuable on Shared Rural Network progress, backhaul availability, rural 5G rollout plans and areas where investment is planned or has been completed. The current availability of clear and consistent information on Shared Rural Network delivery from both government and industry is mixed. Ofcom should consider establishing a structured and consistent approach to communicating planned and completed investment at local authority level. More robust measured data is also required in rural areas. Limited crowdsourced data can make it difficult to assess actual performance and may result in rural connectivity issues being under-represented. Improved rural measurement would help Ofcom, local authorities and mobile network operators identify priority areas and assess whether interventions are delivering meaningful improvements.

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