



Mobile UK

Mobile UK is the trade association for the UK's mobile network operators - EE, O2, Three and Vodafone. As mobile increasingly becomes the device of choice for running daily life both at home and at work, customers seek improvements to coverage, more capacity and greater capabilities. Our goal is to realise the power of mobile to improve the lives of our customers and the prosperity of the UK as a whole.

Our role is to identify the barriers to progress, seek solutions and work with all relevant parties to bring about change, be they Government, regulators, industry, consumers or citizens more generally.

Introduction

1. Mobile UK welcomes the opportunity to submit a response to the Welsh Government's call for evidence for assessing the potential impact of a Business Rates reduction on mobile infrastructure investment in Wales.
2. Mobile UK strongly supports a targeted use of business rates relief to stimulate investment in regions of Wales where there is currently little or no coverage. The rationale for a public policy intervention is that there are public benefits to be gained from wider geographic coverage that cannot be captured, and thus delivered, through the normal competitive process. This is set out in more detail below.
3. Having high quality mobile infrastructure and connectivity is widely recognised to be crucial to the future economic and social prosperity of a nation or region. 94% of adults now use a mobile device.
4. Consumption of mobile services, particularly data, is rising very rapidly and yet industry revenues have flattened over the last few years at just over £15bn per annum (*Ofcom*). The operators are investing £2bn per annum but in an environment of flat revenues, it is very hard to make a return and competition for investment capital both globally and nationally is intense.
5. Much of the investment goes towards optimising the network so that the increased (mostly) data traffic can be accommodated using existing spectrum allocations, and, as far as is possible, network infrastructure.

6. Today's mobile networks are very complex, deploying as they do multiple generations of technologies, multiple frequency bands and new techniques to maximise the user experience: more subscribers getting faster data speeds and a greater volume of data. The ability to optimise networks to their best advantage is a source of competitive advantage and the focus of spending is in locations where the demand for network resource is greatest.
7. Even where the network is optimised, many sites that mobile operators currently deploy are loss making (Across the UK perhaps around 50% and in Wales, in the remoter regions, heavily loss making), in that the cost of building and operating is not covered by the extra revenue gained, both directly by the extra customers covered and indirectly as a result of operators being able to demonstrate the most comprehensive coverage in a competitive market. The extent of coverage is one of the most important factors considered by customers at the point of sale, even if the customer never intends to visit some of the places covered.
8. But loss making coverage increases operational costs, which in turn is reflected in consumer price, another key sensitivity and so mobile operators must always make a very careful judgement on the competitive advantage of extra coverage v the disadvantage of extra running costs. In the intense competition for capital, these factors weigh heavily.
9. As a result, it is highly likely that the hardest to reach places will need some form of public policy intervention if coverage is to be extended.

Public benefit

10. As explained above, there will be regions of Wales where investment by individual operators will be heavily loss making and the losses will be greater than any marketing advantage that might accrue from having a large mobile footprint. The result is that no coverage is provided, to the disadvantage of the region concerned.
11. This disadvantage might manifest itself in a number of ways: businesses do not locate there, or business move away for lack of coverage, thus reducing the local tax base. Public services which could be better (and more cheaply) served through mobile access (e.g. job opportunities, housing, and parking) are not universally available. Public service delivery that relies on mobile connectivity (e.g. district nurses equipped with labour saving smartphones/tablets) are not optimised either.
12. In terms of GDP, Capital Economics¹ calculated the the economic boost to the UK from 4G would be £12 billion per annum (on a per capital basis, greater than £500 million per annum for Wales. This leaves plenty of headroom with which to, at the very least, trial rates reductions to stimulate capital investment and to grow or maintain the local tax base in regions that are currently lacking in coverage.

¹ Improving connectivity – stimulating the economy, November 2014

Q1. Do you believe that a reduction in non-domestic rates applicable to new mobile site infrastructure would lead to an increase in the number of mobile sites that you would deploy to extend coverage in Wales [in rural areas] beyond current / planned levels?

Mobile UK believes that a reduction in business rates will have a positive impact on improving coverage by changing the viability of marginal sites. In many parts of rural Wales, it is very challenging to deliver a mobile signal. There are large areas of National Park and AONBs and much of the population is very dispersed. This is borne out in the data published each year in Ofcom's Connected Nations report.

80% of premises in Wales have indoor telephone call coverage from all four mobile networks. While this is up from 69% in the prior year, it compares poorly with 91% of premises in England. 73% of premises in Wales have indoor coverage for mobile data services from all four operators. Again, this is a considerable improvement on the prior year but still compares poorly with England, where 87% of premises have coverage from all four operators.²

According to Ofcom's Connected Nations Report, 52% of the geographic landmass of Wales has data coverage (3G or 4G) from all four operators. 39% of the area has coverage from one or more operators and 9% has no data coverage from any operator (1,800 sq kilometres). Much of this area is likely to be extremely challenging to get coverage to, bearing in mind the requirements for power, backhaul, and access. However, a 25 metre tower can deliver an outdoor mobile signal across approximately 76 square kilometres³ and so there is plenty potential for a modest number of masts to be incentivised by a business rates reduction, assuming that a reduction would be used to deal with areas where there is currently no coverage.

2. Please explain the answer given in (1) – giving a persuasive rationale for why you believe such a reduction will drive an increase in site numbers (if you believe that to be the case).

The average annualised cost of ownership of a mast in a rural location is set out below:⁴

Land rent	7,506
Business rates	3,753
Legal/agents	1,300
Maintenance	5,200
Radio opex	691
Power - capex	2,550
Power - opex	2,550

² Ofcom – Connected Nations, 2017

³ Mobile Operator Association submission to 'HOW THE PLANNING SYSTEM IN ENGLAND CAN SUPPORT MOBILE CONNECTIVITY', 2015.

⁴ The Economic impact of the proposed Electronic Communications Code reforms, Deloitte 2015.

Transmission - capex	2,500
Transmission - opex	5,200
Site infrastructure	11,500
Cost of capital	12,750
Total annualised cost of ownership	55,500
Opex only	26,200

Business rates represent 7%, on average, of the annualised total cost of ownership (and 14% of the operating costs), currently. That said, with the reforms to the Electronic Communications Code, the site 'rents' (on which business rates are calculated) are predicted to fall and so rates as a proportion of running costs are likely to fall.

Stimulating investment in rural areas is all about reducing the overall costs of ownership by eliminating or lowering costs wherever it is practically possible. Business rates is an obvious and significant candidate. There may in fact be no 'loss' of revenue (if indeed there is any), as the asset may not have been built without the stimulus and any notional loss would be offset by shoring up or improving the tax base from other businesses that can now locate there because of better connectivity (or don't leave for lack of it).

3. If you do believe that a reduction in non-domestic rates would lead to an increase in the sites you would roll-out, please give specific, quantified details of how such a rate reduction would impact your investment decision – for example, what 'gating' processes are used to determine whether a specific site will be deployed and what specific measures (and their thresholds) are assessed during those processes (for example, expected population coverage by the site / expected revenue from the site / time to breakeven for the site / etc.)?

As was mentioned above, 39% of the landmass has coverage from one or more operators and 9% has no coverage. Under a business rates stimulus regime, a likely scenario is that an operator, when deciding to extend its footprint will be steered towards taking advantage of the incentive by covering an area that presently has no coverage, rather than covering an area that already has service from at least one operator. Even though a current 'not spot' is likely to be challenging, this could be offset by the market advantage of less competition in that area and the tax incentive. From a national economic perspective, it is probably more important that areas with currently no signal are prioritised over increasing competition in areas that do have service, albeit not from all four operators.

The business rates reduction is a very cost effective way of achieving this.

4. What will be the likely impact on mobile site numbers that extend existing coverage if no rate / low rate sites are implemented? Please provide specific site numbers and / or details of geographies that could be delivered and / or increases in geographic coverage percentage in Wales, along with associated timeframes.

Mobile UK does not have access to this information. Please see our response to Q1 for an estimate of the remaining geographic area to be covered.

5. What will be the impact on rural businesses and communities of any such increase in site numbers, and why, therefore, should a rate reduction for mobile sites be prioritised?

Please refer to comments in the introduction titled 'public benefit'.

6. Is there any further evidence you would like to submit, for example how wider network coverage provided as a result of business rates relief could be used to support future technology, such as 5G capabilities and the associated wider economic and social benefits?

The incentive should not just apply to masts, but to all mobile equipment in the eligible area, such as any wireless backhaul sites and equipment housing (for example, under 5G, it is expected that operators will install more processing power at the network edge (mobile edge computing - MEC). Currently, most processing is done at the network core (content delivery, location updates, switching etc.). A MEC architecture will reduce latency in the network – a key feature of 5G.

Mobile UK would like to draw the Welsh Government's attention to the Institute of Engineering and Technology's report for policy makers on 5G, in which it emphasises the importance of having the right regulatory and tax regime in place to stimulate investment⁵.

A business rates reduction would be a meaningful way of preparing the ground for 5G, which will be an overlay and complementary to 4G. Such a policy would be in line with the rates holidays afforded to new fixed fibre and would thus recognise that mobile is every bit as important to the economy as fixed infrastructure (for example 70% of voice calls are now initiated on a mobile -Ofcom).

7. How do you believe that sites suitable for rate-reduction should be identified / categorised? For example, whether the system should be related to specific geographies / locations and / or other specific thresholds (such as site height or power / transmission availability, for example, or to degrees of coverage).

The incentive should be given to operators providing new coverage where there is presently none.

⁵ <https://www.theiet.org/sectors/information-communications/resources/5gnetworks.cfm>