



Llywodraeth Cymru  
Welsh Government



# Mobile Action Plan

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## Mobile connectivity in Wales

The importance of mobile connectivity is growing, with mobile phone ownership in Wales now standing at over 90 per cent of adults.

Mobile phones are no longer just about making phone calls or sending text messages; 57 per cent of mobile phone users in Wales report using a mobile phone to go online.

Expectations of the mobile signal are therefore rising, with customers wanting mobile connectivity where they live, work and want to travel. Businesses too want to take advantage of the opportunities that connectivity affords them and do not want to endure the lost opportunities that lack of connectivity costs them.

The four mobile network operators EE, O2, Three and Vodafone already invest heavily in their UK networks.

The Welsh Government recognises the growing importance of mobile technologies and wants to create the right environment to encourage further investment in mobile infrastructure and to promote innovation in mobile technologies.

This plan sets out how the Welsh Government will work together with the mobile phone industry and the regulator to provide connectivity to meet these needs. It will help to create the right conditions for mobile coverage, supporting investment to go further.

The Welsh Government programme for government, Taking Wales Forward, sets out four cross-cutting strategies. Mobile connectivity not only directly supports the United and Connected theme through connecting people and communities but also supports the other three themes by enabling business connectivity, the delivery of public services and learning opportunities. Access to a usable mobile phone signal also supports all of the Well-Being of Future Generations Act goals.

Wales has particular characteristics in terms of topography and population density which pose challenges for mobile operators when deploying mobile infrastructure. The infrastructure required goes beyond the masts and antennae to include fibre connectivity, power supply and access.

The immediate challenges are primarily focused in rural areas but networks must also service existing sites, in order to add capacity in the urban areas, in response to rising demand for mobile data. Furthermore, the introduction of new technologies, such as 5G, will require a densification of the urban networks, including the provision of fibre backhaul and power to support it.

The challenges are reflected in the Ofcom Connected Nations report 2016 which provides a snapshot of mobile coverage for Wales and the other home nations. The statistics, using coverage data from June 2016, reveal that for the majority of coverage measures Wales is less well served than the other UK nations.

In Wales there are significant populations within mountainous and very rural areas. This mix of population and topography creates very specific challenges which require significantly more infrastructure to provide coverage than other areas of the UK. If mobile coverage is going to improve there will need to be an increase in the number of mobile infrastructure sites in Wales, including in more scenic areas. A balance will need to be struck between mobile connectivity and the impact on the landscape.

Statistics from Ofcom for television transmission are useful in highlighting the scale of the challenge. To reach 1 million people in England it requires 12 masts, in Northern Ireland it requires 25, Scotland requires 45 and Wales needs 67.

In addition in some areas of Wales the size of the population fluctuates, for example at major events and in tourist destinations. The network needs sufficient capacity to manage this and provide connectivity at iconic Welsh events.

Telecommunications policy is not devolved to Wales, however, there are levers at the disposal of the Welsh Government that could be used to facilitate improvements in mobile coverage.

However, it will be important to assess their feasibility and effectiveness. The mobile industry has an important role to play in providing the evidence on which to base future interventions.

Below are nine key areas to address. The actions represent a starting point with further activity being developed based on the findings from these initial actions.

# Planning

The planning system has a key part to play in maximising mobile phone coverage across Wales. It is important that the planning regime is fit for Wales and reflects its topography and population distribution. It needs to balance the local economic and societal benefits of having broad mobile signal coverage (and capacity) with the need to safeguard our sensitive landscape areas and protect residential amenity.

Planning Policy Wales (PPW) acknowledges that widespread access to affordable, secure telecommunications infrastructure is important to both communities and businesses. Calls have been made to review national planning policy to highlight the economic benefits of wider mobile coverage and to ensure a consistency of approach.

PPW is currently being revised presenting an opportunity to review and update telecommunications elements. This includes recognising the wider contribution that telecommunications makes to the economy of Wales and the role of local planning authorities in positively planning for telecommunications in their development plans.

The mobile industry have made it clear that changes to permitted development rights including to the size of mobile masts, antenna size and emergency access to infrastructure sites will make the process of deploying new mobile infrastructure and upgrading existing infrastructure quicker and easier.

Welsh Government is currently examining the scope for future changes to the Permitted Development Rights Order, including existing rights for mobile telecommunications apparatus. Permitted development rights for telecommunications were last revised in 2014.

The Code of Best Practice on Mobile Phone Network Development and planning Technical Advice Note (TAN19) will be revised as it is recognised that they need to be up to date and reflect current best practice.

With the introduction of 5G in the next few years a review of the planning regime represents an opportunity to ensure it will support the introduction of the necessary infrastructure.

In the medium term, the introduction of the National Development Framework represents an opportunity to ensure that digital infrastructure is at the heart of planning in Wales.

## Action:

Welsh Government has commissioned research to inform changes to permitted development rights for telecommunications equipment to improve mobile connectivity. This research is due to be completed by Autumn 2017.

## Action:

Welsh Government will refresh Planning Policy Wales (PPW) to ensure that it highlights the positive relationship between telecommunications and the economy. A revised PPW will be published for consultation by Spring 2018.

## Action:

Mobile network operators will work with the Welsh Government to revise and, if appropriate, consolidate the code of best practice and Technical Advice Note (TAN19) on mobile network infrastructure development.

# Public assets

The public sector in Wales has thousands of assets that could be used to site mobile telecommunications infrastructure on public land, public highway and buildings.

With future deployment of 5G and the potential for this to be delivered by a large deployment of small equipment predominantly across urban environments other smaller assets are likely to be of interest, for example lamp and sign posts, bridges, floodlights etc.

Research commissioned by Welsh Government identified three options to better facilitate the identification and use of public sector assets: create a register of public assets; issue guidance documents to public bodies; and, create a single leasing body for public assets.

The mobile industry's main concern was one of facilitation to help mobile network operators and infrastructure providers, and public bodies to work together. Access to public highway land was also a key concern.

The creation of a register of public assets and standardised documentation will be the focus of further development work including that already underway on creating a publicly available national public asset register.

**Action:**

Welsh Government will facilitate relationships between mobile network operators and mobile network infrastructure providers, and estates managers and other interested parties in Welsh public sector bodies.

**Action:**

Welsh Government, in partnership with other public sector bodies, to undertake an audit of the existing asset registers, including the proposed publicly available national public asset register, and assess their suitability for use by mobile infrastructure providers.

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# Non-domestic rates

Research carried out on behalf of the Welsh Government indicates that non-domestic rates account for around 22 per cent of the current total revenue costs of a mobile mast site.

A reduction in non-domestic rates could be used to encourage investment in mobile infrastructure for example, by reducing the overall site operating costs. This could be particularly relevant in areas where the investment case is marginal.

Given that non-domestic rates help to fund public services it is important to understand the extent to which any reduction schemes offered through non-domestic rates could affect investment decisions on mobile infrastructure sites.

The Welsh Government is also seeking provisions in the UK Telecommunications Infrastructure Bill to provide for 100% rates relief for new fibre infrastructure. Access to fibre infrastructure is an important part of mobile network infrastructure deployment.

**Action:**

Welsh Government will assess the impact of a reduction in non-domestic rates for new mobile infrastructure (masts, small cells etc.) on investment decisions by the mobile operators.

**Action:**

Where evidence suggests that a reduction in non-domestic rates would encourage investment the Welsh Government will consider providing non-domestic rates relief on appropriate mobile mast sites.

# Regulation

The regulation of mobile phone services and of the telecommunications infrastructure that supports them is an important lever in delivering better mobile phone coverage and capacity.

Regulation is overseen by Ofcom and regulatory interventions are set at a UK level. For example, coverage obligations in spectrum award licences, whether expressed as percentage of land mass or premises, are a means of delivering service to where people live, work and socialise but can be specified in a Nations sensitive way, as is the case for 4G.

Given the specific challenges posed by the combination of topography and settlement patterns in some areas of Wales

outlined previously, differentiated regulatory interventions may be justified. A more geographically specific approach may consequently be called for to address poor outcomes and this could apply to similar situations in other parts of the UK that face equivalent challenges.

Regulation is a complex area and Welsh Government will need to work closely with Ofcom to understand the opportunities and challenges of geographically differentiated regulation.

## Action:

Welsh Government will work to understand the opportunities and challenges of geographically differentiated regulation, engaging with Ofcom as appropriate.

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# Innovation and emerging technologies

The topography and population density in Wales throws up specific challenges for mobile coverage. Extending coverage as far as possible is likely to require innovative solutions particularly in rural areas.

Technologies devised and tested in a Welsh landscape will be fit for Wales. The Welsh Government is keen to facilitate innovative solutions and for Wales to be regarded as a testbed for new technologies, such as 5G, and other new ways of working.

Wales continues to play an important role in the support of emerging technologies within the mobile communications sector. For example, the Welsh Government is already working with EE in the Teifi Valley to extend coverage using small cell technologies.

Similarly, collaborative partnerships between Welsh Government and EE has seen trialling of small cell technology solutions at Llanbedr Airfield, to provide a permanent 4G service utilising existing fibre broadband infrastructure.

There are a range of solutions which have the potential to provide coverage in rural areas, such as TV White Space, and the use of new technologies, including 5G, on farms.

The Swansea Bay City Region proposal contains several initiatives including TV White Space and a 5G testbed.

## Action:

Welsh Government to continue to support emerging technology initiatives throughout the country including solutions to support rural businesses.

## Action:

Welsh Government and mobile network operators to work together to identify opportunities to develop and test innovative technologies in Wales.

# Infill solutions

The investment being made by the mobile industry towards regulatory targets will significantly improve mobile connectivity in Wales both in terms of voice and data. However, it is likely that there will still be areas of Wales without a usable and reliable mobile signal.

Welsh Government is keen to explore with the mobile industry how these gaps can be addressed either through further investment by the mobile industry or some form of publicly funded intervention. The provisions set out in this plan could further improve connectivity reducing the size of future interventions.

The first step will be to understand the current deployment plans of the mobile network operators to assess the scale and

locations for any intervention. Priorities for public intervention will need to be considered, for example, to enable coverage on the transport network.

## Action:

Welsh Government will scope the extent of any public intervention and mobile operators, through Ofcom, will share appropriate network information to inform its development.

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## Transport

A key focus of the emergency services mobile communications programme (see page 8 below) is to ensure much greater mobile connectivity along the road network and represents an opportunity to also improve consumer services.

The use of public land adjacent to highways also represents a further opportunity to improve coverage on transport routes.

Improved connectivity to meet increasing passenger expectations, including Wi-Fi and charging points, is a requirement for future rail services and Metro systems in Wales.

The Welsh Government is also talking to Network Rail about opportunities for using the rail infrastructure to extend mobile coverage along rail corridors.

## Action:

Welsh Government to explore opportunities for improving connectivity on transport networks.

# ESMCP

The emergency services mobile communications programme (ESMCP) will provide the next generation communication system for the three emergency services (police, fire and rescue, and ambulance) and other identified public safety users. The contract to deliver the infrastructure supporting the Emergency Services Network was awarded to EE. However, in some areas, including some very rural areas in Wales, the Home Office is providing funding to construct masts where it is not viable for EE to do so.

The Welsh Government are working in collaboration with programme to look at how new Home Office funded mobile masts could be future proofed, specifically where

it is considered that wider benefits could be delivered. This will involve building larger mast bases and masts that can be easily extended over time. This would allow multiple mobile operators to install their transmission equipment to provide coverage in remote areas where building a mast is not commercially viable.

**Action:**

Welsh Government to work with the Home Office to future proof masts where appropriate.

**Action:**

Welsh Government to explore how mast sites could be further enhanced.

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## Major events and special projects

Wales is host to a number of large and high profile annual and one off events for example the Royal Welsh Show, National Eisteddfod and International Eisteddfod as well as various sporting events. Some of the events take place in the same location every year and some move around the country.

Ensuring that each event is served by a reliable and usable mobile service is becoming increasingly important not just to serve visitors but also for organisers and exhibitors to offer services and provide information at the events.

Collaborative working between EE, Welsh Government and the Royal Welsh Agricultural Society has resulted in a

permanent mast at the RWAS showground in Builth Wells to serve not only the visitors to the showground but also the local community. This collaborative approach should be replicated for other major events.

**Action:**

Welsh Government will where necessary facilitate relationships between mobile network operators and major event organisers.

**Action:**

Welsh Government to produce a list of high attendance events.