

Mobile Action Plan Update

January 2019



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Mobile Action Plan Update

January 2019



About the Committee

The Committee was established on 28 June 2016. Its remit can be found at: www.assembly.wales/SeneddEIS

Committee Chair:



Russell George AM
Welsh Conservatives
Montgomeryshire

Current Committee membership:



Mark Reckless AM
Welsh Conservatives
South Wales East



Hefin David AM
Welsh Labour
Caerphilly



Vikki Howells AM
Welsh Labour
Cynon Valley



David J Rowlands AM
UKIP Wales
South Wales East



Bethan Sayed AM
Plaid Cymru
South Wales West



Jack Sargeant AM
Welsh Labour
Alyn and Deeside



Joyce Watson AM
Welsh Labour
Mid and West Wales

The following Members were also members of the Committee during this inquiry:



Mohammad Asghar AM
Welsh Conservatives
South Wales East



Adam Price AM
Plaid Cymru
Carmarthen East and Dinefwr



Lee Waters AM
Welsh Labour
Llanelli

Contents

Chair’s foreword	5
Recommendations	6
Conclusions	8
Background	10
1. Coverage in Wales	11
2. Planning	12
Permitted development.....	12
Planning Policy Wales	13
Code of Best Practice and Technical Advice Note TAN(19)	13
3. Public Assets.....	15
4. Non-domestic rates	17
5. Regulation	19
Spectrum sales.....	19
Roaming	21
6. Innovation and emerging technologies	23
7. Infill solutions.....	25
8. Transport.....	26
9. Emergency Services Mobile Communications Programme.....	28
10. Major events and Special Projects	30


Chair's foreword

Anyone who has unintentionally been without their mobile phone for a day will know how essential they are to modern life. More than 90 per cent of adults in Wales now own a mobile phone and will likely know the frustration of losing signal at an inopportune moment, or being with the “wrong” network in an area with limited coverage. For some people living or working in not-spots, that is the reality of everyday life as they are unable to connect to any network and are excluded from the benefits that mobile phones provide.

Mobile phone coverage in Wales consistently lags behind the rest of the UK. Our topography presents a unique challenge to mobile phone operators trying to reach the communities spread across those hard to reach areas. This Committee's report on Digital Infrastructure, published in September 2017, made 12 recommendations to the Welsh Government, including recommendations intended to improve mobile connectivity. During the course of that Inquiry, the Welsh Government published its Mobile Action Plan. Over a year later, our review of the plan has found that coverage has improved in Wales, but the part played by the Action Plan in that is unclear.

More can be done to use the levers the Welsh Government has to develop our planning and non-domestic rates regimes to potentially tip the scales of commercial viability in favour of further investment in some areas. Where that is not possible, the Welsh Government could play a greater role in encouraging mobile operators to share masts to cut the costs of reducing the number of not-spots and partial not-spots in Wales.

There is also more the UK Government could do, and it is important that the Welsh Government continues to lobby them effectively on this issue.

A handwritten signature in black ink that reads "Russell George". The signature is written in a cursive style with a long horizontal flourish underneath.

Russell George AM
Chair, Economy, Infrastructure and Skills Committee

Recommendations

Recommendation 1. The Welsh Government should continue to engage with mobile providers and other stakeholders to capture current best practice for inclusion in the revised and consolidated code of best practice and TAN(19).
..... Page 14

Recommendation 2. The Welsh Government should allow higher masts under the permitted planning regime. The recommendations in the report commissioned by the Welsh Government to inform changes to permitted development should either be implemented, or an explanation given as to why they have been rejected..... Page 14

Recommendation 3. The Welsh Government should continue to engage with mobile operators to seek clarity on the likely impact of business rate reduction in rural areas on mobile coverage to areas poorly provided for at present.....Page 18

Recommendation 4. In areas outside of commercial viability, either providers should be obliged to provide coverage as part of the regulatory framework in which they operate, or the right to provide coverage should revert back to the public sector after a reasonable time. The Welsh Government should continue to work with the UK Government and Ofcom to find a compromise between the two that best serves those who live, work and travel in not-spots and partial not-spots currently..... Page 20

Recommendation 5. Roaming is not an ideal solution to poor coverage, but where network improvements are yet to be delivered, it would go some way to easing connectivity challenges in the short term. The Committee recommends the Welsh Government should continue to lobby mobile operators for rural wholesale access and, if mobile operators do not respond positively, the Welsh Government should call on the UK Government to make rural wholesale access mandatory through Ofcom. Doing so should form part of a wider package aimed at increasing coverage to all areas of Wales..... Page 22

Recommendation 6. The Committee recommends the Welsh Government should engage with mobile operators as soon as is practicable to identify the challenges of rolling out the 5G network, and consider how to address those challenges using the levers it has at its disposal..... Page 24

Recommendation 7. The Committee recommends the Welsh Government should include mobile operators in its discussions with the Scottish Government, to co-produce solutions to delivering publicly funded mobile infrastructure in areas with no mobile technology. Page 25

Recommendation 8. The Welsh Government should include Network Rail and mobile operators in the discussions it is having with Transport for Wales on improved connectivity, to ensure trackside access is provided where necessary. Page 27

Recommendation 9. The Committee recommends that the Welsh Government works closely with EE, the Home Office and other mobile providers to ensure that the earliest opportunities to share infrastructure installed as part of the ESMPC are not lost..... Page 29

Recommendation 10. The Committee recommends that the Welsh Government creates a clear point of contact to enable event organisers to contact the Welsh Government’s Major Events Team to request inclusion of their event in the list of major events..... Page 31

Conclusions

Conclusion 1. The Committee notes mobile operators call for the height of permitted masts to increase to 30m. It also notes the willingness to share masts where possible. The Committee considers there to be an opportunity for the Welsh Government to engage with mobile operators to negotiate higher masts under permitted planning where there is an agreement to share masts and thereby increase coverage from multiple operators. Page 14

Conclusion 2. The Committee notes that the guidance set out in TAN(19) was last updated in 2002 and calls for the revised publication at the earliest opportunity. Page 14

Conclusion 3. The Committee considers early consideration of connectivity when planning new developments to be an example of best practice that should be reflected in a consolidated and updated code of best practice and TAN(19). Page 14

Conclusion 4. Mobile operators were clear to the Committee that any decision they make to install infrastructure must make commercial sense. The Leader of the House makes a similar point on the reduction of business rates for infrastructure, which must provide enough impact to justify the loss of income. Clearly there is no mutual benefit or need to reduce business rates in areas of high population, but if the mobile operators can adequately demonstrate that a reduction of rates in rural areas of low population would improve their business plans for investment, then they should provide that evidence to the Leader of the House. Page 17

Conclusion 5. The Committee considers it vital that Wales has appropriate connectivity to compete in an increasingly digital world. Mobile coverage is no longer a luxury product. Those homes, businesses and workplaces that do not have adequate coverage are at a disadvantage and more should be done to develop adequate infrastructure in those areas. Page 20

Conclusion 6. Roaming is not the ideal solution to poor connectivity. Calls dropping out and the lack of networks to roam onto in some areas are significant barriers. The Committee considers it far preferable to deliver greater geographical coverage across Wales. However, even when greater coverage is achieved, there will be areas that are covered by just one or two networks. Given the importance of convenient travel across Wales, especially in the tourism industry, roaming represents one lever in a wider approach to solve the poor connectivity experienced by mobile customers in rural areas. Page 21

Conclusion 7. While it is helpful to seek best practice and new ideas from other nations facing similar issues, it is important to include key stakeholders in Wales too. Mobile operators in Wales are the experts in the challenges that exist in growing the network here.....Page 25

Conclusion 8. The Committee welcomes the anticipated improvements to connectivity along arterial rail tracks.....Page 26

Conclusion 9. However, concerns remain regarding the trackside access needed to improve connectivity infrastructure and the need for an effective relationship between Network Rail and mobile operators..... Page 27

Conclusion 10. The Committee welcomes the opportunity for all networks to share masts across the road networks in order to substantially increase coverage.Page 29

Conclusion 11. There is an opportunity for significant progress to be made on coverage for A and B roads in Wales as part of the ESMCP, provided that EE and the Home Office deliver infrastructure that is shareable.....Page 29

Conclusion 12. The Committee was pleased to hear that work is ongoing to provide improved connectivity at major events and special projects across Wales. However, it is important that good engagement continues..... Page 30

Background

In September 2017, the Committee published a report which contained recommendations about how the Welsh Government should improve mobile coverage in Wales.

- 1.** The Committee's *Digital Infrastructure in Wales*¹ report contained a number of recommendations about what the Welsh Government should include in its anticipated Mobile Action Plan.
- 2.** The Welsh Government's Mobile Action Plan² was published in October 2017. The Action Plan was described by the Welsh Government at the time as "a series of actions" that followed a mobile roundtable held by the Minister for Skills and Science with mobile providers and regulators earlier that year.
- 3.** In October 2018, The Economy, Infrastructure and Skills Committee carried out a short inquiry to consider the progress made on the action plan.
- 4.** The Committee invited Mobile UK and representatives of the network operators O2, Three, Vodafone and BT Group (of which EE is a part) to give evidence to the Committee on 11 October 2018. The Leader of the House, Julie James AM, gave evidence to the Committee on 17 October 2018.
- 5.** The Committee thanks the witnesses for sharing their time and expertise with the Committee.

¹ Economy, Infrastructure and Skills Committee *"Digital Infrastructure in Wales"* September 2017.

² Welsh Government *"Mobile Action Plan"* October 2017.

1. Coverage in Wales

Coverage in Wales has increased, but the role of the Action Plan in delivering improvements is unclear.

6. Latest Ofcom figures show that the number of premises in Wales with indoor coverage by all operators has reached 67 per cent, an increase from 44% in June 2017. Geographic coverage has reached 56%, up from 28% in June 2017.³ However, Gareth Elliot of Mobile UK told the Committee that improvements had been delivered “independently of the mobile action plan”.⁴

7. The Committee asked the Leader of the House, Julie James, what part the Action Plan had played in improving coverage. In her response, she told the Committee there had been “very good engagement with the industry across the piece, but the main levers for mobile coverage...are not with the Welsh Government”.⁵

8. Richard Wainer of EE welcomed the Mobile Action Plan, calling for rapid action on it. He told the Committee that as we are “now reaching the edges of commercial viability in terms of direct private investment” it was important to work with all governments across the UK to “reduce deployment costs and barriers”.⁶ However, he was unaware of any “concrete decisions”⁷ emerging from engagement between mobile providers, local authorities and Welsh Government to date.

9. Mobile UK agreed, citing reform already being delivered in Scotland and England. Gareth Elliot was clear that “the point of the mobile action plan is to ensure that Wales can maintain and keep on par with the rest of the UK”,⁸ so more rapid action is needed.

10. Telefonica agreed with the need for action, calling on “more leadership from the Welsh Government”⁹ to drive through the changes outlined in the Mobile Action Plan.

³ Economy, Infrastructure and Skills Committee, 11 October 2018, para 164

⁴ Economy, Infrastructure and Skills Committee, 11 October 2018, para 177

⁵ Economy, Infrastructure and Skills Committee, 17 October 2018, para 10

⁶ Economy, Infrastructure and Skills Committee, 11 October 2018, para 173

⁷ Economy, Infrastructure and Skills Committee, 11 October 2018, para 188

⁸ Economy, Infrastructure and Skills Committee, 11 October 2018, para 175

⁹ Economy, Infrastructure and Skills Committee, 11 October 2018, para 276

2. Planning

The Mobile Action Plan acknowledges that the planning system “has a key part to play in maximising mobile phone coverage across Wales”.¹⁰

11. The plan commits to three actions:

- 1.** Completion by autumn 2017 of research to inform changes to permitted development rights for telecommunications equipment to improve connectivity;
- 2.** Consultation on refreshed Planning Policy Wales by Spring 2018; and
- 3.** Revision and, if appropriate, consolidation of the code of best practice and Technical Advice Note (TAN19) on mobile network infrastructure development.

Permitted development

12. The Leader of the House told the Committee that the permitted development research had been completed in December 2017 and published in January 2018.¹¹ As a result of the research, proposed changes to telecommunications permitted developments rights formed part of a wider consultation on the Town and Country Planning (General Permitted Development) (Wales) Order (GPDO) which closed in September.

13. BT told the Committee that in order to meet some of the challenges presented by the topography of Wales, “a more flexible, accommodating planning routine”¹² was needed. He also told the Committee that the Welsh Government proposal for permitted development of 25m masts in non-protected areas should be increased to 30m. All mobile providers agreed on that point.

14. Mobile providers also noted the need to build higher masts where the topography poses particular challenges, and that when higher masts were built, there was a business case for sharing the infrastructure and thereby increasing

¹⁰ [Welsh Government “Mobile Action Plan” October 2017](#)

¹¹ [Planning for Mobile Telecommunications: An Assessment of Permitted Development Rights In Wales](#)

¹² [Economy, Infrastructure and Skills Committee, 11 October 2018, para 222](#)

coverage. EE noted that “if you want to be able to share infrastructure, it needs to be large enough, big enough, to accommodate the equipment for multiple operators, and if, broadly, we are restricted to 15m high masts in Wales under permitted development rights, it makes that incredibly difficult”.¹³ Paul James of Telefonica O2 UK noted that in Scandinavia the average height of masts is 50m.¹⁴

15. The Leader of the House told the Committee that balance was important as different communities “have different views on the trade-off between having the masts up and having the coverage”¹⁵ and so should retain the control of local planning decisions. She also noted that “we’re not inundated in planning authorities with applications for bigger masts”.¹⁶

Planning Policy Wales

16. The Welsh Government consulted on Planning Policy Wales earlier this year and published a revised version in December 2018. The Leader of the House noted that “the consultation only drew one response from the mobile industry”¹⁷ although mobile providers explained that a joint response from the industry’s representative body (Mobile UK) was appropriate as there is “there is a consensus across the industry in terms of what needs to happen”.¹⁸

17. The updated version of Planning Policy Wales makes no changes to the permitted planning regime, although it does strongly encourage mobile operators to share masts where possible, and to justify any decision not to if applying to erect a new mast in close proximity to the mast of another operator.

Code of Best Practice and Technical Advice Note TAN(19)

18. The Leader of the House reported that as revision and consolidation of the code of best practice and TAN(19) is dependent on changes to both permitted development rights and Planning Policy Wales, it cannot be progressed until those have been agreed.

¹³ [Economy, Infrastructure and Skills Committee, 11 October 2018, para 209](#)

¹⁴ [Economy, Infrastructure and Skills Committee, 11 October 2018, para 239](#)

¹⁵ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 68](#)

¹⁶ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 87](#)

¹⁷ [Welsh Government written evidence](#)

¹⁸ [Economy, Infrastructure and Skills Committee, 11 October 2018, para 307](#)

19. Three told the Committee of the frustration caused by connectivity not being considered at an early stage when new housing estates or shopping centres are being developed, resulting in the need to retrofit for mobile phone coverage.¹⁹

Conclusion 1. The Committee notes mobile operators call for the height of permitted masts to increase to 30m. It also notes the willingness to share masts where possible. The Committee considers there to be an opportunity for the Welsh Government to engage with mobile operators to negotiate higher masts under permitted planning where there is an agreement to share masts and thereby increase coverage from multiple operators.

Conclusion 2. The Committee notes that the guidance set out in TAN(19) was last updated in 2002 and calls for the revised publication at the earliest opportunity.

Conclusion 3. The Committee considers early consideration of connectivity when planning new developments to be an example of best practice that should be reflected in a consolidated and updated code of best practice and TAN(19).

Recommendation 1. The Welsh Government should continue to engage with mobile providers and other stakeholders to capture current best practice for inclusion in the revised and consolidated code of best practice and TAN(19).

Recommendation 2. The Welsh Government should allow higher masts under the permitted planning regime. The recommendations in the report commissioned by the Welsh Government to inform changes to permitted development should either be implemented, or an explanation given as to why they have been rejected.

¹⁹ [Economy, Infrastructure and Skills Committee, 11 October 2018, para 267](#)

3. Public Assets

Given that mobile coverage is no longer a luxury item, should public resource be used to deliver it in places beyond commercial viability?

20. The Mobile Action Plan considers the potential for public assets to play a part in deployment of 5G. It sets out two actions in this area:

- 1.** 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; and
- 2.** 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.

21. Mobile UK called for public assets to be made much more available to mobile operators. However, they felt there is currently “a lot of bureaucracy involved”²⁰ and the potential revenue to local authorities is considered over the potential improvement to connectivity.

22. The Leader of the House told the Committee that work is underway to develop a Digital National Asset Register (DNAR) to provide information to mobile operators, and engagement with local authorities is taking place.

23. The Leader of the House considered whether connectivity should no longer be determined by commercial decisions, given that “it’s become something that people rely on and therefore it’s becoming an infrastructure and not a luxury product”.²¹ This report considers this issue further in chapters 6 and 7.

24. The Leader of the House told the Committee research is underway to consider how public Wi-Fi could be provided to enable people to make Wi-Fi calls on smartphones, although state aid rules will need to be considered in detail first.²²

²⁰ [Economy, Infrastructure and Skills Committee, 11 October 2018, para 282](#)

²¹ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 84](#)

²² [Economy, Infrastructure and Skills Committee, 17 October 2018, para 98](#)

She also suggested that communities could be supported to deliver sufficient Wi-Fi signal to achieve the same end.²³

25. The Leader of the House further considered whether the connected and autonomous cars anticipated in the near future would necessitate a publicly owned 5G network that avoids vehicles relying on a commercial operator to stay safe on the road networks.²⁴

²³ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 102](#)

²⁴ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 98](#)

4. Non-domestic rates

The Welsh Government is unconvinced that a blanket business rate reduction will be effective, but a targeted reduction should be explored further.

- 26.** The Mobile Action Plan includes two actions on non-domestic rates:
- 1.** 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; and
 - 2.** 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.

27. BT group told the Committee that business rates “particularly in rural areas”²⁵ do contribute a significant proportion of annual operating expenditure – an average of 14 per cent. It argued that in marginal areas, a reduction would lead to further deployment of mobile connectivity infrastructure.

28. The Welsh Government told the Committee that “if you look at it on a blanket basis, I think we’d find it difficult to make the case [for business rate reduction] stack up”.²⁶ The Welsh Government recognised that there could be more targeted options for rate relief, although the Leader of the House had concerns, saying “I don’t think they’ve got the evidence themselves to say”²⁷ that the approach would make sufficient difference.

29. However, the Leader of the House was clear of the impact of the reduction of rates on the Welsh Government. She told the Committee “it’s a trade-off for us, isn’t it? It’s an income to us...I want proof that losing the income will actually generate the benefit we want”.²⁸

Conclusion 4. Mobile operators were clear to the Committee that any decision they make to install infrastructure must make commercial sense. The Leader of the House makes a similar point on the reduction of business rates for infrastructure, which must provide enough impact to justify the loss of income.

²⁵ [Economy, Infrastructure and Skills Committee, 11 October 2018, para 300](#)

²⁶ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 139](#)

²⁷ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 145](#)

²⁸ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 155](#)

Clearly there is no mutual benefit or need to reduce business rates in areas of high population, but if the mobile operators can adequately demonstrate that a reduction of rates in rural areas of low population would improve their business plans for investment, then they should provide that evidence to the Leader of the House.

Recommendation 3. The Welsh Government should continue to engage with mobile operators to seek clarity on the likely impact of business rate reduction in rural areas on mobile coverage to areas poorly provided for at present.

5. Regulation

Key regulatory levers do not sit with the Welsh Government. More could be done at a UK level to improve coverage across Wales.

Spectrum sales

30. The Mobile Action Plan recognises the importance of regulation in providing greater coverage across Wales. It includes one action:

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

31. Regulation is overseen by Ofcom and regulatory interventions are set at a UK level. Earlier this year, Ofcom proposed to introduce geographic coverage obligations as part of a forthcoming 700Mhz spectrum auction. The Welsh Government told the Committee “the properties of this spectrum are well suited to deliver mobile coverage in rural and very rural areas. As such, it is vital in improving mobile coverage in Wales”. However, the Leader of the House also reported that “Ofcom proposed geographic coverage obligations that were lower in Wales (83 per cent of landmass) than in either England or Northern Ireland (92 percent of landmass)”.²⁹

32. The Leader of the House argued that as coverage in Wales is already lower, the geographical obligations should not be lower than elsewhere to avoid Wales “constantly lagging behind”.³⁰ She considered Ofcom’s proposed approach to be shaped by their belief that the population in certain areas is not high enough to justify the commercial expense of further infrastructure roll-out. However, the Welsh Government consider mobile coverage to be a public service that should be delivered for reasons other than commercial viability.³¹

²⁹ [Welsh Government written evidence](#)

³⁰ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 23](#)

³¹ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 25](#)

33. The Leader of the House used broadband as an analogy, saying “if you don’t allow public investment in that infrastructure, then they’re not going to go...outside the commercial areas”.³²

34. The Committee wrote to Ofcom, noting the requirement for the Post Office to deliver universal services and asking what they considered the implications to be if 100% geographical delivery were a requirement for mobile coverage.

35. Ofcom told the Committee that increasing the geographic coverage obligations in Wales risks the spectrum being unsold in Wales. Ofcom said:

“We have therefore proposed to safeguard a larger coverage uplift for Wales... by ensuring a proportionate scale of improvement.”³³

36. Ofcom agreed that public investment may be needed as a package of measures to bring coverage to some areas.³⁴

37. The Leader of the House suggested that as mobile coverage is an essential infrastructure, there should be an obligation to use the spectrum bought, or it reverts back to public property.³⁵

38. The UK Government is “currently considering legislating to require the inclusion of ‘use it or lose it’ conditions in the new spectrum licences as part of its proposed implementation of the European Electronic Communications Code”.³⁶

Conclusion 5. The Committee considers it vital that Wales has appropriate connectivity to compete in an increasingly digital world. Mobile coverage is no longer a luxury product. Those homes, businesses and workplaces that do not have adequate coverage are at a disadvantage and more should be done to develop adequate infrastructure in those areas.

Recommendation 4. In areas outside of commercial viability, either providers should be obliged to provide coverage as part of the regulatory framework in which they operate, or the right to provide coverage should revert back to the public sector after a reasonable time. The Welsh Government should continue to work with the UK Government and Ofcom to find a compromise between the

³² [Economy, Infrastructure and Skills Committee, 17 October 2018, para 78](#)

³³ [Letter to Chair from Ofcom, 12 December 2018](#)

³⁴ [Letter to Chair from Ofcom, 12 December 2018](#)

³⁵ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 89](#)

³⁶ [Letter to Chair from Ofcom, 12 December 2018](#)

two that best serves those who live, work and travel in not-spots and partial not-spots currently.

Roaming

39. The Leader of the House called for roaming to be encouraged in the UK. She told the Committee:

“The stats are: we’ve got 70 per cent coverage via lots of operators and we’ve got 95 per cent coverage by one operator. So, you could, overnight, by just switching roaming on...take that coverage to 95 per cent for all operators across Wales overnight.”³⁷

40. However, mobile operators disagreed. Kamala MacKinnon of Vodafone told the Committee that roaming would create a poor customer experience as “there’s no such thing as in call roaming, so your call would still drop out and then have to be picked up by another network”.³⁸ She also highlighted that roaming would not increase coverage in not-spots where there was no network to roam onto.³⁹

41. The Leader of the House considered the inconvenience of calls having to be re-connected as users roam across networks to be slightly better than no coverage at all.⁴⁰

42. Three suggested something of a compromise, proposing a rural roaming obligation in which Welsh Government could contract one network to build infrastructure in areas designated not-spots and partial not-spots to a target of 95 percent geographical coverage.⁴¹ However, the other operators did not share Three’s position.

43. Ofcom agreed that rural wholesale access, otherwise known as roaming, that allows customers to roam on one another’s networks in rural areas, would be a useful lever for improving coverage.⁴²

Conclusion 6. Roaming is not the ideal solution to poor connectivity. Calls dropping out and the lack of networks to roam onto in some areas are significant barriers. The Committee considers it far preferable to deliver greater geographical coverage across Wales. However, even when greater coverage is achieved, there

³⁷ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 166](#)

³⁸ [Economy, Infrastructure and Skills Committee, 11 October 2018, para 250](#)

³⁹ [Economy, Infrastructure and Skills Committee, 11 October 2018, para 254](#)

⁴⁰ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 201](#)

⁴¹ [Economy, Infrastructure and Skills Committee, 11 October 2018, para 259](#)

⁴² Letter to Chair from Ofcom, 12 December 2018

will be areas that are covered by just one or two networks. Given the importance of convenient travel across Wales, especially in the tourism industry, roaming represents one lever in a wider approach to solve the poor connectivity experienced by mobile customers in rural areas.

Recommendation 5. Roaming is not an ideal solution to poor coverage, but where network improvements are yet to be delivered, it would go some way to easing connectivity challenges in the short term. The Committee recommends the Welsh Government should continue to lobby mobile operators for rural wholesale access and, if mobile operators do not respond positively, the Welsh Government should call on the UK Government to make rural wholesale access mandatory through Ofcom. Doing so should form part of a wider package aimed at increasing coverage to all areas of Wales.

6. Innovation and emerging technologies

Wales is in danger of falling behind on delivery of 5G.

44. The Mobile Action Plan recognises the importance of innovation and emerging technologies in meeting the challenges presented by the topography and population distribution across Wales. It has two actions in this area:

- 1.** Welsh Government to continue to support emerging technology initiatives throughout the country including solutions to support rural businesses; and
- 2.** Welsh Government and mobile network operators to work together to identify opportunities to develop and test innovative technologies in Wales.

45. All mobile providers reported increases to 4G coverage in Wales, with Ofcom reporting that the geographic area of Wales without 4G coverage from any operator now stands at 12%. Although that figure is broadly in line with the rest of the UK (13%), the coverage of A and B roads in Wales by all operators stands at just 32% meaning that connectivity on the go is still problematic in around a third of the country.⁴³

46. Mobile UK set this in wider context, telling the Committee “2019 is the first expectation of the roll-out of the first commercial networks of 5G. So, we’re at a point of almost just getting ourselves ready for 4G, when we’ve already moved on to the next technology”.⁴⁴

47. Paul James of Telefonica O2 UK said “in some respects, we were already talking about the planning regime in England for, say, 5G, and what that might look like”.⁴⁵ He identified two challenges for Wales: increasing coverage to bring it in line with other parts of the UK and starting a conversation with Welsh Government about 5G.

48. Despite the concern that Wales is falling behind in this conversation, the Mobile Action Plan states: “The Welsh Government is keen to facilitate innovative

⁴³ [Connected Nations Update, Spring 2018](#)

⁴⁴ [Economy, Infrastructure and Skills Committee, 11 October 2018, para 199](#)

⁴⁵ [Economy, Infrastructure and Skills Committee, 11 October 2018, para 191](#)

solutions and for Wales to be regarded as a testbed for new technologies, such as 5G, and other new ways of working”.⁴⁶

49. The Leader of the House told the Committee that although the challenge is “to keep pace with”,⁴⁷ change “there are lots of projects right around Wales looking at various emerging technologies”.⁴⁸ She told the Committee of LoRaWAN technology that wirelessly connects battery or mains operated items to the internet, creating local, regional or global networks. The technology is being used in assisted housing facilities to alert wardens if residents behavioural pattern change, for example; they are not putting lights on or using the kettle, prompting a call or visit to check all is well. The technology is low maintenance, cheap to buy and does not require much bandwidth to run.⁴⁹

Recommendation 6. The Committee recommends the Welsh Government should engage with mobile operators as soon as is practicable to identify the challenges of rolling out the 5G network, and consider how to address those challenges using the levers it has at its disposal.

⁴⁶ [Welsh Government “Mobile Action Plan” October 2017](#)

⁴⁷ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 186](#)

⁴⁸ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 189](#)

⁴⁹ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 189](#)

7. Infill solutions

The Welsh Government is developing a business plan for infill solutions.

50. The Mobile Action Plan has one action on infill solutions:

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

51. The Leader of the House told the Committee “a business case is being developed for publicly funded mobile infrastructure in areas that have no mobile connectivity”.⁵⁰ She confirmed that officials had been in touch with the Scottish Government to inform their approach as they are facing similar challenges and have progressed work on this, going to tender on their preferred solution in March 2018.

52. Mobile operators recognised the need for infill solutions and reported that they were awaiting involvement in the Leader of the House’s plans. Mobile operators shared a number of similar programmes that are underway across the UK to deliver publicly or community funded coverage in areas identified locally as problematic.

Conclusion 7. While it is helpful to seek best practice and new ideas from other nations facing similar issues, it is important to include key stakeholders in Wales too. Mobile operators in Wales are the experts in the challenges that exist in growing the network here.

Recommendation 7. The Committee recommends the Welsh Government should include mobile operators in its discussions with the Scottish Government, to co-produce solutions to delivering publicly funded mobile infrastructure in areas with no mobile technology.

⁵⁰ [Welsh Government written evidence](#)

8. Transport

Discussions about providing connectivity along rail routes are underway.

53. Increasing coverage on the road network is a key priority for the emergency services mobile communications network as discussed in the next chapter of this report.

54. There is also a need to improve connectivity across roads and public transport for public use. The Mobile Action Plan has one action in this area:

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

55. BT Group told the Committee:

“When it comes to rail coverage, clearly, as operators, we have commercial discussions with train operating companies. I think the biggest step change we would like to see to really improve coverage on the railways is a much better relationship with Network Rail, who own the land and infrastructure track-side. Getting sites as close to the track and trains as possible improves coverage. At the moment, we’re generally limited to what we would call track-near or remote sites. It’s difficult to provide coverage in deep cuttings, in tunnels, et cetera.”⁵¹

56. Mobile operators felt that the relationship with Network Rail hasn’t been as effective as it could be to date.⁵²

57. The Leader of the House told the Committee that improved mobile connectivity was included in the Transport for Wales contract for Wales and Borders rail services .. Discussions regarding improvements to mobile coverage along all of the arterial routes are “advanced”⁵³ at this stage.

58. Coverage of A and B roads in Wales is discussed in the following chapter.

Conclusion 8. The Committee welcomes the anticipated improvements to connectivity along arterial rail tracks.

⁵¹ [Economy, Infrastructure and Skills Committee, 11 October 2018, para 372](#)

⁵² [Economy, Infrastructure and Skills Committee, 11 October 2018, para 374](#)

⁵³ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 196](#)

Conclusion 9. However, concerns remain regarding the trackside access needed to improve connectivity infrastructure and the need for an effective relationship between Network Rail and mobile operators.

Recommendation 8. The Welsh Government should include Network Rail and mobile operators in the discussions it is having with Transport for Wales on improved connectivity, to ensure trackside access is provided where necessary.

9. Emergency Services Mobile Communications Programme

The ESMCP has potential to greatly improve connectivity on A and B roads in Wales, but efforts must be made to ensure masts are shareable, and shared at the earliest opportunity.

59. The Emergency Services Mobile Communications Programme (ESMCP) will provide the next generation communication system for the three emergency services and other identified public safety users. The contract for providing the service was awarded to EE, with the Home Office funding mobile masts in some areas that are not viable for EE.

60. Sharing masts erected for the ESMCP could vastly improve the coverage of A and B roads for public use too. If masts erected for ESCMP are shared, coverage could increase from the current 32% to near-universal.

61. The Mobile Action Plan had two actions on ESMCP:

- 1.** Welsh Government to work with the Home Office to future proof masts where appropriate;
- 2.** Welsh Government to explore how mast sites could be further enhanced.

62. In its evidence to the Committee, the Welsh Government said “public funded masts will be future proofed by deploying larger mast bases and robust towers capable of supporting multiple operators”,⁵⁴ thereby allowing multiple operators to install transmission equipment in remote areas where doing so would otherwise not be commercially viable.

63. EE told the Committee that they would be building around 40 new sites and have made the details of those sites available to the other operators, should they wish to share.⁵⁵

64. Other mobile operators welcomed the opportunity to share, noting that doing so could provide near universal coverage to the UK road network.⁵⁶

⁵⁴ [Welsh Government written evidence](#)

⁵⁵ [Economy, Infrastructure and Skills Committee, 11 October 2018, para 189](#)

⁵⁶ [Economy, Infrastructure and Skills Committee, 11 October 2018, paras 391-393](#)

65. The Welsh Government told the Committee that it had been involved in discussions with the Home Office to ensure the masts they delivered were capable of sharing “if not immediately”⁵⁷ then in the future.

Conclusion 10. The Committee welcomes the opportunity for all networks to share masts across the road networks in order to substantially increase coverage.

Conclusion 11. There is an opportunity for significant progress to be made on coverage for A and B roads in Wales as part of the ESMCP, provided that EE and the Home Office deliver infrastructure that is shareable.

Recommendation 9. The Committee recommends that the Welsh Government works closely with EE, the Home Office and other mobile providers to ensure that the earliest opportunities to share infrastructure installed as part of the ESMPC are not lost.

⁵⁷ [Economy, Infrastructure and Skills Committee, 17 October 2018, para 207](#)

10. Major events and Special Projects

Good engagement is helping to achieve improved connectivity at major events and special projects.

66. The Mobile Action Plan notes that it is increasingly important to ensure reliable and usable mobile connectivity is provided at major events and special projects, such as the National and International Eisteddfods, Royal Welsh Show and various sporting events. Two actions are listed:

1. Welsh Government will where necessary facilitate relationships between mobile network operators and major events organisers;
2. Welsh Government to produce a list of high attendance events.

67. The Leader of the House told the Committee that officials have compiled a list of major events, and are working with colleagues in the Major Events team to facilitate discussions with events and projects organisers across Wales. She added that discussions are “ongoing” with a number of major events organisers across Wales, including Hay Festival, Velothon Wales and the Wales Way.⁵⁸

68. Mobile operators have maintained a focus on delivering improved coverage for special events.

69. Vodafone explained “we’ve got a special events team in-house” who work “incredibly hard to boost coverage where we can throughout the year, and we hope you’ve seen those improvements”.⁵⁹

70. EE confirmed that they worked “quite closely with the event organisers and Welsh Government”⁶⁰ to deliver a permanent site at the Royal Welsh Show. Other mobile operators agreed that engagement with the Welsh Government and other authorities in Wales was good when planning for major events and special projects.

Conclusion 12. The Committee was pleased to hear that work is ongoing to provide improved connectivity at major events and special projects across Wales. However, it is important that good engagement continues.

⁵⁸ [Welsh Government written evidence](#)

⁵⁹ [Economy, Infrastructure and Skills Committee, 11 October 2018, para 397](#)

⁶⁰ [Economy, Infrastructure and Skills Committee, 11 October 2018, para 398](#)

Recommendation 10. The Committee recommends that the Welsh Government creates a clear point of contact to enable event organisers to contact the Welsh Government’s Major Events Team to request inclusion of their event in the list of major events.