



Cynulliad
Cenedlaethol
Cymru

National
Assembly for
Wales

Cofnod y Trafodion The Record of Proceedings

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[The Economy, Infrastructure and Skills
Committee](#)

11/01/2017

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from the Remainder of the Meeting

Cofnodir y trafodion yn yr iaith y llefarwyd hwy ynnddi yn y pwyllgor. Yn ogystal, cynhwysir trawsgrifiad o'r cyfieithu ar y pryd. Lle y mae cyfranwyr wedi darparu cywiriadau i'w tystiolaeth, nodir y rheini yn y trawsgrifiad.

The proceedings are reported in the language in which they were spoken in the committee. In addition, a transcription of the simultaneous interpretation is included. Where contributors have supplied corrections to their evidence, these are noted in the transcript.

Aelodau'r pwyllgor yn bresennol
Committee members in attendance

Hannah Blythyn Bywgraffiad Biography	Llafur Labour
Hefin David Bywgraffiad Biography	Llafur Labour
Russell George Bywgraffiad Biography	Ceidwadwyr Cymreig (Cadeirydd y Pwyllgor) Welsh Conservatives (Committee Chair)
Vikki Howells Bywgraffiad Biography	Llafur Labour
Mark Isherwood Bywgraffiad Biography	Ceidwadwyr Cymreig Welsh Conservatives
Jeremy Miles Bywgraffiad Biography	Llafur Labour
Adam Price Bywgraffiad Biography	Plaid Cymru The Party of Wales
David J. Rowlands Bywgraffiad Biography	UKIP Cymru UKIP Wales

Eraill yn bresennol
Others in attendance

John Davies	Cadeirydd, Pwyllgor Ymgynghorol Ofcom dros Gymru Chair, Ofcom Advisory Committee for Wales
Mark Donovan	Swyddog Cleientiaid, Atos Wales Client Executive, Atos Wales
Andrew Ferguson	thinkbroadband thinkbroadband

Joshua Miles	Pennaeth Materion Allanol, Ffederasiwn Busnesau Bach Policy Manager, Federation of Small Businesses
Huw Saunders	Cyfarwyddwr Telathrebu a Rhwydweithiau, Ofcom Director of Telecommunications and Networks, Ofcom
Rhodri Williams	Cyfarwyddwr Cymru, Ofcom Director Wales, Ofcom
Charles de Winton	Syrfëwr Gwledig, Cymdeithas Tir a Busnes Cefn Gwlad Rural Surveyor, Country Land and Business Association

**Swyddogion Cynulliad Cenedlaethol Cymru yn bresennol
National Assembly for Wales officials in attendance**

Gareth Price	Clerc Clerk
Robert Lloyd-Williams	Dirprwy Glerc Deputy Clerk
Robin Wilkinson	Y Gwasanaeth Ymchwil Research Service

*Dechreuodd y cyfarfod am 09:12.
The meeting began at 09:12.*

**Cyflwyniad, Ymddiheuriadau, Dirprwyon a Datgan Buddiannau
Introductions, Apologies, Substitutions and Declarations of Interest**

[1] **Russell George:** Good morning. Welcome back to the first meeting of 2017 of the Economy, Infrastructure and Skills Committee. I trust that Members had a good break. A happy new year to you all. I move to item 1 and ask if there are any apologies this morning. There haven't been any noted. Can I ask if there are any declarations of interest? There are none.

**Rheoleiddiwr Diwydiant/Pwyllgor Ymgynghorol Ofcom dros Gymru—
Seilwaith Digidol Cymru
Industry Regulator/Ofcom Advisory Committee for Wales—Digital
Infrastructure in Wales**

[2] **Russell George:** So, in that case, we'll move to item 2 in regard to our new inquiry on digital infrastructure. I'm very pleased to welcome John Davies to be with us this morning as our first witness of this new inquiry. John is the chair of the Ofcom Advisory Committee for Wales. Members do have a few questions this morning. We have quite a tight schedule but perhaps I could start by asking you, John, to give us an assessment of your views, briefly, on the—your assessment of BT's roll-out of the Superfast Cymru project, perhaps what you feel is the strongest point and the weakest point of the roll-out.

[3] **Mr Davies:** Right. The first thing I need to say is that anything I say will not represent Ofcom policy, nor necessarily that of any other Government body with which I am connected. So, with that disclaimer, my view of the superfast programme is that it's a work in progress that is not yet complete. It is absolutely strategically essential for Wales. Where it has been deployed it is, reasonably well, living up to expectations. I think that it would have been extremely helpful if BT had done more marketing and stimulation to help take-up. I also think that it would have been helpful to the process for the Welsh Government and others if they had had greater responsibility for providing advance notice of where they were going to deploy, and that they were consistent in whatever they said their deployment areas were going to be. It is a project where a lot of public and private money is being deployed, and my concern would be that the benefits, which are not really about speed—they're about the actual benefits to citizens in their lives, and businesses in their operations—had been promoted more vigorously from the outset. I think the committee needs to be aware that three years ago I went on television pointing out that we needed to match the efforts on the supply side with efforts on the take-up and an awareness of the benefits.

09:15

[4] So, my basic view is that it's strategically absolutely essential, it's a reasonably competent level of deployment, there are ways that it might have worked better, and I'm reasonably confident—I don't have the day to day data these days; I'm not running the UK network anymore and not introducing broadband anymore—that it's fit for purpose. That's my basic

view. But I do think that there will be areas of Wales that will need still to gain coverage.

[5] **Russell George:** I'm very grateful, and there're many points that you raised there that I suspect Members will come back on during the next 30 minutes. Hefin David.

[6] **Hefin David:** Just to take a step back from some of those things you've just introduced, BT Openreach has been responsible for the roll-out as a monopoly, and having full focus or control. That can't be a good thing, can it?

[7] **Mr Davies:** I think that one of the problems that is faced by regulators and observers is recognising the fact that this coverage would not be provided by the private sector. There is no commercial case for going into the areas that are covered by the superfast project. Therefore, effectively, you are going to end up with a single provider. The trick is to make the single provider deliver what you want in the interest of users, and to encourage them to do it in a way that is as economical as possible to the public purse or match funding. Because match funding has got as much interest in economy of deployment as the public purse has.

[8] So, I think it's inevitable that you're going to end up with a single supplier. The reality is that in most of these areas the communication links are the fixed links. They are frequently matched by poor mobile coverage, so mobile isn't a ready alternative for fast speeds, and the idea of putting in two lots of lines would be extremely wasteful of resources. You could use the money for the second line, second competitor, or second supplier much more effectively filling in the notspots.

[9] **Hefin David:** So, it sounds like it would be better if it was a state-owned organisation that was doing it.

[10] **Mr Davies:** You are taking me back to my past, and I'm not sure the committee want to go with this. I started out in a state-owned—well, in those days, it was a civil service department, originally, a nationalised industry and then a competitive industry. I think the conditions vary depending on where you are. If you are in the centre of Cardiff, for example, there is enough market potential and it would be a good thing to have lots of competitors. If you are—this may not be true, but, if you are in Bethesda, it might be an entirely different story and the only economic way of providing service is

actually by a single supplier. That's one of the reasons why I think I submitted to the committee a note and also a supplementary note on universal service. You'll see, in the second note, I basically advocate the view that a single provider should actually mop up, in the most economical way, with marginal cost interconnect into the main market, the infilling of places that don't have service. So, I take a very pragmatic view. If competitors were prepared to fill the gap in Bethesda, fine, but if they said they were not going to touch it, either mobile or fixed, then probably you're going to need a single supplier, and then it's a question of how you control that single supplier. There are ways of controlling that single supplier that can be engineered, in my view, to ensure that single supplier offers good service.

[11] **Hefin David:** That's the quality of the contract that you have at the initial outset of the project.

[12] **Mr Davies:** Yes. It's to do with the way you set up the penalties and rewards, but it's also to do with the way that you set up the interconnect arrangements. Because you're not going to create a duplicate network of both the competitive areas and the uncovered areas, but at some point they're going to come together and, therefore, the interconnect arrangements and interconnect pricing, and that being done on a marginal cost basis is potentially beneficial to both parties.

[13] The other thing that people tend not to realise is that once I've provided service to, say, somebody in Bethesda—it might be better if I'd picked Deiniolen or Mynydd Llandygai, but never mind. Once you've done that, the benefit is not only to that particular customer, but it also benefits everybody else on the network who can now talk to that customer. So, there's a two-way benefit in this that can be derived from a single provision, and I think the economics dictate that, for the uncovered areas, single provision with the structure that I've put in the paper—oh, and I can claim, by the way, Chairman, that that paper on universal service was actually backed by the advisory committee and did go to Ofcom in London. So, this is beyond just my personal view.

[14] **Russell George:** I'm grateful. And I should thank you, John, as well for your very comprehensive paper that you did supply to us. In that paper, you did say that,

[15] 'The realisation of the benefits from stimulation was hampered by BT changing its deployments of infrastructure'.

[16] What does that mean?

[17] **Mr Davies:** That means that—. Part of my background is that I was a fellow of the Chartered Institute of Marketing, amongst other things. As a marketer, it would be jolly helpful to know exactly where the coverage was going in and for that not to change, so that in advance of the coverage being connected, you can make people aware it's about to arrive on their street or in their village, and you can build a commitment and educational benefits, targeted on the market that you know—or the potential market that you know is going to be there. If you have a deployment plan that is not available well in advance, you can't really do that, or if you have a deployment plan that changes—'No, we're not going to do it in Bethesda or Deiniolen; we're only going to do it in—'. Well, no, you wouldn't do it. 'We're not going to do it in Mynydd Llandygai, but we are going to do it in Deiniolen,' for example, then you can't do an effective marketing campaign. It reduces your ability to mobilise other resources. You might be mobilising resources of support from the local authority, you might be mobilising resources backed by the Welsh Government, by Business Wales, for example.

[18] So, it reduces your ability, in my view, to do the most effective marketing campaign you can, because what you have to sell is not speed, it is, 'How will this benefit the operations of my business? How will this benefit my life as a citizen, interconnection with my friends and family?' and doing it visually as well. It's those sorts of benefits—some of the benefits that Julie James highlighted in her statement about particular citizens and how it has benefited their lives. That's what you're selling. It's not about speed and whether it's a bit of glass; it is actually the beneficiary use. To get that across, it's really helpful if you know exactly where the stuff's going to go and that that comes on stream in a predictable manner and you can say—.

[19] One of the things BT did during the roll-out that was quite good was, when they put in fibre and there was a fibre cabinet, they put posters on the cabinet to announce that it was now available in your street or your area, because it's street furniture. Generally speaking, there was no problem with doing that, and that's helpful, because this is very localised. But there was the odd local authority that decided that they didn't want to allow this to happen, which is not helpful in running an integrated approach to benefiting your citizens and your businesses. It's that strand. It's knowing exactly where it's going to go and then being able to build your awareness, your interest and your decision based on the benefits to you or your business that are

most helpful in getting take-up.

[20] **Russell George:** Thank you, John. Adam, did you want to come in on this point?

[21] **Adam Price:** I think you've covered a lot of the ground there. I would just like—good morning, John—

[22] **Mr Davies:** Good morning.

[23] **Adam Price:** It's good to see you. Just going back to this issue of the single provider in those areas that wouldn't be ordinarily covered by the marketplace, you've outlined in your additional paper, and in your comments this morning, a regulatory approach to promoting that, but going back to public ownership, which you've also referenced, is another opportunity, and indeed—you know, the days of Kingston Communications, et cetera—there have been several good examples across the world of publicly owned networks. Is that an opportunity, an alternative model that the Welsh Government could pursue, rather than putting more and more money into the coffers of a privately owned monopoly, effectively?

[24] **Mr Davies:** You place me on the horns of a dilemma, because by background, as an economist by first degree, I was writing papers on marginal cost pricing in communications in 1970, and likewise, when I did my MBA for two years, I was focusing on public enterprises, utilities, as one of my options in the second year. I think public ownership can vary. Sometimes it can work very well. Sometimes it can work badly. I think the argument that I advance in the paper, which is basically for a single-source monopoly supplier of a universal service, says all the carriers own shares of it and, as a consequence, own a percentage of the assets, so that they've got a completely vested interest in what goes on. It's not a threat to their retail wars because this capability excludes retail. So they can still have a discussion about 'I'm Vodafone' or 'I'm BT—go with me', even though they're just using the single carrier coverage. You could replace the companies with a single shareholder public ownership. It could work. If you're going to ask me to do some work on it, I'd have to go and do some detailed work on the restraints you've put on it and the governance.

[25] Having been close to a nationalised industry and worked when parts of it were becoming competitive, I have seen occasions when a state-owned enterprise can be very effective in the interests of the public good and the

citizen. I have also seen occasions where it hasn't worked that well. I was just advocating in the paper an option where I could see that you could construct motivation that would actually potentially work for the public good, without necessarily public ownership. But it's a political judgment about what you think the best outcome would be and how you're going to structure the controls. I could spend several hours, probably, discussing the finer points of the benefits of public ownership, how you could achieve it, which models work, which didn't work and why, and how they stack up against private ownership. All I would say is that my test for ownership of any kind would be: is it making the imperfect market more perfect and tipping the balance in favour of the user and the customer? I have a complete passion about ensuring that it's the customer that drives absolutely everything else in the process. I don't think I can give you a fuller answer than that without sitting down for several hours, Chairman.

[26] **Russell George:** Unfortunately, we've not got several hours.

[27] **Adam Price:** Just one supplementary, just to be clear in my mind. I understand the principles of the alternative model that you've set out in your additional paper. Presumably, though, with that, that would require some UK Government decisions at a UK level.

[28] **Mr Davies:** Yes.

[29] **Adam Price:** Whereas a publicly owned provider in Wales, that could be something that the Welsh Government could do unilaterally.

[30] **Mr Davies:** If that's within your powers, yes.

[31] **Adam Price:** Okay.

[32] **Mr Davies:** I don't know whether it is within your powers, and I don't know how that would match up to the legislation, but yes, I suspect it probably is within your powers, and certainly the increased powers that you're going to get. But whether that's the route you choose to take, it's not for me to say.

[33] **Adam Price:** We may need to commission some work.

[34] **Mr Davies:** Yes. I'll help you with that if you like. [*Laughter.*]

[35] **Russell George:** I am just conscious that we've probably got more questions than we've got time. We've got about 15 minutes left. Before I come on to Vikki Howells, can I just ask one, John? You did say in your paper that some local authorities have not been so energetic in helping their mobilisation.

[36] **Mr Davies:** Yes.

[37] **Russell George:** What could be done about that?

09:30

[38] **Mr Davies:** This is a little tricky. However, can I just repeat what I said, that anything I say doesn't represent any connectivity to any Government bodies that I'm involved in?

[39] I think that Cornwall, for example, has got a very good track record of mobilisation at county council and local authority level on a team basis and they managed to get that, culturally, in place. I don't think that all local authorities tend to—. If there is an initiative from the centre of Welsh Government, not all local authorities embrace it with the same level of energy and enthusiasm and standardisation as everybody might like, to get the right outcomes. Then I think it comes down to an issue of what are the conditions or powers of direction that local authorities have if they wish to receive the benefits of any particular programme in their area. I think it's an issue as to—and this is an Assembly issue—what the balance is that the Assembly wishes to strike vis-à-vis devolved authority at a local level. And how you draw that particular boundary will obviously vary from activity to activity. All I'm saying in my paper is: based on what happened in Cornwall, if you get it standardised and everybody's on board and everybody accepts they're going to deliver the standard answer sheet enthusiastically, that gets very good results, because that's what happened in Cornwall. If we could achieve the same unity of purpose on a much bigger scale, because Wales is much bigger, then you would get, probably, greater benefits on take-up on particular patches. And I cite my advert on the cabinets as a silly example, but it's real—you want to raise awareness, you stick an advert on the fibre cabinet in the street so that people in that street know that it's available to them now. Everybody does that as standard. Well, fine; well, perhaps some people don't, which diminishes the potential, in my view.

[40] **Russell George:** Okay; thank you, John. Vikki Howells.

[41] **Vikki Howells:** Thank you, Chair, and I'll try to be succinct to allow my colleagues time for their questions as well. I wanted to ask you, Mr Davies, particularly about the Welsh Government's other broadband programmes, the Access Broadband Cymru scheme and the Ultrafast Connectivity scheme. What do you think has been the success of each of those programmes, and how might they have been even more beneficial?

[42] **Mr Davies:** I don't have any data to answer that question, so my answer will be somewhat limited. My view is that both schemes are worth while, because what they effectively do is they do expand the take-up of the superfast, or ultrafast, facilities. They're likely to be more beneficial than perhaps people expect, because it does require an effort on behalf of the customer to activate them. So it's going to be people who really want it who are likely to want to go for it, and they're the people who probably have thought about the benefits that they will get to their activity or their particular life. But I haven't got any data on which to form an evaluation; it's just that I think they're a good thing because they expand capability. I think they're probably likely to be well-motivated, because of their nature. I think they are not the total answer to providing universal superfast across Wales.

[43] **Vikki Howells:** So, moving forward, then, aside from the Welsh Government's planned Superfast Cymru successor scheme, are there any other different initiatives that you, to your own mind, would see as being beneficial for Wales to look at?

[44] **Mr Davies:** I think that, if the open market, or whatever you're going to call it, final infill scheme comes about, employing the sort of principles that I've outlined in the paper to the committee, which is multi-technology solutions, open interconnect at marginal cost rates, et cetera, and focused on a single entity delivering it within very specific geographic patches, because we know where they are now, I think that will work quite well. The other half of the equation is whether you're going to do anything or persuade people to do anything about mobile coverage as part of that solution, because one shouldn't totally believe that the solution rests on a landline. The solution might rest on a mobile. The reason why I think that the new final 4 per cent initiative is going to be potentially useful is it seems to have taken on board the possibility of mixing all sorts of technologies, including fixed wireless. I believe that fixed wireless, interconnected to either mobile assets or landline assets can actually provide a relatively economic way of infill on the notspots. So, that's what I would encourage.

[45] **Vikki Howells:** Thank you very much.

[46] **Russell George:** Jeremy Miles.

[47] **Jeremy Miles:** Thank you, Chair. Just to pick up on the last point, if I may, did those comments relate to the new Superfast Cymru project? Were they related to the next iteration of that?

[48] **Mr Davies:** The project to fill in the last 4 per cent?

[49] **Jeremy Miles:** Yes.

[50] **Mr Davies:** It's called 'open market', or something.

[51] **Jeremy Miles:** So, you're saying that there is an understanding built into the commercial framework around that, that there will be different delivery mechanisms to get to that 100 per cent.

[52] **Mr Davies:** I haven't seen the detailed paperwork. I believe that that potential exists. Whether it gets realised will be determined by the way that the final contracts are written, and it will also be determined by whether they take a single body approach to solve the problem, or whether you divide up the patches where there is no coverage and say, 'We will accept a community initiative on fixed wireless to solve the problem', in, say—I keep picking Mynydd Llandegai because that's where the mountain cottages I used to use when I was a teenager are.

[53] **Jeremy Miles:** But it's possible to do that. What you're describing is deliverable, basically.

[54] **Mr Davies:** I believe so, yes, absolutely.

[55] **Jeremy Miles:** And so in your paper—for which, thank you—you say that the objective of speed and coverage needs a tight definition.

[56] **Mr Davies:** Yes.

[57] **Jeremy Miles:** I was formerly a commercial lawyer, so I can confirm that that's a good principle in any contract, but did you have a particular reason for highlighting that? Do you feel there's a particular risk going forward if

that isn't done, apart from the obvious risks?

[58] **Mr Davies:** I think the Assembly and the Welsh Government need to be very clear about what it is that they want their citizens and the users to actually have, because once you have decided that in terms of some kind of judgment about customer benefit to their lives, then you can build the operational answer sheet back from it. I'm a great believer in building things back from the user and the customer to the delivery.

[59] **Jeremy Miles:** And is that not the case in the current contract?

[60] **Mr Davies:** I don't believe there is a contract to the open market solution.

[61] **Jeremy Miles:** But the current arrangements have—

[62] **Mr Davies:** No, there were indicative speeds, as I said, in relation to superfast. I'm just saying that, going forward on infill, you need to be very clear. One of the reasons you need to be very clear is because the relative costs of, say, delivering a really fast network will be a lot greater in the areas we're talking about than otherwise. And originally when I introduced broadband in the UK, 2 Mbps was deemed to be okay because it was the equivalent of a VHS tv signal to your home reasonably satisfactorily. These days, 2 Mbps probably is not acceptable—you probably want to go higher than that. The UK Government is talking about 10 Mbps, and that provides for a range of uses within that speed. All I'm saying is I really think you need to be very clear, and you also need to be clear about coverage. You know, are you really, really going for 100 per cent? That's fine—

[63] **Jeremy Miles:** But there are cost implications.

[64] **Mr Davies:** But there are cost implications, and you might like to set a threshold. There's a threshold on the current fixed-line BT network at £3,500.

[65] **Jeremy Miles:** Okay. So, in terms of the next iteration of the scheme to get to 100 per cent, are there any examples internationally, in your view, that Wales should look to? What's the best international example that has the same broad demographic and geographic characteristics as Wales from which the Welsh Government could learn?

[66] **Mr Davies:** I think the answer to that is, 'I don't know'.

[67] **Jeremy Miles:** Okay.

[68] **Mr Davies:** I think the only thing I would say is that, in the context of mobile, if you take Sweden, which has got some topography and low-density population, they have taken a stance on their mobile networks with very tall masts that have enabled them to provide coverage to places that would have been very expensive on a fixed-line basis.

[69] **Jeremy Miles:** Thank you. Thanks, Chair.

[70] **Russell George:** Thank you, Jeremy. Hannah Blythyn.

[71] **Hannah Blythyn:** Thanks. Moving, actually—you touched on it—to the masts and mobile coverage, in your paper you say that mobile coverage in Wales is worse than all the other nations, and the paper suggests a number of measures, including having higher masts and not charging rates. To what extent do you think the measures you're suggesting in that paper will address the problem, and what can the Welsh Government do in those areas?

[72] **Mr Davies:** In the context of mobile?

[73] **Hannah Blythyn:** Yes.

[74] **Mr Davies:** I have a shopping list, which I will briefly share with the committee about changes that I think would actually improve mobile coverage, and, hence—variable speed reactions would help. If I might, I'll just very briefly run through that. Some people will tell you that some of these things are difficult, but it's an imperfect market, so some people might like to preserve the imperfections rather than do the difficult things. The first thing on my shopping list would be roaming across the whole of Wales on all the operators. That exploits the total existing coverage that exists. It's not very popular with the operators. I would go for distribution of really high masts, potentially up to 100m, without planning permission, except in the national parks, where I think it should logically be called in for consideration at ministerial level because of the different nature of the national parks to elsewhere. That would make a huge difference in coverage. It would also avoid having to deploy lots of small multiple masts and associated connections. Everybody says it's a mobile network. It isn't really a mobile network. There's a mast, and then there's a landline—a high-speed landline

off the back into the rest of the network.

[75] So, my second one would be high masts. You have the opportunity—it's the economics of coverage that are awful—to potentially not charge rates on masts, to potentially go for a peppercorn rent on land controlled by publicly funded bodies—and I didn't say 'publicly owned', I said 'publicly funded.' If you were a farmer and you're getting farm subsidies, it would be awfully helpful if you were prepared, in some cases, to allow a mast and a wayleave on your premises for a modest rent, and solve coverage problems.

[76] And all carriers to be required to offer open interconnect to their assets at marginal cost, and a single body for multi-technology infill, using fixed wireless in conjunction with mobile. That's a series of suggestions. I think they'd all shift life in favour of the user, and speed. They wouldn't necessarily give you everything you wanted, but I think they would all help and make the market slightly more perfect.

[77] **Hannah Blythyn:** And what impact do you think Ofcom's 2017 mobile spectrum auction could have on Wales in terms of mobile coverage?

[78] **Mr Davies:** What do I think what?

[79] **Hannah Blythyn:** The impact of Ofcom's 2017 mobile spectrum auction. How could that be designed to Wales's benefit?

[80] **Mr Davies:** I think that should help because it releases capacity. We'll have to wait and see what happens in the auction, and I think you should ask my colleagues, who are next appearing before you, about the pros and cons and how it gets used, because this is about—. You can make more spectrum available, but this is about the physical costs of deployment of building masts and connectivity or fixed wireless. And there isn't a lot of conflict for spectrum in the remoter parts of Wales.

[81] **Russell George:** John, in your answer to Hannah, you mentioned roaming and making that compulsory for network providers. Now, they would say that doing that would stop them investing, and there are also technical issues with that. What would you say to them?

[82] **Mr Davies:** Well, on the technical issues, I'd say that they managed to do it across Europe. And on 'it will stop them investing', well, I hadn't noticed them doing the infill.

[83] **Russell George:** Okay, thank you, John. And unless Members have got any pressing questions, the last question I would ask is: in regards to better and improved mobile and broadband, are there any regulatory powers that Ofcom have got in their toolbox that they could use that they're not using now?

[84] **Mr Davies:** I think you should ask my succeeding representatives about that. The regulator has got quite substantial powers that it can formally exercise, particularly where somebody's got significant market power. I think the regulator has slightly greater restrictions on its power where they're not dealing with significant market power, and they may need support from Government. They might even be prepared to consider doing things for devolved administrations as opposed to UK administration. The other thing I would say is that Ofcom, quite clearly, has the ability to have discussions with carriers, whereby one is considering a range of issues and you might be able to help on one issue in exchange for something else on another issue.

09:45

[85] But let's be quite clear: Ofcom only exists to tilt the balance in favour of the customer, because the markets are imperfect. Therefore, exercising its powers and its influence in that direction—and I've said this elsewhere, and this is as a poacher; I was a poacher in BT, seeking to limit the effects of both competition and regulator by satisfying the customers via BT. I've been a gamekeeper for nine years on Ofcom's advisory committee. My observation is that Ofcom is actually, compared with other regulators, the best regulator in the UK, but there is scope for exercising these powers, going forward.

[86] I think the committee has probably been made aware of the 'Achieving decent broadband connectivity for everyone' advice that was given to the UK Government and the wholesale local access market review that is out to consultation. That, I think, demonstrates that they are seeking to exercise their powers more in favour of the customer. But, as I say, I start and finish with a passion for the customer—putting them first and building everything back from them. So, I hope that they exercise the influence in the right direction, supported by the Government.

[87] **Russell George:** If there is one thing that they could do that they are not doing now, what will it be?

[88] **Mr Davies:** One thing? I think the one thing that—and this is personal—they could do is create more reciprocity between the carriers in the market and also, on occasions, permit the sharing and interconnect with assets. So, what I mean by that is that you could say to BT, or you could say maybe to a particular powerful mobile operator, ‘We want you to do x—we want you to offer a different service at a different price because you’ve got market power and it would be in the interest of the customers to do that and this would be helpful’. The other people—the smaller players—could also be asked to provide a similar set of opportunities for that particular type of service, then you’d get, potentially, an intermediate market price across the piece and that potentially would help, in my view, to bring down operating costs. I think that there are those type of technical interventions.

[89] The other one is, if we’re taking—are we taking a general view and not just broadband here, Chair?

[90] **Russell George:** Yes.

[91] **Mr Davies:** Right. The one thing that I would go after, if I could wave a magic wand, would be the reliability of networks with financial incentives for much higher reliability. The reason I cite that is because, when I ran the UK network for seven years, the volume of faults was obviously something that the customers really didn’t want to experience. They were substantial, and if you could improve the quality of your network in your network operations so that these faults did not occur, you would actually benefit the customers enormously. Reliability, I think, is an underrated aspect of both the mobile and the fixed-line communications market. I believe that it’s capable of being addressed in relation to the fixed-line market. When I spent two years having a drive on quality of reliability, I managed to take a million faults out. So, I think that my magic wand would be to go after reliability with incentives to encourage the operators to improve the reliability of their operations for the benefit of the customers.

[92] **Russell George:** Okay, thank you, John, that’s very clear. Thank you very much. I appreciate your time with us this morning and your written evidence as well. A copy of the transcript of proceedings will be sent to you over the next few days as well for you to review. Thank you very much.

[93] **Mr Davies:** Thank you very much indeed.

[94] **Russell George:** In the next session—. Mark, in the next session, I'll come to you first, and I'll come to you, Hefin. I'll come to Mark first, then you, Hefin, and then I'll come to Adam to take up any points, if that's okay.

[95] **Hefin David:** Are you going to pursue—*[Inaudible.]*

[96] **Adam Price:** No, you're covering it anyway, aren't you?

[97] **Hefin David:** Well, I—*[Inaudible.]*

[98] **Russell George:** We're still in public session, so—.

[99] **Hefin David:** Oh, right. I was going to ask the question about—.

[100] **Russell George:** Yes.

[101] **Adam Price:** I thought it was interesting to pursue with him, because he obviously had some clear views. I know he's sympathetic to it.

09:50

**Rheoleiddiwr Diwydiant/Ofcom Cymru—Seilwaith Digidol Cymru
Industry Regulator/Ofcom Cymru—Digital Infrastructure in Wales**

[102] **Russell George:** Bore da—good morning. I'd like to welcome Rhodri Williams and Huw Saunders to be with us this morning. We're very grateful for the paper you submitted to the committee. I'd like to remind Members and members of the public watching that we operate bilingually, and Members can ask, and questions can be received, in Welsh or English. I'll go to Mark Isherwood first.

[103] **Mark Isherwood:** Bore da, good morning. What do you consider to be the strengths and weaknesses of BT's roll-out of the Superfast Cymru programme? In other words, what's worked well and what, in hindsight, could have been done better or differently?

[104] **Mr Saunders:** Perhaps I'll kick off on that by saying, formally, we've got no role in assessing this; this is clearly, obviously, a straightforward contract between yourselves and—sorry, the Welsh Government and BT. Having said that, I think it's probably true that we would regard it overall as a success. The reality is that the Superfast Cymru programme and, indeed,

more broadly across the UK as a whole, the public sector interventions that have taken place in England under the BDUK banner, and also in Scotland and Northern Ireland, have succeeded in rolling out superfast broadband a lot quicker, I think, than would otherwise have been the case.

[105] I guess there are pros and cons in terms of some aspects of the success, and I think one of the strengths of the Superfast Cymru programme has been the degree of assurance about actual speeds delivered through the audit programme that was put in place, which I think was innovative and pretty successful. And, indeed, the other elements that I think are certainly commendable are the way that gainshare has been built into the contract, so that overperformance in terms of take-up will result in, you know, funding becoming available for further deployment. I think those are all very good things that will lead to overperformance rather than underperformance.

[106] **Mr Williams:** Ac a gaf i jest ychwanegu at hynny, gan ddechrau drwy ddweud fy mod i, a bod Ofcom, wedi bod yn agos at y project, hyd yn oed cyn iddo fe gychwyn, ac wedi cynghori'r Llywodraeth—Gweinidogion yn ogystal â swyddogion—ynglŷn ag e, ac rydw i'n eistedd ar fwrdd y project? Dylwn i wneud hynny'n glir i chi y bore yma.

Mr Williams: May I just add to that, starting by saying that I, and Ofcom, have been involved very closely with the project, even before it began, and we've advised the Government—Ministers as well as officials—about the project, and I sit on the project board? I should make that clear to you this morning.

[107] Un peth y byddwn i yn ei bwysleisio yw: ble byddem ni oni bai am y rhaglen yma? Yng ngweddill y Deyrnas Unedig, roedd pobl yn sôn am y traean olaf—hynny yw, rhwng 66 y cant a 100 y cant. Yng Nghymru, y ffigur ar y cychwyn oedd tua 48 y cant—llai na hanner o eiddo yng Nghymru yn gallu derbyn band eang drwy ddarpariaeth fasnachol gan BT a Virgin Media, y ddau ddarparwr pennaf, er bod argaeledd Virgin yng Nghymru lawer iawn yn llai, llai na hanner beth yw e yng ngweddill y Deyrnas Unedig. A ni fyddem ni yn

One thing that I would emphasise is: where would we be if it weren't for this programme? In the rest of the United Kingdom, people were talking about the final third—that is, between 66 per cent and 100 per cent. In Wales, the initial figure was around 48 per cent—less than half of properties in Wales were able to receive broadband through commercial provision by BT and Virgin Media, the two main providers, even though the availability of Virgin in Wales is much lower; it's less than half what it is in the rest of the

agos at lle yr ydym ni nawr heblaw United Kingdom. And we would not am yr ymyrraeth gyhoeddus. Jest i be close to where we are today if it edrych ar yr ychydig flynyddoedd weren't for that public intervention. diwethaf, roedd argaeledd band eang Just to look at the past few years, the cyflym yn 2014 yn 55 y cant; y availability of superfast broadband in llynedd, 85 y cant. Felly, mae'r 2014 was 55 per cent; last year, it cyfraniad y mae'r ymyrraeth wedi ei was 85 per cent. So, the contribution wneud i argaeledd gwasanaethau that the intervention has made to band eang mwy cyflym yng Nghymru availability of broadband services in yn anferth, ac rydw i'n credu y Wales is huge, and I think that we byddem ni mewn llawer gwaeth would be in a much worse position sefyllfa heddiw oni bai am yr today if it weren't for that ymyrraeth honno. intervention.

[108] **Mark Isherwood:** You're highlighting the strengths; you haven't mentioned any weaknesses or any learning issues that have arisen from this. Are there none? Has it all gone perfectly, or—*[Laughter.]*

[109] **Mr Saunders:** Any public sector procurement that goes perfectly I think probably would be not just an exception, but a very rare bird indeed. Is there anything significant in terms of learning? I'm not sure there's too much that I'd bring into focus. One of the things that I would point out, however, is that's there's been a fair amount of adverse publicity about comparability between the UK and elsewhere in Europe, and so on. I think to some extent that's actually quite misleading. The reality is, if you actually look at the comparative figures—if you dive deep enough into them, the reality is the UK, in terms of availability, and indeed take-up of superfast broadband, is doing very well, and I think that is a positive overall, as Rhodri's just said, and the particular progress that's been made within a relatively short space of time is something that we should really welcome.

[110] To some degree, you could say that prioritisation might have been something that could be built into the programme—in other words, the worst areas become a higher priority rather than perhaps improving coverage in areas that already had reasonable coverage to start off with. But, even then, that probably is not going to lead to any significant difference in the final outcome—it's just a timing issue.

[111] **Mark Isherwood:** I'll leave colleagues, then, to develop some of the issues of concern that have been raised with us.

[112] **Russell George:** Thank you. Hefin David.

[113] **Hefin David:** You say in the submission to the committee that you're requiring BT to allow other users to build their own fibre networks. Is the BT Openreach monopoly a problem?

[114] **Mr Saunders:** Technically, it's not a monopoly. The reality is that operators are able to build their own networks. I think, as John Davies said previously, in some areas, however, the economics don't allow that, so the reality is, yes, there is a monopoly for BT Openreach, partly as a result of its incumbent position. The obligations we put on the regulated remedies that we apply are an attempt to actually address that. They ensure that other operators do have access to that infrastructure, both in terms of active services that they can re-sell, but more recently through access to so-called passive services, in particular, traditionally, local loop unbundling and now through the remedy we refer to as PIA. And, in future, we're consulting on the so-called duct and poles access remedy. We are seeking to encourage investment in the next generation of access network, in other words, fibre-based—full fibre, as perhaps we refer to it these days. Whether or not we succeed is a different issue. I think we're trying to create a situation where, if there is an economic possibility of additional investment by somebody else, the conditions are right for that to happen, and we would like to encourage it, because, ultimately, we do think competition, where it's economically feasible, is the right way to deliver benefits to consumers.

[115] **Hefin David:** But where it's not?

[116] **Mr Saunders:** Where it's not, there is a good case—you know, where there is market failure, there is a good case for continuing intervention, both from a regulatory perspective and also potentially from the public sector in terms of funding.

[117] **Hefin David:** Well, not so much a good case, as inevitable.

[118] **Mr Saunders:** To some degree, I would probably accept that, in practice, at the moment the investment case in terms of returns is so long term that the private sector, left to itself, would probably not result in investment in full fibre in certainly the final 5 per cent, if not more than that.

[119] **Mr Williams:** If I can just add, I think where we are seeing some extra investment from competitive businesses is in over-building areas where

there is already provision. So, if you take Cardiff, for instance, you have not only Virgin Media, you have companies like Hyperoptic and Gigaclear now delivering even faster speed services, especially to new high-rise developments. But that kind of intervention, as Huw says, isn't going to be happening in those parts of the country where there isn't provision already.

[120] **Mr Saunders:** Also, however, Gigaclear in particular has developed in rural areas a novel business approach, where they try and get very high levels of sign-up before they actually commit to make a build, to actually crystalize the actual demand in a way that they can rely upon. That's proven quite successful in a number of rural areas across England, and certainly it's quite a novel approach that may well deliver benefits to smaller communities, and indeed may also attract some public funding, I don't know. Gigaclear have managed to get phase 2 funding from BDUK programmes in England, so perhaps may be a potential candidate for the next stage of Welsh Government intervention as well.

[121] **Hefin David:** Is there a business/residential split on that as well? Is it easier to get residential roll-out in rural or isolated communities?

10:00

[122] **Mr Saunders:** I think that's been an artefact of the way that the contracts have been set up in the past. The reality is there is a gap between SME availability and consumer availability, which we've highlighted in the 'Connected Nations' report that we published just before Christmas and, indeed, in the previous one, a year before. I think there is a need for a focus on SME, I think partly because the creation of business parks, which are underserved in terms of telecoms infrastructure, is a problem that needs to be addressed. Also, in some areas, particularly rural areas where there's been redevelopment of existing buildings, et cetera, farms and so on, to form new business centres, again, I think there's been a bit of a failure both in terms of the developers, and, to some degree, the planning authority, in terms of ensuring that appropriate infrastructure is in place to serve them effectively. But I do think that there are measures that can be taken to actually redress that problem.

[123] **Hefin David:** Thank you.

[124] **Russell George:** Adam Price.

[125] **Adam Price:** Mae yna ryw groesddywediad, yn fy mhen i o leiaf, rhwng y darlun positif rydych chi wedi ei osod o ran y cynnydd sydd wedi bod a'r ffaith fy mod i'n cael mwy o ohebiaeth yn cwyno am y pwnc yma gan fy etholwyr nag unrhyw beth arall. Efallai bod hynny'n adlewyrchu'r ffaith fod gen i'r drydedd etholaeth waethaf o ran darpariaeth ar hyn o bryd. Ond a yw hi hefyd yn adlewyrchu rhai camgymeriadau sydd wedi cael eu gwneud o ran y ffordd mae'r wybodaeth wedi cael ei chyflwyno o ran yr amserlen gyflwyno? Hynny yw, bod disgwyliadau wedi'u codi ac wedyn, wrth gwrs, wedi'u siomi.

Adam Price: There is some contradiction, in my head at least, between the positive picture you've drawn regarding the progress that there's been and the fact that I'm getting more correspondence complaining about this topic from my constituents than anything else. Maybe that reflects the fact that I have the third worst constituency in relation to provision at the moment. But does it perhaps also reflect some mistakes that have been made in relation to the way the information has been presented in terms of the timetable for roll-out? What I mean is that expectations have been raised and then, of course, disappointed.

[126] **Mr Saunders:** Maybe if I start off—. I think, to some degree, that's probably correct. I think there's been a degree of uncertainty in terms of the actual detail of roll-out. Partly, that's understandable. The way that the contracts were set up, a fair amount of latitude was given to the contractor, BT, to actually optimise, in effect, bang for buck. In other words, where were the areas that they can actually get the biggest progress, quickest, for the least money? That led them to actually change their minds about where they were actually going to build, which has led to that sort of uncertainty. I think, as the process goes towards its end, there's probably no reason for that uncertainty to continue. Greater clarity about where they're going and when probably would be very useful.

[127] **Mr Williams:** Roedd hynny'n rhannol, rydw i'n credu, yn ganlyniad i'r ffaith bod peth o'r arian a oedd yn gyfrifol am y prosiect yma yn dod o Ewrop. Roedd yna amodau ynghylch hynny, lle'r oedd y ganran yna o'r gwariant yn gorfod cael ei wneud erbyn hyn a hyn o amser. Felly, roedd yn rhaid, fel mae Huw yn ei ddweud, gwneud ardaloedd lle'r oedd modd

Mr Williams: That was partly, I think, a result of the fact that some of the funding that was going to this project came from Europe. There were conditions attached to that funding, where that percentage of expenditure had to be made by such and such a time. So, as Huw said, those areas where a large amount of properties could be passed very quickly had to

pasio nifer o eiddo yn gyflym iawn er mwyn cwrdd â'r amserlen Ewropeaidd.

be done in order to meet that European timetable.

[128] I fynd nôl at y pwynt cyntaf, nid ydw i'n synnu o gwbl ei fod yn gymaint o fater cyfathrebu gan etholwyr. A dweud y gwir, yn un o'r sgyrsiau cyntaf ces i gyda'r Gweinidog, Edwina Hart, ar y pryd, cyn i'r rhaglen yma ddechrau, dywedais i bryd hynny y byddai'r lefel o sŵn ac o gwynion gan bobl a oedd heb yn cynyddu wrth i'r rhaglen fynd yn ei blaen.

To go back to the first point, I'm not surprised at all that it's such an issue in terms of correspondence from constituents. Truth be told, in one of the initial discussions that I had with the Minister, Edwina Hart, at the time, before this programme started, I said at that time that the level of noise and complaints from those people without a service would increase as the programme progressed.

[129] Felly, wrth i'r nifer o bobl sydd heb y gwasanaeth fynd yn llai, mae lefel yr anfodlonrwydd yn cynyddu. Oherwydd, pan ddechreuodd y prosiect, rydw i'n credu, nid oedd nifer o bobl yn credu bod hwn yn rhywbeth a oedd yn bwysig iddyn nhw. Roedd rhai pobl ei eisiau, ond nid oedd yn rhywbeth y bydden nhw'n dymuno ei gael.

So, as the number of people who are without the service reduced, the level of discontent would increase. Because, initially, I think, lots of people thought that this was something that wasn't important to them. Some people might have wanted it, but it wasn't something that they wanted to have.

[130] Ond, erbyn hyn, rydw i'n credu ein bod wedi gweld bod galwadau a disgwyliadau busnesau, yn ogystal ag unigolion, wedi cynyddu. Erbyn hyn, wrth i'r budd gael ei ddeall yn well, rydw i'n credu bod y boblogaeth yn gyffredinol, mewn busnesau ac fel unigolion—bod pobl yn sylweddoli'r budd sy'n dod gyda band eang. Felly, mae bod hebddo nawr yn fwy o broblem nag oedd bod hebddo dair, pedair, pum mlynedd yn ôl.

But, now, I think we've seen that the demands and expectations of businesses, as well as individuals, have increased. Now, as the benefits are understood better, I think that the population as a whole, in businesses and as individuals—they've realised the benefit that broadband can bring. So, being without it now is more of a problem than being without it was three or four or five years ago.

[131] Mae'r hyn rŷch chi'n ei ddweud yn cael ei adlewyrchu yn y cwynion rŷm ni'n derbyn gan Aelodau Cynulliad eraill a hefyd gan Aelodau Seneddol sydd yn cynrychioli etholaethau gwledig yng Nghymru sydd ar waelod y tabl yna o argaeledd. Ond, gobeithio, yn ystod y flwyddyn yma, fe welwn ni fod cynnydd pellach yn cael ei wneud: un, gyda chyrraedd y targedau sydd wedi cael eu cytuno yn y contract, sydd yn bwysig yn y lle cyntaf, ac, yn ail, ac mae sŏn wedi bod amdano yn barod, y gwaith mae'r Llywodraeth yn ei wneud nawr i ystyried sut i fynd ymhellach, sut i ddelio gyda'r 4 neu 5 y cant, neu beth bynnag fydd y rhif terfynol, a pha *approach* ddylen nhw gymryd o ran cytundeb, o ran faint o ddarparwyr, o ran ai un cytundeb ar gyfer Cymru gyfan ddylai fod, neu sawl cytundeb. A gobeithio, yn ystod y flwyddyn yma sy'n dod, bydd y materion hynny yn cael eu cytuno.

What you say is reflected in the complaints we receive from other Assembly Members and also from Members of Parliament representing rural constituencies in Wales that are at the bottom of the table of availability. But, hopefully, during this year, we'll see that further progress is made: one, in terms of reaching the targets that have been agreed in the contract, which are very important, and secondly, and mention has been made of it already, the work that the Government is doing now to consider how to go further, how to deal with the 4 or 5 per cent, or whatever the final figure will be, and what approach they should adopt in terms of a contract, in terms of the number of providers, whether it should be one contract for the whole of Wales, or several contracts. And hopefully during this coming year those matters will be agreed and resolved.

[132] **Mr Saunders:** Sorry, if I could just add one thing to that. I mentioned the 'Connected Nations 2016' report that we published just before Christmas—for the first time that's based upon a bottom-up, premises-level survey of actually what's out there. So, we've got a picture—current as of June last year—of what every set of premises everywhere in the UK has actually got available to it, and actually what's in service. We're aiming to update that on a regular basis. Hopefully, with the passing of the Digital Economy Bill through Westminster in the next few months, we'll have the opportunity to actually update that at least three times a year and then publish it, so that everybody will know what's available to them wherever they happen to live on an individual premises basis, which I think is an important competitive pressure. Consumers will have full visibility of what's available to them and, indeed, in terms of the intervention, it's possible to target it much more accurately in future.

[133] **Adam Price:** Mae'n dda i feddwl, efallai, fod y rhwystredigaeth rŷm ni'n gweld o ran y ddarpariaeth bresennol efallai o leiaf yn adlewyrchu cynnydd yn y galw, sydd yn beth da wrth edrych i'r tymor hir, wrth gwrs. Ond un o'r pethau rwyf i wedi clywed wrth bobl o fewn y diwydiant yw eu siom, ar ôl iddyn nhw fuddsoddi yn yr isadeiledd, nad yw lefelau manteisio ar bosibiliadau'r dechnoleg ddim mor uchel ag y bydden nhw wedi gobeithio gweld. Sut ydych chi'n gweld y rhaglen fanteisio o ran *take-up* a mobileiddio defnydd? Oes asesiad gyda chi o lwyddiant ar yr ochr hynny o'r hafaliad?

Adam Price: It's good to think, perhaps, that the frustration that we see in relation to the current provision is perhaps a reflection of progress and an increase in demand, which, of course, is a good thing, looking at the long term. But one of the things that I have heard from people within the industry is their disappointment, having invested in infrastructure, that the levels of take-up and the possibilities of the technology are perhaps not as high as they would have hoped. How do you see the programme in relation to take-up and mobilising the use of the service? Do you have an assessment of success on that side of things?

[134] **Mr Saunders:** The question of digital inclusion, which is really what that touches on, I think is actually quite complex. There clearly is still a residual, relatively high proportion of the population who are really showing no interest in broadband access at all. So the reality is—broadband of whatever speed—there are still something just under 20 per cent of premises and homes that don't take it at all. The take-up of superfast has exceeded some expectations, but is still relatively low. Indeed, there are some indications that it's actually tailing off. I think for the first time in the 'Connected Nations' report in December, we looked at the rate of adoption against availability and there are some signs it's tailing off, which is consistent with some international studies that we've seen. You may be aware of the National Broadband Network in Australia, which is, to all intents and purposes, a monopoly provider of superfast and ultrafast services across all of Australia. It now looks as though most people who are connecting to that network are not going for the higher speeds. So, there's a consistency there at the moment.

[135] What can you do about it? Indeed, what should you do about it? It becomes a lot more complicated. Yet, if people are broadly receiving what they require from existing services, why should they upgrade if it's going to cost them more? I do think there is an element of greater visibility and

promotion, which would be helpful, because clearly there are economic benefits if they're on a sub-standard service at the moment, but I think you do have to have some recognition of the fact that there may be a limit to that, simply because people will be able to do what they want without necessarily upgrading.

[136] **Russell George:** Vikki Howells.

[137] **Vikki Howells:** Thank you, Chair. I'd like to focus in particular on the Access Broadband Cymru scheme and the connectivity voucher scheme and to ask you both your opinions of both of those schemes. What have been the successes of them, and what lessons can we draw from them, too?

[138] **Mr Williams:** Wel, yn sicr o ran y cynllun ABC a'r hyn ddaeth o'i flaen ef, y cynllun cymorth band eang, rwy'n credu bod y rheini wedi bod yn arloesol. Roeddent ar gael o flaen unrhyw beth a oedd ar gael mewn rhannau eraill o'r Deyrnas Unedig. Yr hyn y gwnaethon nhw ganiatáu oedd i nifer helaeth o bobl mewn ardaloedd a fyddai efallai yn dal heddiw i fod yn aros i raglen Cyflymu Cymru eu cyrraedd nhw i gael mynediad i fand eang a oedd yn ddefnyddiol—felly nid oedd e'n cyrraedd 24 neu 30 Mbye, ond roedd e'n caniatáu iddyn nhw fynd o 0.5 Mb neu lai i efallai 5 neu 6 Mbye. Roedd hynny'n golygu bod rhai busnesau ac unigolion ar hyd a lled Cymru—gallaf i feddwl am rai o'r enghreifftiau cyntaf y gwnes i ddod ar eu traws, pan ddes i mewn i'r swydd yma yn ôl yn 2004, mewn llefydd fel sir Benfro, lle'r oedd yna ardaloedd a fyddai'n dal ar ddiwedd y rhestr, rwy'n credu, a byddai rhai o'r ardaloedd anoddaf i'w cyrraedd yn gallu cael gwasanaeth a oedd yn ddefnyddiol.

Mr Williams: Well, certainly, in terms of the ABC scheme and its predecessor, the broadband support scheme, I think that they've been very innovative. They were available before anything else that was available in other parts of the United Kingdom. What they allowed was for a vast number of people in areas that perhaps would still today be waiting for the Superfast Wales scheme to arrive to have access to broadband that was useful to them. So, it didn't reach 24 or 30 Mbps, but it did allow them to go from 0.5 Mb or less to around 5 or 6 Mbps. That meant that some businesses and individuals, the length and breadth of Wales—I can think of some of the first examples that I came across, when I came into post back in 2004, in places such as Pembrokeshire, where there were areas that would still be at the bottom of the list, I think, and some of the hardest-to-reach areas could receive a service that was of use to them.

[139] Nawr, efallai, erbyn i raglen Cyflymu Cymru orffen bydd dim angen y math yna o gynllun, ond yn y cyfamser rwy'n credu ei fod e wedi gwneud gwahaniaeth aruthrol. A gallaf i siarad o brofiad personol, hyd yn oed, gan fy mod i'n byw mewn ardal lle na fyddai yna wasanaeth band eang defnyddiol oni bai fod yna ymyrraeth o'r math yna.

Now, perhaps by the time that the Superfast Cymru scheme finishes, they won't need that kind of scheme, but in the meantime I think that it has made a huge difference. I can speak from personal experience, even, in that I live in an area where there wouldn't be a useful broadband service unless there was intervention of the kind you talk about.

[140] Rydw i'n credu hefyd fod y cynllun talebau ar gyfer y busnesau wedi caniatáu i fusnesau ar sgêl ychydig yn fwy, efallai, a oedd angen trawsnewid eu sefyllfa nhw yn y tymor byr sef nad oedden nhw'n gallu aros nes bod cynllun Cyflymu Cymru yn eu cyrraedd nhw, a'u bod nhw'n gallu symud i sefyllfa lle'r oedd modd iddyn nhw ddefnyddio band eang dros gyfnod a oedd yn allweddol o ran eu busnes nhw. Felly, rwy'n credu bod y ddau gynllun wedi cyfrannu'n effeithiol. Wrth gwrs byddai yna rai pobl, efallai, sydd ddim yn gallu manteisio ac yn dweud nad ydyn nhw wedi gwneud digon, ond, hebddyn nhw, rwy'n credu y byddem ni mewn sefyllfa lawer iawn yn waeth.

I think that the voucher scheme for businesses has allowed businesses on a slightly larger scale, perhaps, that needed to transform their situation in the short term, in that they couldn't wait until the Superfast Cymru scheme reached them, and that they could then move to a situation where they could use broadband over a period of time that was key in terms of their business. So, I think that the two schemes have contributed very effectively. Of course, there would be some people who wouldn't be able to take advantage of the schemes, and they would say that those schemes hadn't achieved enough, but without the schemes I think we would be in a worse position.

[141] **Russell George:** Jeremy Miles.

[142] **Jeremy Miles:** Diolch. Gwnaethoch chi sôn yn gynharach eich bod chi wedi bod yn ymwneud â'r cynllun Cyflymu Cymru, a'ch bod chi ar y bwrdd, rwy'n credu y dywedasoich chi. A ydy'r un fath o rôl

Jeremy Miles: Thank you. You did mention earlier that you've been involved with the Superfast Cymru programme and you're on the board, I think you said. Do you have the same role—do you expect to have the

gyda chi—a ydych chi'n erfyn cael yr un math o rôl yn y cynllun newydd, neu pha rôl mae Ofcom wedi ei gael yn hynny hyd yn hyn?

same type of role in the new scheme, or what role would Ofcom have had in that up until now?

[143] **Mr Williams:** Wel, mae yna ddau beth un digwydd—un ohonyn nhw y gallaf i fod yn weddol sicr amdano fe, sef y bydd swyddogion y Llywodraeth yn gofyn i Ofcom am gyngor ynglŷn ag agweddau o unrhyw ddarpariaeth y byddan nhw'n ei gwneud ac yn sicrhau, er enghraifft, fod yr hyn y byddan nhw'n ei gynnig yn cydymffurfio â'r rheolau rŷm ni'n eu gosod ar gyfer y diwydiant. Maen nhw hefyd yn yr arfer o ofyn am ein cyngor anffurfiol ni ynglŷn â beth ym ni'n meddwl sydd yn gweithio'n dda, ac efallai beth na fyddai'n gweithio cystal. A fydden nhw'n gofyn i fi i eistedd fel aelod anweithredol o'r bwrdd sydd yn arolygu unrhyw gynllun yn y dyfodol? Nid wyf i'n gwybod. Mae hwnnw'n fater i'r Gweinidog, rwy'n credu.

Mr Williams: Well, there are two things happening—one of them I can be quite certain about, which is that Government officials will be asking Ofcom for advice with regard to aspects of any provision that they will be making and will be ensuring, for example, that what they will be offering will comply with the rules that we set for the industry. They're also used to asking our informal opinion about what works well and what perhaps wouldn't work as well. Whether they will ask me to sit as a non-executive member of the board that looks at any scheme in future, I don't know. That's a matter for the Minister, I believe.

[144] **Jeremy Miles:** Ocê. Gwnaethoch chi sôn am Fesur yr Economi Digidol, sydd yn mynd trwy San Steffan a'r *universal service obligation* sy'n dod yn sgîl hynny. Beth yw'ch darlun chi o sut mae hynny'n gweithio ynghyd â'r cynllun newydd sydd gan Lywodraeth Cymru i gau'r *gap* yna o 4 y cant? Beth yw'r berthynas rhwng y ddau fframwaith neu'r ddau ofyniad?

Jeremy Miles: Okay. You mentioned the Digital Economy Bill going through Westminster and the universal service obligation that comes in light of that. How do you see that working in relation to the new scheme that Welsh Government has to close that gap of 4 per cent? How do those two schemes correlate?

10:15

[145] **Mr Saunders:** That's an interesting question. The USO scheme, as you're aware, is a policy initiative that DCMS has put forward. At the moment, we've provided them some input on options in terms of cost of delivery and, indeed, methods of delivery, which they are currently considering. Clearly, as a result of that—whether or not they decide that further intervention to actually support a 10 Mbps, or whatever the speed might be, USO is appropriate—they will sit on top of whatever intervention is already in place in terms of superfast availability, and they will interact. How that works in practice remains to be seen. Certainly, I think it's probably true to say that there is an expectation that, the current schemes, whether it's Superfast Cymru phase 1 or, indeed, the recycling of the gain share moneys, and an additional intervention will lead to greater availability of 30 Mbps ultrafast. It will not be universal.

[146] So, there is always going to be a gap. The question is: how big is that gap and how high do you set the threshold in terms of that USO aspiration. I think that remains to be seen. I think there's a lot more debate and a lot more conversations to be had in terms of what's affordable and what's the right way of delivering the best service for everybody. I think, ultimately, we would always see the USO, however you frame it, as a safety net. Therefore, there might be a situation where a few 100,000 households across the UK as a whole don't get superfast, but at least they get something that is fit for purpose. I think measuring what that fitness for purpose is, in terms of bit rate and other technical metrics, needs to be set against, 'Well, how much is it going to cost and how long is it going to take?' I think there is a fair amount of further debate about that that needs to take place.

[147] **Jeremy Miles:** Mae'n swnio fel petai'n ddyddiau cynnar, ar ryw lefel, i'r trafodaethau hynny, ond mewn theori, byddai'n wir, oni fyddai, petai cynllun Llywodraeth Cymru'n mynd â ni i 100 y cant o ddarpariaeth, byddai hynny, mae'n debyg, yn digoni'r USO. Dyna'r disgwyliad.

Jeremy Miles: It sounds as if it's very early days, on some level, in those discussions, but in theory, would it be true to say that if the Welsh Government scheme would take us to 100 per cent provision, that would fulfil the obligations of the universal service obligation. Is that what the expectation is?

[148] **Mr Saunders:** I think that's right, yes.

[149] **Jeremy Miles:** Fe wnaethom ni ofyn y cwestiwn hwn i John Davies

Jeremy Miles: We asked this question to John Davies as well: in planning for

hefyd: wrth gynllunio'r fframwaith newydd o ddarparwyr, y gofynion ac ati, a oes unrhyw wersi y gall Llywodraeth Cymru eu dysgu drwy brofiad mewn gwledydd eraill yn Ewrop, neu y tu hwnt i Ewrop, sydd â'r un mathau o ddaearyddiaeth, poblogaeth, dosbarthiad poblogaeth ac ati? Ble ddylai Llywodraeth Cymru edrych am ysbrydoliaeth i gau'r *gap* yma?

this new framework of providers, the obligations and so on, are there any lessons that the Welsh Government can learn from the experiences of other nations in Europe or beyond that have the same kind of topography, population, distribution of population and so on? Where should the Welsh Government look for inspiration to close this gap?

[150] **Mr Saunders:** The bad news is that there's probably nowhere that you can actually point to as an exemplar in this context in terms of universal availability of the high-speed service. The highest USO that I'm aware of in Europe is actually in Finland, where it's been set at 2 Mbps, which is, in comparison, a lot lower, partly because of the way that the European framework has been interpreted to some degree. Delivering universal availability of high-speed broadband in anything other than a nation state—so let's ignore Singapore for the moment, where it's a relatively straightforward process—I think is quite difficult and complicated, and I don't think I can identify anywhere in the world that's necessarily better at doing it than the UK and Wales.

[151] **Jeremy Miles:** Okay. In your note, I believe you talked about the broadband code of practice that's being worked on at Ofcom. Can you elaborate a little bit more about what the objectives of that would be and where you are with this?

[152] **Mr Saunders:** We've had a broadband speeds code of practice in place between the major providers and Ofcom for many years. It's mostly about ensuring that there's clarity in terms of how they promote their services, and particularly in respect of speeds. The regulatory framework has changed over the last six months as a result of the implementation of a European measure, called the telecommunication single market regulation, which predominantly dealt with issues associated with net neutrality, and I don't want to touch on that. Neutrality is a topic. But it did include some measures—

[153] **Jeremy Miles:** Quite a big topic.

[154] **Mr Saunders:** Yes, and quite contentious. It did include some measures

about how speeds were advertised and how speeds were promoted. So, in essence, what we're doing is revising the broadband speeds code of practice with industry to be compliant with that new regulation. And indeed, ideally—and this is the real aim—to provide consumers with better information. I think it's probably true to say at the moment that this is something that the Advertising Standards Authority has also been looking at—the way that broadband services are promoted sometimes. I won't say that it's misleading, but it can lead to consumers drawing the wrong conclusions, and I think we're attempting to address that.

[155] **Jeremy Miles:** Okay. Thank you. Diolch.

[156] **Russell George:** Hannah Blythyn.

[157] **Hannah Blythyn:** Thanks, Chair. I'll try and be as succinct as possible as I'm aware that we're pretty pressed for time now. Moving briefly to the issues affecting mobile coverage in Wales, in your paper, which you gave to the committee, you talked about the discussions that you've had with mobile operators to look at radical and ambitious solutions to deliver universal mobile coverage. Are you able to expand on that in committee today?

[158] **Mr Saunders:** It's a work in progress. I think that's the easiest way of summarising that. I see that Sharon White wrote to the chief executive officers of the mobile network operators before Christmas. We've, as a result, started engaging with them about what their shopping list is, to use John Davies's term, in terms of asks from the regulator and more broadly in terms of meeting consumers' aspirations. Because the reality is there is a gap. Whilst the current obligations that we've built into licences in terms of premises coverage and geographic coverage will lead to some improvements, and we would expect to see a lot of progress in the next 12 months, the reality will be that there will still be a gap between that and what consumers now expect. I think the term 'everything everywhere', when it was coined originally, set a lot of those aspirations moving in a direction that actually, now, we're only just catching up with the consequences of.

[159] We are talking to the MNOs, as I said. They are identifying a number of things—more masts, higher masts. There is a variety of things that are going to be necessary to meet that consumer aspiration. But I think there's a key issue underpinning that, which is attitudinal. Whether it's the attitude of the planning authorities, whether it's the attitudes of people themselves, the reality is that if they want to get something close to universal mobile

coverage, there will need to be changes in attitudes.

[160] Just as a sort of analogy or comparison, I had the good fortune to go to Reunion, which is an island in the southern Indian ocean, but it happens to be, to all intents and purposes, part of mainland France. So it's got the same level of infrastructure that you'd expect anywhere else in France, and there are mobile masts everywhere. So, right in the middle of Reunion there's a volcanic range of mountains that are absolutely stunning—7,000 or 8,000 ft tall and a great outdoor adventure sports opportunity. You go to the top of these mountains and there are mobile masts on them. It's equivalent to having a mobile mast on the top of Snowdon or Pen-y-fan, or whatever. The attitude in France is that's perfectly acceptable. If we aspire to get the same sort of level of coverage in the UK, I think some attitudes may need to change here as well.

[161] **Mr Williams:** I'm glad to say the timing is good, and I'm glad to say that both Huw and I are participating in a summit being convened by the Wales Office tomorrow along with the Minister, who is going to be there, and we will have representatives from all the mobile network operators there, hopefully to get a buy-in from all, because this is something that involves lots of different categories of people and, as Huw said, they all need to play their part if we're going to get to where I think consumers want to be, which is as near to universal coverage as possible. To do that, there has to be, I think, widespread changes in relation to several aspects of that. Certainly, as Huw said, bigger masts are going to play a key part in that—having more of them.

[162] If I can just refer you to a number that comes from something to do with television, not from the mobile world, but in terms of digital terrestrial television, in Wales we have 67 masts per million of the population. The number in England is 12. So it's a huge difference. That doesn't give you parity with England. That still only gets you, in television terms, to 97.7 compared to 98.7 in England, and that is a far lower number of masts, obviously, and that's television that is broadcast—the signal carries long distances, and carries effectively. For mobile, and especially for mobile data services, the density of masts that is required is substantially more, and I think until we see that change of mindset by all parties, and I think everybody—. Sharon made it very clear in the letter that you referred to that this is something in which we, as a regulator, have a role to play, and the UK Government that looks after the electronic communications code has a clear role to play, and the Welsh Government has a role to play, local planning

authorities have a role to play, and, at the end of the day, so do communities. Sometimes it's a binary choice: do you want a mast on a hill near your village, or don't you want mobile coverage? It's up to people to make those decisions.

[163] **Russell George:** With regard to mobile coverage, what can the Welsh Government do, specifically, to improve mobile coverage themselves?

[164] **Mr Saunders:** Well, I think there are a couple of things that certainly immediately spring to mind. At the moment, if you look at what's happening within the English planning framework, there are specific changes in terms of mast height that are in train, which are part of a package that were associated with the Digital Economy Bill, and it's not clear to me where the Welsh Government stands on those. I believe they're looking at the same sort of things, but it is lagging behind. Beyond that, it's worth while looking at what the Scottish Government is doing. They published a mobile action plan in the summer of last year, which they're now putting some flesh on in terms of what that means in practice and looking at, for instance, community ownership and sponsorship of masts, looking at co-operation with landowners to reduce the costs of access to land, et cetera—a number of the things that John Davies was talking about earlier on. I'm in conversation with Scottish Government on a number of those. Just for your information, I'm actually now based in our Scottish office in Edinburgh, and clearly they've got a particular focus, because the reality is that the problems that we're talking about for Wales are equally a problem for large chunks of the Highlands and Islands, in particular.

[165] **Russell George:** Is there anything in that Scottish plan that wouldn't be good for Wales, or is everything in that Scottish plan good?

[166] **Mr Saunders:** I think it's all relevant, and there may be other things beyond that.

[167] **Mr Williams:** I think that's the point I would make, in that, to get parity, especially with England, whatever's done in Wales needs to be done to a greater degree. Having parity with, let's say, the planning regime in England isn't going to give you parity in outcome. To get parity in outcome, you have to make Wales the best and easiest place to deploy mobile infrastructure.

[168] **Mr Saunders:** And going back to the point that Rhodri made in terms

of the comparison with tv, we've got too many bloody valleys, and too many people living in them. [*Laughter.*]

[169] **Russell George:** Jeremy Miles.

[170] **Jeremy Miles:** This point about the density and the different profile of masts to delivering the same outcome, that's a topographical issue, is it, or is it population distribution?

[171] **Mr Saunders:** It's a combination of the two: it's the topography and distribution of the population.

[172] **Russell George:** And what about access to public sector assets? Is there something that the Welsh Government could do there? Should they do something there?

[173] **Mr Saunders:** I think that's certainly something that should be explored.

[174] **Russell George:** Okay. And finally, with regard to broadband and mobile, is there anything that you as the regulator have got in your toolbox that you can do to support better broadband and mobile in Wales that you're not doing now?

[175] **Mr Saunders:** I would hope not. I think, looking forward again, the 700 MHz spectrum, which we're due to auction from next year onwards, does offer us some opportunities in looking at new ways of putting coverage obligations together that, perhaps, are more targeted, and I think that's an area that we're actively looking at. So, we're looking at a variety of things at the moment, some of which will be within our control, some of which will, perhaps, test the scope of our regulatory powers.

[176] **Russell George:** And John Davies, the previous witness, the chair of the advisory committee in Wales, when I mentioned that to him he mentioned the reliability of networks and offering financial incentives. That was his suggestion of something that Ofcom could do that, perhaps, they're not doing now. Do you have comments on that?

[177] **Mr Saunders:** Network resilience is definitely an issue, and it's one of my areas of responsibility, in practice, so it is something that we're looking at. I think it's probably true to say that the mobile networks haven't, over the

last few years, been perhaps as resilient as fixed networks. That's an issue that I think they recognise themselves that they need to address, and certainly we will be looking to set higher standards, to some degree. Whether or not that includes any financial incentives remains to be seen.

[178] **Russell George:** And, perhaps, finally, we will be making recommendations to the Minister at the end of this inquiry. Is there anything that you could mention that will help us in that that perhaps has not already been mentioned?

[179] **Mr Saunders:** I don't think anything specific springs to mind.

[180] **Mr Williams:** I think we've mentioned everything on our list.

[181] **Russell George:** If you do think of something afterwards, then we've got another two weeks yet of this inquiry, so please drop us a note if something else occurs to you that you think is relevant to our inquiry. Diolch yn fawr. I'm very grateful for your time with us this morning and your paper as well. Thank you very much.

[182] We'll take a short, five-minute break. If we're back just after 10:35 that would be great.

*Gohiriwyd y cyfarfod rhwng 10:29 ac 10:38.
The meeting adjourned between 10:29 and 10:38.*

Cynrychiolwyr Busnesau Bach—Seilwaith Digidol Cymru Small Business Representatives—Digital Infrastructure in Wales

[183] **Russell George:** I move to item 4, and I'd like to welcome Joshua Miles and Charles de Winton, and I'd be grateful if you could just introduce yourselves and what organisations you represent for the record.

[184] **Mr Miles:** Okay. I'm Joshua Miles. I'm policy manager for the Federation of Small Businesses.

[185] **Mr de Winton:** My name is Charles de Winton. I'm a chartered surveyor and I'm the rural surveyor for the Country Land and Business Association, commonly known as the CLA.

[186] **Russell George:** I'm grateful. What do you think of BT's delivery of the

roll-out of superfast broadband?

[187] **Mr Miles:** Okay. I think the first thing we need to acknowledge is that there's been a lot of ambition around the project. I was looking at the Ofcom statistics from 2014, and Wales was quite a far bit behind in terms of broadband superfast roll-out across the UK. By 2016, I think we've caught up. We've overtaken Scotland and Northern Ireland. So, I think in a real and practical way, that ambition has been realised to some extent. I think there are some issues around how that roll-out has happened. So, anecdotally, we've had firms who have expected superfast broadband to be delivered at a certain time, and have perhaps seen a delay, and that's caused frustrations in terms of their planning from their business perspective. But, on the whole, I think we need to welcome the kind of ambition that's been shown, and the fact that we are making good progress on this.

[188] **Russell George:** And perhaps Charles, you could—

[189] **Mr de Winton:** I would take a similar view. I'd like to use a slight parallel. Some of you probably remember the natural gas and town gas conversion in the 1970s; it was a massive bit of infrastructure—

[190] **Russell George:** I don't. [*Laughter.*]

[191] **Mr de Winton:** Well, some of you. My father was heavily involved in it, and I think that's quite a good parallel in my view. The fact is that was a massively ambitious project to bring North sea gas into the whole of the UK, and I think that BT, the current contract, has done a very good job in many respects to do this. It's a hugely ambitious project to be able to go off and do all that. The difficulty I think is that expectations have rather overtaken the whole process. There are limitations. People have got to get up telegraph poles, they've got to push cables underground and all the rest of it, and this sort of job takes a bit of time. And I think we are beginning now to see the benefits of that. However, we have a number of our members based in the rural areas, which are always going to be difficult to service, and surprising results are starting to happen, with members reporting that the BT Openreach van is seen in the village, which they never expected to see. So, yes, it is happening, but I think, possibly, the politicians and people have been slightly overambitious in trying to get it done yesterday. I'm convinced that we will get there, but it's going to be those really remote farms and businesses that are always going to be the ones that are going to struggle, probably, to get it in the long term.

[192] **Russell George:** Okay. I'm grateful. Mark Isherwood.

[193] **Mark Isherwood:** How accurate and timely has the information received by people and businesses in the Superfast Cymru intervention areas been?

[194] **Mr de Winton:** Certainly, looking from a purely membership perspective, I've got a very good living example from a member of ours near Brecon, who saw the BT van down the end of his drive, putting in infrastructure. He was working from home, running a consultancy business, and the difficulty I had, as a real-life example, was actually getting the information to him on when BT were hopefully going to put some infrastructure into his property, which was about half a mile off the A40. It took me over a month of battling with e-mails from various people within BT to try and get an answer. The simple request was: 'Can you put me in touch with your regional engineering manager, so that we can have that conversation, to work out if we are going to have to put infrastructure in?' Our member was prepared to get his tractor and mole plough out to mole a pipe across his land. It took over a month to try and winkle that information out. Finally, we got it, and we hooked up with the right person, but it did take a long time. And I would say that, generally, it's the information—people not knowing if they are going to get connected or not. Our members will take the view that if they're not going to get connected, then that's very handy, they will go off and do their own thing and find out alternatives. Ideally, the best opportunity is to get BT to hook into the national network, but it's not getting that information through initially to make that business decision.

[195] **Mr Miles:** I think, for us, perhaps stepping back a little bit, there are two issues as we see it. The first one is infrastructure and the second one is exploitation. And the infrastructure has clearly been advancing apace over the last few years as a result of Superfast Cymru. The next issue that we need to crack is exploitation—how we get small firms across Wales to use the Superfast broadband that they now have access to. And that's a really difficult issue. I think BT have got a commercial incentive to do it, because if they get the custom, that's good for them. Welsh Government have got an incentive to do it, because there is a clawback mechanism in the Superfast Cymru contract, so it's in their interest to drive up uptake. But, certainly, from the evidence we've seen, UK-wide, quite often, when these infrastructure projects are rolled out, there is a gap between the amount of firms who know that it's been rolled out and the actual roll-out programme.

So, anything we can do to close that gap I think is really important.

[196] **Mark Isherwood:** Thank you. I'm conscious of concerns raised with me by rural businesses—the British Holiday and Home Parks Association in north Wales is a prime example—that where they're unable to access through superfast, and made aware of other Government programmes, they've not been able to secure a provider anywhere in Wales. They've had to search across England to secure that, which doesn't bode well for Welsh business as part of that supply chain. Have you had any experience of that?

10:45

[197] **Mr Miles:** Yes, there are definite cases. There are parts of Wales where this programme isn't going to reach—5 per cent, I think it is, which will fall outside the Superfast Cymru remit. That's actually quite a big geographical area when you look at it, and a lot of these are hard-to-reach communities. So, for us, one of the things that we would like to see Welsh Government look at next is how we deal with that 5 per cent issue because, clearly, the solution is not going to be rolling out fibre in the same way as we've seen with Superfast Cymru—it's going to be a mix of things, but we need to start having that discussion soon so that these communities aren't left behind. Because, really, what we're saying, by leaving those communities behind, is that certain types of economic development can only happen in certain areas and that's a big issue for us.

[198] Again, just going back to perhaps the bigger issue, the bigger message around this is: for us, this needs to be part of the economic development strategy as well. The infrastructure and the exploitation need to be a key part of that. So, we're saying that this is what the kind of economy we want to see looks like—and how we can deliver that across Wales.

[199] **Mark Isherwood:** I would just point out that my comment related to the programmes currently available, quite apart from the additional programmes coming forward—

[200] **Mr Miles:** Okay. In terms of access to broadband and the voucher scheme as well, those kinds of things are stopgaps, essentially—

[201] **Mark Isherwood:** That's for later, I think. It was more the point about the business impact and businesses—in this case, British Holiday and Home Parks Association members—servicing thousands of residents on their sites,

but only being classed as single addresses. On the advice of BT Openreach, on access to these schemes, we found no providers in Wales able to meet the provision needed.

[202] **Mr Miles:** That's not something I've come across, anecdotally or otherwise, but if it is something that exists, then absolutely, we'd be concerned by it.

[203] **Russell George:** You've mentioned exploitation and take-up, but what could be done to improve that?

[204] **Mr Miles:** I think at the moment, about 20 per cent of superfast broadband has been taken up—the rate—which is slightly behind what it is in England, which is, I think, around 30 per cent. Welsh Government has set up Superfast Business Wales, so there is a support service there. In some ways, it's quite a new support service, so it's only been around for about nine months or a year, as I understand it. So they're just getting up to speed in contacting businesses and we've been very supportive of that process. We'll be keeping a close eye on how that project rolls out to make sure that there is this discussion with businesses, but I think, really, it's a responsibility for all of us in the business community to have that discussion, including us with our members, and say that there are opportunities here and we need to work together with Welsh Government, with BT and with other providers in order to make the most of that.

[205] **Russell George:** How have you both informed your members of the services that are now available?

[206] **Mr Miles:** We have taken part in the Superfast Business Wales programme. We've got someone sitting on their steering board at the moment. Whenever they do events, we tend to send out e-mails to our members as part of an update, and those kinds of things. But, yes, it is a challenge; SMEs are quite hard to reach by their very nature. They are quite granular, and so perhaps it's something that we need to look at again.

[207] **Mr de Winton:** I think from our perspective, I tend to lead on that with our members, dealing with day-to-day enquiries. We are in the process of putting on a number of seminars around Wales, inviting our members to meet the necessary providers to educate them to find out exactly what is available so that they can make their own business decisions. I think, in many respects, farmers are a slightly different breed, as we probably know: they

will find that information; they will have a member of the family who has access and make that necessary—. They will go and find that information. I've got a member whose wife has got a bridal business down in Brecon. Again, he hasn't got much broadband, but she does all the work from the shop in the middle of town. They have got good ingenuity and skills in order to find out the problems and work around them. But I think as far as moving on with technology and aspects like that are concerned, there will become a time when they can't do their day-to-day business without the necessary infrastructure and there will probably be a lag. But expectations aside, they will make the enquiries and work out the best possible ways to suit their business.

[208] **Russell George:** And, Joshua, you mentioned 27 per cent—so take-up is the same for residential and business. Is that desirable?

[209] **Mr Miles:** On the issue around SMEs' take-up quite often being the same as the residential, for us, it's the same with other utilities. So, by and large, with microbusinesses in particular, they don't tend to look at these kinds of utility markets like you'd expect a big business to; they look at it like a consumer. They look at it like you or I would in a household. The difference is the way the products are offered is often quite different. So, that causes a number of issues, then, in terms of how we approach those kinds of markets and how firms interact with it. And what we've found in the UK-wide research that we've done is that a lot of firms don't engage further with this issue, because they see it as complex and there's a lack of transparency around things like contracts. They're a little bit worried that there are costly mistakes, potentially, if they don't get it right. So, that transparency is one of the key issues, we think, for Ofcom in particular in terms of the setup for that market.

[210] **Russell George:** Okay. Hefin David.

[211] **Hefin David:** A few SMEs in my constituency on industrial estates have raised these issues. Their perception is exactly that, and their additional perception is that residential users get a better deal than commercial users.

[212] **Mr Miles:** Yes. The way Ofcom approaches it is that it looks at those markets quite differently, I think, and there's a lot of regulation and scrutiny around the kind of residential, domestic market. That doesn't filter through to small businesses, because small businesses get lumped into the business narrative, then, and the offers become a lot more complex and varied. So,

one of the things we've seen—and we've said it before in relation to other utilities and, I believe, in relation to broadband and mobile as well—is that Ofcom needs to have a look at these things and see whether there's a case for perhaps presenting some of these things in a bit more of a straightforward way. We've suggested a small business code of practice as perhaps a voluntary way of doing that in the first instance, and I think that would very much be about making speeds clear, making tariffs clear and having transparent contracts.

[213] **Hefin David:** In their evidence session, they actually—and I quote them—they said that business parks are a problem that needs to be addressed. So, I think there's an open door there.

[214] **Mr Miles:** Yes, and we'd be keen to work with them and with anyone else to try and address that problem.

[215] **Hefin David:** Thank you.

[216] **Russell George:** That code of practice you mentioned, who would run that?

[217] **Mr Miles:** So, Ofcom are already looking, as I understand it, at a code of practice. Obviously, this would be a small-business-focused scheme in particular, but, certainly, we would see perhaps a partnership role there between Ofcom and Welsh Government. But, in relation to banking, we've done a bit with UK Government—I think it was the BIS department previously—just in terms of surveying the service provided by banks and providing comparisons there. So, there's certainly a role, potentially, for organisations like ourselves in facilitating that, I think.

[218] **Russell George:** Okay. David Rowlands.

[219] **David Rowlands:** Do you think that cost is a significant factor in the take-up by SMEs?

[220] **Mr Miles:** I think it's more about the cost benefit, really. Cost, obviously, is always a factor with any product, so I think lots of SMEs will see that as an issue, but if they can see there's a payoff for it, I think the ones that have gone on that journey and have taken up superfast broadband have found it worth their while to invest in that. One of the biggest payoffs we see through our research is in terms of time and, you know, having quicker

download speeds and having quicker upload speeds has basically allowed lots of businesses to do things that they wouldn't have done around innovation, because they've now, all of a sudden, got the time to do it. So, for us, that's one of the key messages, I think, from that.

[221] **David Rowlands:** So, that information isn't readily available to SMEs, then, this whole cost benefit.

[222] **Mr Miles:** Again, it ties back in to the issue around clarity and around how they approach that particular market. If you're not sure of the kinds of speeds that you're going to get back, because of the way the offer isn't set up like that, perhaps you can't make that cost-benefit analysis and you end up backing off instead and not engaging with that particular journey. So, yes, we would see that as part of that solution, I think.

[223] **David Rowlands:** Thank you.

[224] **Russell George:** Vikki Howells.

[225] **Vikki Howells:** Thank you, Chair. I'd like to really explore an issue that you started to talk to Mark Isherwood about a few moments ago. Looking at the Welsh Government's Access Broadband Cymru scheme and the Ultrafast Connectivity Voucher scheme, I wonder if both of you would be able to outline what you feel have been the strengths, and also perhaps the drawbacks or the areas that are wanting within those two particular approaches.

[226] **Mr de Winton:** I think, mainly, looking at our membership, in many respects, they're just keen to get connection. You know, that is the biggest with the rural vote. I think once they've got a sensible and a reasonably reliable service, they are really just keen to get connected in the first place. That is the fundamental issue that our members face.

[227] Going back to other issues, obviously, the technology will, in many respects, push the market place. I've talked to a number of our people and it would appear that, for business, as long as they can do simple tasks like banking, pushing in the information to HMRC for VAT returns and things like that, it doesn't really matter what speed it is or anything, as long as it's a good and reliable service and they can actually undertake the day-to-day functions.

[228] You may remember, a few years ago, dial-up was the mode. Then, obviously, things like broadband hit, and then the technology and all the apps and computer programmes then based themselves on a set speed. Obviously, as people and technology progresses, I suspect the speed of these various programmes and applications will increase. But all I'm saying is, it's great that these various vouchers have been introduced and given by the Welsh Government to assist people in getting connected and everything else, but a lot of our members who have the issues, as I said, are just desperate to get connected in the first place—to a good and reliable broadband system that supports modern applications and technology so that they can run their businesses.

[229] I would say, as a general rule of thumb, for most people, the common expectation, dare I say, is to probably get BBC iPlayer without getting the old rings and all the rest of it, to make sure that that is a good stable service. A lot of our members just don't get that, even now, and that's what they want.

[230] **Mr Miles:** I think, first of all, it's good that these schemes exist, because they are helping people to get connected, which they might not otherwise be able to do. On the issues, first of all, it's awareness. So, a lot of people aren't aware that these schemes exist and that then has a knock-on on take-up. So, again, it's a similar discussion to what we said earlier—SMEs are quite hard to reach, particularly in more sparse communities. So, perhaps it's about how we collectively—and that includes FSB—look at reaching out to those businesses to say this is available and it's something we can look at and develop further.

[231] The other issue is around—. Those services tend to be, in some ways, stop-gap services. Because you have one provider, there's not the competition you would have if you had fibre to the cabinet and then into the premises, as you would have through Superfast Cymru. As a result, there's the potential for them to be more expensive than what you would have on a competitive offer. So, I think that's an issue as well. In the shorter term, it's great that those businesses are connected, but ultimately we want them to be able to plug into the network and to have that competitive offering.

[232] I spoke recently to the people running Superfast Business Wales and raised some of these issues with them. They were quite keen to point out that, where possible, where people have asked or inquired of BT or Welsh Government around superfast roll-out, there is a referral process to these other schemes. So, again, I think it's really important that that happens and

continues to happen. We'll certainly keep asking those questions to make sure it does.

[233] **Russell George:** Jeremy Miles.

[234] **Jeremy Miles:** Thank you. Just looking at the Welsh Government's successor scheme to Superfast Cymru, the scheme that will close the gap, if you like, between 96 per cent and 100 per cent, in your submission, on behalf of the CLA, you indicated a hope that it would be flexible enough to take advantage of emerging technologies. The Superfast Cymru proposition is essentially a digital landline, for perhaps obvious reasons, that gets you the coverage, apart from to the hard-to-reach. Did you have anything else in mind? Do you have particular concerns about how it's been run to date, or was it just recognising that the new scheme requires more flexibility, essentially?

[235] **Mr de Winton:** I think that Wales's topography is going to be the issue, going forward. I'm hopeful that where we finish, in July this year, we'll do a large part of the mopping up of the easy stuff and the not quite so easy stuff. I've got a member, for example, in the middle of—it's just above Abergwesyn. They haven't even got electricity and they rely on satellite. It works, but obviously it's expensive, and all the rest of it. So, I would like to see that there are opportunities and flexibility to combine possibly 4G and possibly 5G with the existing network. So, for people where it is very expensive and very difficult to get by, there are alternative technologies that work hand in hand with one another to catch these people. It may be putting higher towers, for example, in prominent positions, so that they can beam down to these various hamlets and isolated farms to catch those people who literally will never get fibre because it's just simply too expensive to get out to them.

11:00

[236] **Jeremy Miles:** Can I ask you, because you touched on infrastructure, which you also raised earlier—you know, there's a infrastructure challenge to close that gap in some ways—what's the take of some of your members on the need, perhaps specifically in remote areas actually, to have mobile phone masts and other infrastructure installations? There's obviously a difficult trade-off for some of your members between the service they may want today—you've described the level of demand, which, in a rational world, is reasonably straightforwardly met—but, obviously, what we want to have is

people doing a range of businesses in all parts of Wales, which might have higher levels of demand, and that has infrastructure challenges. What's your members' view on some of those challenges?

[237] **Mr de Winton:** I think our members would say that, certainly looking at mobile coverage, the coverage has probably reduced over the last few years, for whatever reason. It would be nice to think that there are great opportunities available with more modern technology, looking at, as I said, more masts and everything else—looking at that. I think our members are generally receptive to the fact that, possibly, they could be part of the solution in fact, in the way of providing lands and sites for masts, and all the rest of it. We do, as an organisation, have some concerns about the electronic communications legislation currently going through Westminster, because, obviously, rentals on these masts potentially may be reduced because there may be a compulsory purchase element to that. Obviously, that gives an additional income to some of our members in these far-flung areas, where opportunities for raising an income are somewhat limited. However, if it can be seen to be working to the general good of the community and our members in particular, and it's seen that a full commercial operation possibly wouldn't be the right answer because it's just not commercially viable for some of these companies, then, yes, opportunities—and I'm sure our members would look at the bigger picture for the greater good, so to speak.

[238] **Mr Miles:** It's changed a little bit, into mobile.

[239] **Jeremy Miles:** I might just stop you before you say too much there, because there's more of that coming.

[240] **Mr Miles:** Right, okay.

[241] **Russell George:** We'll come on to that, yes.

[242] **Mr Miles:** Perhaps we'll come back to that later, then, but, in terms of infrastructure, there is an issue that this 4 per cent to 5 per cent that's left is going to be in rural areas. A lot of those are going to be in national parks, and some of the solutions are going to include things like masts, which have issues around how the environment looks and those kinds of questions. So, from our perspective, we're really keen that economic development can happen anywhere. We think there's a case for having that discussion, because you need to be able to run a business in any part of Wales, we think.

One of the solutions that's been mentioned in other places is around making masts higher, and that has a knock-on impact on the way communities perceive things like masts, I think, in that there's an aesthetic question there. But that's something we think should be explored to see whether it's practical. If it solves that problem, certainly we think it's worth looking at, and I believe Welsh Government's looking into some of these issues at the moment, so it'll be interesting to see those findings.

[243] **Russell George:** Okay. We are about to move on to mobile, but just one last question on this: are there any lessons that the Welsh Government can learn from the current roll-out of the Superfast Cymru project that they can take in the successor programmes?

[244] **Mr Miles:** So, definitely around expectations and making it clear when roll-out is going to happen and how, and perhaps—I'm not going to say over-selling—making sure that whatever is put out is realistic so that we don't have those situations where perhaps a business expects superfast broadband to be available but there is a delay for whatever reason. But I think the main message I'd like to see taken over into perhaps the mobile sector, the mobile infrastructure environment, is to be ambitious. We've taken this journey from being one of the laggards in the UK to actually now having very good broadband infrastructure, and improving infrastructure every year. Let's take that, let's roll it into the economic development strategy as an approach, and let's do it for mobile infrastructure as well.

[245] **Russell George:** Okay. Charles.

[246] **Mr de Winton:** I would like to mirror a number of the comments already made, but I would say that expectation is an important one. I think the danger that we've had previously is that, possibly, expectations have rather overrun what's been able to happen on the ground. But the point I made earlier is that the very important part is actually knowing what is likely to happen in your particular area—are BT going to come and fix you up, or aren't they, and making that decision? It has been hugely difficult for us as an organisation to winkle that information out of the system. If we are able to do that, then people can make business decisions based on future expectations and then get on and do it, rather than thinking, 'Well, I am not going to do anything because we may get a connection.' No-one is really sure what's going to happen, and suddenly, the BT van turns up in the village.

[247] **Russell George:** Yes. I wrote down the two points that you have both made—ambition and expectation—which can conflict against each other. [*Laughter.*] Right, we will move on to mobile, now, and Hannah Blythyn.

[248] **Hannah Blythyn:** Thanks. We obviously touched on it briefly earlier, and you both in your submissions highlighted the need for—. CLA said that innovation is needed. FSB talked about the integration of mobile, in terms of our infrastructure strategy. You touched on a few things, but what specific actions do you think the Welsh Government could and should take? But also, how should mobile providers match that as well? What expectations should we have of the private sector too?

[249] **Mr Miles:** The Welsh Government, as I understand it, currently has research in three areas around mobile infrastructure. So, how that research shapes up is going to be really interesting—and making sure that it is published so that we can all have a look at it. One of the areas was around the planning issue. We have already spoken about the height of masts, so if there is a potential solution there, and it is something firmly within the Welsh Government's remit, which they can do, we would like them to look at that. I think the other one was around the release of public land. I think, again, that's something that the Welsh Government can do to an extent, working with local authorities. So, let's explore those issues to see what is practical and reasonable, and perhaps use that as an approach.

[250] The other thing is the Welsh Government's links and the pressure it can bring to bear on Ofcom. That really links into the issue around the network providers. We would expect the Welsh Government to be pushing this agenda with those network providers to make sure there is a roll-out programme and that it is being kept to. To give you an example, we were chatting to a business—RWG Mobile—recently that has just set up and is starting to sell mobile products to consumers in Wales. One of their USPs is Welsh-language provision, which isn't provided at the moment by some of the other, bigger companies. Network barriers for a USP like that cause big issues if, say, your target is rural west Wales or north Wales, where a lot of these people are going to be. So, you can see there is a small business knock-on for some of that infrastructure, and we would be really keen to see some sort of strategy and to see it rolled into the economic development strategy, and to see the aspirations there articulated.

[251] **Mr de Winton:** I think I would just like to make the point that a large part of rural Wales, potentially—probably—from mobile users' or operators'

concern, is probably uneconomic, in terms of putting their infrastructure into areas where they service very few people. Powys comes to mind; mid Wales comes to mind very quickly. Probably, the Welsh Government perhaps needs to make it financially worth while for some of these operators to come into rural Wales and give them some kind of grant funding or something like that to basically make it worth their while to provide the infrastructure.

[252] We also talked about planning. A large part of Wales, as we know, has designated landscapes, national parks and areas of outstanding natural beauty, et cetera, and I think that will cause some technical issues. I think that innovative views beaming in from outside these areas—with modern tech, higher masts and things like that, which have been mentioned—is going to be the answer. Certainly, somewhere like the Brecon Beacons, for example, which I know very well, is going to be technically challenging in some areas where you haven't got much infrastructure. Obviously, with the designated landscapes, actually putting it there the first place is going to cause difficulty.

[253] **Russell George:** With regard to designated landscapes, is there a problem with putting up a large mast if that is what people in the area want?

[254] **Mr de Winton:** Fine, you know, if that's what the people want. But it's going through the system—. Obviously, there are legal protections through the planning process. After all, planning is a balance of interests and making that decision. Certainly, I think with some national parks—certainly, somewhere like Snowdonia—you've probably got the benefits of cafes on the top, where you have probably got some infrastructure you could cleverly use. Probably, Pembrokeshire comes to mind. You have got this thin nature of the national park going around the coastline. Again, you have probably got quite a lot of existing infrastructure you could use cleverly. Somewhere like Brecon is probably going to be a little bit more complicated, and not everyone wants to see a mast in their backyard.

[255] **Russell George:** No. Are you aware of any examples anywhere in other parts of the world where the Government has got a good programme, if you like, that the Welsh Government could follow?

[256] **Mr Miles:** Sorry, I can't think of any programmes, again, off the top of my head, but it is something I will take back and look into, if that is of interest. Just looking at the statistics, Wales is behind the rest of the UK. So, perhaps we don't need to look too far away to see what's going on

elsewhere. I'd be interested to see how Northern Ireland and Scotland deal with this because they have similar issues of rurality. So, I think that would be a good place to start.

[257] **Mr de Winton:** Certainly, having travelled around Scandinavia—Iceland, for example—I was amazed, travelling around, the strength and the quality of the service that was provided in some of the remotest parts of the country. Other areas, which I personally haven't visited but obviously I've read about, are in Africa, where they've concentrated far more on the mobile infrastructure rather than fixed broadband fibre, et cetera. I'm told that some of the infrastructure there makes us look rather amateur at the job—but anyway, that's only anecdotal evidence.

[258] **Russell George:** Charles, one of the issues, of course, is finding land to put masts on as well. Are your members happy to put up a mast?

[259] **Mr de Winton:** I think, looking at it on a purely commercial basis, the current rental that is offered by the mobile phone companies—. I was on a farm in the Rhondda only the other day and he'd got two masts there—very happy with the process. He gets a very good signal and he gets a very good income out of it. But the danger is if it becomes more—shall we say, with compulsory powers and all the rest of it, which is hinted at in the new legislation—a downward spiral in the rent. When you're looking at the commercial element, as I mentioned just now, then obviously that might not be quite so attractive to our members. But I think, like all things, all of us, hopefully, who own land take the responsibilities and take the view that, if you're providing a common service for the benefit of the community, then possibly it might be different.

[260] **Russell George:** We had an earlier witness who suggested that not only public-owned land but privately owned land that is publicly funded, perhaps through farm subsidy—that there should be a mechanism there to, I suppose, require those landowners to make land available for masts.

[261] **Mr de Winton:** A very good point. I see where you're coming from on that. I think, with the dreaded Brexit coming up, then, obviously, people are going to have to be more mindful of doing public good to receive public money. So, there is definitely a possibility to look at that further, I would suggest.

[262] **Russell George:** I'll just ask Members if they've got any final questions,

but perhaps whilst I do that if you could—. We will be making recommendations at the end of our inquiry so, if there are any other areas where you think that Welsh Government could do more in regards to broadband and mobile, please let us know now or write to us over the next couple of weeks. We're happy to receive any further comments that you have before the end of the meeting if you've got further points.

[263] **Mr Miles:** For us, the main thing to reiterate is we have an economic development strategy in development at the moment. This is a key part of infrastructure. We call it the fourth utility at FSB. This is something that needs to be part of that. I know the committee has looked at the National Infrastructure Commission as well; perhaps it needs to be part of that discussion, because what we need to do is use infrastructure as an enabler so that economic development and business can take place anywhere in Wales. That's got to be the ambition, I think. So, that's the big headline message from us, really.

[264] Beyond that, we haven't touched on it today, but you might have seen in the research that I shared with the committee that we've categorised businesses around 'business reassured', 'business optimised' and 'business transformed' in how they use and exploit digital infrastructure. I think it's how we dial that into the economic development strategy. So, we're not just talking about making infrastructure available but how we use it, how we encourage firms to become more productive, and how we get them to move beyond just doing what they're doing at the moment into innovation and those kinds of areas. I think that's going to be really important for Wales going forward.

[265] **Russell George:** Adam Price.

[266] **Adam Price:** It's a very high-level, broad question. So, forgive me, or indulge me, but to what extent are we coming at this from a sort of incremental kind of catching up—trying to work within the existing technology, using copper, et cetera, and repurposing that? Is there an alternative where we could be saying, 'Actually, let's build the infrastructure now'? Let's leapfrog to the future, if you like. Let's build the infrastructure of 2050 now, so we're almost drowning in bandwidth, which probably will have low levels of take-up initially, because we're building for a future that we almost can't quite imagine yet. You know, is there an alternative approach there?

11:15

[267] **Mr Miles:** I think there are two things there. The first is that we need to make sure we're building the infrastructure of yesterday, which, in many parts of Wales, we don't have, actually, first. So, part of Superfast Cymru was about that catch-up. We were behind and we are behind in mobile at the moment, so we have the catch up before we can overtake. But, now that we're there, now that we're talking about 96 per cent uptake, I think we should be ambitious. We should be looking at an economic development strategy that does aim to make Wales a brilliant place to do business. That's got to be what it's all about, I think. So, yes, that's something we should explore, I think, in this process, absolutely.

[268] One other point I didn't mention that I'd like to mention if I could, Chair, is that the figures from Ofcom also show the number of SMEs that have access, and there is a lag between the amount available to premises across Wales and the amount available to SMEs. So, at the moment, 72 per cent of SMEs can access superfast broadband, whereas I think it's 86 per cent for the kind of premises as a whole across Wales. For us, again, the successor scheme needs to deal with that, and perhaps there's a recommendation there about having that written into whatever the ambitions are or what the contract is for that successor scheme, so that we're not dealing with the infrastructure of yesterday; we're in a position where, when we start at the top of the economic development strategy, we're thinking of what's next.

[269] **Russell George:** Why is there a difference in that figure? Is that because, with small businesses, some are perhaps home based or in rural areas?

[270] **Mr Miles:** Yes. I think some of it is around the business park issue. So, that's come up quite a lot: people in business parks, members on business parks, just aren't getting covered by the roll-out in the way other parts of Wales are. So, there's a kind of lag there, but I think BT would probably be able to give you that explanation if you asked the question.

[271] **Russell George:** Okay. Thank you. Anybody else?

[272] **Mr de Winton:** Can I just answer the point that you raised? I'm not a technology expert, but there's one thing where I think there's a quick and easy fix to do that—to try and get this contract and this infrastructure in, but

look to probably make some upgrades over the next few years and probably phasing out the copper element. So, where you've got fibre to the box, for example, and then you've got the copper element from the box to your premises, try to then hopefully come up with further infrastructure improvements to phase that copper bit out, so you've got the benefit of the full force of what fibre has to offer, because the copper element is the limiting factor, as I understand it.

[273] There's just one point I would like to raise, Mr Chairman, before we go. I'm increasingly aware that house prices and house selling is wholly dependent—and one of the key questions that are asked is: what's the internet connection? And what I don't want to see is that Wales suddenly doesn't have—it's not in the twenty-first century, and the fact is that we're rather looked down upon because we haven't got that necessary infrastructure connection to the property. I've got members who have just set up an interesting business dealing hand-to-hand with an estate agent in Monmouthshire, where, obviously, if properties are seen not to be up to speed, pardon the pun, with broadband, he will then go in and provide the necessary infrastructure, where possible, but, obviously, that can't be done in every element. I think that's a really important part to realise—that we don't want to be left behind the rest of the UK with our infrastructure.

[274] **Russell George:** With your professional hat on, there, in that case, when a new development is being built, is there scope for Welsh Government to do something to facilitate that in a new development through the planning process?

[275] **Mr de Winton:** I think so, but you could also ask the developer to develop it as part of what he's putting in, the infrastructure. If it's a little more than what, you know—. If infrastructure is available in the locality, but obviously needs that link and all the rest of it, and there's a little bit of infrastructure improvement needed, well, is that an opportunity for the developer to fund that that of his profits? Why does it have to come back to the Welsh Government all the time?

[276] **Mr Miles:** There is a mechanism that can be explored around that in the community infrastructure levy. I mean, it's infrastructure in terms of the kind of traditional sense at the moment, but there's certainly scope to look at that, I think.

[277] **Russell George:** Okay. Great, thank you. I appreciate your time this

morning. There will be a transcript made available to you over the next few days for you to review, but we're very grateful for your time and your written evidence this morning. Diolch yn fawr.

11:20

**Arbenigwyr TG—Seilwaith Digidol Cymru
IT Experts—Digital Infrastructure in Wales**

[278] **Russell George:** Good morning. I'd like to welcome you both this morning. I should say that you've got translation equipment in front of you and it's channel 1 for Welsh channel 2 for amplification. This is a public broadcast, so a transcript of the proceedings will be available at the end of the meeting for you as well. If you could both introduce yourselves and your organisations, I'd be very grateful.

[279] **Mr Ferguson:** I'm Andrew Ferguson, editor of thinkbroadband.com. It's a consumer-focused website and we've very much, since 2012, been tracking what's been happening, trying to make sure that BT has kept honest and also checking what Ofcom, and everyone else, is talking about in terms of availability.

[280] **Mr Donovan:** I'm Mark Donovan, and I'm the client executive for Atos Wales. We're a business technology company and are a provider of ICT services to the public and private sectors. We're not a network services provider, although we do work with some SMEs that do provide specialist services in that area.

[281] **Russell George:** Great. So, what do you think of BT's delivery of the Superfast Cymru programme?

[282] **Mr Ferguson:** I think there are several factors. The raw figure, as of last night—and we pretty much try and keep within a week or two weeks of the roll-out—is 88.9 per cent superfast, and that's at the 30Mb criteria.

[283] One of the interesting things, having listened to the meeting earlier, is that everyone keeps talking about 4 per cent. That 4 per cent comes from 96 per cent, but that 96 per cent is fibre-based coverage, which is very different to superfast coverage and that has confused the public in the past. The difference between 96 per cent and 88.9 per cent, we currently believe, using your fibre criteria, means that you're at 94 per cent. The difference from 94

per cent down to 88.9 per cent is 5 per cent to the cabinet, and then that decreases in performance over distance. We factor that into our coverage model.

[284] **Mr Donovan:** I have a slightly different perspective, just thinking about the overall approach in terms of the Superfast Cymru contract and the contract approach with BT. Obviously, the traditional tendering process and the large single-supplier contract was a decision that suited the requirement at the time—to undertake a rapid roll-out and a broad-brush roll-out to as large a number of premises as possible. That is an effective way to get things done; it avoids delays at the start, trying to come up with a bespoke, tailored process or perhaps putting together a framework of suppliers, as is done in other procurement in Wales and in the public sector generally. But it's obviously not tailored and, therefore, if you compare it to whitewashing a wall, Superfast Cymru is the roller in order to get the 90 per cent or 96 per cent of the wall covered, but then it's the narrow brush to fill in around the edges that is the remaining requirement.

[285] Statistically, just picking up on what Andrew said, I think the most interesting statistic to us is the take-up, which I believe is now at about 28 per cent as of September, according to the figures that I've seen, which is a good performance in terms of triggering the claw-back and making reasonable progress. But by comparison to other areas in the UK, it seems to lag behind the average and seems to suggest that there's been a lower take-up of superfast broadband in Wales, which is surprising, because completely independently, we've recently commissioned some research on people's demand for digital services, which uncovered that the demand in Wales is higher, compared to the rest of the UK, and that people's tolerance of poor quality digital services is lower than in the rest of the UK. So, therefore, it would suggest that there should be quite a high demand for digital services and, therefore, by extension, quite a high demand to have superfast broadband to make those services effective. So, I think that's an area of questioning and something that we would suggest pursuing further: why is the take-up what it is? Are there extenuating factors or is it a genuine issue that perhaps the actual performance isn't meeting people's expectations, that the delivery of the internet service providers isn't meeting expectations, business users aren't finding the results that they would expect, et cetera, et cetera?

[286] **Russell George:** And what are your views on those questions?

[287] **Mr Donovan:** I think they're questions at the moment. I could provide anecdotal answers in response, that I think ISP delivery often lags behind the expectations set, that a lot of business users may not understand the potential benefits to them, and that the public sector, potentially, isn't taking full advantage of the technology to provide better services or to reduce costs.

[288] **Mr Ferguson:** I'd like to add to that that we certainly see, in terms of take-up, people notice the stickers going on cabinets. There is always someone in an area keenly watching for that day when they can actually order, and they go and tell all their friends. Now, the problem is that their friends may have different providers, and whilst the service is available to all the providers on the same day, not all of the providers get around to actually selling it to their customers at the same time. So, you have this oddity where people will phone up, or try and order online, and it says they can't, and a lot of the public opinion will be that it said once they couldn't, so they forget about it because life is busy. Not everyone has time to spend checking this every other day.

[289] **Russell George:** How do we sort that out?

[290] **Mr Ferguson:** I think there's a discussion to be had with the service providers and Ofcom, particularly because Wales has got 1.5 per cent fibre to the premises at the moment, and it's looking like there's another 2 per cent in build, which will actually get you to that—94 plus 2 takes you to the 96 per cent. So, it looks like that will happen. One of the problems with fibre to the premises is that people like Sky and TalkTalk don't currently retail that product. And, of course, Sky and TalkTalk are two very big names in the consumer world, everyone knows them, and a lot of those people will be customers of those now. So, it's how do we encourage them particularly, maybe not in the whole of the UK, but maybe just even in Wales, to say, 'Look, these services are now available, why are you not retailing them to people because we're seeing people not buying it and sticking with the old services?'

[291] **Mr Donovan:** I think also, in terms of the communication that's been driven from two sources really, from Welsh Government and BT, the BT communication seems to be much more focused on the roll-out programme, and I think the media interest has been very much centred on the pace of the roll-out programme. I'm not sure if there's been as much communication around the advantages and the benefits, and particularly from a business perspective, what it could actually mean to a business, so, how you could

potentially transform your business as a result of having that enhanced internet access.

[292] **Russell George:** Hefin David.

[293] **Hefin David:** You mentioned the more nuanced picture than was presented. Does that give us a better idea of geographical areas that might be specifically affected?

[294] **Mr Ferguson:** Certainly, on our coverage, we normally prefer to talk about the superfast figures, simply because that's what everyone's keen to try and have. So, yes, somewhere like Cardiff, Swansea, the difference between fibre coverage and superfast coverage is very small—it might only be 0.5 per cent or less. But once you get out to places like Ceredigion, as a local authority area, you're looking at a difference of perhaps 10 or 15 per cent. And then once you break it down to even smaller areas, it can actually be even worse, the gap between—. So it may be sometimes what BT's reporting and what people are then coming back to you in your e-mails is, actually, it might be it's this gap between the checkers are saying, 'Oh, you can order an 8 Mbps service, you can order a 10 Mbps service,' where they have all grown up, particularly with the project name of Superfast Cymru, and the public may have had the perception that everyone was going to be getting superfast from the project, but they weren't. And if you looked at the detail originally, it never was that case. But what's also very important going forward is to make sure it's communicated very rightly: if Wales is going to push for 100 per cent superfast, to make sure that it's actually communicated properly, that this is quite a sea change from our last project.

[295] **Hefin David:** So, 100 per cent doesn't necessarily mean 100 per cent then.

[296] **Mr Ferguson:** It depends on what the actual exact wording of the contracts that get signed is. Whether it's signed with one supplier, or multiple suppliers, yes, it may not mean—. If you sign a contract for 100 per cent fibre, very likely it's not going to be; you will end up with something like 96 per cent superfast, which would be an off-the-top guess.

[297] **Hefin David:** Okay. Thank you.

[298] **Russell George:** Vikki Howells.

[299] **Vikki Howells:** Thank you. I'd like to move away from the discussion around Superfast Cymru to ask you both about your views on the Welsh Government's other two schemes: that's the Access Broadband Cymru scheme, and the Ultrafast Connectivity voucher. What do you think have been the strengths of those schemes to date, and are there any weaknesses that you'd also like to talk through with us?

11:30

[300] **Mr Donovan:** I think from the strengths perspective, particularly looking at Access Broadband Cymru, it does potentially offer, because of the different approach, access to a wider range of solutions. I'm quite interested in looking at the information that's available through Superfast Business Wales. It's quite a tortuous path through the website, but once you get there, there is a list of 72 providers, as of the count I made yesterday, which is quite a big list. And just from sampling some of those, there's obviously a range of different technology provisions within that that would suggest that you've got a broad market, and therefore the opportunity to find a solution that fits you. That kind of demand-driven approach is probably the right approach when we start thinking about the remaining percentage—the 4 or 5 per cent that need to be addressed. I think, however, for the layman entering that marketplace without really clear, firm guidance is quite a difficult situation, and to be faced with potentially 70 potential suppliers and very little guidance on how to choose between them is a daunting proposition.

[301] **Mr Ferguson:** On the ABC scheme, I think certainly we've seen people ask the odd question and stuff, but we don't actually have any data on take-up—how many people have exploited it. The ultrafast broadband voucher scheme is particularly aimed at businesses. I think we are seeing people like Spectrum Internet, we are seeing some of their people appearing with fibre-on-demand-type speeds and fibre-to-the-premises speeds in areas where you shouldn't have fibre to the premises. So, in other words, it's a cabinet and they've basically ordered these services for business. So, we are seeing that happen, but it's still quite small. Certainly, those schemes I don't think would scale to give you that 4, 5, 6, 7 per cent to cover the fibre bit.

[302] The complexity, as Mark's alluded to, of people applying: people just want to phone up their existing supplier as a business or as a consumer. You just want to go to a comparison website because then you can get £100 voucher back, and it's only £10, £15, maybe even less, in a month. So, people just want simplicity, and I think if we make things too difficult, we will

end up in a scenario where we've ticked the boxes to say it's available, but no-one is actually buying it, so you'll have low take-up.

[303] **Vikki Howells:** So, moving forward then, simplicity you would feel would be the key to any new scheme.

[304] **Mr Ferguson:** Certainly, it has to be. Things that are demand led are always going to have the small number who really insist on needing the services. They will come to you immediately. But, if you do something that's demand led, so people can have superfast broadband if they want it, but they have to apply for it, I think you'll find that a lot of households won't, because they'll just go, 'Oh, that's another hurdle to approach.' You come across households where it's actually the kids ordering the broadband upgrade for them, so the parent comes along and types in the credit card number when they need to do it. So, it will be the teenagers quite often that are driving this in families, because they're the people that are using the broadband the most. So, it's very much a case, particularly for digital inclusion as well, we've got that whole trying to get people to start using websites who have never used websites before, and a demand scheme is not going to work for them at all because they're just not in the online world to find out about them.

[305] **Russell George:** Okay. Jeremy Miles.

[306] **Jeremy Miles:** Thank you. Can I ask you about the successor scheme to Superfast Cymru and the proposals for closing that 4 per cent, or whatever per cent it ends up being depending on how you're measuring it? Mr Donovan, you said in your written evidence that you've mentioned the challenges of geography and demographics, which we understand in terms of population distribution and topography, and so on, and you were advocating a more thoughtful and innovative approach to tackle some of those. Are you effectively saying that the previous scheme wasn't sufficiently innovative, or are you saying that there are additional challenges in closing that gap that require a more nuanced approach? If that's the case, is it about technology, or is it about something else?

[307] **Mr Donovan:** I think it's the latter of the two situations that you described. As I said at the beginning, the initial scheme was well constructed for a specific need, and did create a huge amount of opportunity. The exploitation of that opportunity is a different question. For the remaining 5 or 6 per cent, the challenge there is, as you rightly said, the geography but

also the cost–benefit of reaching remote properties. So, some properties may cost thousands of pounds just to reach one property. Is there a business need for that? I think that’s what I was referring to earlier in terms of being demand driven, or are the needs of every single individual such that every property has the right to have that sort of fibre connection?

[308] But, by examining the different technology solutions, there may be a more appropriate solution for a specific location. So, for example, satellite provides, potentially, superfast—Andrew might correct me—levels or speeds of connection, but the volumes of data that you can actually achieve for the same price are very limited, but that might be fine. If you happen to be a farmer who wants to have a fast connection so that you can access a specific website and use it, or a specific service and use it, and you need that speed of access in order to make it a usable connection, but you don’t do it more than once a month, then a satellite connection may be more suitable. So, I think in terms of the intelligent approach that’s required for the remaining percentage, it needs to be driven by those sorts of detailed needs analyses and cost–benefit analyses.

[309] **Mr Ferguson:** For the next project, I think you’re in a very good position, because you’ve actually got enough fibre to premises and fibre to cabinets in those very rural areas. Yes, there are a lot of rural areas not covered yet, but you’ve got cabinets, you’ve got fibre to the premises going to both businesses and consumers, so there is scope to actually look at what are the benefits of fibre to the cabinet versus fibre to the premises, because they’ve got quite different costs, particularly as you push to the more rural areas. So it’s almost a case of what have been the business benefits, what are the consumer benefits, and does that make the value–for–money case. In other words, is it worth spending £1,700 to put fibre to the premises to a remote farm, or will the satellite solution, which will cost £250, be sufficient?

[310] But then there’s also the case of: do we want this successor project to be the final project, where we all stop talking about this in three or four years’ time, or are we still going to be expecting there to be a subsequent project, as in that this is something that we’re always going to be chasing, for years? So, do we spend more now and solve it for 30 years, or do we spend incremental amounts now and know, okay, in another few years, we’ll get some money coming back from the project, so we can spend it in other increments. I think it’s important to get that story told to businesses so that they can plan, because businesses can relocate, and I think that’s one of the problems is that they don’t know at the moment. So, you’ve got businesses

up in the air, 'Do I relocate, do I stay where I am? Do I expand where I am?' It makes it very difficult for them.

[311] **Jeremy Miles:** Interesting. And are there any international examples for tackling some of these slightly more intractable challenges than perhaps we've faced so far that we should be learning from?

[312] **Mr Ferguson:** I think some of the other people giving evidence have said it's difficult, and it is difficult, because there are not many countries of a similar size and geography that have attempted this. There are enough scenarios and places within the UK as a whole now to actually look at. So, you've got people like B4RN in rural Lancashire, where they've done everything themselves. They've ignored all of the red tape and all the people who say, 'You can't do it, it's all too expensive.' They've relied a lot—

[313] **Jeremy Miles:** Sorry, 'they' in that situation are—?

[314] **Mr Ferguson:** They've deployed fibre to the premises amongst the most rural parts of Lancashire. So, 2,500 premises were connected across a massive area.

[315] **Jeremy Miles:** Can I just pause you there? Who has been responsible for that? You described—?

[316] **Mr Ferguson:** They are responsible for that themselves. They are a CIC, a community interest company.

[317] **Jeremy Miles:** At community level; okay.

[318] **Mr Ferguson:** So, they dug it themselves, put it in themselves, and they now actually have 15 employees to help support the other people. So, there are world-leading examples to go and look at. It doesn't necessarily have to be commercial; it can be just making it easy enough for that group of five or six premises to get together with another group of five or six premises to suddenly form effectively these CICs. It may not scale completely, but it may allow some areas to go faster than any planned roll-out was going to go.

[319] **Jeremy Miles:** Yes; thank you.

[320] **Mr Donovan:** Yes, a very similar answer, actually. I've consulted with a

few colleagues who work in different parts of the UK and Ireland, and when you look at regions that have similar sorts of rural challenges or remoteness challenges, Cumbria is one example. Their take-up has really progressed a lot faster. So, I think there could be lessons learned not just in terms of the technology provision, but in terms of driving the take-up from other regions with similar geography.

[321] **Jeremy Miles:** What's their coverage like?

[322] **Mr Donovan:** I don't know. I don't have the figures for that, but I do know that the latest stats have shown a real rapid acceleration in take-up through Connecting Cumbria.

[323] **Mr Ferguson:** Certainly, take-up, we've seen independent of Ofcom—we believe Wales is around the 33 per cent mark, but we're less confident in that figure, so we'll say our figure agrees with the 27 or 28 per cent. So, we are seeing the take-up. I think there may be a case of the take-up might actually be different in different areas, so those areas where they've got no broadband, the take-up might be higher than in those that had some. That may be one of the reasons why businesses aren't necessarily upgrading, because a good number of them may have something that works for just the e-mail, and businesses may not realise some of the benefits that they can lever from actually having even better broadband.

[324] **Jeremy Miles:** Thank you.

[325] **Russell George:** Are there any areas of the country or Europe that we as a committee or the Welsh Government can learn from in regard to meeting those last few per cent?

[326] **Mr Donovan:** I think in terms of the very limited research that I've done, the Republic of Ireland has obviously got a different target—I think 1.6 million, from memory, is the target that they're trying to reach by 2020. Their coverage is a much lower percentage, actually. I think they're aiming for something like 80 per cent of premises in the republic. So, I think that will be an interesting one to make a comparison with and understand the drivers behind the decision making there.

[327] **Mr Ferguson:** Some of the Nordic countries—I believe it's Sweden; I might not be exactly right on that, but it's one of the Nordics—have the option where the fibre's built to within 1 km of all the premises, and then

you pay, effectively, the cost of that fibre. It's very similar to the fibre-on-demand product that BT integrated into the first contract that you had, but the fibre-on-demand product hit all sorts of problems. It disappeared for a while and it's back in Wales now, but not on a massive scale. I think that works in some communities, where people are used to paying for their own infrastructure. But I think particularly the majority of the public and certainly the majority of businesses don't see why they should pay extra for their infrastructure compared to maybe parts of Cardiff, parts of Swansea and Newport. It would be a very difficult one to sell to people, I think.

[328] **Russell George:** Adam Price.

[329] **Adam Price:** Just looking beyond the successor programme, and even beyond the successor programme to that, and thinking about the kind of factors that could be influencing the future shape of demand, obviously we have the cloud, but thinking of smart cities and smart grids, et cetera, and even, you know, the rise of the robots and the role of genomics in health in the future, where there's a massive amount of bandwidth required currently to deal with that level of complexity of information to be uploaded, what kind of factors should we be inputting into our scenario? Should we be building for that sort of 2050 vision, or following this sort of incrementalist approach that, as you say, we've tended to be following?

[330] **Mr Donovan:** I think in terms of what drives that sort of decision making, there are two main areas. Obviously, there is the public service agenda, so, the digital agenda within public services, which I know within Wales is something that gets a good deal of attention, and the economic strategies that sit alongside that in order to take advantage of the improvements in digital access. Those are generic but potentially regional or city-based cases. I think then, when you look at individual locations and specific strategies around certain locations, there is far more detailed analysis that you can do. You can look at the citizen users, look at the personas and the use cases that you have for individual people, and do that on an individual basis, on a business basis and on a community basis as well. So, if you think of a typical community in Wales in 2017, and what that is going to look like in 2050, and try and model their requirement for broadband access in this case for that time, yes, the services that are going to be available are going to be different, but how different are they, what are they going to require in terms of are they going to need real-time citizen access to public data, are they going to require the kind of high-speed video conferencing, that, potentially, types of e-health perceive being much more

common in the next few years? I think it's working through those sorts of use cases in a detailed way that can help to answer that question.

11:45

[331] **Mr Ferguson:** Future-gazing is always fun. You can go to some of the conferences now, and they say the thing why we all need gigabit broadband today and not yesterday is because we're all going to watch VR video, which requires 700 Mbps. Maybe—but we all had that scare with 3D TV, and look what happened there. It may be that VR does take off—we don't really know. But certainly the internet of things—everything connected, everything signalling each other, uploading small amounts of data—that is becoming reality. And that's where some form of ubiquitous mobile data coverage with voice as well does become more important, and that's where there are several avenues that really need to be taken. The existing roll-out is going to help, and it's making sure that whatever you do next still makes sure that it's still pushing fibre further and deeper into communities, so that when there's a need for better infrastructure that gets from, say, a small village in Snowdonia, so someone can potentially upload a 4k video from their GoPro in the middle of Snowdonia, it can happen, that there is enough fibre there so the masts can connect to it fairly cheaply.

[332] And also one of the other key ones is—we've been talking about higher mobile masts. They're great, but one of the problems is that if you have a high mast that covers a large area, that means you've potentially got thousands of people trying to access that one mast. It may actually be better sometimes to not go for one high mast, but lots of smaller, less visible masts. It's all down to the topography of the area—so, somewhere like Snowdonia in the middle of the winter is fairly quiet. In the middle of the summer, you may need quite different infrastructure. So, it may be that we have to be a bit more clever in what technologies and in what scale they're deployed in different parts of the country.

[333] **Mr Donovan:** Andrew's made a good point about mobile, actually, because, in terms of strategy and the shift from digital to mobile, which is well under way, and in terms of modelling that far into the future, a key consideration has to be what provision are people going to expect on mobile devices and how does the mobile network provision have to integrate with the future broadband provision. So, I think that's absolutely key. Also, in terms of understanding how we address that remaining percentage, mobile obviously is an option in terms of enhancing mobile coverage. That may be

technologically more suitable in some areas, and might be more future proof.

[334] **Adam Price:** Thank you.

[335] **Russell George:** Next week and the week after we've got BT and other providers coming before us, and the Scottish Government we'll be taking evidence from, and also of course the Welsh Government Minister as well. Are there any areas that you think that we should be challenging them on? What areas should we be challenging them on?

[336] **Mr Ferguson:** Looking from the public's viewpoint, the biggest area to challenge them on has been lack of communication. We've seen the Twitter and Facebook accounts for Superfast Cymru effectively cease last summer. There are still physical events going on—they're still travelling to events, it appears—but people being able to ask questions about when it's coming—. So, people are now very reliant on what sorts of bits of information we can garner from looking at various sources. There are roadworks websites, where you can gather that there are some telecoms works going on at that particular junction, and, once you understand the acronyms they use, you know what it means. The public don't, invariably. So, yes, lots more information on what's happening.

[337] I can understand one of the reasons why not just Superfast Cymru, but other local authorities scaled back how they engaged with the public, because there was a lot of negative feedback. Cabinets would disappear off roll-outs. But that's all down to expectation management, to say, 'Well, look, this is the plan now, but this plan may change; we can't guarantee—.' And that may be something that has to be handled differently for the next contract, that, once they've announced a plan, there to be a penalty if they change—if they remove a cabinet, or they remove a village from their roll-out plan because they've discovered some problem, there's maybe a penalty involved to make it less likely that this is going to happen. Sometimes the reasons they change are out of their control, so it may be the power company that initially gave a quote of £2,000 then came back and changed that to £15,000, which completely uproots all the economics for a particular cabinet. That's also part of the joined up—. And particularly mobile masts; mobile masts need power as well, so sorting out how the whole power infrastructure works in conjunction with the broadband infrastructure is very important.

[338] **Russell George:** Okay. How should the Government and BT better

communicate? What are the best ways to do that? Is it public meetings or social media or what?

[339] **Mr Ferguson:** Social media is always a double-edged sword. With social media, it's very easy—we all see it—to get all the negatives showing up. So, if you're going to have social media teams, they need to be very thick-skinned, unfortunately. I think if you combine social media with actual people physically getting out and communicating with people—. I think, particularly for the small business sector, they're concentrating on running their business, they don't have time to chase all of this stuff, so it may almost be just going around and shaking the hands of all the business owners and pointing out that this is available. And when they say, 'But my provider XYZ doesn't sell it', it's knowing that, 'Well, here's half a dozen others that we know do sell it'.

[340] **Russell George:** So, an old fashioned knock on the door and going to see people.

[341] **Mr Ferguson:** To drive take-up, it may actually be needed.

[342] **Mr Donovan:** I think it would be interesting to ask them a question about how they understand that market, and how they're segmenting, and what different approaches they are taking. So, obviously, as Andrew's described, some digital natives would be accessible via social media perhaps, but others would definitely require the knock on the door. That would be an excellent question. Another one would be, probably linked to that, how do you drive more take-up, but also about their delivery and are they meeting, particularly where there's fibre to property required, their commitments, and what are they doing to improve their performance around the timescales to deliver that fibre to property.

[343] **Russell George:** Very grateful; if there's no final questions—. Mark, you have a final question.

[344] **Mark Isherwood:** You were referring obviously to percentages: the 96, the 100, the 88.9 and so on. The Minister told Plenary a few months ago that Welsh Government had given the provider a percentage target, but the provider identified the properties. There have been concerns where numbers of residents have been masked by single addresses; such as holiday parks, such as halls of residence and so on. How confident are you that the percentage figures that we're using represent numbers of residents or

residencies within single address locations?

[345] **Mr Ferguson:** Certainly, I'm confident that we're happy in terms of premises. Whether the premises then contain 10 people or one person is a lot harder to figure out. In that sense, you're very much tied to the 2011 census data. Unfortunately, there are new properties being built all the time. So, you can find out how many new properties are built within a postcode, but you can't find out who's occupying them until we have the next census.

[346] **Mark Isherwood:** But this is more where there're multiple properties under one address, so a holiday park or—

[347] **Mr Ferguson:** That's one of the reasons—

[348] **Mark Isherwood:** —[*Inaudible.*]—dozens or hundreds.

[349] **Mr Ferguson:** That why we're constantly refining to that extent. In theory, Ofcom should have better data on that, but their data and our data, once you align the time periods of when the different data—we do closely align to within 1 per cent. So, it's not massive. Yes, if you are part of that 1 per cent where there's an error it can seem quite horrendous, but, certainly, we're always constantly trying to look at it. It's a changing picture, unfortunately. BT change what they do as well. Sometimes they do things like infill, so you can suddenly find in an area that the fibre level's stayed the same but the superfast has increased because they've done what's called infill work. That's not always communicated very well.

[350] **Russell George:** Can I thank you for your time this morning? We have got two more weeks of our inquiry and I know that—perhaps especially Andrew—you'll be following that inquiry. If you do have thoughts or disagreements or agreements with other witnesses then by all means let us know, drop us a note. We'd be interested in both of your continuing views as we continue our inquiry. A transcript will be available for you to check over the coming days. Very grateful for your time this morning; thank you very much.

11:54

Papurau i'w Nodi
Papers to Note

[351] **Russell George:** We move to item 6. There are various papers to note. Are Members happy to note those papers? They are. Thank you very much.

Cynnig o dan Reol Sefydlog 17.42 i Benderfynu Gwahardd y Cyhoedd o
Weddill y Cyfarfod

Motion under Standing Order 17.42 to Resolve to Exclude the Public
from the Remainder of the Meeting

Cynnig:

Motion:

bod y pwyllgor yn penderfynu that the committee resolves to
gwahardd y cyhoedd o weddill y exclude the public from the
cyfarfod yn unol â Rheol Sefydlog remainder of the meeting in
17.42(vi).

accordance with Standing Order
17.42(vi).

[352] **Russell George:** I move to item 7, and, under Standing Order 17.42, resolve to exclude the public from the remainder of the meeting. Are we happy to do that? Yes, we are. Thank you.

Derbyniwyd y cynnig.

Motion agreed.

Daeth rhan gyhoeddus y cyfarfod i ben am 11:55.

The public part of the meeting ended at 11:55.