HOUSE OF COMMONS

Environment, Food and Rural Affairs Committee

Oral evidence: Rural Broadband, HC 834

Wednesday 3 December 2014

Ordered by the House of Commons to be published on 3 December 2014.

Written evidence from witness:

- BT
- BT follow-up evidence
- CLA

Watch the meeting

Members present: Miss Anne McIntosh (Chair), .Jim Fitzpatrick, Mary Glindon, Sheryll Murray, Margaret Ritchie, Mark Spencer, Richard Drax, Emma Lewell-Buck, Iain McKenzie, Roger Williams

Q1–127

Examination of Witness

Witness: **Sean Williams**, Group Director, Strategy, Policy and Portfolio, BT, gave evidence.

Q1 Chair: Good afternoon. May I welcome you, Mr Williams? Thank you very much indeed for contributing to our inquiry into broadband. For the record, please give us your name and business title.

Sean Williams: Good afternoon. My name is Sean Williams. I am Group Director of Strategy, Policy and Portfolio at BT Group. I am very happy to help you with your inquiry.

Q2 Chair: Thank you again. You are most welcome. The commitment is that all premises will have access to 2 Mbps broadband by 2016. That is not terribly fast. What does 2 Mbps allow someone to do?

Sean Williams: 2 Mbps is enough to fill CAP applications. 2 Mbps per second is essentially our view of what the minimum speed for an acceptable broadband service is these days. But we are trying to get as many households, business premises and farms as

possible to speeds of over the superfast broadband threshold, which is 24 Mbps. We have two targets: to get everybody above 2 Mbps and get as many as possible over 24 Mbps.

Q3 Chair: Can you give the Committee an assurance that 2 Mbps is going to be a minimum speed, not a maximum speed?

Sean Williams: Yes. The issue we have is trying to get every single premises over 2 Mbps. At the moment, we have got probably 97% of premises over 2 Mbps, and by 2016 we think that will be about 98.5% of premises. There will still be a small number of premises that have not quite got to 2 Mbps, and so there will be a continuing programme, particularly with the Superfast Extension Programme, to try to get to as close to 100% as we can.

Q4 Chair: I am tempted to submit this as evidence, but we are going to look at superfast broadband, and I think you have just said that 2 Mbps is sufficient for someone to complete a CAP application. What farmers and rural businesses are saying to me locally is that they are not able to watch a DVD online without losing the connection, so they have not got a prayer of filling in a CAP application.

Sean Williams: Obviously, the faster the speed, the better your download experience. If you are watching iPlayer or something of that nature over your broadband connection, then obviously faster speeds are better. But the typical advice is that about 2 Mbps is the minimum necessary. Obviously, more is better, and certainly we would hope to get the vast majority of people well above 2 Mbps.

Q5 Chair: The rather optimistically expressed Superfast North Yorkshire have issued me with a map, which I know is too far away for you to see, but the only bits that are business-ready are the blue bits. The pink bits are the existing exchanges. You will see that most of the area that does not have any pink or blue bits is where the farms and rural businesses are based. Does that not look as though BT are discriminating against farmers and rural businesses in the business model that you are using?

Sean Williams: No, that is certainly not our intention. We are working with the council in North Yorkshire to roll out the Broadband Delivery UK programme in that area. We have passed 155,000 premises under that scheme so far, and by the end we will have got to 165,000 premises. We have done some really big things in the area. For example, we got to Hawes, one of the most remote market towns in England, by deploying 17 miles of fibre cable. We are responding to the plan the council has put forward, and we are deploying against that. There are some very challenging parts of that, and we are rising to those challenges by deploying our infrastructure—cables and cabinets—according to that plan.

Q6 Chair: I would hazard a guess that the 155,000 or 165,000 houses will be in the main built-up areas of Harrogate, Scarborough, York and Knaresborough. The Committee scrutinise the Department's work, looking at rural affairs and rural communities, and with digital by default coming in and all CAP applications moving online and paperless, how do

you think the Department will be able to deliver that if you have not got the infrastructure in place to enable them to do so?

Sean Williams: It is not just about BT's broadband network and fibre network. There are also satellite broadband solutions, so it is possible for all farmers to subscribe to a satellite broadband service that will give them 4 Mbps broadband. They are not drastically expensive. It costs about £15 a month to subscribe to a 4 Mbps satellite broadband service, and all farms that cannot get copper broadband or fibre broadband are able to do that. This has been sufficient for the last European Commissioner to declare that the objective of at least 2 Mbps broadband being available for all had been accomplished. It is not all by copper broadband, in other words. You sometimes have to use satellite broadband, but that is a perfectly acceptable solution in terms of the performance of that service. It is just not something that could be sufficient for everybody. It is certainly sufficient for some thousands of farms that cannot otherwise get a broadband connection on copper or fibre.

Q7 Chair: According to the figures, it is £700 million to roll out the second phase of superfast broadband, and only £200 million for the first phase in North Yorkshire. Is the £500 million difference because you are going up into the more difficult terrain in the hills?

Sean Williams: That is right, yes. Essentially, the business case for fibre deployment is driven by the costs of deploying the network, and as the premises that you are trying to reach become more dispersed, the cost of getting to those premises is that much more. The natural progression of the way that the programme has rolled out is you typically will get to the hardest-to-reach, most expensive premises last. I think that is natural, because obviously from the public purse point of view, you want to get as much value in connectivity for the money available, and so you get to the most expensive, hardest-to-reach places last. As per your map, you get the rural areas, and the most rural and dispersed farm communities are among the last to get the service.

Q8 Chair: It is bad news for farmers and rural businesses, essentially.

Sean Williams: We get there in the end, but in the meantime satellite broadband is available.

Q9 Chair: How does it work in Scandinavia? Do they use a mobile connection and not rely on set-piece infrastructure?

Sean Williams: I am not very familiar with Scandinavia, I am afraid, but mobile and wireless broadband are also available in the UK, so it is not just about satellite, copper and fibre. There are also those technologies. Wireless broadband and mobile broadband are still being rolled out. As 4G mobile broadband networks are deployed over the next few years, we will see those being used as well for wireless mobile connections. A lot of this is all going to play out over the next two or three years, in 2015, 2016 and even into 2017. By the end of 2016, you will have almost all of the BDUK phase 1 fibre roll-out done. The commercial deployment of 4G networks will also be very largely done. It is a picture that is improving all the time. The picture has improved enormously over the last five years. When the BDUK scheme started a few years ago, the number of premises that

could get at least 2 Mbps broadband was only 90%, and now it is 97% and it will get to 98.5%. It is going in the right direction and it is going quite quickly, but it will unfold over the next two or three years.

Q10 Richard Drax: Good afternoon. Superfast broadband, 24 Mbps, to 95% of premises: is that achievable by 2017?

Sean Williams: It is there or thereabouts. It may end up being in 2018, but it is important to note that the UK fibre deployment is the largest and fastest deployment in any developed country in the world. If you look at what is happening in our major peer group countries—Germany, France, Italy, Spain and so on—we are already a long way ahead of those and our coverage is growing faster than theirs. It will, as I say, unfold over the next two or three years. Will it all get done by 2017? We hope so. It may trip over into 2018.

Q11 Richard Drax: Can you say what percentage superfast will be by the end of 2015 and 2016? Can you give us any rough idea?

Sean Williams: On superfast broadband, we should be at 90% of the UK at the end of 2016.

Richard Drax: 2016, 90%.

Sean Williams: Yes.

Q12 Richard Drax: Now, you state the fibre footprint is increasing at a rate of 60,000 premises a week. You have just said that yourself. Does this figure take into account the distance of a user's premises from a street cabinet, which will affect whether they can access superfast broadband?

Sean Williams: Yes, it does. It is important that this is well understood. When we deploy our infrastructure, we put cables in the ground and we put in new street cabinets. The speed that you get at a particular premises is dependent on the distance from the street cabinet to that end premises. If you are on a very long line—if you are on a line that is, for example, over two kilometres from the cabinet—then you will not be able to achieve the 24 Mbps superfast speed.

Q13 Richard Drax: Is that on fibre or copper?

Sean Williams: It is on fibre. You have got fibre to the cabinet, and then you have got copper from the cabinet to the premises, and that superfast infrastructure will deliver better speeds for everybody, but you will need to be under about a kilometre and a half from the cabinet to get a speed that is 24 Mbps.

Q14 Richard Drax: You have copper from where to where, sorry?

Sean Williams: You have copper from the cabinet in the street to the end user's premises.

Q15 Richard Drax: The graph if you use copper, which is the big thing that is not really understood, does a dramatic dip, does it not, the further out you go?

Sean Williams: That is right. Just by the physics of putting data down a copper line, the signal attenuates over the length of the line. If you are on a two-kilometre line, you will not get very good speeds.

Q16 Richard Drax: What will you get, do you think?

Sean Williams: It depends on the length of the line.

Q17 Richard Drax: What would you get at two kilometres?

Sean Williams: I would have to come back to you on exactly what you would get, but the important thing is you would get a much better speed than you would get today. For example, if you are on a long line, you maybe only get 0.5 Mbps, which is still a broadband connection but not good enough to meet the minimum. If you are on a long line and we put a fibre cabinet in and you are two kilometres away, your speed may go up to 5 Mbps or 10 Mbps. Going from 0.5 Mbps to 5 Mbps or 10 Mbps is an enormous benefit in terms of your experience on that line. It will not actually be at the threshold of 24 Mbps, which is the defined superfast threshold.

Q18 Richard Drax: Bearing in mind we are in the 21st century and this is the United Kingdom and meant to be a first-world country and all of that, you would have thought that it is important that everyone has 24 Mbps and as fast as we can get it. What I am not quite certain about is whether your statistics of 95% or 90% are realistic when you take into account you are going to have this fall-off of much of your provision in houses over a certain distance from the box.

Sean Williams: Yes, the targets are realistic. When I speak of 90% getting superfast at the end of 2016, they will all get to 24 Mbps at least if they want it.

Q19 Richard Drax: If they want it.

Sean Williams: Yes. I mean, you obviously have to subscribe, but it will be available to 90% of premises to get 24 Mbps at the end of 2016. There will also be hundreds of thousands of premises that will get a speed improvement but do not get to the 24 Mbps definition. There is lots of ancillary benefit to those other ones too.

Q20 Richard Drax: Forgive me—the best way to get it is fibre, isn't it?

Sean Williams: Yes. Fibre to the cabinet is our solution.

Richard Drax: So, cabinet to the house—

Sean Williams: There are two basic fibre broadband technologies: fibre to the cabinet and fibre all the way to the premises.

Q21 Richard Drax: Exactly—that is the best.

Sean Williams: That is five times more expensive and five times slower to deploy. Whether it is best or not is a matter of priorities.

Q22 Richard Drax: But the question I am trying to ask you is, to get to 24 Mbps if you are two kilometres away—and forget the sales pitch, as I quite understand what you are going to do—are you going to have to adopt the more expensive approach with more fibre to get these homes up to the required speed, and if you are, is it not going to take longer to reach the targets you have set, realistically—pragmatically?

Sean Williams: Pragmatically and realistically we expect to get 90% of premises to the point where they have at least 24 Mbps off our fibre-to-the-cabinet infrastructure by 2016. Thereafter, our commitment is to continue to support the Government's progress in this area. The Superfast Extension Programme, which is essentially the next phase of this, will take that number to about 95% of the country, and we know that the Government have aspirations to get all the way to 99% of premises accessible to 24 Mbps at least. It will play out over the coming years, but our idea is that everybody should be able to get speeds of at least 24 Mbps by then.

Q23 Richard Drax: What other different methods of broadband delivery will be required to deliver 24 Mbps to the last 5%—the ones that the Chairman was referring to, and there are many in my constituency and I am sure in others—in the remoter parts? Is more money needed or what?

Sean Williams: To the ones where we have already deployed a fibre cabinet who are not getting the full benefit of the 24 Mbps speed, there is still lots of technological advancement to come that will increase the speeds on lines. We put in a technology that is called VDSL in the cabinet. It is an electronic component that produces a digital subscriber line broadband service called VDSL. But there are new technologies coming on stream, such as a technology called G.fast, which we have demonstrated can deliver 800 Mbps of broadband over a copper connection, from a cabinet to a premises, if the line is not too long. We expect that, as part of the solution, we will be upgrading the technology we put into the cabinets to deliver faster speeds to the end-user premises. Sometimes we will be doing fibre all the way to the end-user premises; sometimes we will be upgrading the technology we put in cabinets; sometimes there will be other solutions. The technology is moving all the time, and I am absolutely confident that over the next few years those new technologies will deliver the faster speeds.

Q24 Richard Drax: To the 5%?

Sean Williams: To the 5%. We are exploring those technologies particularly for the last 5%. There may also be a combination of wireless technologies and fibre technologies and

copper technologies all bonded together, so there are a number of different technological solutions that can help get to those hardest-to-reach communities.

Q25 Richard Drax: You have not got a date, have you, for the last 5%?
Sean Williams: Not at the moment, no.

Q26 Richard Drax: Finally, in my constituency we have a private provider who is trying to get to Kimmeridge, a little remote place. They have £3 million for a new fossil museum. They were promised superfast broadband by 2016 by the county council. They have now been told they will not get it. They need it for this new all-singing, all-dancing museum. This private operator is trying to use wireless, and has proven success in North Dorset up to speeds of 50 Mbps and it is working well. He cannot get access to this because BT and the county council are preventing him because of your contractual obligations. Is there any room or scope for you to back out where there is another provider who can do it now, not in two, three or four years' time, and allow my constituents—and others, no doubt—to have superfast sooner than they would otherwise get it?
Sean Williams: It is open to any provider anywhere to deploy a commercial network of any variety, whether fibre or wireless. Obviously, they can have a commercial conversation about the deployment of a wireless solution. But in relation to the publicly funded BDUK scheme, the whole framework and the specification of the requirements for the delivery of superfast broadband under the BDUK framework has laid out quite explicitly what solutions are suitable and what they are expecting, and what will cost-in relative to other solutions. In that environment, there is not an option to change the basic framework and the contracts that were agreed, but there is currently a process going on for the Superfast Extension Programme where it is possible for counties to procure alternative technology solutions. It is open in that sense, not for the existing contracts but for new contracts that are under way.

Q27 Mr Spencer: Which cabinet you are connected to is a very crucial part of this conundrum. One of my constituents had BT dig two metres away from his property to install a new fibre cabinet. He was delighted, because he thought he was going to get superfast broadband. Unfortunately, he is connected to another cabinet four kilometres away via aluminium lines that are patched up with Asda shopping bags to stop them getting wet. You can imagine his level of frustration knowing that there is fibre broadband 100 metres from his property. Why is it not possible to change people's cabinet connection?
Sean Williams: We actually do a lot of that in practice in our deployment. It is true to say the copper telephony and telecoms network is an extremely heterogeneous infrastructure.

Mr Spencer: He is on aluminium. He has not even got the copper.

Sean Williams: Indeed. Happily we do not have too much aluminium, but we do have some, it is true, and it is not fit for purpose for our current needs. In quite a lot of places, we put in a new copper cabinet as well as a new fibre cabinet, and we rearrange all of the copper connections in order to put in this new copper cabinet. That allows us to deliver

superfast broadband speeds to communities that are on the end of very long copper lines. It is a very expensive process, because as you can imagine you have to unearth all the copper wires, and you have to re-engineer them to attach to a thing that was not there before, so you have to add copper to the connections in order to make that happen. You have to build the plinth. That is even before you get to installing the fibre and the fibre cabinet. It is an expensive process called copper rearrangement, which we do quite often in our current deployment under the BDUK scheme. Why can't we do it for a single individual? In order to do that for a single household or business premises, it is very expensive for that one. If you are doing it for 500 premises, then obviously the cost per premises is a lot lower. It is something we do, and it can be explored in specific circumstances, but it is expensive to do.

Q28 Iain McKenzie: Along the same lines—and Mr Spencer beat me to it with the position of the cabinets and your connection to them, etc—I have had a similar experience in my own constituency, where constituents have been literally within touching distance of a cabinet but are not supplied from that cabinet. It is not two kilometres from cabinet; it is two kilometres on the long and winding road that the copper cable takes to get to them.

Sean Williams: That is true.

Q29 Iain McKenzie: Following what you said there about your understandable reluctance to put in this connection for an individual, I approached BT, and it was not an individual; it was a complete street plus that were saying, "We are experiencing this", and still BT said, "No, we won't do it". Where is the point where you would say, "Yes, it is viable to do it"? Is it 10,000 people, 2,000 people?

Sean Williams: It is very specific to the circumstances, and as we go around towns, villages and cities all over the country, planning out how we are going to get superfast connections to basically as many people as we possibly can, we are literally doing it on a street-by-street basis and saying, "What is the solution in this area?"

Q30 Iain McKenzie: But you are going at the rate of 60,000 premises a week.

Sean Williams: That is right.

Q31 Iain McKenzie: That would be easily achievable if you were hitting areas where you could roll out to a large community. You could easily hit 60,000 a week. If you are saying you are hitting 60,000 premises in a rural context, I would be impressed, but you could do that in a few days in a city.

Sean Williams: You have to remember we are still running at a rate of 60,000 a week after we have already deployed across 21 million premises, so we are already at that phase in the final third of the country that is getting to those hard-to-reach communities. It becomes increasingly difficult as you go along this path.

Q32 Iain McKenzie: Could I push you on one point? Could you give us a quantity at which you would say, "Yes, we will reroute your connection to the cabinet"? Have you a number?

Sean Williams: We do not have a number, because it does depend on the circumstances. We are very keen to provide opportunities to sort out every single community and every single premises. We do have a facility available whereby, if the local community feels that they have a case to re-engineer the network in their area—they have enough subscribers—they can approach our division Openreach, which is responsible for doing all of this deployment, and say, "Please will you tell us how much it would cost to re-engineer the network in this area to put in a cabinet for us so that we can all get superfast speeds?" Openreach will then give a cost for doing that, and then there can be a discussion about: "How are we going to make sure that is paid for? How much of that will Openreach pay for? How much is the gap funding? How can that be funded? Will any community group make the contribution to make that a viable case?" What I am saying is there are processes available now whereby communities can approach Openreach to see how much it would cost in a particular locality. There is not a hard and fast rule. It depends on the circumstances, but there is at least a process by which people can come along and ask.

Q33 Sheryll Murray: An anomaly showed itself up in my constituency recently, because as you know Cornwall is on its own scheme. Some parts of my constituency of South East Cornwall are actually on a Plymouth exchange. It would appear that they are being treated in a different way from the rest of the constituency because of the way BT are connecting exchanges—rather than according to the actual geographic locations. First of all, could you tell me how you would overcome this? Clearly, those constituents of mine who live within Cornwall should be entitled to the additional funding, the same as the rest of Cornwall, to secure broadband, especially the businesses. And does this happen throughout the rest of the country—the exchange of one county perhaps falling over the border into another county?

Sean Williams: Is that the issue in your case, may I ask? The Plymouth exchange spans the county boundary?

Sheryll Murray: The issue is with parts of Saltash and Torpoint, because they are fed by the Plymouth exchange.

Sean Williams: As a matter of general principle, we try to deal with all of those circumstances. Now that all the rural areas of the country are essentially covered by the BDUK scheme, when you get these boundary issues between counties, where the network map does not match the geopolitical map, as it were, we can align those, because we have two schemes running in parallel in two neighbouring counties. In the case of Cornwall, you would find the same between the Superfast Cornwall programme and the BDUK scheme in Devon and Somerset. We ought to be able to deal with those kinds of boundary issues of exchanges.

Q34 Sheryll Murray: Could you please inform the people who are dealing with my constituents from your end that that is the case? That is not what your staff are actually relaying to my constituents.

Sean Williams: I will very happily do that.

Sheryll Murray: I am sure it might happen nationwide, so the message needs to be fed down.

Sean Williams: I will very happily do that. I am not familiar with the particular circumstances of the Plymouth exchange, but the general principle ought to be covered, and I will make sure that we can come back to you and explain exactly what we are doing in relation to your particular circumstances, happily.

Sheryll Murray: Thank you very much.

Q35 Mrs Lewell-Buck: Just to follow up on some of my colleagues' questions, we have already established that copper cables are a slower means of distributing broadband than the fibre cables, and that BT have chosen to update the copper network rather than going straight to fibre-optic cables. It has been reported that this approach will cost more in the long run, so I am just curious why BT went for that course of action if it is going to cost more in the long run.

Sean Williams: It will not cost more in the long run. We have chosen this because it is the fastest, cheapest, best way to get superfast broadband to as many people as possible. I pray in aid the evidence that ours is just a much faster programme than that of any other major country you can identify. Our solution is a combination of fibre-optic and copper cables, and we make no apology for that, because to do fibre-optic all the way to every single premises would cost five times as much and take five times as long. It would require enormously more public funding to get it done. I do not think it would be a good use of public money when there is a very good alternative available.

Q36 Mrs Lewell-Buck: You said it will not cost more, and then you have just said there that it will cost more.

Sean Williams: Yes. Our solution will not cost more. A fibre-to-the-premises solution would cost five times as much. We do not need to do that other bit. We are delivering 80 Mbps broadband from our current fibre-optic solution—fibre to the cabinet and copper from the cabinet. That solution is delivering 80 Mbps. That is ample for all known requirements for households and businesses using broadband at the present time and for the foreseeable future.

Over the next few years, as I was describing earlier to your colleague here, technology will change. We will be delivering faster speeds on this kind of architecture. We expect the speeds we are able to deliver off this infrastructure to continue to grow. Even since the time that we started this—our own fibre deployment only started in 2009, so we have been at it five years—the speed we are delivering from our solution has already doubled. It was 40 Mbps to start with, it is 80 Mbps now, and it will continue to grow. We do not see any need or case in the foreseeable future to have a solution that says, "Fibre to the premises everywhere". It does not cost-in; it takes far too long; it is much beyond the requirements, and there are much better lower-cost solutions to get to faster speeds. We just do not think that the fibre-to-premises solution is the right answer. It is just too expensive and too

time-consuming, and what we are delivering is already much more than what everybody needs from a broadband connection, and we will continue to improve as the years go on.

Q37 Emma Lewell-Buck: So you do not envisage having to replace all the copper ones with fibre-optics?

Sean Williams: No, we do not.

Q38 Emma Lewell-Buck: Colleagues have talked about super-fast broadband, but I am just curious about those difficult-to-reach customers. How can you ensure that they get at least basic broadband, so that that goes out to everybody?

Sean Williams: Our objective is to get every premises to the level where it can get at least 2 Mbps—hopefully a lot more. As we roll out our fibre broadband network, we are improving the speed performance, not just of the coverage that get at least 24 Mbps, but for lots and lots of other premises that are getting a speed improvement that gets them over the 2 Mbps minimum. There are still, we expect, about 1.5% of premises—so, less than half a million premises across the whole country—that will not get 2 Mbps through the current plans, and for them, we are continuing to explore other ways to improve speed. We continue to invest in our copper broadband network, so that that will deliver better speeds. We continue to look at other solutions, technology solutions. It is just a continuing picture, and over the next few years, we will see a continuing improvement in whittling away at the premises that are not getting an acceptable speed.

Q39 Emma Lewell-Buck: So at the moment, you cannot give a guarantee that basic broadband will be available to everybody? You are exploring options, but how long is it going to take to explore those options?

Sean Williams: You say that, but 98.5% is an extremely good performance in terms of coverage of at least 2 Mbps broadband, and then in the other 1.5%, everybody can get a satellite broadband service of at least 2 Mbps, so nobody has to go without the basic, at least 2 Mbps broadband speed already. The European Commission has declared that mission accomplished.

Q40 Chair: Could we just drill down the marketing message a little bit? I have been told in Thirsk, Malton and Filey constituency that the best we can hope for is 82%, rising to 87%. That means that approximately 18% of my constituency will not have fast speeds of 2 Mbps. There is kind of an urban-rural split here, and we are coming up to a new set of payments that are going to be in place next year for the CAP that is going to impact on a significant number of businesses. What we are trying to find out is how many houses, or how many premises, will not have 2 Mbps.

Sean Williams: The answer, essentially, is none, because everybody can get satellite broadband of at least 2 Mbps, but the number that will be less than 2 Mbps off the copper and fibre broadband networks will be about 1.5% of 29 million premises in the UK, so it is about half a million. Even those half a million, I emphasise again, can get satellite

broadband. We are particularly aware of the issues that present themselves to your Committee, in terms of farms and rural communities. We do not know exactly what number of farms are not able to get at least 2 Mbps broadband off our network. We do not actually know exactly how many farms there are and where they are on our network, but it is a few thousand, and it is not just about the coverage of broadband, but also about the skills that farming communities will also need to be able to use this effectively. I think one needs to think of the whole picture: how we can make sure that everybody is skilled to use the internet to do these applications, as well as whether they are all aware of all of the options available to them to get the access that they need, whether from our network, a satellite network, or from somebody else.

Q41 Chair: I think it would be very helpful if, when BT make announcements, they do say it is 18% to 20% in rural areas who will not receive the broadband, as opposed to the 3% that is being peddled all the time. You also said earlier in the evidence that the length of the line will determine the speed. How can you avoid a long line in a rural area?

Sean Williams: There are two things on that. One is that you can put in cabinets, as we talked about. You can put in small cabinets to serve clusters of premises in smaller rural communities. You can develop the new technologies that I have been describing. It is about deploying fibres as far out as is necessary to get the super-fast broadband speeds that they need.

Q42 Roger Williams: BT benefits, or perhaps does not benefit, from a historic network of lots and lots of copper wire around the country. Do you ever do any work to estimate what condition that copper wire is in?

Sean Williams: Yes, we do. We analyse the fault rates on our copper network in extreme detail.

Q43 Roger Williams: But you only consider breakdowns as being important, rather than the general condition?

Sean Williams: We do upgrade the copper infrastructure all the time, and we spend hundreds of millions of pounds a year on the copper network: upgrading connections to premises, upgrading the infrastructure within the network, and sealing the network so that it is not tied together with Waitrose plastic bags or whatever the analogy was earlier, but making sure it is watertight. We do invest an enormous amount in the actual copper plant in the infrastructure that we have got right now. We think that is a long-term investment for us.

Q44 Roger Williams: Would the speed that a customer receives be dependent upon the general condition of the copper wire?

Sean Williams: Yes, it is. It is to some extent dependent on the condition of the network, particularly the interference that lines sometimes experience on the network. We are developing technology solutions for that, as well, and in the BDUK area, we are

employing a technology called vectoring, which is essentially like noise-cancellation technology, like noise-cancelling headphones. Essentially, you can detect the interference that is present on a line, and you can send the signal down the line in such a way as to cancel the interference coming through, and thereby improve the speed performance of the line. That is a kind of technology solution. There is also the "just replace the copper line" solution, and there is also the "we will seal this network so that we do not get water penetration and other things that can degrade the performance" solution. We spend hundreds of millions of pounds a year on all of those kinds of solutions, and it does make a difference to the performance of speeds.

Roger Williams: I have got to admit that I have ploughed up a number of BT lines in my time.

Sean Williams: You will not be the only one.

Q45 Roger Williams: My only excuse is that they were never put in deep enough to begin with. The issue is, is it not, that if you have fibre-to-cabinet, but then you have copper wire that is of generally poor condition from the cabinet to a rather distant customer, then that is going to have a real effect on the speed that that customer experiences.

Sean Williams: Yes, that is true, but the more fibre we deploy, the more concentrated our efforts will be in upgrading the copper and maintaining the copper. We put fibre to about 90,000 cabinets in order to deploy fibre broadband across the whole of the country. Just imagine what it would take, then, to deploy fibre from those 90,000 cabinets to 29 million individual premises. That would be an absolutely gargantuan undertaking, which is why it would cost so much.

Q46 Roger Williams: Some of the work that you are doing would have to be done anyway in terms of repairing and upgrading the network that you operate.

Sean Williams: We are constantly maintaining, repairing and upgrading the copper network, and that is an important part of the ongoing commitment to this infrastructure, yes.

Q47 Roger Williams: As I understand it, in England BT is the only company that has got the contract for this. Is that a healthy situation to be in, or are you accused sometimes of being a bit slack and just using your powers as a monopoly to not deliver?

Sean Williams: We are the only contractor under the BDUK scheme who has won any contracts. There were nine bidders at the opening of the process, and there were two that qualified. The other competitor bid for quite a few contracts before deciding that it would not bid for any more, and the reason that BT is winning the contracts is because ours is the best and cheapest solution. We are the ones who are putting in hundreds of millions of pounds to match the Government money. The other important aspect of it is that we were the only ones who were willing to take on a wholesale obligation; that is to say, when Openreach in particular deploys a fibre network, either with BT's own money or with

Government money, that infrastructure is available to all the service providers on identical terms to the ones that BT itself experiences.

The consequence of that is that all of the other communications providers, like Sky, TalkTalk, Virgin and five dozen other names, are actively using this Openreach network and selling it to retail customers. It is a massive stimulus to competition in the retail market that you have got all of these people who are able to compete with each other. Right now, you have offers in the retail market for superfast broadband fibre for a fiver. You can get fibre broadband for £5 a month. That is radically cheaper than any other country in the world, and that is the result of competition, and that is founded upon this wholesale access obligation on Openreach. So, yes, it is true that we are the only recipient, but ours is the pro-competitive solution. There are no other instances in the UK when anyone has taken public money and successfully made it available on a wholesale basis to anybody else.

Q48 Ms Ritchie: I represent a rural constituency in Northern Ireland where there is a clear need to upgrade the BT infrastructure. In terms of rural business centres and supporting a farming and rural community, there is a box on the edge of one of the towns in my constituency that is not enabled at all. The projected date for enabling is September next year, when it will be upgraded to 2 Mbps. What can be done to ensure that we get a much better super-broadband highway to help rural businesses thrive, and is there a need for a change in policy on the part of BT, working in collaboration with the Government?

Sean Williams: My answer is likely to be the same as my previous answers. We need to get on and deploy this network solution to as many premises as possible. We have obviously been working in Northern Ireland as well, as you say, and in fact Northern Ireland was one of the first two—along with Cornwall, as your colleague was mentioning earlier—where we actually deployed the network before the rest of the UK. We have continued to take fibre coverage forward in Northern Ireland, and we continue to do so going forward. We need to carry on and get it done as soon as is humanly possible. That is, essentially, our commitment at the moment. We are recruiting thousands and thousands of people. At the moment, we are importing labour from all over Europe to come to the UK to help us deploy the fibre network here. We are literally importing labour to get this done, and we have recruited 1,500 people in recent times into Openreach to deploy the network. I don't think there is anything we can do other than go as hard and as fast at this as we possibly can. That is our commitment at the moment.

Q49 Iain McKenzie: Staying on the theme of technology and the connection—replacing the fibre optic cables—what is the longevity of that connection, bearing in mind that neither end has any idea of the devices that will be used in making demands of that fibre optic? For instance, five years ago, we had no idea what we would be using now. We have absolutely no idea what we will be using in five years' time at the end of that fibre optic cable, etc. Also, on the rural aspect, it may transpire in the next five years that farmers are sitting, waiting for a download from the server to get their automated machinery out, etc. I do not know what is going to be at the end of that cable in five years' time. What is the longevity of your technology that is being put in place now, and have you taken that into account?

Sean Williams: We absolutely have. Indeed, there is quite a lot of external research on what the likely trajectory of demand on the network is going to be. In particular, I would point you to a report produced by the Broadband Stakeholder Group, which is essentially an industry body of all of the broadband communications providers in the UK, who have commissioned some external research and produced a report saying that, actually, when you look at the period over the next five years—out, essentially, to 2020—the typical high-usage premises will be using in the order of, if I recall correctly, between 40 and 60 Mbps. That can be easily accommodated in our current infrastructure. As we then further invest in our infrastructure to get higher speeds, we do not see a point at which this becomes a speed problem, not even beyond 2020.

Q50 Iain McKenzie: A few questions on information sharing, Mr Williams. Why are non-disclosure agreements needed for publicly funded projects?

Sean Williams: BDUK contracts are all co-investment schemes, so they have got, obviously, BT money in as well as public money. Secondly, in the BDUK contract, there is a contractual commitment that all of our costs and prices will be the same, consistent with our commercial deployment. Revealing our cost structures in a BDUK contract essentially reveals to the whole world the exact cost structures for £2.5 billion of commercial spend in BT Group. For that reason, there are non-disclosure agreements in the terms of the contract around exactly what is shared. Having said that, we have always held the line that it is important that local authorities publish the coverage maps. It is for them to do that, and that has been the subject of some debate over the last year or so, and has been accomplished.

Q51 Iain McKenzie: Along those lines, what steps is BT taking to ensure that information is more widely dispersed to allow up-to-date information for individuals, and also allow local projects to fill the gaps where BT is not investing?

Sean Williams: That is what I mean. We need to make sure that local authorities publish the coverage maps, so that everybody knows where this network is going to be, and so that people can find alternative solutions in the so-called "white areas" that remain to be covered. I think that has largely been accomplished by local authorities up and down the country.

Q52 Iain McKenzie: Can I just ask you about your involvement or engagement with local authorities—for instance, in new projects, or new developments? Are BT invited in from the very start of that new project, or do you come in later on?

Sean Williams: Are you referring to greenfield developments and new premises being constructed?

Iain McKenzie: Yes.

Sean Williams: Typically, our engagement is actually with the developers. In those environments, what we do is speak to the developers about what kind of telecommunications connection they would like, and whether they want a copper

broadband connection or a fibre broadband connection. Those developers will also be speaking to other network providers, so typically it is a competitive process of dialogue with the developers to see what they want and who they want to buy it from.

Q53 Iain McKenzie: So it does not, for instance, link into planning and local authorities, for them to say what they would like to see? It is to the developers.

Sean Williams: It is typically the developers. Clearly the developers have to go through planning permission anyway, but the planning permission is not typically the thing that dictates what kind of telecommunications infrastructure is provided. That is actually a matter of commercial negotiations for the developers, typically.

Q54 Chair: Can I just ask—I do not know if you can provide this; it might be better done in writing—what is the cost of a normal street cabinet, a tiny street cabinet, a remote node, and one on telegraph poles? It would be very interesting just to have that, if we could.

Sean Williams: I am very happy to write to you and lay that out. There was a certain amount of information produced for the Public Accounts Committee last year on the comparison of cabinet costs. A remote node, essentially, is about putting small cabinets into more dispersed communities, so we are trialling that technology at the moment and are planning to deploy it in BDUK areas. The cost structures, therefore, will not be quite so determinate, but we can come back to you.

Q55 Chair: For your information, we have had over 90 pieces of written evidence on this, and there is a plea that there should be a digital hub in each community. Is there going to be much chance of that?

Sean Williams: We are certainly happy to connect any broadband hubs to anybody that wants to have a hub. We connect a lot of schools and libraries, and other public premises and buildings, so we are very happy to provide broadband connections to anybody; as many as we can.

Chair: Thank you for being so generous. We have run over.

Sean Williams: I am sorry. I have probably taken too much of your time.

Chair: No, no; it was our interest, and we are very grateful to have you and your contributions.

Sean Williams: It is a great pleasure. We will follow up in writing, and hopefully cover a few more points.

Chair: Thank you very much indeed.

Examination of Witnesses

Witnesses: **Henry Robinson**, President, Country Landowners Association, and **Dr Charles Trotman**, Senior Business and Economics Adviser, Country Landowners Association, gave evidence.

Q56 Chair: May I welcome you both, and thank you very much indeed for participating in our inquiry. For the record, could you possibly introduce yourselves?

Henry Robinson: Henry Robinson, President of the CLA.

Dr Trotman: Charles Trotman, senior economist at the CLA.

Q57 Chair: Thank you. First of all, can I congratulate you on the campaign you have had over a number of years, particularly to eradicate the not-spots. I know that, locally, that has certainly been very much appreciated. What assessment have you made of the current broadband coverage?

Henry Robinson: As you say, we have been looking at broadband for a very long time, certainly since 2002. Anecdotally, there is still patchy coverage in rural areas. I have got no solid figures, apart from the last 5%, which is regularly referred to. It really has been absolutely essential that we get this, and I know we will get to the various forms with the RPA later on, but that is absolutely essential in the run-up to next May.

Q58 Chair: Rural areas are, obviously, inevitably going to be the hardest to reach. What particular issues have been raised with your members in this regard?

Dr Trotman: The case here is that they cannot get any broadband at all, irrespective of where they are, and they need broadband in order to be able to do business. It is not just for business; it is for rural communities as well, which, obviously, we can expand on. In terms of actual coverage, obviously, as the BDUK process goes through, then that coverage should theoretically increase, but what we find is that you are talking about 82% to 85% of rural areas at the moment that may have access to a 2 Mbps connection, but, again, you have this issue of line length. If they are too far from the exchange, they simply will not get fast enough speeds to be able to do business, and I frankly have a problem with the 2 Mbps benchmark because, if you have, let us say, 100 people on your line at the same time and it is a busy period, you have what is called contention. The more people you have on the line, the slower the speed will be. It does not matter how wide the coverage may be; it is the actual practical speed that a farmer or a rural business can achieve now and in the short term, if we say the next six months to a year.

Q59 Chair: Would you say that this is a good moment, possibly, to reverse the priorities? Rather than addressing those who have fast speed or 2 Mbps already, we ask the Government and BDUK to reverse the priority and make the priority rural areas. Would you welcome that?

Henry Robinson: We would welcome that. The problem in the run-up is that the previous witness in front of you was talking about, "We'll get there in the end," and doing it street by street. That does not take into account the deadline we know is coming on 15 May 2015.

Q60 Chair: What would you like to see happen?

Henry Robinson: Amongst other things, we would like to see a universal service obligation.

Q61 Chair: We are coming on to that in a moment. Can I just ask if there are other examples you would like to share with us of practical difficulties?

Henry Robinson: I can certainly give you one. I know our regional director in the south-east tells me that there are four exchanges that are still on dial-up. That is an exchange with all the people who go with that. If you are still on dial-up and have no broadband, you are in some trouble in that respect, never mind as a business, but just for social inclusion, all the children doing homework and everybody wanting to do all the other things that go on with broadband.

Q62 Chair: Do you think my constituency is fairly typical, where 18% will not have superfast broadband in rural areas? Would you say that, across the country, that is more or less typical for rural areas?

Dr Trotman: 18% may be a tad high.

Chair: I would say so, and so would my constituents.

Dr Trotman: On average, you are talking about 10% to 15%—but 10% to 15% who cannot get broadband and certainly will not have access to superfast broadband by 2016 or 2017, given the fact that we are meant to be a first-world country, is a shocking indictment of what is happening so far.

Q63 Ms Ritchie: The CLA has suggested in its written evidence that the Government should put in place a universal service obligation—and I think, Mr Robinson, you just referred to that—of 10 Mbps for all premises. Why have you chosen 10 Mbps as the target speed for a universal service obligation?

Henry Robinson: Part of the reason for that is because of what Dr Trotman said about 2 Mbps not being enough. The problem is 2 Mbps is a theoretical maximum, rather than what you get all the time. The question is, as more people come online, you watch the speed of broadband drop. For example, when schoolchildren come home and start doing homework, you suddenly find that your speed is dropping. Suddenly, you are not on 10 Mbps or you are not on 2 Mbps; you are on 1 Mbps. If you are not on 10 Mbps, you are on 5 Mbps. At 5 Mbps, you can still get the forms completed and download what you are downloading. You are not going to suddenly see a terrible little pause in the middle, where nothing happens or it freezes.

Q64 Ms Ritchie: You have answered my next question: why is 2 Mbps insufficient? It is because of the capacity issue.

Henry Robinson: Exactly that. If you are filling in a really important form and you suddenly lose everything in the middle, going back to square one is a very uncomfortable process.

Q65 Mrs Glindon: I apologise for being late. As the UK has better broadband coverage than most of, if not all, of its major European competitors, is this really a business problem rather than a social desirable?

Henry Robinson: I would have said it is absolutely both. Clearly it is a really important business issue but, also, if you are living in a rural area, it is absolutely vital. A great deal of homework is now set online. Education, shopping, ordering food, almost everything is now requiring broadband. If you are then saying there is a section of the community that does not have access to that, it is clearly a disadvantage and it is a lack of social inclusion, so it is both.

Q66 Mr Spencer: Can I draw attention to my declaration of interest as a member of the CLA? The CLA has been invited by the RPA CAP-D team to test the system next May. Are you satisfied and content that it is all going to run smoothly?

Dr Trotman: In principle, yes. Obviously we agree with the concept of digital by default, which was raised by Richard Macdonald in his report on farm regulation or deregulation. We accept that, if you have everything online, it will lead to cost efficiencies in the medium to long term, and the Government has already proved that. We do not have an issue with that.

What we do have an issue with and a major concern, however, is that with the basic payment scheme coming in on 1 January and with the deadline at 15 May for farmers to get support payments under the CAP, according to the RPA, 12,000 of those applicants have no digital footprint whatsoever. 12,000 is about 11% of all applicants for the basic payment. That is a lot of farmers. What we would like to see is a timetable set out by the RPA as to how they are going to achieve this. Obviously what we do not want is that, a week before 15 May, everybody comes online, because we know what will happen to the system.

It is also important for the RPA to recognise how they are going to support and train those 12,000 people to get online in the next two to three years because, the RPA has told us, from 2017 there will be no access to paper whatsoever. There will in fact be no support given whatsoever, because of the resources that would need to be committed.

As I said, we accept the principle of digital by default. We accept the need for assisted digital and for the RPA to assist these people in getting online, but we want a plan. We will help them as much as we possibly can. We will promote it to our membership, to our 33,000 members, but that is really as much as we can do. We have to highlight the issues

to the RPA, ensure they have a set deadline and ensure they can meet that. If they do not, the consequences could be rather tragic for the farming community in this country.

Q67 Mr Spencer: Absolutely. Did you go to the RPA and say, "What is the minimum speed of broadband that would be required to operate the system?"

Dr Trotman: I asked them what the minimum speed was. They said between 1 to 2 Mbps. It comes back to the point I made earlier about contention. If you have more people going online, the speeds will reduce. My argument would be, and our argument would be, that you need a higher speed. In a technical sense, you need to have more than 2 Mbps in order to make sure you can actually process the BPS form or the application that you will need. Also, you have an issue over saving functions on the applications themselves. As you go online, how do you save? Is there an auto-save function? There is not an auto-save function. The RPA has to make it very clear to the applicant that, as you go through the process, you are continually saving as you go through.

Q68 Mr Spencer: You have made that recommendation to them, have you? Will they change that?

Dr Trotman: Yes.

Q69 Mr Spencer: Are there any other recommendations that you made alongside that that spring to mind?

Dr Trotman: The idea to have a plan B would be rather helpful as well, and the need for a concrete timetable. I have seen CAP-D in action; I have seen what they call "sprints" in action. I am maybe a little bit more technically aware than others. I am happy with it. They are behind by about two or three weeks, but what I am afraid of and have concerns about is if something really goes wrong between now and March next year. What is their back-up?

Q70 Mr Spencer: Have you specifically made a recommendation to the RPA that they must have a plan B?

Dr Trotman: We have made that recommendation when we have had meetings with the RPA.

Q71 Chair: We have heard this afternoon about alternative technologies. Moorsweb rely on a satellite technology, I believe, but they still tell me that they cannot watch a DVD, for example—not that they are watching DVDs. This is an example of how slow the speed is. They cannot watch a DVD through broadband without interruption, so that would indicate that they cannot fill in a form online. Is this something your members share with you regularly? Do you have concerns about satellite?

Dr Trotman: I am surprised by that, because it all depends on the package that they are getting via the satellite provider. As the gentleman from BT said, you can get 4 Mbps or

8 Mbps, up to 20 Mbps download speed. If they have a package of 10 Mbps, they should be able to watch iPlayer or video-stream online quite easily. Therefore, the package is probably quite small.

Q72 Chair: We were told that the package is not that expensive. We were not told what the different rates were. Do you know what a 24 Mbps package would be on satellite?

Dr Trotman: You cannot get 24 Mbps. The maximum is 20 Mbps. You are talking about £50 to £70. It depends on the satellite provider.

Chair: Per?

Dr Trotman: Per month.

Q73 Chair: That seems extortionate. Does this not seem discriminatory, if people cannot have access because of being in the hardest-to-reach area and one of the not-spots, which I seem to represent because of the terrain? It is very beautiful, but we do have difficult terrain, which I accept.

Dr Trotman: It is.

Henry Robinson: One possible solution to that is the introduction of a voucher system, which has happened elsewhere.

Q74 Chair: How would that work?

Dr Trotman: You make an application to the local authority, which holds the voucher. The application form is processed by the local authority. They then effectively produce a grant that buys the hardware and subsidises part of the kit for the personal use and the satellite connection. It has been proved in Wales that it actually works. My concern is that the Government has spent £40 million for the SuperConnected Cities programme, and rural UK has been left off the radar, which is unacceptable.

Q75 Chair: You would like to make a bid for money to be frontloaded to rural areas, in advance of 2015-16.

Dr Trotman: Under Pillar 2 of the CAP rural development programmes for the regions of England, there is money available for this kind of scheme to roll out alternative technologies to ensure that rural areas have an affordable broadband connection.

Q76 Chair: Do you know how many applications under those funds have been made?

Dr Trotman: No, I do not, because there is no scheme at the moment. It is up to the UK Government to put in place. Obviously we are lobbying for that. To take the example of the previous Defra scheme, called the rural community broadband fund, which some of you may know about, that cost £20 million in theory to reach the 10% who could not get it

because of the 90% limit from BDUK. They have reached 1% to 2% only. That was via superfast broadband, the fibre connection. As BT has said, it is very expensive. What we are saying is, if you extend the logic to satellite, for example, it would be a lot cheaper, a lot more cost-effective. We have tested satellite systems; we believe them to work.

Q77 Chair: Just to conclude, you would like to make a plea for more funds and better access now. Would you like to express yourself?

Henry Robinson: To get to the really hard-to-reach areas, we believe there should be a patchwork quilt of technologies—satellite, wi-fi, whatever—in order to get there. We understand that getting fibre out to the edge is very expensive.

Chair: You would conclude that it is not available today.

Henry Robinson: It is not available to everyone as things are, and it should be.

Q78 Chair: Do you know if it would be available by 2015-16?

Henry Robinson: It looks extremely unlikely that it will be available by 15 May 2015.

Chair: It is extremely helpful to us to know that. On behalf of the Committee, I thank you both very much indeed for your contribution to our inquiry. It has been most helpful.

Examination of Witness

Witness: **Mark Grimshaw**, Chief Executive, Rural Payments Agency, gave evidence.

Q79 Chair: Mr Grimshaw, good afternoon and welcome. Thank you very much for being with us today and contributing to our inquiry. For the record, would you like to give your position?

Mark Grimshaw: I am Mark Grimshaw. I am the Chief Executive of the Rural Payments Agency.

Q80 Chair: A couple of general questions, if I may, to begin with. I was in a meeting locally looking at one of the current agreements. It is felt that, under the reformed CAP, it is going to be even more complex in the way that you and Natural England will administer it. Are you picking up similar concerns generally from farmers and applicants?

Mark Grimshaw: Yes, very much so. One of the challenges with the new scheme is the fact that it is a new scheme, so people do not have six or seven years of experience of completing the documentation. With that said, in terms of the Defra settlement and the national settlement, it is a more complicated scheme. There is still work being done at the moment on finalising some of the last-minute measures.

Q81 Chair: We are going to come on to the three main changes that the new CAP scheme will look at. You have been good enough, I know, to sit through the earlier part of the evidence session. Are you concerned, as I am, by that 18% figure? I believe I am going to have the worst cover in the whole of North Yorkshire, closely followed by the Richmond constituency. How can I ensure, how can you ensure, that the applicant farmers living in Thirsk, Malton and Filey—in that hardest-to-reach part of North Yorkshire—and others in a similar position will actually be able to apply by the due date?

Mark Grimshaw: Firstly, I would take a great deal of comfort from some of the words that Mr Williams from BT left with us, which were specifically that no one has to go without. There is broadband available to all parts of the UK, whether fibre, copper or satellite. It is available should people choose to pay for a satellite solution. Chair, you will no doubt recall that I was here some little time ago, when one of the conversations was about the provision that the RPA and Defra would make in terms of supporting people locally. I imagine that that is something we are going to come on to, to make sure that we have actually provided that.

Chair: We will come to that, if we may, now. That is very kind of you.

Q82 Mrs Lewell-Buck: What are the main issues that you have faced in implementing the new online system?

Mark Grimshaw: One of the biggest challenges in preparing the new system is pulling together the various components, and also the way that we have actually built it this time. Rather than building the new solution from the ground up, we have sought to integrate a number of existing capabilities. We have taken a solution that is operating in Malta and Italy. We have taken an off-the-shelf solution from Hitachi and Microsoft Dynamics to provide the finance system. We are working with an existing supplier to provide the LAN system.

We are now doing a build from the ground up, but we do have challenges around the integration. The approach that we have taken—the new agile approach, which is where you test and iterate, test and iterate—creates a degree of uncertainty with our customers. We talk about having some of the capability available early, but many people take a view that, once you launch a solution, it should be the full production environment, and it is not, under the new way of developing things; it is just part of it. Given our time over again, we would have spent a little bit more time and effort explaining what we were actually releasing to those trial customers with whom we have been engaged.

Q83 Mrs Lewell-Buck: Is the CAP application online system ready for all farmers to use?

Mark Grimshaw: Part of it is ready for all farmers. That is the point that I was making a moment ago: that, because we are testing with a number of chosen farmers and with stakeholders such as the CLA, the TFA and the NFU, we get a lot of feedback, because that is the way that we are improving the system. We do not believe that we want to open it yet to all users, because many of them will encounter some difficulties in engaging with

the service. We have never said that we would actually open it to all users at this stage; we are expecting to be able to do that when we get into what is referred to as "public beta", which should be some time early in 2015.

Mrs Lewell-Buck: You are looking at January or February 2015.

Mark Grimshaw: That is the current plan.

Q84 Mrs Glindon: The online CAP application system requires a broadband connection with a download speed of at least 1 Mbps. What provisions are there within the system for users with a broadband connection below this speed?

Mark Grimshaw: Actually, we are testing the current solution down to 512 kilobits, which is half a megabit essentially, and it does work at that speed. Accepting the point that Dr Trotman made earlier on, contention is a challenge, if you only have a 2 Mbps advertised service. We have tested the current solution down to a quarter of that speed and it does work. We are also doing quite a lot of work on what we would now call a "save and continue" capability so that, as customers complete fields, the system actually saves that information, which is working on some of the feedback that we have had from our stakeholders. You will not get, let us say, 75% of the way through completing only to find that the system goes down and has not been backed up. "Save and continue" will allow the system to hold the data that the customer has input.

Q85 Mrs Glindon: Is that an automated saving system for people whose broadband may fluctuate below and above 1 Mbps, or would that be something different?

Mark Grimshaw: It is a general service that would be available to all customers. As you go through the individual fields, once you have returned and gone on to the next field, the system recognises how far you have got and retains the data at the back of the host.

Q86 Mrs Glindon: The RPA has stated that, at each stage of the CAP countdown, information will be made available to help users understand how the new CAP will affect them and what they need to do. How will you contact users about application deadlines and updates? Will users have a choice between an email update and a paper copy?

Mark Grimshaw: They do have a choice. We laid out back at the NFU conference in February our plans in terms of communication, with a series of leaflets, which actually turned out to be more like mini-brochures, to be honest, because they are quite thick. We are at leaflet four level, but Ministers have also made a commitment to send out printed copies of the cross-compliance document and also the basic payment scheme document itself. Those will be going out in January.

Q87 Mr Spencer: The whole system is dependent on users being able to verify their own identity. The Verify system is new as well. How confident are you that that system is going to work, before they even get to the RPA bit?

Mark Grimshaw: I am very confident that Verify will work, mainly because I have seen it working. The Government's Identity Assurance service is taking on more and more verification of companies, beginning with Experian; dgIdentity is now on there as well. However, we recognised quite early on—and I think it was as a result of a visit to this Committee—that a number of RPA customers would not be able to use the IDA, now called Verify, service anyway, because their credit files would be too thin. For example, if you have always lived on the same farm—you perhaps inherited it from your parents—and you do not have a loan or a credit card, you will not have a credit history and it will not work for you.

We have spent quite a lot of time working on what we now refer to as the rural payments security system. That is running alongside Verify. It is very similar to the process that our customers are used to now. If they are unhappy with Verify or they simply choose to go straight to the RPA, they can do that and it will be username, password and a personal identification number, so very similar to the process that they use currently.

Q88 Mr Spencer: Why do you not just abandon Verify, then, and use that simpler system?

Mark Grimshaw: I do not think it would be in the long-term interests of our customers to abandon it, because that is the direction of travel that the Government has taken for all services. Eventually, we will all have to go through Verify once, in order to verify our identities to access all ranges of Government services. We are providing an alternative route as well.

Q89 Mr Spencer: Are you going to set up public events to try to help your customers get through that process, or are you reliant upon the NFU, the CLA and the TFA to do that for you?

Mark Grimshaw: We are not reliant on them to do it for us, but we do work very closely with them. As technical stakeholders, they have an interest in making sure that their customers, their members, can access the basic payment scheme. We also work with a range of other trusted intermediaries to make sure that our customers can get through the service. We also provide a helpline, which I will give you the number for, or you can go straight on to gov.uk and get through it that way.

Q90 Chair: On the level of security they have to pass through, is the RPA security payments system as bureaucratic?

Mark Grimshaw: No.

Q91 Chair: How would they prove that they are who they are?

Mark Grimshaw: On the basis that we already have a relationship with them, we have security information based on their single business indicator, their SBI, or their general user relationship with us as an organisation. We will use that as the basic security

information. We will ask them other security questions, which is what we do with the current solution at the moment.

Q92 Richard Drax: Mr Grimshaw, good afternoon. On assisted digital, can you confirm that there will be 49 digital support centres?

Mark Grimshaw: Actually, I can confirm that there will be 50. We have just added Hereford, as a result of some work that we have been doing with the National Farmers Union.

Q93 Richard Drax: They are going to be no further than 30 miles from any farmer.

Mark Grimshaw: As the crow flies.

Richard Drax: As the crow flies, not as the bus travels?

Mark Grimshaw: No, nor as the broadband meanders.

Richard Drax: Or the horse and cart clops and clips. 30 miles in a direct line, is it?

Mark Grimshaw: That is right.

Q94 Richard Drax: Is that going to be suitable for many farmers already struggling to do many things? Now they have to fill in the forms and travel 60 miles backwards and forwards, potentially. It is quite a long way.

Mark Grimshaw: It is quite a long way but, as you know, there is a considerable prize at the end, which is the basic payment scheme payment. We have done a lot of work in looking at the distribution of potential support centres, and what we have come up with satisfies the need of our customer base and is defendable in terms of use of public money.

Q95 Richard Drax: Are you at all upset that this has not been rolled out to these poor farmers who are going to have to rely on assistance and travel 60 miles? It is not very good, is it?

Mark Grimshaw: Sorry, am I upset that broadband has not been rolled out?

Richard Drax: That this is not getting out to all those who need it. They are all going to go online very shortly and all these forms will be filled in.

Mark Grimshaw: Personally, I thought it was a very interesting conversation you had with the gentleman from BT. The ambition to cover the whole of the UK in the next 10 years is admirable. Clearly, BT has a number of challenges in getting to those hardest-to-help and hardest-to-reach customers. Would I personally like to have a ubiquitous service? Yes, of course I would, because it would make everybody's life a lot easier.

Q96 Richard Drax: Have these locations been chosen? I know three are piloted; we will ask you about those in a minute. Have the other 47—if my maths is right—been located yet?

Mark Grimshaw: Yes, they have. As far as your constituency is concerned: Dorchester and Blandford.

Q97 Richard Drax: They have all been distributed evenly. Obviously, you have done it on a map and distributed it as evenly as you can throughout the country.

Mark Grimshaw: Interestingly enough, it is not distributed in terms of evenness; it is distributed in respect of those customers we believe to be the most difficult to help.

Richard Drax: So, the remoter areas.

Mark Grimshaw: Absolutely, yes. We would not put a support centre in the centre of London, for example.

Q98 Richard Drax: So God's county has 10 support centres, has it?

Mark Grimshaw: I think there are support centres in Thirsk, York and Beverley.

Q99 Richard Drax: There you are. What more could the Chairman ask for? Lastly, what have you learned from the three centres that are running at the moment, in Carlisle, Exeter and Penrith?

Mark Grimshaw: We have learned that our early customers are very keen to give us feedback on the use and the user journey, as far as the service is concerned.

Q100 Richard Drax: The feedback is?

Mark Grimshaw: That it could be improved.

Richard Drax: I should imagine that is a farmer's understatement, is it not?

Mark Grimshaw: I think so, yes. That is what we would expect at this stage in the journey. That is the difficulty that I was referring to earlier. In a traditional software release, you wait until everything is sorted and then you go out with a big bang. In our case, that would not be until the end of March or beginning of April. That is simply too late. We are rolling it out in early-test stages, engaging with customers, taking on board their feedback, going back to the developers and saying, "Actually, you need to tweak this. You need to adjust that."

Q101 Richard Drax: What specifically, other than swearwords, are you learning? What do you need to tweak? What are the tweaks that need to be done?

Mark Grimshaw: The tweaks are mainly around the land mapping responsibilities that customers will have. What they do at the moment is mark up paper maps with a felt-tip

pen, a pencil or something like that and send it back to us. They need to do it online. Making sure that they are able to use the digital tools to draw lines, to draw ponds and that sort of thing, is proving slightly more challenging than we thought.

Q102 Richard Drax: Is that because they cannot draw or because they do not know how to use the kit?

Mark Grimshaw: It is probably because we do not or have not been explaining it as well as we should have done. Quite often, when you are immersed in something—and clearly I have been living this now for the last two years—what is relatively straightforward to me will not be straightforward to somebody that has approached it for the first time.

Q103 Richard Drax: In farmer's language, what are the problems? What are the issues about which Mr Farmer is saying to you, "Bloody hell, this is terrible"?

Chair: We should be temperate in our language. We are not in our constituencies at the moment.

Richard Drax: Excuse my Dorset farmer's language, but you know what I mean. What are they actually saying to you? What are the problems—that they cannot draw or are having problems drawing? What else?

Mark Grimshaw: What they are saying is that the route through the service is not as straightforward as it should be, so it is not as logically laid out as they would like to see it. A, B, C, D is not natural. I think, quite rightly, we have taken that information on board.

Richard Drax: A, B, C, D is not natural. Sorry, I am not with you at all. Obviously the farmers are not either.

Mark Grimshaw: No, they have not been. Maybe if we had it set out B, C, A, D, they have helped us and we have now set it out A, B, C, D. We will iterate that over time. We work, and again it was mentioned earlier on, on three-week "sprints", so three-week bursts of activity, then we release the next version of the software, test it with customers, take their feedback, make the amendments, another three weeks, and so on and so forth. That is completely different from the way that a Government agency would normally operate, which is to lock ourselves away for a year and a half with the developers, do a big reveal—and then realise that the customers do not actually appreciate the way that things have been set out.

Richard Drax: I don't think I am going to get much further, Madam Chairman.

Chair: Good try. I am building up to answering what more the Chairman would like.

Q104 Roger Williams: What services are going to be delivered or provided through the digital support centres?

Mark Grimshaw: For a customer who does not have a computer, broadband or any form of access to the network, when they come in to the digital support centre, we will provide them with access to a computer. We will provide them face by face, rather than face to

face—so someone sitting alongside them, to advise them as they enter into the system and fill out the necessary fields. Clearly, it will be linked by broadband, because we have chosen broadband-connected locations. We will have people on site to help the customer go through the journey.

Q105 Roger Williams: What will the level of privacy be in these centres?

Mark Grimshaw: The level of privacy will be that which is required in order for somebody to feel that they are content. We will not be sitting people in a room in the way that we are all organised. They will either be separate rooms, or large boards separating people out, so that others cannot look over their shoulders.

Q106 Roger Williams: Mr Grimshaw, how many payments were you able to make on the first day of the single farm payment scheme?

Mark Grimshaw: We were able to make payments on Monday of this week to 96,669 customers.

Q107 Roger Williams: What is that as a percentage?

Mark Grimshaw: As a percentage of our customer base that is 94.45% of all claimants paid on the first banking day of the year.

Q108 Roger Williams: Can you tell us how much money that was?

Mark Grimshaw: I can. We paid just over £1.3 billion.

Q109 Roger Williams: As we are going into the basic payment scheme, and as Wales is facing the trauma of going from the historic to the area-based scheme as well, are you able to give special support to those customers who have land in both England and Wales, through what is going to be a very difficult time for them to deal with the complexities of their applications?

Mark Grimshaw: Yes, we are able to give support. As you are probably already aware, it depends on in which area they have the majority of their land as to who actually manages their claim. For those who we would call cross-border payments, we have a separate team that will work with them and the other paying agency, whether it is Wales or Scotland, to make sure that they get a service that hopefully is comparable with the one they get now.

Q110 Roger Williams: It did seem at one time that the computer systems were not sympathetic to each other in the different states. Is that being dealt with?

Mark Grimshaw: The computer systems are completely separate. The way that Wales chooses to operate their service is different from the way that we operate ours in England. As you have already mentioned, we have been through the historic payment to area payment change. The systems do not talk to each other but, then again, they never have.

Roger Williams: That explains a lot.

Q111 Mrs Lewell-Buck: May I ask a very quick question about the digital support centres? What are the opening times and days of those centres going to be?

Mark Grimshaw: At the moment, because we are not seeing a great deal of throughput and everything is done on an appointment basis, they are currently open from 9am to 5pm, and they are open Monday through to Saturday. However, should we need to, we will open them 24/7 between the end of January and 15 May. It depends on the volumes of applications that we get.

Interestingly enough, as you may recall from the last visit I made here, we wrote to the 13,000 customers who do not have a digital footprint with us. One of the comments from the Select Committee was, "Perhaps you ought to do a little bit more", so we have taken to phoning all of those who replied to us. Of the 13,000 we wrote to, just under 4,000 have actually written back to us, so we have been talking to them.

As of this morning, we had contacted just over 1,200 of those customers and only 41 of them—that is 41 out of 1,200—wanted to make an appointment at a support centre. The vast majority say that they will refer to family or friends, and in fact at some of the CLA and NFU sessions that we have attended, we have seen farmers bring their siblings, their children or even their grandchildren along with them, because they know that that is where the technology is best understood. We have also seen a considerable number say that they will refer to an agent or to a trusted intermediary. The message is very much out there that this is different. You cannot do it through paper; you will have to engage electronically. From our current experience, most people seem to be going down the trusted intermediary route, but we have 50 support centres ready to go.

Q112 Chair: It is quite a narrow window, but you are opening before the middle of February, when the window would normally open for the new basic payment scheme. You are opening at the end of January?

Mark Grimshaw: In terms of the application window, we can open that from 1 January. Historically, we have never done so, because 1 January was when the new scheme starts. My expectation is that we will be able to open the service to the majority of users towards the end of January/beginning of February.

Q113 Chair: Are you envisaging any problems with mapping?

Mark Grimshaw: I am not envisaging any problems with mapping. We are moving the information that is currently held on the Rural Land Register on to a new platform, which is called the Land Management Information System, so LMIS. It is exactly the same data that we currently have. We have already tested moving a significant amount of it. It makes no difference to the map itself.

Q114 Chair: North Yorkshire is undertaking a common land register update. Will that be completed by the time the basic payment window closes?

Mark Grimshaw: It should be. We have already done the remapping for all commons in England.

Q115 Chair: Apparently, we are re-registering; don't ask me why they are doing it now. Obviously—as far as I understand it—we do not want to miss the boat. My plea is, will you look kindly on such situations, so that we are not too bureaucratic and can be more open and transparent to any people who have such problems?

Mark Grimshaw: Absolutely. I was quietly surprised to hear Dr Trotman say that from 2017 there will be no support whatsoever from the RPA. As Chief Executive of the RPA, that is not a statement that I have made. We always provide support to our customers. We always have done and we always will do. We currently operate a customer contact centre and we will continue to operate that, probably for the lifetime of the basic payment scheme. I am not sure where Dr Trotman got that from.

Q116 Chair: It is now on the record. Are you surprised by the cost of the alternative technologies, such as satellite?

Mark Grimshaw: No, not really. It has come down dramatically. For those people who are very remote, to be able to access satellite broadband for less than £100 a month, which is where we were the last time we spoke—what you are seeing is that supply and demand are working quite well together. I suspect it will be close to the cost of a mobile phone fairly soon.

Q117 Chair: Do you think you might be making representations to the Government that we should be doing more for rural broadband?

Mark Grimshaw: From the RPA?

Chair: Yes.

Mark Grimshaw: As you know, I sit on a number of Defra panels. We are very keen to make sure that many of our customers have access to rural broadband. I know you have spoken to Bronwyn Hill about this recently. Part of Defra's challenge is to help support the roll-out of broadband to as many rural communities as we can.

Q118 Chair: Just finally, in the over 90 pieces of evidence we have had there is quite a theme about having a digital hub. At the start of the last Administration, they were looking at rolling out community hubs in schools. Do you know if that is still on the table?

Mark Grimshaw: I am afraid I am not up to speed on that one.

Chair: Can I thank you on behalf of the Committee for being so generous with your time and so open in answering the questions? It is a pleasure to see you. Thank you very much indeed.

Examination of Witness

Witness: **Jonathan Owen**, Chief Executive, National Association of Local Councils, gave evidence.

Q119 Chair: Mr Owen, good afternoon and welcome. Thank you very much indeed for joining us. I know that a large number of town and parish councils in my area will be part of your organisation, so it is a particular pleasure to see you. Could you just give your title, for the record?

Jonathan Owen: Yes, of course. My name is Jonathan Owen and I am Chief Executive of the National Association of Local Councils, which represents about 9,000 parish and town councils—only in England, I am afraid. I know there are some other areas here today.

Q120 Chair: What is the National Association of Local Councils' assessment of the current broadband coverage?

***Jonathan* Owen**: It is a very interesting question. I am fairly new to the post; I started on 1 April this year. One of the things I have been really keen to do over the last six months or so is to get out and about, and to hear what is going on in individual areas. We are organised into about 43 county associations, and I have met with 20 of them, attending their annual general meetings over the last few months. They are very diverse places: from Cumbria to Norfolk, Devon to Hampshire, Cornwall to Yorkshire. You can guess that they are all very different; they all face different issues, from fishing to crime to whatever.

There are two issues that they keep going on about, one of which is planning—which I am sure will come as no surprise to anybody—but the other one is broadband. The overall assessment is that we are not making good enough progress. We are overlooking rural areas and we have a long way to go before many of our rural communities have half-decent broadband. It also fills our postbags, or not postbags anymore; it is all emails. We get a lot of emails from parish and town councils saying, "Can we not press Government to roll out superfast broadband more quickly?"

That is one of the reasons why it features in the Rural Coalition, which has issued a manifesto today, setting out a series of asks for all political parties. One of the 10 in there is around a 10 Mbps speed by the end of 2015. That sits alongside things like housing provision and better health care, so it is a key bit of the rural infrastructure. People are saying to me that there is a feeling that rural areas are once again being overlooked and disadvantaged. We do not seem to have learned anything from rural proofing and all those initiatives to try to make sure that rural communities do not suffer. In many ways, we might have anticipated that the digital revolution might have helped rural communities,

because they are excluded from so many basic things that perhaps we take for granted: from cinemas and theatres, through to good bus services or tube systems. Potentially, digital should have helped with that, but we are in danger of actually getting worse infrastructure.

Q121 Chair: How many services do your members—the representatives of town and parish councils—have to receive online and digitally now? Has that grown and does that pose problems in rural areas also?

Jonathan Owen: It will do increasingly. You have heard a lot today about the business consequences of poor broadband, and that is absolutely key. There are also social implications, but also increasingly important is the whole issue of digital democracy. You are streaming this event to the public. Increasingly, parish and town councils are looking to do that. They are trying to engage with different communities, through using social media, Twitter, Facebook and all that sort of stuff. Of course, if you do not have super-speed broadband, it makes it very difficult for people to do that. Parish and town councils themselves have to access records from principal authorities. Increasingly, they are putting things online, things like planning applications, planning diagrams and all that sort of stuff. Obviously, if you are a parish or town council in a rural area, you cannot access that as quickly as you would have wanted. There is a real democratic issue in all this that we need to try to address, as well to reduce the democratic deficit and disadvantage.

Q122 Chair: Are there any express examples of difficulties and delays that have been put to you by individuals or businesses, amongst your members, as a result of slow or no broadband?

Jonathan Owen: Related to the business of parish councils, or generally?

Chair: Either—that you have experienced from members, or that have been put to you by them concerning individual businesses, farms or even households.

Jonathan Owen: Yes, very much so. The issues range very widely: from kids not being able to access school work through to communities accessing information, using Skype and things like that to get in touch with people. Increasingly, digital services are used to help in health. Sometimes ambulances require some kind of access to the internet to do stuff and, increasingly, some communities are using geographic positioning systems to help people with Alzheimer's. All those things are disadvantaged and certainly, my chairman, who is a farmer, gets 2 Mbps in Devon. He goes on Sunday night to complete his records, and it is so slow because of the capacity issue that he has to get up at 3, as opposed to 4.30, in the morning to get on and do his work.

Interestingly, I was in Uppingham a couple of weeks ago, where they have put in their own scheme. They are getting in excess of 100 megabits, and they have estimated that that is about a 20% increase in business efficiency. That is hotels getting more trade; it is local businesses being able to run their systems more effectively. There is lots of anecdotal evidence. I am not able to give you a complete fact, but a picture.

Q123 Mrs Lewell-Buck: We have already heard that the contract with BT and the local authority includes a non-disclosure agreement. What kinds of problems does that create?

Jonathan Owen: We have not had much direct evidence on the non-disclosure agreement and the contractual position of those, but I know it has been criticised by the Public Accounts Committee. It seems to sit oddly with Government's current commitment to transparency and openness, which is one parish and town councils take very seriously. I think that maybe the nature of those contracts has made it more difficult to co-operate with alternative providers.

That is the kind of issue that is flagged up with me, again anecdotally, about BT; they probably prefer mainstream solutions, rather than innovative ones. It is the innovative solutions you need to catch that final 5%, which is really the most demanding issue for us. BT's top-down approach sometimes alienates communities a bit, because they are told they are going to have broadband rolled out to them but, once BT engineers get on the ground and understand the topography or the geography, they realise that they cannot deliver that. You have raised expectations that are not met. Those are probably the main ones. I think it is a lack of co-operation with alternative providers.

Q124 Mrs Lewell-Buck: Do you think it is right that these kinds of contracts are used in a part-publicly funded programme?

Jonathan Owen: Generally, everybody in the public sector subscribes increasingly to openness and transparency. We all work to try to make sure that we are as open and transparent as we possibly can be and, if these are not helping that, then they are not a good thing.

Q125 Mrs Lewell-Buck: Do you think residents fully understand what is happening with the broadband delivery programme, and that councils are doing enough to keep them up to date?

Jonathan Owen: It's a very complicated subject, isn't it? It is very dependent on things like topography and geography to know precise times of when things are going to happen. Most councils, especially principal authorities, are trying hard to put out information. I am sure they could do better. I am sure we could do better, as the parish sector, and we would be keen to look at working with BT and others to try to improve the communication flows down to the lowest level, using parish newsletters or whatever it might be.

As I said, some of it is quite confusing. The 95% target is an interesting thing, isn't it? The 95% target is a great target; it may be a little under-ambitious. When you look at the detail, you realise it is not quite what it means. Hampshire Parish Council wrote to me saying they had 170 houses in their community—they are going to be part of the 95%—22% will have 75 Mbps; 53% will have between 11 and 17 Mbps; 9% will double to 3 Mbps; but for 16% there will be no real improvement. So, 27 properties, about 25% of that community, will see no appreciable difference in the provision they are getting. Sometimes the information flows, because they are headlines, perhaps do not pick up

some of those subtleties and what it means on the ground. That, again, would lead to a bit of disillusionment amongst the public when they see what they are getting.

Q126 Chair: Following on from that, I have one of the most beautiful constituencies, but it is obviously very difficult terrain—hilly and remote. It looks as though 18%, falling to 15%, will be the figure for the most hard to reach areas. Do you share our concern, and would you like to see that reversed, so that rural areas are getting the faster speed as a matter of priority?

Jonathan Owen: That is certainly something that has been argued quite strongly and I think it would make some sense. If you have some areas that are hardly getting anything and other areas that are getting loads, then it probably makes more sense to tackle the most disadvantaged first. Obviously, there will be some financial consequences relating to that, I guess. What people want is a bit of a route map too. At the moment, it is a bit unclear how that 5% will be tackled.

Chair: It is not 5%; it is 18%.

Jonathan Owen: Indeed. For example, a parish in Cumbria covers 20 square miles and has the kind of topographical issues that you are talking about. Some 27 small family farms are within that area, but the exchanges are all on the periphery. They are serviced by aluminium wires and copper wires. Of course, that is a very old infrastructure and they do not really see when their problems are going to be sorted out. It would be good to at least be telling people that there is a plan to get to them. At the moment, I do not think we are really providing a clear route map for how those really difficult, hard-to-reach areas will be sorted.

Q127 Chair: Just one last question, really. I know you are representing the smaller councils, the town and parish councils, which play a very important role in my area, for which we are very grateful. I don't think they like filming of the public meetings, but we will not go there today. I am sure that is top of you agenda.

Jonathan Owen: Many of them love filming.

Chair: Are there any particular steps that you think your members could be taking—local, town and parish councils—to plug the gap and to speed up, where the BT roll-out is unable to reach those remote communities?

Jonathan Owen: Many of them are already doing quite a lot. One of my pleas tonight would be that the project should engage more with parish and town councils. We are the eyes and ears on the ground that can really help make some of these things work more effectively. Many parish councils have already helped with demand stimulation programmes, for example, where they encourage people to take up broadband. They persuade people to have their pavements dug up for fibre-optic cable to be laid, and they even persuade them to pay some money to privately support fibre-optic cable. That is a very important way they can get involved.

There is also a whole raft of areas that are doing some really good things. If you do not mind me mentioning a few of those, would that be okay? For example, in Lancashire

there is the B4RN project, which is Broadband 4 Rural North. They set up a company. They issued shares to raise private funds to support the roll-out. They got volunteers digging trenches, farmers getting their diggers out to dig up fields and lay cables. They have high-speed internet now, which they would never have had before.

In Essex, where there was a parish with slow spots of less than 1.5 Mbps, BT told them it would take a long time before they came to them, so they worked with a company to deliver wide-range wireless. In Lincolnshire, a community interest company delivered fibre to the house of 100 Mbps. In Uppingham, they have worked with an alternative provider to deliver that as well. Other places are trying things like wi-fi on poles. A little bit more bottom-up, rather than top-down, would be really helpful. Parish and town councils would like to assist with that.

I hope you do not mind if I just mention money in all of this. What we would really like to see is fairer funding for parish and town councils. Perhaps one way of helping with this particular issue would be if we could retain a share of the business rates, perhaps 5% in certain areas, to invest in these hardest-to-reach areas in some alternative provision to make sure broadband is rolled out more quickly to them.

Chair: Thank you very much indeed. That is very helpful. On behalf of the Committee I thank you very much indeed for participating in our inquiry and being so fulsome in your answers. We wish you luck in your comparatively new role. Thank you very much indeed.

Jonathan Owen: Thank you. I will leave some copies of this document, if I may.