



Transport Committee

Oral evidence: Rail technology: signalling and traffic management, HC 67

Monday 11 July 2016

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Written evidence from witnesses:

- [Network Rail](#)
- [Department for Transport](#)

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Members present: Mrs Louise Ellman (Chair); Robert Ffello; Mary Glendon; Stewart Malcolm McDonald; Huw Merriman; Will Quince; Iain Stewart; Graham Stringer; Martin Vickers.

Questions 185-239

Witnesses: **David Waboso**, Managing Director, Digital Railway, Network Rail, **Claire Perry MP**, Parliamentary Under-Secretary of State, Department for Transport, and **Brian Etheridge CBE**, Director of Network Services, Rail, Department for Transport, gave evidence.

Q185 Chair: Good afternoon and welcome to the Transport Select Committee. Could you give your name and organisation, please? Minister, I think we know who you are but perhaps you could tell us for the record.

Brian Etheridge: I am Brian Etheridge. I am the director of network services at the Department for Transport.

David Waboso: I am David Waboso. I am the managing director of digital railway.

Claire Perry: I am Claire Perry, Minister for Rail.

Q186 Chair: Minister, I know that you are scheduled to be here to talk about digital railway. Next week we have a further session on the passenger experience, but in view of the now near crisis situation on Southern railway I want to ask you one or two questions about the current position on GTR. I listened to you with interest on the “Today” programme this morning. You made a statement that you felt that GTR should not be allowed to bid for future



rail franchises if their performance on the TSGN franchise does not improve. Is that the Department's official position?

Claire Perry: I do not think I was quite so specific. What I said I felt should happen was that franchise holders who did not deliver a good service for their customers ought not to be bidding in the future. This is not a departmental position; it is my view.

Q187 Chair: It is your opinion and not the departmental position.

Claire Perry: Yes.

Q188 Chair: There have been calls from passengers and from MPs for GTR to be stripped of its franchise. Passengers are getting increasingly angry with what is happening. They are very angry today with the current situation. Just what would it take for GTR to be stripped of its franchise?

Claire Perry: There are three parts to that question. The first is, what has the Department contracted for with GTR? As you know, historically, the franchises were not based on outcomes in terms of punctuality or customer satisfaction. They were based on some rather narrow things that it was felt were within the franchise holders' control. In this case GTR is not in contractual breach of its franchise. They have been penalised for some short formation trains and some cancellations, but they are not technically in breach of their franchise.

The second point I made this morning, and I will make again, is that, if you look in the round at what has caused the disruption on the line, there are the planned infrastructure works, which I think all of us would welcome because they will deliver a much better underlying infrastructure package for customers, and there are unplanned failures of the track and signalling infrastructure. We know that the majority of delays have been as a result of that. Neither of those things is within the franchise holder's current control. Then there is a series of things that are within their control around driver numbers, staff management, short formation and train reliability. The point I also made was that to hold them to account for some of the infrastructure failures would not be appropriate.

The last question is, what would taking away the franchise do? I am sure you realise that this is a completely unacceptable situation for millions of people. If it was a DOR franchise where, effectively, nobody bid for the franchise and it was bought in-house and exactly the same management team continued to run the franchise, so all that really changed was that investment in the infrastructure stopped during the duration of that, changing the nameplate on the door would not remove the industrial disputes. It would not in any way change the infrastructure programme, which will be completed in 2018. In my judgment, it does not actually deliver what customers want, which is an improved service and improved reliability.

I wish there was a magic bullet. I wish there was a Red Adair person who could come in and fix this. In my judgment, it is a highly complicated set of infrastructure works. There are persistent track and infrastructure failures, and it is to Network Rail's credit that they have now put in a new management team to run the route. We have to keep grinding through the reliability and deal with the industrial relations point, which has really bedevilled the service. In April this year, PPM was at about 83.6%, from memory, and since then it has fallen off a cliff. It is impossible to run a reliable railway when you cannot say who is going to show up—particularly on the conductor side—to take the trains out.



I repeat the offer that I made today to the unions. I understand that people are concerned that if there is reclassification of the second on-board staff member—remember, no train that currently has a second on-board staff member will lose that person, but the jobs will be reclassified because that person no longer has to open the doors on the new trains—it could be perceived as the thin end of the wedge, or the downgrading of a very important safety critical role. What I have told the unions today, and repeat to the Committee, is that throughout the duration of this franchise and into the next franchise we will ensure that that safety critical role is maintained. We will make sure franchises are investing in the skills that those on-board teams have. On that basis there is no reason for the unions to carry on with the dispute, and I urge them and GTR to sort out their differences for the benefit of customers.

Q189 Chair: As you know, the issues are not solely to do with industrial relations. Does what you have said mean that the Department is washing its hands of the situation?

Claire Perry: No, I think that would be wrong and a misrepresentation of what I and the officials have done. Frankly, for several years it has been the most important operational issue that the railway has had. It is the busiest franchise. It is the franchise where there is an inordinate amount of investment going on. It is frustrating, in that we now have £2 billion-worth of new trains rolling out on the line and a dispute that is primarily centred on who operates the buttons to open and shut the doors. We need to make sure that we keep listening to people and dealing with concerns. There is no safety concern; you have seen what the regulators and the RSSB said. By the way, this is happening in Scotland too. It is not simply an issue with this franchise. ScotRail has exactly the same problem with strikes happening from the same union over the same technological changes.

Q190 Huw Merriman: We had an inquiry session with Mick Cash from the RMT and Charles Horton from Southern. It felt to the Committee that we had made some progress. From the RMT perspective, they seemed to narrow down the issue to a desire to have a second member of staff on board the train. Southern were willing to give a commitment for the rest of their franchise but, understandably, could not go beyond that. You have just mentioned, Minister, that you will give a commitment for the following franchise. A letter has been sent to the Transport Select Committee from Mick Cash giving the olive branch of suspending any further industrial action for the next three months if there is a suspension from Southern and what they are trying to implement. Does it feel to you as if progress is being made now? Will those talks happen?

Claire Perry: I see no reason to wait three months. The company has been willing to have talks, as I understand it, with the unions all the way through. I put on record, as I said on the radio this morning, that the company's handling of some of their industrial relations could have been better. I was pleased to see things like the staff benefits that had been suspended for striking workers reinstated. That shows real effort on both sides to try to resolve this. I think progress is being made, but we have to be aware that the dispute is a very simple one about who operates the new technology and whether the second on-board staff member's role is protected. It is.

Q191 Huw Merriman: As I read the letter, it is not saying that they want to wait for three months. It says, "The RMT will suspend calling any further industrial action for the next three months" if Southern will suspend its proposals for a similar period. As they say,

that will then allow time for talks to take place. As there seems to be a lot of movement from the Department, by your going beyond the franchise period, and from Southern for this franchise period, I know it is not simple but it seems to me as if progress has already been made, and there must now be the basis for some form of agreement.

Claire Perry: For the sake of your constituents and many others let's hope that happens. I will just say—of course this is for the company to decide with its employees—that effectively it means slowing down the introduction of new trains, which have been bought by taxpayers for the benefit of travellers on the franchise and which offer far more capacity on brand-new trains. If the ask is that the company should slow down the introduction of those trains, and if that is what it takes to return the service to reliability, it seems a shame, because we know we have some old rolling stock on those services. It would be great for customers to have the benefit of the new ones that taxpayers have bought.

Q192 Huw Merriman: Will the Department for Transport be involved in those talks as well? It struck me from listening to Southern that they can only go so far, because their franchise only goes so far, and, as we know, their franchise agreement is somewhat different from others. Will the Department for Transport be there at the table as well to try, if nothing else, to bring both parties together and give some sense to the discussions?

Claire Perry: Historically, it has not been the Department's role to mediate and broker talks. Indeed, as I understand it, they have had conversations with ACAS, who are set up to do that. What I can say is that the Department is quite prepared to make the commitment for further franchising about the on-board staff member's role. I understand that there is concern, and people could say, "This is the thin end of the wedge and something that can be outsourced." That is absolutely not what we want to see. The second on-board staff member is hugely important. Disabled passengers will have far more help by having that second person freed up from pressing the buttons and focused on delivering better customer service. The Department can speak about future franchising, but I imagine that the talks should proceed between the company and the unions.

Q193 Martin Vickers: Minister, you said a few minutes ago what the contractual responsibility of the company was. It seems rather narrowly written, although I accept that there is a trade-off in terms of the investment. Last week we heard from the company management that on day one of the franchise they did not have enough staff to deliver the timetable that they were contracted to do, and they informed us that your Department was aware of that. What actions was the Department taking to ensure that very quickly it was in a position to do that?

Claire Perry: I believe remedial payments had been charged to the company for, effectively, the cancellations and short formations, part of which had resulted from not having enough drivers. The company has put in a remedial plan with the Department, which the Department accepted, that hugely accelerated the pace of driver recruitment. They now have the biggest driver recruitment programme of any operator in the country. Between two and three new drivers are coming off the training programme every week. From the charts I have seen informally, the driver shortage will be gone and there will be an over-provision of drivers against the establishment number later this year, so they have worked very quickly to address that problem.

Q194 Martin Vickers: Nevertheless, the franchise started in the autumn of 2014 and we are now approaching mid-summer 2016, yet they are still not delivering what they were contracted to do two years ago.

Claire Perry: Forgive me, I do not know what the original driver recruitment plan discussed in the actual franchise bid was, but I can reassure the Committee that if you look at the Greater Anglia franchise, which is to be announced soon, contracting for outcomes is now something the Department is committed to doing. It is simply not good enough to contract for inputs; you have to contract for the outcomes. That is what customers expect to see. There are learning experiences from GTR. One is that if you are doing major engineering works on a very busy part of the railway, which will be the case with HS2 and Euston, and indeed at Waterloo this summer, the amount of planning and consideration as to what happens to existing customers has to be absolutely rock solid. Lessons have been learned from that process. I do not think the system realised the level of disruption that would be imposed on people, both on Southern and Southeastern.

Q195 Chair: Thank you. I anticipate that we will return to this next week.

Claire Perry: I look forward to it.

Chair: Unless it is all resolved by then, which would be very good.

Claire Perry: Let's hope so.

Q196 Chair: We are now back to the digital railway, on which we have a number of important questions. Network Rail has spoken to us about the need for greater rail capacity as a very urgent matter. Do you agree with that in relation to moving ahead with the digital railway?

Claire Perry: Yes. The two challenges for the railway are capacity and reliability, and a digital programme can help solve both those problems.

Q197 Chair: Why have we got into this situation of great urgency? Why couldn't some of this have been anticipated?

Claire Perry: There is the operational reason that the growth in railway ridership, which has doubled since privatisation, has exceeded almost every single forecast in volume terms that the industry has ever put together. Successive Governments of all colours have under-invested in the railway as a form of transport. We have got to a place where we have very crowded trains running over lines that, in some cases, have not been upgraded properly. We have not really considered the benefits of digital improvements as a way of solving those particular problems.

Q198 Chair: If the Government accept the digital railway investment plan, where will the money come from? Are you clear about how much money will actually be required?

Claire Perry: May I invite Brian to comment? He is in charge of our department for planning and allocation of funds to Network Rail.



Brian Etheridge: At this stage, I do not think we are entirely clear about what the costs will be. An important point to make is that there are various ways of implementing it. Each has different costs and benefits. We want to give the Minister a number of options for where she puts her investment to deliver the best outcome. We are planning and working through them with Network Rail. The next stage of work for us is to identify exactly how much some of those things cost. That will then feed into the next planning process, which we will line up against other existing commitments and proposals for future investments. We have to work through ways in which we can invest in this programme going forward.

Q199 Chair: When you say line up against existing commitments, does that mean that the digital railway might not happen, or that other projects that are eagerly awaited might get cancelled?

Brian Etheridge: I do not think it is a question of that. Forgive me, Madam Chair, but from what you said it sounds as if you think the digital railway is one thing and it goes in everywhere. I do not think we are looking at it in that way just at the moment. We are looking at the problems we have, the things we are trying to achieve and the potential tools we have to deploy to help us. This thing is not necessarily everywhere or not at all; it is which among the options that we have we can use, what they deliver and how much they cost. We will always be constrained by the amounts of money that we have, for obvious reasons. What we want to look for are the things that deliver the best benefits in the neediest areas at the time.

Q200 Chair: Does that mean that it is not an overall concept? It will just be proposals to do specific things in different places.

Brian Etheridge: That is what we are trying to look at—which among the tools we have. It could be enhancements to the railway, it could be better timetabling, it could be new rolling stock, and it could be digital and different aspects of digital. We do not think at the moment that there is a necessity to think about employing all of this everywhere all the time. We want to look for the thing that gives us the best return. That is an issue that goes into the normal planning process that happens every five years and will be repeated, starting in the spring of 2019.

Claire Perry: May I offer an illustration? The Brighton main line is an area where we know we have capacity problems and current reliability problems, which contribute to some of the issues on Southern. You could think about building another main line. Indeed, there are groups out there that propose a second Brighton main line. You could think about upgrading the current signalling technology to a more reliable version, or you could think about a digital solution that had upgraded signals and communication devices along the track and on the trains, which could give you more capacity and reliability. Brian's point is that it would be a funding option that would be compared against the other more traditional ways of enhancing capacity and reliability.

Q201 Graham Stringer: What does solving the problems mean?

Claire Perry: The two structural problems that the industry is facing. The first is capacity. How do you get more people on to trains when there is a finite amount of track space and,

indeed, a finite amount of platform space? The other issue with capacity is that we run trains at a certain distance apart—their headroom. The headroom numbers have been around for many years and they are safety critical decisions by the industry. With digital railway you can run trains more closely together. Of course, the reason I am so excited to have David Waboso here is that he has actually done this on TfL. TfL delivered 40% more trains with the same track and the same tunnels by effectively using digital railway and by changing the way that the organisation interacted with customers.

Q202 Graham Stringer: I understand the parameters and the possible different ways. I am really asking, when and how will we know that the problem is solved?

Claire Perry: It is a good question.

Q203 Graham Stringer: We are looking for a good answer.

Claire Perry: With capacity, every time we build it, more people come. Whether it is the M25, new tube trains or opening new railways like the borders railway, the more you improve transport infrastructure, the more people use it. You end up on a never-ending quest, but I think you can say that, if you have a target of more capacity and a more reliable service, against those measures you can prove that you have delivered.

Q204 Graham Stringer: You just mentioned that you go through the traditional method of funding by five-year control periods. Is that the best way of funding what is possibly the largest, or certainly one of the largest, capital programmes in Europe?

Brian Etheridge: First, I would question at this stage whether it is one of the largest capital programmes, or whether it needs to be. We have a process that we go through, as you know. There isn't a problem with capital programmes that extend beyond control periods and are large; for example, with HS2 and the commitment to Crossrail there are plenty of opportunities even within the planning process that we have to make sure that we can cope with something that goes on longer than a five-year period and may be quite large.

The start of the process is to identify exactly what we are trying to achieve, what options we have and what is the best roll-out mechanism. At this stage I do not think we are settled on exactly what those things might be. When we get that information we will have to make the case in the way we would normally do; we have to make sure that there is a business case and that the benefits stack up against the costs in the traditional way in which the Department works through those things.

Claire Perry: You may have heard evidence, Mr Stringer, that suggests there needs to be a big bang and this needs to be rolled out all across the network with a large number. One of the things David and I have been talking about is that if you target very specifically the problems you are trying to solve, and you pick a line and do it, as was done on TfL, you can deliver benefits for a greater number of people more quickly. It becomes a rolling programme and would be a normal part of the enhancements and renewals that Network Rail would be undertaking.



Q205 Graham Stringer: Last week we had the construction companies and suppliers to Network Rail. Basically, they would not have agreed with what Mr Etheridge said. They were saying that doing the projects in a lumpy way every five years meant real difficulties in producing a continuous supply line. They would have to lay people off and then the skilled people would not be there. They said that if they could take control of the risks there would be savings for the public sector and it might be better all round. Have you considered that, Minister?

Claire Perry: Could I invite David to comment? He has done this and negotiated with the suppliers on behalf of TfL.

David Waboso: I have a couple of points. Building on what Brian said, we look at doing these things in programmes. There are lots of examples where for these kinds of investments you create a programme that does not strictly adhere to the control period, so I do not think that is a constraint. I totally support the concept of suppliers working very closely with us. In fact, one of the big lessons from the experience of TfL was that we deal much more in partnership with the suppliers in collaborative and integrated teams. What they are looking for is a commitment to do that, because, as you quite rightly say, they need to recruit and train people, and that is not a short-term game. We are working with the Department on a funded programme to get through to the next control period and beyond, with some targeted schemes that would then give confidence to the supply chain that there is work to do. In terms of how it is done, you are very much talking about programmes that would straddle control periods and deliver real benefits on specific lines. That was certainly our experience at TfL.

Q206 Graham Stringer: It did not work very well on the electrification to the southwest, did it, in terms of either the structure of the supply industry or the extra costs? Whether or not it is one of the largest capital programmes, there were huge cost overruns and a problem with suppliers. The other way of asking the same question is, how are you going to deal with that? Wouldn't one way of dealing with it be not to do it in the traditional way but to transfer the risk to the companies and let them take control so that they could deal with the lumpiness of the supply side?

Claire Perry: I will address that. You are quite right to point out the cost overruns and perhaps the lack of thinking through the implementation of the Great Western main line electrification. Putting Network Rail on to the public balance sheet, so that money was not a free good and if you had a project number you had to deliver against it, has been extremely helpful for capital efficiency being put against programmes. Of course, the Hendy review has now given us very firm cost and timing envelopes, so lessons have absolutely been learned. Brian and his team run a series of programme boards, and he can talk about how we hold Network Rail to account.

Brian Etheridge: If the question was, "Should we continue to have planning periods?", for the moment we have those. If the question was, "Are we going to do what we did before?", the answer to that is, "Absolutely no, we are not." We have learned a number of lessons from the previous planning process. The planning process for CP6, which starts in spring 2019, will be run in a completely different way. We are working with Network Rail and the regulator at the moment to find ways in which we can do that better.

We are absolutely seized of the point that part of better planning is planning for the supply chain and the balance between the certainty that we can give them—as you said, the lumpiness and better prices—against an overly outrageous commitment that Government would find difficult to make long term into the future. We absolutely need to work with the supply chain and understand the dependencies. Part of the attractiveness of the digital programme for us is the potential to grow expertise in the UK that will have some benefit elsewhere. We have also learned and changed dramatically over the last six months how we work with Network Rail to make sure that, when we get this planning process, it is delivered. The Minister mentioned the new programme boards. They are much more inclusive. The Department is much more involved in some of the day-to-day programme management to make sure that these things are done. It picks up the issues from individual programmes and takes them up to the kind of level that you are talking about. What is the impact of that on the supply chain? Does the Department need to make an intervention? Can we work with Network Rail and the regulator to make sure these things happen?

Q207 Chair: Mr Waboso, is there anything you would like to add in relation to the skills issue that Mr Stringer raised?

Claire Perry: I was also going to invite David to comment on the supplier risk point, if that would be helpful. It is true that we have a shortage of skills in all sorts of areas. We are very conscious that digital railway skills, while they might have very specific application to the railway, are in short supply right across the UK, which is why there is a general digital skills strategy. Working with the supply chain to have a long-term investment programme and to make sure that apprentices are being pulled through with the right skills is absolutely fundamental. This is a capacity challenge, as it is on traditional infrastructure developments as well, and one of which the Department is very aware.

I want to pick up Brian's point. We are the busiest and most complicated railway network in the world. If we do this right and are able to increase capacity by doing digital signalling, as has been done brilliantly on TfL, it is an opportunity for us to export this technology around the world, which would also be very good.

David, would you like to mention the issue about suppliers? We have been discussing different funding models for this as well, because there may be a potential appetite from suppliers, or indeed from third party investors, to invest in a stand-alone programme.

Q208 Chair: Mr Waboso, do you want to add anything on those points?

David Waboso: Yes, very briefly. I totally support the concept of the supply chain taking risk where that risk can be adequately defined. Clearly some of this stuff still requires very close work, because it is about operational rules, but certainly there is absolutely every possibility that we can take some of this and, as the Minister said, seek opportunities for part-funding into the railway.

There is one thing I should have said. As well as working very closely with the supply chain, from my experience, at the heart of this is putting the passenger at the centre, as well as the staff. We have to work very closely with the staff—the signallers, the train drivers, the maintainers and the station staff—because this is going to be a big part of their job. Part of the experience from TfL, very early in the programme, was bringing staff into it. Certainly the experience of the teams I ran was that we had both suppliers and operations and

maintenance representatives in them. In that way, the whole thing moves forward quite seamlessly.

Q209 Iain Stewart: I would like to return to Mr Etheridge's comments that digital railway is not a scheme in itself but a generic description of different options, and that until we settle on a scheme it is difficult to give a cost appraisal and compare it against other capacity enhancements. From the evidence we have had it seems to boil down to two basic options for the digital railway. One is to go for ETCS level 2, which involves quite considerable capital investment in lineside equipment; and then at some point in the future it would be relatively easy to upgrade to level 3. The counter-option is to wait until level 3 is properly developed, and potentially save some capital expense, and in the meantime to have some traffic management system or equivalent to enhance capacity. How do the Department and Network Rail propose to evaluate those two broad options?

Brian Etheridge: In many ways you have encapsulated some of the challenges. We could wait what could be quite a long time, it seems to me, for someone to define what level 3 is. In the meantime, we have bits of the network that, as the Minister explained, already have challenges with capacity. The challenge for the Department is to think about what will always be, at some point, a finite amount of investment and how we deploy it most effectively. It may well be the case that for some parts of the network we will want to get on and do what we can now because it delivers benefits and will stack up in terms of the normal appraisal mechanisms that we have. You will be very familiar with the appraisal mechanism; it is the Treasury business case mechanism, which we would have to work through. Sometimes you have to trade off the downside of waiting for a cheaper solution in the future against the need for and benefits of things that we can implement immediately.

Q210 Iain Stewart: Mr Waboso, we understand from earlier evidence from Network Rail that at some point later this year, in the autumn, you hope to publish your strategy document. In that, will you go through all the different options in a very transparent way so that we, the industry and the general public can properly assess all the costings, the benefits and the timescale for each of the options?

David Waboso: Yes. We plan to publish what we call the outline business case, which has been the culmination of all the work that has been done so far in this area. Of course, it will not answer every question in a very detailed sense, because then you have to move, as we said, to very line-specific solutions that require designs to be worked up, but it will set out the broad direction.

I certainly agree that traffic management, for example, has many advantages. There will be places that we roll it out where it is linked to stopping crew management, for example, in recovery. Again, on the underground, one of the major advantages of digital technology is that recovery after an incident is much quicker because the timetable is automatically generated through the system. That helps enormously, so we will be looking at traffic management solutions. We will also be looking at solutions using the existing technology, as Brian said. Our experience of waiting for something that is promised is that it could be five years or 10 years, although clearly we hope it is sooner. The plan works on what we have today, but we will be looking at a candidate set of lines and setting out the range of technology options we believe are suitable for those lines. We will be working very



closely with the Department, the train companies and industry on exactly what is possible, how much it is going to cost, how long it is going to take, what benefits it gives and how it fits in with the overall funding.

Q211 Iain Stewart: This is perhaps a cheeky question. I don't want you to say anything prematurely, but have you any initial leanings as to which of the two broad options—level 2 or level 3—might be appropriate?

David Waboso: It is too early to say. Clearly I am looking at everything at the moment to make sure, given my experience, that it makes sense to roll it out. I am working very closely with my colleagues at the Department and with industry and the supply chain, with whom I have had extensive discussions. I am determined to make sure that what we come up with in late September as a target is something that makes sense, is deliverable, fits in with the funding and drives this thing forward in the way that is needed to solve the problems. This is genuinely a very exciting development. I am excited about it. It is going to be a radical step change for the industry and something we should be excited about. It should build on the stuff we are already doing in Thameslink and schemes like that, which are very good projects.

Claire Perry: I want to emphasise what David said. This is not just a Network Rail-led infrastructure project. We have to have the operators on board. We have to have the station staff on board. There is no point increasing capacity if you cannot get people on and off the trains more quickly or you do not have long enough platforms. In order to get the best benefit, it is an all-encompassing project and that is a challenge, although the challenge that industry should be looking at in everything we do is that there should always be an integrated solution that benefits both freight and passenger customers.

Q212 Chair: How can we be assured that you are going to do that when you have described the whole project as not an overriding industry project but something to do with specific investments?

Claire Perry: It will fit very neatly into the Shaw recommendations for route devolution for Network Rail. Where we are going with this is the idea that it will not be done universally at once but will be focused on particular routes and areas where we are trying to solve the biggest problems. Under the new devolved structure, there is far more joined-up thinking between the infrastructure managers and the train operators, so it will fit well with that structure.

Q213 Huw Merriman: This follows the same line of questioning. Previously in the inquiry we have heard that the Deptford track that Southeastern operates needs untangling, and digital railway will not deliver any benefits until that is done. As a contrary position, on the south-western line around Woking the feeling was that it could deliver real capacity of up to 40%. Do the Department or Network Rail have almost a colour code where they can show that the solution for additional capacity is the digital railway or where in fact you need a more traditional engineering infrastructure change?

David Waboso: The answer is not today, but we are working towards that because we are going to need it to make these decisions and have the options that we discussed. You are quite right that, in a sense, there are some inevitable infrastructure improvements that need



to be made. This will not solve every problem for infrastructure. There is some absolutely essential infrastructure investment. In the same way there are also trains that are being lengthened with additional carriages, and that needs to happen. When you get to the end of that road, our experience has been that the only place to go to increase capacity, given the numbers that are coming at us—we have heard that capacity is predicted to double in the next 25 years—is digital technology to enable that growth to be catered for. Certainly we will be looking, as I said earlier, at a number of routes and lines where there will be a mix of technology, whether it is traffic management or level 2 overlay, or whether potentially it is best to wait for level 3. We will be coming up with a view, with the Department and the industry, as to where and when we roll that out. That is what we are going to do.

Claire Perry: I want to keep emphasising reliability. I was really shocked that there is no accepted economic cost of delay on the railway. We focus a lot on improving journey times or increasing capacity, but we never model the negative cost, or not in a way that would meet Green Book targets. We have commissioned some academic research to try to get to that. Digital railway can deliver much more reliable services on very high capacity lines, and I really do not want us to lose sight of that, because what matters to people on their daily commute is how reliable the trains are in and out, and we should be aiming for a higher performance railway in the most crowded areas.

Q214 Huw Merriman: Minister, you talked about bringing the staff on board. We had an excellent session with the industry, followed by a session with the RMT and ASLEF. I rather felt that the digital railway balloon had been somewhat deflated by their lack of enthusiasm. They felt that they had not been engaged and that no one had talked to them. There seemed to be a lack of willingness to go along with new technology, in the same way as we have seen on Southern. It felt a bit like “Southern. Here we go again.” Are there moves afoot to try to inform and excite all those involved?

Claire Perry: Again, I will ask David to comment. We have a living example—the Cambrian line, which is a little line—where this is actually running. The feedback from the staff is that they do not know how they did their jobs before. This is a hugely valuable addition to their lives. By the way, in all the changes we want to make on the railway we have to take staff with us. This is about reassuring people. It is a growth industry. There are jobs and wage increases. It is going in the right direction. This is a huge growth industry for the staff. David, do you want to talk about what you did at TfL?

David Waboso: Building on that experience and bringing it to this programme, as I said earlier, it is essential to involve staff—the signallers, the drivers, the maintainers and the station staff—and that is something I am determined to do, because otherwise, as you quite rightly point out, it is just a technology programme. We have to bring the staff with us and the experience is that they will come with us. I will certainly be reaching out to the workforce to involve them in the programme. As the Minister said, it helps make the job easier. If you are a signaller on a busy desk and you have failures and recovery, and you are making phone calls, why would you not want to have an automated system? If you are a train operator trying to go through a congested junction with all kinds of signals, why would you not want to have a signal in your cab? We are duty-bound to give these people, who do a fantastic job, the best tools. That is why it is a no-brainer to do this. To the extent that the evidence is that they have not been involved, I am certainly going to be fixing that.



Q215 Will Quince: I entirely understand the point about finance. Where we potentially have new rolling stock, as on the Great Eastern main line—you can see my beaming smile at that thought—are we looking at ensuring that the new rolling stock has the new equipment and kit already fitted, even if the line may not get the upgrade until a later point?

Claire Perry: Yes. IP trains, Thameslink trains and Crossrail trains will all be fitted with the in-cab technology. It is not expensive to retrofit; it costs about £200,000, but of course it means taking the train off in order to do the fitment so it is much better to buy it already enabled and then do the trackside work as you can.

Q216 Mary Glindon: Further to Mr Quince's point, considering that the average age of rolling stock is over 20 years, and on some franchises 36 years, could a large refit programme be used as an opportunity to replace aged rolling stock rather than refitting old stock?

Claire Perry: Mrs Glindon, you are right to highlight the age of the rolling stock but we have the IP trains coming on, the Thameslink trains, the Crossrail trains and of course the new trains that are being procured in the north of England where the Pacers are being finally phased out. I need to check on the specification for those. Brian, do you know?

Brian Etheridge: We would expect new rolling stock coming forward to be fitted. In respect of the existing rolling stock, to manage it most effectively, when we get a good programme on how to implement this and we know where we are going, we would like to begin to make decisions about whether we should do that or require it in new franchises. It is trying to manage an overall programme of implementation most effectively, which does not waste money by doing stuff we are not going to use but makes the optimum decisions on how we move forward in the future.

Q217 Mary Glindon: Would the Government be prepared to incentivise ROSCOs to do that?

Claire Perry: Yes, and to specify it as well when there is new rolling stock being purchased or supported.

Q218 Mary Glindon: I said incentivise, but is there anything that the Government would consider to compel ROSCOs to do it?

Claire Perry: The Government have effectively been the procurer behind Thameslink, IP and Crossrail, which are the major fleet replacements that are happening. The ROSCOs will always retrofit for a price, as I found with wi-fi, so we can certainly be very clear about that. Brian's point is that it is about trying to work out what works best. Is there any point in taking a wonderful 40-year old high speed train that is still going and retrofitting it? Probably not, on the basis that the technology at some point will be phased out. My sense at the moment is that we should be in a decent place, with the rolling stock that has been procured, to implement the system pretty widely on the main lines, including the east coast main line, going forward.



Q219 Chair: If extra capacity is to be produced, how would it be allocated between passengers and freight?

Claire Perry: That is a very good question. It relates to the traffic management system, because in a way that is where the capacity crunch really happens. If you have a failure and the signallers are desperately trying to work out which trains to run first, you hear from the freight companies that they tend to get shunted aside, whereas if you are doing it in a more automated way you can make those decisions better.

I want to emphasise that the role of freight has been absolutely vital. We are about to publish our freight strategy for the industry with a forward look. It was striking that the needs of freight and the idea of having a virtual freight network were very much at the centre of the Shaw report. The needs and capacity requirements of freight are very much recognised.

Q220 Chair: But who will decide how the extra capacity is used?

Claire Perry: How would it work? It will be programmed into the system, I suspect.

David Waboso: Yes. The starting point needs to be to decide what the routes are, what trains run on them and what the rules of the route are. It is all in the planning and the design. Those kinds of requirements are worked through. Critically, it is when the timetable does not work; it is quite easy to do this stuff when the timetable is working. As I said earlier on, and as the Minister has alluded to, it is when things go wrong that you need rules in the traffic management system to say, “Right, this train gets priority over that train.” Just to illustrate the answer, a train full of passengers will get priority over another train. It is about doing the design so that the automatic system will know what to do.

Q221 Chair: If the capacity does not materialise, who will be responsible for that?

David Waboso: This goes back partially to the discussion about risk and the allocation of risk. The experience certainly at TfL has been that ultimately this works, so there is a high degree of confidence that the technology can work. It will not fail to deliver. It might take longer, and that is where I would say the big risk is. You will get there in the end, but it might take longer than you originally thought.

Q222 Chair: How much longer?

David Waboso: I do not know, with respect, Madam Chair, because these are programmes that have not yet been defined or scoped. I would say, from my experience, that for the first set you do you need to allow sufficient time for learning, because it is all about getting teams of people to work together. It is quite challenging stuff. It is a heady mix of software, operational rules, fixed infrastructure, trains and depots. It is a complex programme. My experience has been that you would allow sufficient time so that you are not over-heroic in the first ones, but once you get going it gets much better. The example I would point to is the Jubilee line, which took the best part of a decade. The Northern line upgrade—an even more complicated line—took a fraction of the time and came in under budget. That was because we kept the same team and the same system. That is the kind of experience I will bring to this. On the first ones, don’t be over-ambitious in what you say you are going to do, because it is difficult stuff. Once you get going, it gets better, which is why of course we need this committed and funded programme.



Q223 Graham Stringer: Was it also because you simplified the PPP?

David Waboso: There was an element of that.

Q224 Graham Stringer: It was not just the engineering.

David Waboso: No, it was not, because obviously there were things like the way it was done and the relationship with the supply chain, but even had that not been the case, going from project one to project two with the same technology, the same system and the same team is a much quicker thing to do.

Q225 Chair: I am still not clear whether you are seeing this as an overall concept of digital railway or whether you are looking at it in the way that Mr Etheridge described, in answer to earlier questions, as specific projects not necessarily seen in an overarching theme. If it is split into very discrete projects, how are you going to get the teams together and how are you going to get the ethos that it is about a major project rather than a number of improvements?

Claire Perry: Digital railway is another way of achieving better capacity and better reliability. It is right not to put it into a box, because it makes it sound like something novel and something that needs to be road-tested. It is technology that is already very successfully used. We just need to be more committed to using it. The question is, over what period? If we started with a substantial project to do an entire line, of course that can then be rolled out right across the railway, but, as was done on TfL, we picked a line where there was a capacity issue, tried to solve it with this very successfully and then moved on. It is probably just a sequencing answer, if you like.

David Waboso: In a sense, two things are important. One is that there needs to be a long-term commitment to do it, because that is the only way the supply chain and the industry will tool up. We have been round this several times in the past, where we have tooled up and things have not happened. That goes to credibility. There has to be some recognition that this is a long-term funded programme and that is that.

Having said that, it has to get real in the short term on specific lines. If you were to take a line—I have talked about the Northern and Jubilee lines for TfL but let us take the east coast main line as an example—you would have a programme team set up to deliver that line. The programme team would deliver that line and then there would be another line that the programme team would go on to, because they would keep getting better and better, and in the end it becomes business as usual. You have to focus on the long term to get the commitment but also on the near term to get it applied to real lines, and then the team will get better. It may be that there will be two or three lines you do in parallel, but we have to recognise that there is an industry capacity issue. We have not done a lot of this, so it goes to my point that we must make sure we are realistic in what we can deliver. I certainly think we can do two or three in parallel, and then we roll on and it keeps going.

Brian Etheridge: You can still manage it as a programme, and it is very important that we do. All we are saying is that in some ways what we have learned from the previous planning process is that we have to keep reminding ourselves of why we are doing this. It is not the input itself; it is the outcomes we are trying to achieve. That is where you get your programme and your priority list. That is where you get the biggest bang for your



return, and you plan that out. Within Network Rail, and indeed within the industry, we still expect to have a very clear view of that moving forward, and for it to be managed as a programme so that you get the benefits we have talked about from managing the supply chain. All of those things are still possible. We are quibbling over the view that you have all of this all the time everywhere, and we are saying no, we need to pick through it. We need to be very careful about what we are trying to achieve and what, among the technology, we can apply in different places. When we have decided that, we will still absolutely run it as a programme and, hopefully, very efficiently when we do.

Q226 Robert Ffello: I want to return to the issue of freight. The last time I looked, the Northern and Jubilee lines did not have any freight trains running on them. If you have a situation where these things are being done in a piecemeal way because it is part of a series of programmes, if you are running a freight service you are not necessarily going to be looking at just one single line. You will have interaction with other lines, so you might find an improvement on one particular part of the journey but not on others.

The second part of my question is this. Capacity has improved, as you said initially in your opening comments. As capacity historically has improved, it has been taken up very quickly. If the capacity that is created is then taken up very quickly by passenger services, again is not freight just being left—if you will pardon the pun—in the sidings and it is a secondary thought to these things? How does the piecemeal approach affect freight? What guarantees are there that freight will be able to use that capacity and will not ultimately find that it loses out to passenger services?

Claire Perry: I will take the second part. Whether it is digitally or manually generated capacity, it is effectively Network Rail's current capacity and, as per Shaw, the needs of the freight industry and the absolute commitment to supporting growing freight are very fundamental. As I said, we are publishing a freight forward-look strategy in the next few weeks. It is the same argument and, indeed, the same compensation should things go wrong. Ultimately, Network Rail is the provider of capacity.

You raise a question, Mr Ffello, that I do not have an answer for, and it is a prompt to me. We have not talked enough to the freight industry about their plans to do cab fitments. That is something I would like to take away, if I may, and have a conversation with the industry about. Traditionally, they have very thin margins, so their investment in new technology is not always there. They find trains in the middle of fields and put them on the line. They do a brilliant job. The Rail Freight Group has started to speak very effectively with one voice on matters relating to capacity. If you will forgive me, I would like to take that away and have that conversation with them.

Brian Etheridge: But again, the planning process should deal with that. If we are looking for areas where we need additional freight capacity, as well as passenger capacity, that would then be the motivation for the question, "What is it we can do to that particular line to achieve those benefits?" Almost certainly this will be some of the answer.

Q227 Robert Ffello: But, Mr Etheridge, part of the problem at the moment is that the freight industry says, "We must get this to the customer by a certain time on a certain day," and if anything puts that in jeopardy they will put it on the roads or whatever is going to guarantee that. Having a system that looks at the freight sector and says, "What is it that you



are going to do, freight sector, and then we will work out the network accordingly?” will never happen. You have to go to the freight sector and say, “This is what is going to happen.”

Claire Perry: Shaw’s recommendation was to have a virtual freight route that effectively crossed all the boundaries. That is absolutely something that could be planned into a digital system.

Q228 Robert Ffello: It could be planned in or will be planned in.

Brian Etheridge: You absolutely emphasise what we know to be the case: this has to be an industry solution. It is not just one part that makes this work. We have to have all the inputs. The other benefit for freight, in addition to the capacity problem, is the opportunity to move freight much more effectively around the network by integrating it much better with passenger services, because we can manage that. The advantages are there for us to take.

Q229 Chair: Are you going to go to the industry to make sure that is done?

Brian Etheridge: Absolutely. We have to do that. It has to be an industry-based solution, of which freight is as much a part as passengers.

Q230 Chair: When Network Rail spoke to us about digital railway, they were very enthusiastic. They said there was an urgent need for more capacity. You seem to be much more relaxed. You are talking about more piecemeal approaches. Am I wrong in my interpretation?

Brian Etheridge: Our view is that this is a massive opportunity to solve a problem that is otherwise unsolvable. There are parts of the network, as we know, which are heavily constrained, and it is probably very difficult, without disproportionate costs, to find ways in which we can develop capacity solutions. I hope I am not misrepresenting the piecemeal approach. I do not think that is what we are saying. We need a plan, we need a strategy and we need a programme. It is just about the view that this needs to be applied everywhere and we need to do it now. We are saying that we need to work it through. We need to apply it where we are going to get the best benefits for the biggest problems at the moment. It would be very wrong of us to apply it where it did not give us the solution that we needed at the moment. It is absolutely our case that we prioritise to deal with the areas of greatest pressure, whether that be capacity for passengers or for freight. That is absolutely what we need to do so that we are targeting this in the most effective way we can. From that, we will develop a programme going forward. It will still be managed as a programme and it is still very important that we look at it as a programme.

Forgive me, Madam Chairman, but using “piecemeal” suggests it is a bit here and a bit there. Absolutely not; it has to be drawn together as a programme, because for many areas of the network this is potentially the only opportunity we will have to tackle some of the problems.

Q231 Chair: Who is “we”? Who is going to draw this up?

Claire Perry: In some ways, we are more enthusiastic now. Digital railway was being talked about as a programme that might be fully delivered by 2060. In our view, we do not have that time. We need to deliver it more quickly than that and solve some very specific



problems on the line. The Department is working closely with Network Rail to work up some funding. We are bringing David in to work out what this looks like in the near term and work up a funding proposal so that we can start the programme quickly, rather than waiting for it to be done. In our view, this is the only way to solve some of the biggest capacity and reliability problems that we are facing. We want to see it as a tangible programme that is funded in short order.

Q232 Chair: Could you tell us when you expect the programme to be drawn up?

Claire Perry: It will form part of the planning portfolio for 2017. The decisions will be made for the next capital period.

Q233 Chair: Will leaving the European Union have any impact on it, as far as you are aware at the moment?

Claire Perry: No, other than changing the title. Somebody said it should be the British Rail Control System, which we are fine with, although of course having a standard, if we would like to export rolling stock, is no bad thing. There is no Brexit issue on this. It is actually something that works very well for us, but if we deliver it on the scale that we are talking about it will be the most substantial roll-out probably anywhere in the world.

David Waboso: Just to be clear, I do not think there is any issue at all between us. It is just the language. I work for Mark Carne and there is absolute consistency. I have a couple of points. First, we are producing an outline business case that will pull together all the work that has been done—a huge amount of work has been done on this—and that will be ready towards the end of this year, as we have talked about. It will set out how we believe this can be done, when it can be done and on which routes it can be done, and it will provide some options, as has been said. That will feed into the initial industry advice process, which is the way we get the thing done. That takes us through to next year. We then start getting very serious about the amount of funding and what lines it will be done on.

In parallel to that, of course, there is already a huge amount of digital railway being rolled out today. We have what is known as DAS—driver advisory systems. There is C-DAS connected to traffic management. That is providing real benefits today on the railway. There is the Thameslink project that is being rolled out, and Romford control room is being rolled out, so there is some real stuff going on. Then we need to think about routes like the east coast main line, for example, and how we can do that. As well as talking about the future, there is real stuff happening now.

I think the language is unfortunate. We are really changing a programme that has been a conceptual programme to one that is real. My analysis of the situation is that we are moving into “How do you make this real?” That is when we get to which routes, when, how much it is going to cost and what the benefits are. That is the only disconnect, so we are working that through now. Then we will have a funded programme, and I think this will become the normal way of doing business for many of our routes.

Q234 Huw Merriman: Staying on the costs, this is such an enormous and exciting opportunity. Mr Ffello talked about freight. Is there the opportunity to look at a line that may be full to capacity, and show freight companies as a group that there might be an extra 30%



capacity for them and then invite them to pay into the cost? I know that is something that Network Rail under Mark Carne is looking into in terms of partnership for financing. Is this the type of thing that can be road-showed? Obviously it then does not come out of the other pots that we all badly need for other rail services, or is it by its nature just going to be funded by the taxpayer?

Claire Perry: I am thinking about the funding merry-go-round. They will already be paying through track access charges. You could model out additional track access charges for additional services, and that could go into the pot as well. Rather cheekily, this will have to be subject to a conversation with the new Chancellor, and having a report that suggested it was something worth funding would be very helpful. Clearly, we have a record investment in rail in the current capital period and we need to make sure that the funding priorities for the next period are very much supported.

Q235 Huw Merriman: It just strikes me that this is the type of opportunity that would really increase capacity. We will all benefit but private companies will particularly benefit, and therefore asking them to ask to pay into the cost, rather than losing some of CP6 and CP7, seems like a fantastic opportunity.

David Waboso: This goes to the earlier discussion. There are elements of this where, if I allude to my previous experience of how you can incentivise this stuff, you say, “What matters to you as a client?” If it is capacity, reliability, performance and recovery, you can incentivise a supply chain to deliver those benefits to you. I think there are huge opportunities to get additional funding into the railway. We will certainly be working with the Department, the supply chain and finance companies to explore that. Our minds are very open to that.

Q236 Graham Stringer: You said something quite interesting at the beginning, Minister, about looking at the real economic costs of delays in the train service. As I understand it, at the moment the Department’s models deal with economic costs and benefits in terms of passenger time lost and gained. Do you think that is the best way of doing it?

Claire Perry: I am honestly surprised that for many years we have struggled to capture the value of railway investment and the disbenefit of railway delay. That means that every time there is a major investment project there is always a dispute, even though we all know from our own constituencies that what it actually does to the local economy is hard to capture. Passenger time is a relevant measure. It is partially weighted by region.

Let me take leaves on the line as an example. Every year we just accept the fact that there is going to be a 10 percentage point drop off in PPM, coming into the south-east in particular, with some of the highest paid and most productive jobs in the country. Yet we have never actually worked out what the cost of that is and therefore what we should be spending to try to solve it. By the way, that is an international problem. I am quite keen that we perhaps think a bit more creatively. Again, it goes back to reliability. It is not just about capacity. Solving the reliability problem and trying to understand the opportunity cost of doing that is a really important challenge for the industry. Of course, it all goes back to the Treasury’s Green Book rules. We all know that they can be difficult, particularly with large infrastructure projects, but I feel it is important that we have a measure that we can use in the Department.

Q237 Graham Stringer: What I was trying to get at—I will go back to it—is that time lost or gained is a very simple measure in terms of investment, yet it does not necessarily relate to the real economy. What tends to happen, both on road and rail, is that, if you invest on that basis, you invest in the most congested areas and in the areas of greatest economic activity, and you do not use the potential for investing in new transport infrastructure to create new economy. Putting it another way, it discriminates against the regions and you always end up investing more in London. Basically, you start subsidising congestion. I wondered if you had thought about that.

Claire Perry: Indeed, and that was why the discussion over the replacement of the Pacers was so important. I completely agree with you. It gets back to how you value economic activity that has not yet happened but may well happen if you improve transport links. I happen to be a firm believer in the Northern Powerhouse and you can see the level of investment that is going in, both on the rolling stock and also the track, in the north. Of the 42 miles of electrification that the Government have done, most of it has been in the north and north-west. It is really important, and already you can see the journey time improvements resulting from that.

The way to do this is to involve the LEPs and to use money through the local growth funds. I find that the people who are closest to the economic activity are the ones best able to make the investment case for it. Whether it is Merseyside coming in and talking about their investments or the midlands, who were in last week talking about what they want to do, those local councils and LEPs understand what that transport investment can deliver. I completely agree with you.

Q238 Chair: Following that line of thinking, how are you going to identify which areas of the track need the investment we are talking about today that we are calling digital railway?

Brian Etheridge: Again this is the planning process, which is now live. We will look to the industry by the end of this year to give Ministers the industry's initial advice on the type of issues that we have around the network and the potential opportunities for investors. It does not just have to be the Government who develop this, as has been said. As I said before, we absolutely want to improve the planning process that we had before. One of the improvements we would very much like is to make sure that that industry advice is fully reflective of local issues. Government policy, in terms of devolution of transport, firmly believes that people out there are best placed to identify the best solutions. We do not want to fall into that trap again. We want to make sure that the future plan is not a producer-led plan but is very much a user-led plan. A new step in the planning process for the next period will be absolutely to check that we have reflected the views of people out there, away from the central machine. I do not quite know how we are going to do that yet, but it will probably be through consultation of some kind. We want to make sure that the nuances of economic development locally and the additional benefits that we might get are reflected in the choices that we ultimately make about where we put our investment money.

Q239 Chair: Finally, I want to confirm what I think you said before. You are convinced that the existing control periods will be adequate to deliver.

Brian Etheridge: I do not see a reason why, if we use them wisely, they should be a barrier to long-term high capital cost programmes; I really do not. We have to chunk things up into sensible planning processes, but we absolutely have to recognise, particularly in the railway, that even now the investments we make do not fit neatly into those planning processes. We have to work that, and I think we can. I do not think they should be a barrier to good planning. It seems sensible to me that for operational efficiency and clarity, and for giving reasonable periods of certainty to the trade, we need to chunk those up. I think we can manage the control period process much more flexibly and much more wisely than we have done previously.

Claire Perry: We are backstopped by the National Infrastructure Commission, who of course have been tasked with taking that longer term view on things like HS3 and east west rail, to try to overcome some of those challenges. The Government have a funding commitment to make and the industry has the certainty that those projects will go ahead. This may well be the sort of project where having their involvement could also be helpful in giving people long-term reassurance.

Chair: Thank you very much for coming.