



Cynulliad Cenedlaethol Cymru **The National Assembly for Wales**

Y Pwyllgor Cyfrifon Cyhoeddus **The Public Accounts Committee**

Dydd Mawrth, 17 Mawrth 2015
Tuesday, 17 March 2015

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Cofnodir y trafodion yn yr iaith y llefarwyd hwy ynddi yn y pwyllgor. Yn ogystal, cynhwysir trawsgrifiad o'r cyfieithu ar y pryd.

The proceedings are recorded in the language in which they were spoken in the committee. In addition, a transcription of the simultaneous interpretation is included.

Aelodau'r pwyllgor yn bresennol
Committee members in attendance

Byron Davies	Ceidwadwyr Cymreig (yn dirprwyo ar ran William Graham) Welsh Conservatives (substitute for William Graham)
Jocelyn Davies	Plaid Cymru The Party of Wales
Mike Hedges	Llafur Labour
Sandy Mewies	Llafur Labour
Darren Millar	Ceidwadwyr Cymreig (Cadeirydd y Pwyllgor) Welsh Conservatives (Committee Chair)
Julie Morgan	Llafur Labour
Jenny Rathbone	Llafur Labour
Aled Roberts	Democratiaid Rhyddfrydol Cymru Welsh Liberal Democrats

Eraill yn bresennol
Others in attendance

Russell Bennett	Cadeirydd, Sefydliad Siartredig Priffyrdd a Chludiant (Cangen De Cymru) Chairman, Chartered Institution of Highways and Transportation (South Wales Branch)
Rhodri-Gwynn Jones	Cyfarwyddwr, Cymdeithas Contractwyr Peirianneg Sifil Cymru Director, Civil Engineering Contractors Association Wales
Yr Athro/Professor Bob Lark	Coleg y Gwyddorau Ffisegol a Pheirianneg, Prifysgol Caerdydd College of Physical Sciences and Engineering, Cardiff University
David Meller	Prif Beiriannydd, Sefydliad Siartredig Priffyrdd a Chludiant (Cangen Gogledd Cymru) Principal Engineer, Chartered Institution of Highways and Transportation (North Wales Branch)
Kris Moodley	Prifysgol Leeds University of Leeds
Jeremy Morgan	Swyddfa Archwilio Cymru Wales Audit Office
Yr Athro/Professor Nigel Smith	Ysgol Peirianneg Sifil, Prifysgol Leeds School of Civil Engineering, University of Leeds
Huw Vaughan Thomas	Archwilydd Cyffredinol Cymru Auditor General for Wales

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

Leanne Hatcher	Clerc Clerk
Andrew Minnis	Y Gwasanaeth Ymchwil Research Service
Tanwen Summers	Dirprwy Glerc Deputy Clerk

Joanest Varney-Jackson Uwch-gynghorydd Cyfreithiol
Senior Legal Adviser

*Dechreuodd rhan gyhoeddus y cyfarfod am 09:09.
The public part of the meeting began at 09:09.*

Cyflwyniadau, Ymddiheuriadau a Dirprwyon Introductions, Apologies and Substitutions

[1] **Darren Millar:** Item 3 on our agenda is a formal introduction to today's meeting, now that we're in public session. If I could just remind everybody that the National Assembly for Wales is a bilingual institution, and that Members and witnesses should feel free to contribute to today's proceedings in either English or Welsh as they see fit, and there are, of course, headsets available for translation. If I could encourage everybody also to switch off their mobile phones or put them on to 'silent' mode so that they don't interfere with the broadcasting equipment, and, of course, to follow the instructions of the ushers in the event of a fire alarm. We've received apologies from William Graham this morning, and I'm pleased to be able to welcome Byron Davies to the committee as his substitute. Welcome to you, Byron.

09:10

Papurau i'w Nodi Papers to Note

[2] **Darren Millar:** Item 4 on our agenda—we've got a number of papers to note. We've got the minutes of our meeting held on 10 March, and there's going to be a slight amendment to those minutes. Just to clarify, under 3.2, the point where we talk about whether local authorities are responding individually to the national structure that's been put in place, that's in relation to the Chartered Institute of Public Finance and Accountancy training, so we'll just clarify the relationship of that point to the CIPFA training. But with that amendment, can I take it that those are noted? Thank you.

[3] We've had a letter from the Auditor General for Wales as well, providing some information about the invest-to-save fund, and possible options for the committee if it wishes to take forward any further scrutiny work. I know that the Finance Committee, as has already been said in private session, has been undertaking some work on the invest-to-save fund, so can I suggest that we send a copy of the auditor general's letter to the Finance Committee to see whether they want to touch on the issues that have been referred to in it? And if they don't, then perhaps we can pick that piece of work back up ourselves.

09:11

Ymchwiliad i Werth am Arian Buddsoddi mewn Traffyrdd a Chefnffyrdd: Sesiwn Dystiolaeth 2 Inquiry into Value for Money of Motorway and Trunk Road Investment: Evidence Session 2

[4] **Darren Millar:** Moving on then to item 5, inquiry into value for money of motorway and trunk road network investments. This is our second evidence session on this inquiry. I'm very pleased to be able to welcome to the table Professor Bob Lark, College of Physical Sciences and Engineering, Cardiff University; Professor Nigel Smith, School of Civil Engineering at the University of Leeds—welcome to you—and Kris Moodley, also from the University of Leeds. We had an interesting evidence session last week, of course, with some

of the freight operators and haulage organisations, and we're very grateful also for the written submissions that you sent in to us on the trunk road network inquiry. Can I ask you to just introduce yourselves and your background for the record, and perhaps make a few opening remarks? We'll start with you, seeing as you're in the middle, Professor Smith.

[5] **Professor Smith:** Okay, thank you. I spent 17 years in industry working with a number of contractors in the Department for Transport. I came back to university, and I've been working in transport infrastructure management for some time. I've commissioned reports for the European Parliament, the Organisation for Economic Co-operation and Development and the EU Minister of transport, largely to do with the trans-European transport networks and public-private partnerships, but more recently we worked for the National Audit Office on their report on the maintenance of highway infrastructure in the UK.

[6] Most of the evidence I think we've written is fairly straightforward. We've concentrated in the last two bullet points on routine maintenance, but if there are things we can give an opinion on, we'd be happy to contribute that as well.

[7] **Darren Millar:** Okay, thank you very much. Kris?

[8] **Mr Moodley:** Good morning. I'm a senior lecturer in the School of Civil Engineering. My background is in surveying. Over the last decade, my primary interest has been in the area of asset management. To that end, I've worked on a number of high-profile projects, including the intelligent client project, a high-value asset project in the Treasury. Recently, I've worked with Nigel Smith on the National Audit Office report on highways maintenance, and I've also been involved in the highways maintenance efficiency programme audit that's been carried out.

[9] **Darren Millar:** Excellent, thank you. And Professor Lark.

[10] **Professor Lark:** Good morning. I'm a professor of civil engineering at Cardiff University. I've also been involved with highway design, construction and maintenance for nearly 40 years now. Initially, I spent about 20 years in industry working with various contractors and consultants on the design and construction of highway projects, in particular the structures associated with those highway projects. And since that time, or having returned to the university, I have been working on research, again associated with highway structures, in particular their repair management, the maintenance of them, and that has developed over time where we've started to look more at asset management generally, again focused primarily on the structural elements that are involved.

09:15

[11] **Darren Millar:** Excellent; thank you. Just to start the questioning off before I bring Members in, in your paper, Professor Smith and Kris Moodley, you strongly underscore, if you like, the point about the need for investment in routine maintenance in order to avoid costs to the public purse that might be more significant later on. Do you want to just expand on that point and the importance of it?

[12] **Professor Smith:** The key points are quite well made by the Federal Highway Administration deterioration curves that I included a copy of in the written evidence. Once we've constructed our pavement, presumably of high-quality materials to a good design standard, from day one it starts to deteriorate; it deteriorates fairly slowly, but it will deteriorate and the condition will go down from excellent to good. And as we approach 'good' then that's the time our routine maintenance will kick in. The measure I believe you use here in Wales is 8 per cent of the network requiring attention at any one time, so it's about how far we get down that curve. If we don't make timely intervention at that time, we get

further deterioration that, initially, is not too serious, but very quickly becomes more damaging to the road carriageway construction sandwich and we then can't do routine maintenance; we actually have to do something on a much higher scale, which costs a lot more money and delays the traffic using the road—it causes congestion—and ultimately that reduces the asset value of the highway itself. So, we have to make those timely interventions.

[13] Now, at the same time, there is pressure not only to restore the carriageway to the condition that it started in, but are we looking at a more resilient carriageway? Are we looking at something that is more energy efficient and decarbonisation? Are we looking at using new materials? So, we might actually, on our deterioration curve, raise it to a level slightly higher than it was before, and then it again will start to deteriorate and we get into a sequence of routine maintenance. Cutting money on routine maintenance, if it means either extending the period or lowering the quality of the repair, is a false saving. It will cost you more in the long run; that isn't taken.

[14] **Darren Millar:** And just with the curve graph that you did include, do you think that there's been sufficient investment in routine maintenance in recent years, in Wales particularly?

[15] **Professor Smith:** This is very interesting because this very question came up with the National Audit Office. In our draft of the report, we said that it was too early to tell, having had a mild winter, whether the money that had been cut from the budget was having a really serious adverse effect. The final version that was published said that there was no evidence to suggest it had got worse, which is maybe the other side of the coin. I think we've been fortunate in one sense in having another mild winter this year. Certainly, if you look at deterioration from things like SCANNER—surface condition assessment for the national network of roads—which looks at surface defects, and we look at pothole damage and things like that, it would seem that the overall condition of the surface of the carriageway has fallen in recent years. Even the statistical budget that you supplied, I think from the Welsh Parliament, showed that, although there'd been an improvement a few years ago in the condition of the road, the last published figures, which were between 2010 and 2012-13, showed that it had actually deteriorated slightly, partially because of the increase in traffic, partly maybe with the reduction of maintenance. So, I think the question is whether the information is available on the quality of the carriageway and whether there's been the investment there.

[16] **Darren Millar:** You also make this point about the need for a wider asset management plan, don't you? What do you actually mean by that? I'm assuming there is some sort of maintenance plan in place in every Government organisation that's responsible for highways.

[17] **Professor Smith:** I think what we really mean is that that works on two levels, and Kris will correct me if I'm wrong here. The first level is linking pavement maintenance with the other aspects of the highway. So, as Professor Lark has said, linking it with bridges, and with drains and with other elements of the highway, which have different life cycles and different data collection requirements, and different cyclic periods of routine maintenance.

[18] I will give you an example of the seriousness of the problem. Last year, at the drains on a fairly newly constructed length of the A1(M), 20 miles north of Boroughbridge on the way towards Durham, flash floods occurred and debris and small boulders were washed onto the A1(M), a dual carriageway, three lane, and it was closed for 28 hours. That shows you the significance of the problem that can occur. So, there's the transport area itself and then I think, as was mentioned in the Welsh infrastructure report, ultimately, treating infrastructure of all types, not just transport infrastructure, but energy infrastructure, water infrastructure, and there's a need to try to look at the interconnectivity and interconnectedness of more than

just one infrastructure, but we're making very, very early steps in that direction at the moment. There is no approved method and no real way of doing it. We tend to hold back on what Mr Moodley was talking about, which is the whole-life asset management approach.

[19] **Darren Millar:** Right. Okay. I'm going to bring in Julie Morgan.

[20] **Julie Morgan:** I just want to ask you about how the variation in winters should be factored in in the overall planning. I don't know when we last had a hard winter—about three years ago, I think. There were horrendous problems on the roads in my constituency, for example. The last two winters have been relatively mild. How do you plan ahead to deal with those variations?

[21] **Professor Smith:** The thing is that we have to determine exactly what our objective is in managing that part of the highway asset. Are we trying to find the most cost-effective level of intervention for a particular problem? Or are we actually trying to enhance the asset value of the highway as a whole and retain it at a higher level? Are we trying to generate the most economic return for business and people in Wales by what we invest in? Or are we trying to optimise the amount of road that's under repair at any one time? All of those things are quite important, but they're all slightly different, and I think we have to decide what our priority is and which one we're going to follow before we can then decide how we're going to implement that system. And I'm not quite clear from what I've read which is the priority at the moment.

[22] **Julie Morgan:** I see. So, you don't think there is a clear priority.

[23] **Professor Smith:** I don't think at the moment there's a clear priority, but it may just be that I've not got access to the information or the data that would give me that information.

[24] **Julie Morgan:** Right. Thank you.

[25] **Darren Millar:** Jocelyn.

[26] **Jocelyn Davies:** You mentioned it being a false economy in the long run. How long is the long run? I mean, are we talking a couple of years or a long time ahead or—

[27] **Professor Smith:** The design life for a flexible pavement is between 18 and 25 years, depending on exactly the carriageway construction and the traffic that's using it. On short-term damage such as potholes, the actual cost of repairing those is about 20 times the cost of a standard routine maintenance repair to the carriageway and the amount of time that it lasts before it starts to deteriorate again is much shorter. So, we end up spending more, doing it more often and doing it less well. So, that would have an impact in a fairly short time period of four to five years.

[28] **Jocelyn Davies:** Four to five years, right okay. So, that's not really the long run then. It's the foreseeable—

[29] **Professor Smith:** Well, ideally, if a carriageway is well maintained and in good condition and carrying the load it's designed for, it should last the 18 years with routine maintenance and not suffer any real major deterioration.

[30] **Jocelyn Davies:** So, you could be tempted to imagine that you're putting off the cost for a period of time, but, actually, very quickly, that time is upon you.

[31] **Professor Smith:** Yes. The analogy would maybe be servicing a car. If it's to go in at 10,000 miles and you do 11,000, it's not going to be a problem, but if you actually did

another 10,000 miles, your engine might seize up and you might have really serious reconstruction problems that would go ahead.

[32] **Darren Millar:** Professor Lark, do you want to just comment on this issue of other highway assets, other than the highway itself—the bridges, the drains, the street lighting or whatever else it might be that's associated with the highway? You make a particular point about those in your paper.

[33] **Professor Lark:** Yes. I think the point is that the discussion that we've just had about the highway pavement is that, from my perspective, I would argue that the techniques that we have for monitoring the condition of that pavement, understanding what this routine maintenance might be, what the consequences of not carrying out that routine maintenance might be—all that is relatively sophisticated compared to the knowledge that we have about the other parts of the infrastructure. So, major structures we tend to have a good knowledge about, although, even there, it tends to be based upon visual inspection, so it is just a consequence of what you are able to see and identify as damage that is occurring. Certainly, we don't have the same knowledge, the same understanding, of the deterioration models and therefore of the consequences of not dealing with damage when it first appears. Certainly, then, when it comes to some of the other elements of the highway—you mentioned drainage in particular—I think our ability to have the planned maintenance that we have discussed doesn't exist in quite the same way.

[34] **Darren Millar:** Sandy Mewies, you wanted to come in on that.

[35] **Sandy Mewies:** Yes, thank you. I was slightly thrown by the use of 'pavement'. Blimey. What a quaint way of using it. I'm sure there must be a reason.

[36] **Jenny Rathbone:** It's American.

[37] **Sandy Mewies:** Is it?

[38] **Jenny Rathbone:** Yes.

[39] **Sandy Mewies:** Right. So, what you're saying, I think, and this is what I'd like to clarify, Professor Lark, is that, really, you're talking about in comparison with England, aren't you, I presume—that we don't have that level of testing that's going on in other areas. Because I think Professor Smith talked very much about how the network fitted together, how you had to monitor everything and see it as part of a whole structure. Are you saying that, in Wales, we don't do that as well, that we don't have the ability, that it's more visual? Because, I mean, I can look at a road and I think that you can drive into a pothole or see a pothole and think, 'Oh, blimey; it's time they did something about this'.

[40] **Professor Lark:** No. I apologise, but that isn't what I meant. In terms of the highway pavement—i.e. the road surface, if you like—I have no doubt at all that what we do in Wales is equivalent to what is done in England, and the same level of records, et cetera, exist, and the way in which we approach the maintenance of that highway pavement is very similar. I'm saying—and I believe this applies in England as well—that our knowledge of the other elements of the highway, i.e. the structures that either carry it or cross it, the drainage networks, the signage networks, and all these sorts of issues—. I am saying that our knowledge and understanding of how to approach the maintenance of those in a more quantitative way is less well defined, but I think that also applies in England.

[41] **Sandy Mewies:** That's extremely helpful. How would you suggest that looking at those other elements can be improved? Because what you're saying then is that there needs to be an improvement to get a more holistic picture of what's going on.

[42] **Professor Lark:** That's exactly what I'm saying, yes.

[43] **Sandy Mewies:** And how can we do that?

[44] **Professor Lark:** Well, I think it is that we do need to improve our understanding of what the critical deterioration mechanisms are for these various elements. We do need to explore how we can set up monitoring regimes, whatever they might be, and it may still only be visual, but at least they become monitoring regimes. And more importantly, I think, is then the issue of how we need to create a connectivity between that and the maintenance that goes on in other areas. So, we don't want this to detract from the maintenance of the pavement itself. What it needs to be is part and parcel of that so that, when decisions are made about a stretch of road that requires some maintenance being done on it, then actually we are tackling all elements on that stretch and the decisions are being made in a holistic fashion.

[45] **Sandy Mewies:** Okay. Can I just ask one more question? This is just something that intrigues me. In America, when new roads were planned, there are often channels where electricity cables and water cables and so on are so that you don't dig up the road, you actually dig up the channel. I have often thought that was quite a good way of doing things. I don't know, to me, it always seems to be a—. Rather than having them digging up the roads whenever, they dig up the sides of the roads. Is it expensive? Why have we never thought about that?

[46] **Darren Millar:** The microphone will work itself.

[47] **Professor Smith:** Thank you. It's largely a question of land price and space.

[48] **Sandy Mewies:** Oh, right. Okay.

[49] **Professor Smith:** In a lot of those countries—Canada is a prime example—they tend to have a central reserve of 10m to 20m, and the utilities all follow that and, as you say, there's no disruption to the road when these things are being done. The cost of land and the close density of the number of buildings mean that, in many places, the only option for utilities is under the pavement surface. Therefore, the question of how we reschedule to make sure we cause minimum disruption to traffic, and maybe accelerate some maintenance work on the pavement we wouldn't have done for a little while, and do it at the same time as the utilities work is going on, that's something that has been a problem for some time, but there's been work between the Department for Transport and the National Joint Utilities Group in London to try to set up co-ordinated systems.

09:30

[50] **Sandy Mewies:** So, our system makes the holistic matching-up more difficult, but you've explained very clearly—I understand. I assumed it would be land taken and cost, but I did just wonder, and you've explained it very clearly, both. Thank you very much.

[51] **Darren Millar:** Mike Hedges.

[52] **Mike Hedges:** My understanding—please correct me if I am wrong—is that although it's the tarmac that comes up, a lot of the problems occur with the substrata underneath it. Is there a role for non-destructive testing of the road to see whether there are problems underneath there? And, when we talk about potholes, potholes can be caused mainly by water freezing, but how the water's getting in—if it's getting into a hole in the surface, then cutting a portion out and putting the tarmac in will probably put it right; if it's being caused by something happening at the substrata, then what's going to happen is that that tarmac's going

to come shooting back out again fairly quickly.

[53] **Professor Smith:** Yes, you're absolutely right. The highway's made up of a sort of sandwich construction, from the base course right through to the top layering course, which is some asphalt-related black-top material in the case of flexible pavements, and we have two methods of testing: we have the SCANNER system that is used, which looks at the pavement quality, and looks at damage to the actual wearing course surface itself, and then we have something called the deflectograph, which is basically a plate that's underneath a loaded wagon, which is placed on the road, and, as the loaded axles go past, you get a reading for how resilient the carriageway is under them, so you can see if there's been a failure further down in the carriageway construction and a high-level of work is required. But, at the moment, only about—. The deflectograph survey in Wales is now once every five years, so quite a bit of damage can occur between one and the other.

[54] Going back to the point about water ingress, on the wearing course, which is subject, obviously, to wear and tear as vehicles go through and vehicles use it, we tend to get occasional cracking, or sometimes, if there are bends or corners, we can actually get rutting. The flexible pavement will move slightly, and you can actually see a small wave that develops as it goes through. All of those are likely to lead to water coming in, and, as you know, it's the thaw/freeze cycle that causes the damage. The water expands, cracks the black top and we end up with that condition. But most of the trunk roads—the motorways and the trunk-road network in Wales are maintained to a good standard. There are very few potholes in that strategic road network. It tends to be on the local roads where local authorities haven't quite got the same budget or the same facilities to do those things, and we have a slightly different approach to local roads, where the condition is much more serious and much more damaging.

[55] **Darren Millar:** Just tell us about the deflectograph surveys: so, once in every five years, each part of the trunk road network is deflectographed, if you like, so that there's a result. Is that sufficiently frequent, or would you suggest that it's not?

[56] **Professor Smith:** I am concerned about that, because I think that, when you actually make a decision about your level of intervention for routine maintenance, you need to have a good idea of the condition of the asset. Because if you don't know what condition the asset's in, then what's the basis for making a decision? If we're averaging conditions over a five-year period, a lot can change in that five-year period, and I think there is scope for investment in terms of finding out the actual data we want to save, and collecting those data, and then having the appropriate people with skills to make decisions based on those data.

[57] **Darren Millar:** Are they expensive, these deflectograph surveys? I mean, you seem to be—

[58] **Professor Smith:** Not particularly expensive. Up until quite recently it was a three-year cycle; it's just recently been extended to a five-year cycle. I assume that may be because of cuts, but I don't know the reason.

[59] **Darren Millar:** But there's no information on the rationale that you're aware of.

[60] **Professor Smith:** Not that I was able to find, no.

[61] **Darren Millar:** What's your view on these deflectographs, Professor Lark?

[62] **Professor Lark:** Again, I would concur with what Professor Smith has said. I think, on the comment that was made about, you know, should we be using non-destructive techniques to monitor condition, the answer to that has to be 'yes'. There are opportunities to

do so, not just for the highway pavement. Again, in my own field of the structures, et cetera, we are looking at different techniques that we can use to do such surveys. Again, it does become a difficult issue because any survey that you do will have costs associated with it, and where does the balance lie between doing such surveys regularly enough to make sure that you're picking up deterioration and the cost of actually doing the surveys with that regularity? That is a difficult balance to strike.

[63] **Darren Millar:** Aled Roberts.

[64] **Aled Roberts:** Rwyf am ofyn yn **Aled Roberts:** I will ask my question in Welsh.

[65] **Darren Millar:** If you need a headset, there's one in front of you. It will be channel 1 for the Welsh.

[66] **Aled Roberts:** I aros ar y **Aled Roberts:** To stay on this topic of the *deflectograph* yma, rydych wedi dweud bod *deflectograph*, you've said that the period has y cyfnod wedi newid yng Nghymru o dair blynedd i bum mlynedd. Beth ydy'r sefyllfa yma yng Nghymru o dair blynedd i bum mlynedd. Beth ydy'r sefyllfa yn Lloegr a'r Alban? A ydyn nhw wedi aros efo tair blynedd, neu a oes yna symud o ran pa mor aml maen nhw yn ei wneud hefyd? **Aled Roberts:** To stay on this topic of the *deflectograph*, you've said that the period has changed in Wales from three years to five years. What's the situation in England and Scotland? Have they remained on the system of three years, or has there been a change in terms of how often they do it?

[67] **Professor Smith:** In terms of the strategic road network, which the Highways Agency are responsible for, they've stayed on a two to three year cycle. In terms of the local roads, which are a local authority responsibility, then it is wider than that. There's no one set term; it's rather fragmented between authority to authority. Some are four years, and some may be as long as five.

[68] **Mr Moodley:** When it comes to local authorities, given the situation post-2010 in England, a lot of the local authorities have moved from three-year cycles more closely to five-year cycles.

[69] **Aled Roberts:** A gaf fi ofyn dau **Aled Roberts:** May I ask two further gwestiwn arall? Mae gennyf ddi-ddordeb questions? I have a particular interest in mewn cymharu Cymru efo gwledydd eraill. comparing Wales with other countries. Mae'r Athro Lark wedi dweud ein bod ni'n Professor Lark has said that we compare cymharu'n ffafriol efo Lloegr, ond rwy'n favourably with England, but I think that a meddwl y buasai nifer ohonom ni yn gofyn y number of us would ask the question. You cwestiwn. Rydych chi wedi dweud eich bod have said that you have done a lot of work in chi wedi cyflawni lot o waith yn Ewrop; pan Europe; when I go to Europe, it appears that wy'n mynd i Ewrop, mae'n ymddangos bod the state of the roads in France, for cyflwr y ffyrdd yn Ffrainc, er enghraifft—y example—the trunk roads—is much better. Is cefnffyrdd—yn llawer iawn gwell. A oes there a difference in terms of the quality of gwahaniaeth o ran ansawdd y ffyrdd eu the roads themselves? Have there been hunain? A oes yna gwtogi wedi bod ar natur cutbacks with regard to the nature of the y defnydd sy'n cael ei ddefnyddio? A oes materials used? Are there any lessons to be unrhyw wersi i'w dysgu o'r sefyllfa yn learned from the situation in Europe itself, or Ewrop ei hunan, neu a fuasech yn dweud bod would you say that they have lessons to learn ganddynt wersi i'w dysgu gennym ni hefyd? from us as well?

[70] **Professor Smith:** The Organisation for Economic Co-operation and Development did an international report in 2012, looking at the state of roads around the world, and the strategic road network in the UK came out as being one of the better performers. I think those standards are the ones that are used on the M4 and on the main roads in Wales at the moment.

I think we should be fairly proud of the standard of work that we are achieving already. That's not to say that we can't do better; we can.

[71] As regards mainland Europe, looking at many of the reports, there are a number of trunk roads that are in good condition. They tend to be privately maintained and therefore I think their maintenance budgets are slightly higher than ours. The basic construction is the same, and there is no huge difference in overall quality. But the number of heavy goods vehicles per kilometre on most of the French and Spanish roads is much lower than in the UK. It's the axle load that causes the damage to the pavement. One 10-tonne axle does as much damage as 5 million cars. So, it's a huge disproportion. Although we charge slightly higher taxes for heavy goods vehicles, it's nowhere near the real cost of damage to the road construction, and we have such a high proportion of heavy goods vehicles using our strategic road network—so, it is about 3 per cent of the road network, but it takes 80 per cent of the heavy goods vehicle kilometres. That is one of the reasons why a lot of the roads in Europe appear to be slightly better; they have a much lower heavy goods vehicle load to carry.

[72] **Aled Roberts:** Ond mae Ewrop hefyd yn gwneud llawer iawn mwy o ddefnydd o'r rheilffyrdd, er enghraifft, o ran trosglwyddo nwyddau. **Aled Roberts:** But Europe also makes much more use of the railways, for example, in terms of transporting goods.

[73] **Professor Smith:** It tends to, although, interestingly enough, the amount of permanent weigh to strategic road network, the proportions in the UK are the same as in France and Germany.

[74] **Aled Roberts:** Ocê. A gaf i symud ymlaen i orffen at—. Rydych wedi sôn am ffyrdd lleol; rydym ni'n pwysleisio cefnffyrdd yma, ond a oes newid wedi bod o ran cynnal a chadw gan gynghorau lleol? Mae fel bod ansawdd eu gwaith cynnal a chadw nhw wedi gwaethygu. I ddefnyddio'r pwynt y ddaru Jocelyn ei wneud, rwy'n gweld enghreifftiau'n lleol lle, ar ôl dwy neu dair blynedd, mae'r ffordd yn dechrau gwaethygu. **Aled Roberts:** Okay. Can I just move on, to conclude, to—. You've mentioned local roads; we are emphasising trunk roads here, but has there been a change in terms of the maintenance carried out by local authorities? It seems that the quality of their maintenance work has deteriorated. To use the point that Jocelyn raised, I see examples locally where, after two or three years, the road surface is starting to deteriorate.

[75] **Professor Smith:** I think you're absolutely right. When we did the National Audit Office report work, we looked at the difference between the strategic road network and the local authority roads. Unless they're acting as agents for specific links of the strategic road network, the local authorities have no hypothecated budget for highway maintenance. It can be spent as designated by the authority. One of the easiest things to do under pressure is not to maintain something this year but to leave it for another year. You tend to get into that downward spiral if you're not careful, in that you then extend the period between the interventions and you do a lower level of quality of intervention because it's cheaper, but then, the time comes round to do it again and you've got even more of the network requiring attention, so you can't spend as much on repairing each one of them. So, again, the period becomes shorter. If we're not very careful, it drives down and we end up with a rather poor-quality condition. There are many areas of—I'm from Leeds—North Yorkshire where the road condition is probably the worst that it's been for about 25 years.

[76] **Darren Millar:** Professor Lark, you wanted to come in there and then I'll bring—.

[77] **Professor Lark:** Yes, I just want to comment on this comparison, if you like, between the Welsh trunk road network and the English trunk road network. There is a

difference because the characteristics of the Welsh trunk road network are quite different to those in England. In England, it is primarily motorway, and that certainly dominates the trunk road network and, therefore, the procedures and processes that are used are very much focused on how we maintain and look after the motorways. In Wales, the type of trunk road network is much more varied, so, yes, we do have a motorway, but that's really quite a tiny proportion of the total trunk road network. Some of the challenges associated with aspects of that trunk road network, because of its location and the terrain that it's going through, et cetera, are actually quite different. So, again, I think you do have to be a little bit careful about making direct comparisons in that way, although I appreciate it's not unreasonable to do that.

[78] **Darren Millar:** Jocelyn, you wanted to come in on this and then I'll bring in Jenny.

[79] **Jocelyn Davies:** Yes, I wanted to ask really about modern techniques for repairing local roads because it seems to have changed to me, but the repair doesn't seem to be as robust as they used to be. Is that because there's more traffic on it or have I just got some romantic idea of steamrollers and—

[80] **Aled Roberts:** Rather than wellies. [*Laughter.*]

[81] **Jocelyn Davies:** [*continues*]—and so on, more than I ought to have? But, it seems to me that new techniques are tried by different local authorities, but they don't seem to be as robust as perhaps—

[82] **Professor Smith:** There has been a certain amount of attempted innovation and trying different methods of a surface dressing or putting on chippings and coverings in an attempt to keep something serviceable before we actually go in and do a major-level intervention. I think people are recognising that there is a deterioration coming along and we can't deal with all of it all the time. Where the roads might be sufficiently diverse to allow alternatives, then sometimes there is a deliberate decision to allow one particular road to deteriorate a bit further because traffic will tend to use another—

[83] **Jocelyn Davies:** Oh, that's my street. [*Laughter.*]

[84] **Professor Smith:** If you happen to live in that area, it's not a very nice thing to hear, but it does happen. There is no magic solution. Interestingly enough—and Professor Lark may know more about it than I do—a very interesting paper came out last year from Switzerland, and most of our roads, as you know, are tarmac or asphalt, but it was going back to concrete roads. They always were regarded as not being very attractive, being very noisy and having joints that bumped when the traffic went over it, but their design life is 45 years. With the new types of concrete materials available, they are more environmentally friendly and have less embodied energy than a flexible pavement. It may be that some of the sections are going to be replaced in future with concrete carriageways rather than flexible ones.

[85] **Jocelyn Davies:** I see. Okay, thank you.

[86] **Darren Millar:** You had a question specifically on—

[87] **Byron Davies:** You stole my thunder, Professor Smith. I was going to ask you about concrete surfaces. Are they more economical in terms of repair? Do they require less maintenance?

[88] **Professor Smith:** They always have been attractive to build and attractive to maintain. The problem has always been with the noise generated and the bumps between the joints, which people feel as you're driving along. It's not as comfortable a ride. There have

been areas where, when housing encroaches towards the road corridor, they've had to put a little skim of flexible pavement on the top of the concrete carriageway, not for any structural reason, but just to keep the noise down. But, with the new concrete pavements, the joints are only every 800m and they used to be every 25m, so you had that regular bump, bump, bump, bump when you went through. Now, it's much longer in time. Germany and many other countries have had sections of concrete carriageway for some time, and I think it will be something that people will be looking at very seriously for new build, in four to five years' time.

09:45

[89] **Byron Davies:** I always seem to think that they drain better, as well, actually—concrete surfaces.

[90] **Professor Smith:** I don't think there's much evidence to show that they drain better or worse. I think, as long as you've got the carriageway camber correct to take the water away from the surface and as long as you've got sufficient drainage capacity to stop the water coming back onto the carriageway, or even water running from the surrounding land, over the drain and onto the carriageway, which is what also causes problems.

[91] **Professor Lark:** Again, if I can also comment about the materials that we use—and, actually, this is true for the asphalt-type highways, as well—there are significant developments happening at the moment. I personally am involved in some work where we are looking at the concept of self-healing materials, both in terms of concrete and asphalt. So, these are materials that actually, when they crack, they would know that they'd cracked, if you like, and then there are mechanisms that automatically can be implemented that would help heal those cracks.

[92] There are various techniques. Again, one of the challenges that we face is that, at the moment, these are research techniques; they're experimental. When do we get them to a point where we could confidently employ them in a stretch of significant highway and have the confidence to know that, yes, they're not going to breakdown unduly early and create more problems than they solve? Again, that is a challenge that we are facing.

[93] **Darren Millar:** Self-healing roads—I wasn't expecting that to crop up this morning. Jenny Rathbone.

[94] **Jenny Rathbone:** I just wanted to go back to this Canadian idea of having these corridors of public utilities alongside roads, because, although the price of land may be a huge factor in some places, particularly in the south-east of England, it might be less of a factor in Wales. I wanted to explore that, and I wondered if anybody had done a cost-benefit analysis of buying an extra strip of land, versus the cost of constantly, you know, diverting roads and congestion.

[95] **Professor Smith:** I'm not aware of a specific report on that, but maybe it would help if I said, if you're thinking about a new road, between 45 per cent and 60 per cent of the total cost of that new road is earthworks, 10 to 15 per cent is structures—bridges, tunnels, retaining walls—10 per cent is drainage and 8 to 9 per cent is on signs. The whole of the pavement carriageway is only about 8 per cent of the value of the whole road. If you wanted to make a corridor for services, it would have to be at the grade of the motorway. So, your earthworks, which is already 45 to 60 per cent, you would be extending that by another eighth at least, if not a sixth, over the whole length of the road you were building. That is where the price comes in. It's just purchasing the land and then making that at-grade to excavate and dig in and put the services into it. If there's a service there, there has to be a wayleave or access space for people to come and work on that service when there's a problem. So, you actually

end up clearing almost a full lane the whole length of the new road that you're going to be putting in. That's where the expense comes from.

[96] **Jenny Rathbone:** Okay. But, then we have to factor in the environmental impact and, obviously, the environmental impact of building the road in the first place, but the need to constantly be digging up the road is also a huge cost, both financially and environmentally.

[97] **Professor Smith:** It is, although, to be fair, on new sections of motorway, not that there are that many under consideration at any one time, the amount of service is relatively light, because most of our traditional service network is in place and it's under the trunk roads, rather than under the new motorways, under the new system. But, you may have seen, if you've driven on the motorway network in England recently, that they're replacing the central reserve with a concrete barrier and you can see a purple cable that goes all the way along the central reserve—that's the communications and information cable that links the road signs and the other intelligent things together. It's there temporarily while the road is being built, but it follows in a trench at the end of the road construction, when the job is finished. So, there is potential for putting a small amount of service onto that new build where that trench is, but it wouldn't take one of the big long-distance service connectors. That would work out to be very expensive.

[98] **Jenny Rathbone:** Okay. The other thing I wanted to come back to is what you touched on with Aled Roberts, which is this massive transfer of goods off the railway network onto the roads, and most of the damage on the roads is done by these heavy-goods vehicles and yet there doesn't appear to be the principle of the polluter or the damager pays involved in this. Obviously, the vehicle licensing excise cost et cetera is not a devolved matter, but we get the consequences.

[99] **Darren Millar:** Can I just bring in, in addition to this, that one of the interesting comments, pieces of evidence that we received at our last session on the highways network was that the freight operators seemed to be prepared to contribute to the construction of new highways if there are non-car lanes, if you like, constructed? They seemed to be prepared to pay and make financial contributions from the private sector in order to assist Governments in the delivery of new road schemes, if there is that additionality, if you like, in return for it. I mean, you've talked about private investments in your paper in particular. Perhaps you could bring that in in response to Jenny's question.

[100] **Professor Smith:** I think that business in general is obviously concerned about congestion and the time it takes to travel between A and B, and, at the moment, of course, in the UK, we only toll crossings, apart from the very small section of the M6 link north of Birmingham, which is 23 miles of toll road, and the usage of that is much less than what was planned when it happened. If you look in Europe, the situation is very different, where tolling from start to destination is a common feature of travelling on the trunk road network, and companies are prepared to invest in that because it's worth the time to their business, to get things delivered without passing the costs on to customers or buyers or people at the other end. One of the things that we need to look at is, ultimately, who's going to pay. Are the businessmen prepared to pay for a price-managed lane, which is the situation in the States in particular, and also in the far east, where only goods vehicles who've paid a certain tariff are allowed to use part of the carriageway, and the rest of the road is free for everybody else to use, or are we looking at some sort of investment in an overall facility where they share lanes with other people? Experience at the moment seems to be that they're keen on having a separate price-managed lane, which only those people who pay will be able to use, but, in the States, it's not just for freight, as it's also for individuals who wish to pay and do that.

[101] **Darren Millar:** I see.

[102] **Professor Smith:** And it's all done on credit card payment. There's no stopping and tolling. It's all transponder access and electronic reading as it goes through.

[103] **Darren Millar:** I see, okay. Aled, you wanted to come in.

[104] **Aled Roberts:** Rwyf eisiau gofyn cwestiwn am arian Ewropeaidd, achos, yn eich tystiolaeth chi, rydych chi'n dweud bod yna un coridor, sydd yn rhannol yng Nghymru, yn y dynodiad yn 2015. Fe wnes i ofyn y cwestiwn achos rwy'n meddwl fod y sefyllfa braidd yn wahanol, a dweud y gwir, a drysais i o ran a oedd yna gamgymeriad wedi ei wneud gan y Comisiwn Ewropeaidd, achos, o beth rwy'n ddeall, mi gafodd Cymru ei chynnwys yn wreiddiol yn y coridorau, ond mi wnaeth Llywodraeth y Deyrnas Gyfunol ofyn i hynny gael ei ddileu. Mae'r map a gyhoeddwyd gan y comisiwn ym mis Ionawr 2015 yn dangos bod yr A55—. Mae yna lawer o drafod yng Nghymru am yr M4, ond i'r rhai hynny ohonon ni sy'n byw yn y gogledd, mae'r A55 hwyrach yn gymaint o broblem â'r M4 i ryw raddau. Rwyf jest yn gofyn i chi a ydych chi'n dal i feddwl bod coridor y gogledd—Felixtowe i Gaerdybi—yn ymddangos ar y map ac a ydy hynny'n gywir. O beth rwyf i wedi ei ddarllen, rwy'n deall, os nad yw prosiect wedi'i gynnwys ar gynllun Juckner, a gyhoeddwyd ym mis Ionawr, nid yw hynny'n creu sefyllfa lle nad oes dim arian ar gael. Ond rydw i eisiau gofyn beth yw eich dealltwriaeth chi. A ydy Llywodraeth Cymru yn methu â gofyn am gyllid Ewropeaidd ar gyfer yr A55 a hefyd ar gyfer rhai o'r ffyrdd yn y de, gan gynnwys yr A40, heblaw bod y cynlluniau yna wedi'u cynnwys ar gynllun isadeiledd Juncker, a gafodd ei gyhoeddi? Achos, rydw i wedi bod yn edrych ar y cofnodion, ac nid wyf i'n meddwl bod Llywodraeth Cymru wedi rhoi'r cynlluniau yma ymlaen.

Aled Roberts: I want to ask a question on European funding, because, in your evidence, you state that there is one corridor that is partly in Wales in the 2015 designation. I asked the question because I think that the situation is rather different, to be honest, and I just wanted to check whether a mistake had been made by the European Commission, because, from what I understand, Wales was originally included in the corridors, but the United Kingdom Government asked for that to be removed. The map that was published by the commission in January 2015 shows that the A55—. The M4 is the subject of a lot of discussion in Wales, but, to the people living in north Wales, the A55 is as great a problem as the M4, to an extent. Now, I would just like to know whether you still think that the north Wales corridor from Felixtowe to Holyhead appears on the map and whether that is correct. Also, based on what I've read, my understanding is that if the project hasn't been included as part of the Juncker plan that was published in January, that doesn't create a situation where there is no funding available. But I would like to know what your understanding is. Is the Welsh Government unable to ask for European funding for the A55, and also for some of the south Wales routes, including the A40, unless those schemes have been included as part of the Juncker infrastructure plan that was published? Because, I've been looking at the minutes, and I don't think that the Welsh Government have put these schemes forward.

[105] **Professor Smith:** I must start with an apology to all members of the committee, in that when the trans-European network transport network was reviewed in 2010, it became clear that the whole network was not going to be completed by 2020. So, a major revision of the programme was made, and we now have a core network, which is in 2030, and a comprehensive network, which is 2050, and the number of strategic corridors—there were 15 of them—were all renamed and recategorised, and the Felixstowe route came out as the North Sea Mediterranean corridor. The map published in 2014, shows it coming from Felixstowe, London, Birmingham, and at about Crewe, it bifurcates, and one links to Holyhead—well, the A55 corridor to Holyhead—and the other went to Glasgow, Stranrear. As you rightly say, six months ago, the commission announced that it had made an error in the maps that it had published, and it's re-released those maps—and I was using an old map when I wrote that account, so I'm apologising—and the link from Crewe to Holyhead is missing from the new

route. I talked to a number of people I know in Brussels about what had happened, and no-one could give a reason as to why that link had been removed from the strategic corridor. They pointed out the corridor was primarily aimed at rail, rather than road, and they were expecting things like the second leg of HS2, between Birmingham and Manchester, to be a contributing factor. But, then, if you were doing that, having a spur at Crewe would make more sense than taking it out. There was no confirmation that the UK Government had been behind the decision to drop it, but no-one was able to give me an answer as to why it had been dropped.

[106] On your second point, in terms of important trunk road work, the links of the M4 and A48 are mentioned as part of the scheme, and I believe—I don't know the full details so I'd better be careful what I say—that there may be an element of funding that could be obtained, if those corridors were to be upgraded.

[107] **Aled Roberts:** But not in the north.

[108] **Professor Smith:** Not in the north, no.

[109] **Darren Millar:** Okay, I'm conscious of the time, but I know that Sandy wants to come in. We're going to have to move on. Sandy.

[110] **Sandy Mewies:** Thank you, Chair. Some of us, of course, are as familiar with the A55 as we are with the M4, sadly. [*Laughter.*] Both, really. Aled has attempted to clarify what is a very, very murky story, I think, because, certainly, when I was operating in Brussels, it was all going to happen to Holyhead, and we knew we were going to have that route through. So, that, more or less, is covered, although I think there is a letter from this committee that needs to go somewhere to find out a bit more.

[111] I was particularly interested, Professor Lark, in what you were talking about. Forgive me if I haven't got this entirely right, but your conclusion, very much, is that Welsh Government should work with private contractors, agents and others, and that would improve what was happening here; that's your conclusion. You're also talking about information systems—I think the integrated roads information system is in place now—which use the cloud. Blimey; the concept of using the cloud for my computer is difficult, but using it for knowing where—. But, I can see how that would work. Particularly, I think the A55 has been a prime example of people not working together in recent times, and the chaos that there's been on that road, caused by the England/Wales border and the roadworks that are going on, has been extensive. How would you suggest that the Welsh Government could work towards this? I know that your area of expertise—and it has enabled me to understand a lot more today—perhaps is not in the politics of it, but how would you see such a partnership working, working?

10:00

[112] **Professor Lark:** That's quite a challenging question. I think there are, certainly, opportunities for partnerships across the board—those who are involved with the design, the construction, those of us who are involved in research into how this best be done. They need to look at, right from the very earliest stage—when we're planning a road—what information can be made available, how that information is recorded, and then understand how that highway will subsequently be maintained, to both ensure that it survives its life, and also, actually, how we can then look to extend its life in due course. Exactly what the contractual arrangements would be for such partnerships, I have to say I don't really have that level of expertise to make any specific comment. I think there is, certainly, a willingness to explore such aspects, and I have already been working with the civil servants within Welsh Government, looking at how we might do that, and we're looking at some of the new developments that are happening, to see how we can build upon what are, actually, going to

be statutory requirements for information that is produced during the construction phase, which can then influence what we do, and how we maintain those highways, going into the future.

[113] **Sandy Mewies:** Thank you for that. So, really, it's developing your holistic—

[114] **Darren Millar:** Sandy, I'm very conscious of the clock.

[115] **Sandy Mewies:** This is the last question.

[116] **Darren Millar:** Very brief—and a very brief response as well.

[117] **Sandy Mewies:** It's developing your holistic approach, really, isn't it, which is one of the things we've been looking at.

[118] **Professor Lark:** Yes.

[119] **Sandy Mewies:** Thank you.

[120] **Darren Millar:** Very briefly.

[121] **Professor Smith:** Just a very brief comment to add on to the points that Professor Lark was making, one of the things that surprised me, in looking at other evidence, and other information here, is there's nothing on skills and competences. We've talked a lot about data, we've talked about information, but, in order to run an effective maintenance strategy, you need people with the right skills and competences, which may require staff training or additional investment. Part of these partnerships is a way of getting some of those skills into the organisation. And those skills, some of them, are in the private sector, and a partnership might be a very effective way, particularly in the short term, of getting some of that expertise in. It's something that does need to be considered: as well as the information and the hard facts, the people element shouldn't be forgotten.

[122] **Darren Millar:** I'm glad you got that on the record—I know it was in your paper. Just two very brief questions, and just very short answers, if I may, because I think it's important we get this on the record. There are two trunk road agents in Wales, managing the trunk road network. There's an ongoing review by the Welsh Government, as to whether there needs to be some change in the way that those agents are responsible for the network. Do you think that a single-body approach might be a potential improvement in terms of a way forward, or are you content with the current arrangements? Professor Smith first, and then Professor Lark.

[123] **Professor Smith:** It has to be said on the basis of very little information, but my preference would be for a unitary authority—one group. If we look at the way it works in Scotland, it works quite well; they have a similar build-up of motorway, trunk road, and minor local roads. We have then one purpose, one method of doing it, consistency that applies through the system.

[124] **Darren Millar:** Okay. Professor Lark.

[125] **Professor Lark:** Again, I would concur with that. I think the move to just having two has been beneficial—I think that has helped. But, it does beg the question: well, why two? At the end of the day, there's the point that Professor Smith has just made about—we want one approach to the whole network, throughout Wales. I think there would be value in that.

[126] **Darren Millar:** As with all authorities that are funded from the public purse, there's

a constant gripe about the continuity of funding, the levels of funding being uncertain from one year to the next. Obviously, Highways England has some certainty over a five-year programme now—or a five-year period—as to its funding. Should a similar approach be adopted in Wales? Is that something you think might be useful, or not?

[127] **Professor Smith:** I think it could be put into place; it could be useful. Remember that something like 58 per cent of the money promised for Highways England is going to come from international private financial investors—it's not coming from the public purse. So, it's a question of how attractive investing in Wales is to international pension funds, hedge funds and sovereign wealth funds, because there isn't the public sector money to make that available. Anything we can do to get rid of mad March and getting an artificial constraint in the way in which we carry things out has got to be welcome.

[128] **Darren Millar:** Sorry, Kris Moodley, you wanted to come in, and then I'll bring in Professor Lark for the final word.

[129] **Mr Moodley:** Yes, I think the consistency of funding is imperative, if you want to retain skills and skills development, and it's not just from the operator and the asset owner, which is the Welsh Government; it's also for the contractors and suppliers. Their investment—. Even if it's at a lower level, but at a consistent level, they're prepared to invest.

[130] **Professor Lark:** Yes, I would just concur with that and say, yes, it would be certainly a step in the right direction.

[131] **Darren Millar:** Excellent. On that note, that brings us to the end of our evidence session. Professor Lark, Professor Smith and Kris Moodley, thank you very much for attending. You'll be sent a copy of the transcript of today's proceedings and if there's any additional information you want to send us, or if there are any errors in the transcript, please let the clerks now. Thank you very much indeed.

[132] We are slightly behind schedule, so can I ask Members to be brief in their questions? That would be really helpful.

10:08

**Ymchwiliad i Werth am Arian Buddsoddi mewn Traffyrdd a Chefnffyrdd:
Sesiwn Dystiolaeth 3
Inquiry into Value for Money of Motorway and Trunk Road Investment:
Evidence Session 3**

[133] **Darren Millar:** Okay, moving on to item 6 on our agenda. Continuing with our inquiry into value for money of motorway and trunk road investment in Wales, this is our third evidence session. I'm very pleased to be able to welcome to the table Rhodri-Gwynn Jones, director of Civil Engineering Contractors Association Wales—welcome to you, Rhodri; Russell Bennett who's the chairman of the Chartered Institution of Highways and Transportation (South Wales Branch)—welcome to you, Russell; and David Meller, principal engineer, Chartered Institution of Highways and Transportation (North Wales Branch)—welcome to you as well.

[134] You'll be aware that we are looking at value for money and management of the trunk road network. We've received a copy of your evidence, and it's been circulated to Members. Obviously, we've just heard from some of the academics on the subject, in addition to some of the freight operators that we heard from in our first session a couple of weeks back. In order that we can make best use of our time, if that's okay, we'll just go straight into

questions. One of the things that you mention, particularly in your information from north Wales, is the stop/start feature of projects, and that not necessarily then delivering best value for taxpayers. Do you want to just expand on that? That's in terms of capital investment, of course.

[135] **Mr Meller:** Yes. The situation is that, obviously, some schemes are in the programme and then they're suspended for a while because of changes in priorities. What tends to then happen is that, when they're picked up, say two or three years later, the situation has changed, particularly with regard to the environmental and ecological situation. Surveys that were carried out three years ago are no longer relevant, so they have to be done again. Quite often, the standards for assessment of schemes and the standards for design of schemes have moved on, and that work has to be reviewed and maybe redesign carried out, and reassessment carried out. It all adds to the cost and inefficiency is built in.

[136] **Darren Millar:** I mean, you've seen, no doubt, the report that the auditor general published a couple of years back, which made it quite clear that the average cost over the projects he looked at had increased by about a third in terms of the original anticipated capital investment, which means there's less money to go around for other projects to be delivered or the timescale for them all slips as a result. How would you resolve the stop-start process, because it is important, isn't it, to recheck and revalidate information that you're relying on if you're going to deliver a project from time to time, if there's been a delay for whatever reason?

[137] **Mr Meller:** Yes. You've got to reassess if there has been a delay. I think the point is to avoid the delay in the first place, to get that pipeline of work, and to get the certainty of delivery. That's where early contractor involvement schemes have been successful because, once the commitment is there and a contract is in place, there's a disincentive to cause any delay to that, because there are tangible costs. So, once you've got the contract in place, the scheme is taken through and is delivered. That's I think where one of the big advantages of ECI comes.

[138] **Darren Millar:** What's the extent of their use at the moment in Wales?

[139] **Mr Meller:** It's pretty widespread. Anything over about £10 million or £15 million tends to be ECI nowadays.

[140] **Mr Bennett:** Just to follow on from David, I think having longer-term budgets would help. Annual budgets, even three-year budgets for the major projects, don't give enough certainty to the supply chain so contractors and consultants who are looking to undertake this work can plan ahead, train their workforce and have the right skilled people in place for when these projects come out. Similarly, it's welcome to see the draft national transport plan being published for consultation. Again, from there, you get an idea of the projects that are coming up. Sometimes, though, the timescales aren't specific enough. 'Short, medium and long term'—to the industry, is that a year, or three, or is it five years? So, I think, if we could see longer-term budgets with a bit more political commitment in terms of the timing of schemes and the time periods, it would go a long way towards having an industry in Wales that can deliver effectively on projects.

[141] **Darren Millar:** Okay. I've got a few Members who want to come in here. I'm going to come to Julie Morgan first and then Jocelyn Davies.

[142] **Julie Morgan:** Thank you. Are you saying that an awful lot of the delays and increasing costs are avoidable?

[143] **Mr Bennett:** I would say 'yes' in terms of uncertainty around budgets going forward.

I think that, with any engineering project, the more time you have to plan and the more certainty on planning, you will be able to build in the most efficient design and construction programme.

[144] **Mr Jones:** Also, I think it's fair to say that you have to be wary of what you're comparing it with and at what stage projects are, because projects do evolve and do have different costs at different stages in their development. I think that what is fundamental, from my perspective, and I represent the contractors in this, is the certainty of a work programme—a long-term work programme—not with the information that we currently have available, but with far more information in terms of anticipated construction dates, stages in terms of whether it's in its planning stages, and, from a consulting perspective, likewise, what is it in? Is it in its design stage and so on? So, there's a lot more information that's required for industry to enable it to play its part, and the collaborative approach is then with Welsh Government, with local government, with consultants, with contractors. That is the way to ensure that we develop and progress.

[145] **Mr Meller:** Can I just add one point on that? I think, sometimes, the delays arise from the best of intentions. There's a desire, perhaps, to have several schemes on the go, so that, if one hits a problem, perhaps with statutory procedures, you can switch resources to another one. The problem then arises that, if one of them doesn't hit those sorts of problems, something else has to be dropped out because that scheme is going to go ahead. So, perhaps sometimes it's done with the best intentions of having some agility there—

[146] **Julie Morgan:** To have a few on the go?

[147] **Mr Meller:** Yes. Some clients like to have a scheme on the shelf, but it's not always that practical.

10:15

[148] **Julie Morgan:** No. Looking at the case studies that the auditor general did, there was a huge variety of reasons for delay and costs, and some of them, obviously, are bad weather and things like that, which is difficult to build in, I presume. But what about the statutory undertakings? That seems to be quite a big issue.

[149] **Mr Meller:** The public utilities have been a historic problem. I think it has improved considerably in the last five to 10 years. The secret, from my point of view, is good planning and bringing them in at the very earliest of stages in a scheme's development. The problems that I've seen, and I think the problems that were picked up in the auditor general's report, arise from not bringing in the utilities early enough and then finding that there are cost escalations and there are delays in delivery. Quite often, the apparatus that they need to bring in has very, very long lead times. For gas mains, you can be talking about a 12-month delivery lead time. There are issues with system shutdowns and things like that, even for the relatively small scale.

[150] **Julie Morgan:** Is there any improvement? Are they being brought in earlier?

[151] **Mr Meller:** Yes. My experience is they are being, but we need to keep tabs on it.

[152] **Mr Bennett:** The Welsh Government, certainly through the ECI process, has enabled early programming interventions, and impact on statutory undertakings is planned, and I think the collaboration at the project level is very good. I think the next stage for Welsh Government is to work with the utility authorities on a national basis to set up national agreements, so the smaller projects can benefit from the collaboration on bigger project as well.

[153] **Darren Millar:** Jocelyn Davies.

[154] **Jocelyn Davies:** I wanted to ask about cost overruns, because I notice in one of the papers you've sent in you mention this tactic of a low tender bid then leading to exaggerating costs changes later on. So, why would those examining the bids be taken in by an unrealistically low tender?

[155] **Mr Meller:** You always probe into the tenders and try, as best you can, to identify where there are any abnormally low factors, but it is very difficult. I think Russell said in his comment that there's a lack of a really good database of prices. So, to some extent, a lot of things are subjective in the assessment and, quite often, you get a tendering that looks there or thereabouts, but once the problems start to hit, post contract, things just escalate, because the tenderers have really cut things to the bone.

[156] **Mr Bennett:** Wales has got quite a unique trunk road network. It's very varied, as you heard earlier today. So, to take costs from one project and compare them with a project in another part of Wales isn't always that easy. There are a lot of historical data, but it's quite hard to mix and match. In terms of the assessment of tenders, it really depends on the economic conditions at the time. We've been through a difficult period, a recession, so quite often some tenderers may have reasons for bidding very low, just for the survival of their organisation, and for people assessing tenders, that can be quite difficult.

[157] The Welsh Government's form of procurement is actually quite good. It takes average price as a criterion, rather than lowest price, but also they take five tenderers, so there should be a good comparison between tenders. So, you should be able to spot an abnormally low tender, but I take from the auditor general's report that there were examples where, perhaps, tenders were accepted on very low terms. I think the industry at the moment is going through a resurgence, so, hopefully, we won't see those bad practices.

[158] **Mr Meller:** I think there's a good point there on the average price issue. The ones where cost escalation has occurred, I think, were probably all done on a lowest-price-gets-highest-financial-score basis. The average price method is more conducive to getting a realistic tender.

[159] **Jocelyn Davies:** Because there doesn't seem much point in going for the lowest price tender if you're going to hit problems later on that are going to cost you more money. It sounds like a scam, actually.

[160] **Mr Meller:** There is an appreciation, I think, across the board now that there's a distinct difference between the price that you're quoted and the cost that you end up paying. That subtlety has taken a long time to sink in, but I think it's there now.

[161] **Jocelyn Davies:** Well, I think maybe the public have seen through it for a long time.

[162] **Mr Jones:** I think we have to be cognisant of changes during contracts as well. Legislation has changed, or does change during the course of contracts sometimes. We're talking about holiday pay issues at this moment in time. We've had the umbrella company issues, the agency and so on and so forth. So these are inherent issues that we have to deal with from a contracting perspective, certainly, and there are cost increases. Aggregates increase. I know fuel at this moment in time has decreased by about 10 per cent in its overall cost, but it increased during the course of the recession by about 30 per cent, I think. So, there are issues, and the long—

[163] **Darren Millar:** Do you give refunds then, if the price of fuel goes down, as a

contractor, to the public purse?

[164] **Mr Jones:** There are mechanisms within contracts that tell you how and what can you do. So, we have to apply those particular mechanisms, the price increases, if the duration of the contract is beyond a certain period and so on. So, there are indices that can be used to factor those in. But I think that, in general, we have to be wary that the longer it takes certainly between the time of submission of the tender to the time the contract starts—and certainly in terms of ECI contracts, you're talking about considerable periods of time—you can have significant changes that impact on costs.

[165] **Jocelyn Davies:** Yes, and I suppose some of those are unforeseen and things could change over time, but I suppose what the public purse wants is a fair deal. There's no point in going for the lowest tender if you end up paying more and have a lower-quality product at the end. I suppose what we're hearing from you is that the quality should have a higher score than low tender cost.

[166] **Mr Meller:** Quality price assessment I think is very widespread now. Certainly, all the trunk road major projects are assessed on that basis. The move from giving maximum financial score to the lowest price to giving the maximum score to the average of the price is a further step in the right direction, I think, and perhaps emphasises the quality percentage more. I think most are done on about a 70 per cent quality/30 per cent price, tending towards perhaps 80/20.

[167] **Mr Bennett:** Across the UK, a lot of other procuring bodies have developed their contracts, and whilst the Welsh Government has a good form of procurement, I think they could learn from some of the bodies around things like how to avoid having abnormally low tenders, but also knowing when is the best time to have a contractor brought into the process. The Highways Agency in England have got this optimised contractor involvement, so they work out the best time for each member of the supply team to join. I think the Welsh Government has done really well on its form of procurement, but I think it could go just that one step further and learn from other bodies as well.

[168] **Jocelyn Davies:** Okay, thank you.

[169] **Darren Millar:** So, that's optimised contractor involvement. Can I just ask you this specific question? It seems to me that if someone puts in an abnormally low price, if that's the contracted price, that's what the public purse should pay.

[170] **Mr Bennett:** Absolutely, yes.

[171] **Darren Millar:** So, are we dealing here with poor contract management from the public purse as opposed to canny civil engineering companies trying to pull a swift one? Is it just the fact that we don't have the skills? This is a point that Leeds University have just raised with us, for example. Do we not have the right people with the right suite of skills in order to manage these contracts effectively?

[172] **Mr Bennett:** I think it's a fair point. I think the public sector generally has seen a loss of skills across both local authority and central Government. Yes, I think it's fair to say that they need to rely on technical advisers from the private sector now to give them that advice. I think the best safeguard in your contracts is to have the ability to rule out abnormally low tender, and Welsh Government contracts have that. But should you accept a low tender, it's investing in the management of that contract to make sure that there isn't bad practice and the public sector gets the deal it's signed up to with that contract.

[173] **Darren Millar:** Okay. Mike Hedges and then I'll come to Aled.

[174] **Mike Hedges:** I don't know much about Welsh Government highway contracts, but I know quite a lot about local government contracts. Tender low and claim is something they've done, certainly for at least 25 years. You talk about the average, but I've seen that only one had actually tendered to try and win the job and the other two or three have tendered to meet the requirement of having put a tender in, but have put a tender in that is abnormally high, because they don't want to win the job, but they want to stay on the select list of tenderers. So, the average may be quite high, but you've only had three replies and the other two have tendered to not do the job. Isn't that a problem?

[175] **Mr Bennett:** That is why the quality mark is quite important. If a tenderer doesn't put the effort into a tender, they should score quite low on the quality, so the quality will always come through, but yes, it is a risk and I think it's a risk for the industry and the public sector, going forward. The market is buoyant, there's a lot of work being procured in England, so suppliers have to make choices about where they want to effort their tendering. I think Wales is a great place to work, I've worked all of my career there, and I hope to continue. But, you know, particularly some of the bigger suppliers, they will make choices about what they'll tender for and that is a real risk of that happening.

[176] **Mike Hedges:** The other thing that local authorities have done is have the two-stage tender. You have to meet the quality mark before you can actually put a price in. Do you see a role for that?

[177] **Mr Bennett:** Absolutely. I think it would also save a lot of the tendering costs for the supply chain. The only drawback, I'd say, for the public sector is that, sometimes, that process can take longer than a single phase.

[178] **Mr Jones:** Can I add, from the contractors' perspective? What you've described is quite right. There is a hit rate that the contractor would aim for. It was certainly the case that it was a much higher percentage or lower hit rate during the recession, but you would expect the contractor tendering to put his resources into one in every three or every four, to make—. That's the way the industry works. So, it's not unusual for that to be—.

[179] **Darren Millar:** There's a lot of time and expense put in by contractors in working up their tender bids, isn't there? Is the system too overcomplicated at times to allow for the right bids at the right price to come through? I mean, is there a disincentive, sometimes, for perhaps the best placed contractor to actually apply because of the complexities around bidding?

[180] **Mr Jones:** It depends on the scale of the project, obviously. Significant costs would've been incurred in terms of the M4, for instance. I know that some of the major companies bidding for that would have to have sanction from their main boards to actually start the bidding process. So, there are real issues around there and I think that the smaller contractor then has to be very circumspect about how much he invests in the tendering process, and there is a real issue around complexity, at times, and whether the complexity relates to the complexity of the project as opposed to the complexity of the procurement process.

[181] **Mr Meller:** Can I just add to that? From my perspective of working in a local authority, but in an in-house consultancy, I see that bidding process from both sides; I bid for work and I review bids that come in. What that has led me to see is that a lot of clients within the local authorities don't appreciate just how much is involved in bidding, and the decisions that firms have to make as to whether to bid for something or not even bother. But, bringing it back to Welsh Government and the trunk roads, I think they do understand what is involved. I think that the processes used at the moment are very efficient for everybody concerned.

[182] **Darren Millar:** Okay. Aled Roberts.

[183] **Aled Roberts:** A gaf i jest herio'r argraff yma chi'n creu o sgiliau'n cael eu colli o'r sector gyhoeddus? Nid dyna'r dystiolaeth rydym ni wedi'i derbyn. Ers datganoli, mae yna fethiant wedi bod o ran rheoli'r arian sy'n cael ei wario ar y cynlluniau yma. Beth oedd y tystion blaenorol yn ei ddweud oedd nad oedd yna gofnod yn unman, o beth yr oedden nhw'n gallu'i weld, ynglŷn â'r sgiliau a oedd o fewn y sector gyhoeddus, yn arbennig o fewn yr asiantaethau yma—y ddwy asiantaeth sydd ar ôl—ac nad oedd yna unrhyw reolaeth o ran adnoddau dynol, i ryw raddau. Nid ydym yn gwybod beth yw'r sgiliau yna, felly, nid mater o ddirwasgiad yn creu'r sefyllfa yma ydy o, ond mater o ddiffyg cydnabyddiaeth a dealltwriaeth o'r sgiliau sy'n hanfodol os ydym i gael strwythur sy'n effeithiol ar gyfer Cymru.

10:30

[184] **Mr Jones:** Rwy'n credu bod hwnnw yn sylw teg i'w wneud, ond rwy'n credu hefyd fod yn rhaid ystyried bod yna 31,000 o bobl, yn ôl un adroddiad, wedi eu colli o'r diwydiant yn ystod y dirwasgiad yma, felly mae'n bownd bod yna beth canran o'r nifer yna yn niferoedd sydd wedi mynd allan o fyd llywodraeth leol, a hefyd mae'r sgiliau yna wedi bod ar goll i'r asiantaethau yn yr un modd. Nid oes modd troi y tap ymlaen dros nos i ail-greu ac ail-lenwi y gofod yna, ond rwy'n credu beth sydd yn bwysig yw ein bod ni yn defnyddio y rhaglen waith i sicrhau bod yna fuddsoddi teilwng yn mynd i'r adnoddau sydd yn angenrheidiol, a bod cwmnïau, p'un a ydyn nhw yn ymgynghorwyr neu yn gontractwyr neu ym myd llywodraeth leol ac yn rhan o'r asiantaeth hefyd, yn cael y cyfle yna i fuddsoddi yn iawn yn y sgiliau sydd yn angenrheidiol.

[185] **Aled Roberts:** Felly, ble mae'r dystiolaeth? Rwy'n gwybod bod yna adolygiad pellach rŵan, ond ar hyn o bryd mae gennym ni ddwy asiantaeth. Ble mae'r dystiolaeth os yw tystion blaenorol yn dweud nad oes gennym ni ddealltwriaeth o'r sgiliau sy'n angenrheidiol o fewn yr asiantaethau yma? Ble mae'r dystiolaeth ysgrifenedig i ni ei darganfod fel pwyllgor o'r gwaith sydd

Aled Roberts: Can I just challenge this impression that you create of skills being lost from the public sector? That's not the evidence that we've received. Since devolution, there has been a failure in terms of managing the funding that is spent on these schemes. What the previous witnesses said was that there was no record in any place, from what they could see, about the skills that were within the public sector, especially within these agencies—these two agencies that remain—and that there was no management in terms of human resources, to some extent. We don't know what the skills are, so it's not a matter of the recession creating this situation, but matter of a lack of acknowledgement and understanding of the skills that are needed if we are to have a structure that is effective for Wales.

Mr Jones: I think that that's a fair comment to make, but I also think that we need to bear in mind that 31,000 people, according to one report, have been lost to the industry during this recession, so inevitably a percentage of that figure will be people who have left the world of local government, and those skills will have also been lost to the agencies in the same way. There is no way of switching the tap on overnight to recreate and to refill those gaps, but I think that what is important is that we do use the work programme to ensure that there is appropriate investment into what is necessary, and that companies, whether they are consultants or contractors or in the world of local government and are part of the agency as well, have that opportunity to invest appropriately in the necessary skills.

Aled Roberts: So, where is the evidence? I know that there is a further review now, but at present we have two agencies. Where is the evidence if previous witnesses have said that we don't have an understanding of the skills that are required within these agencies? Where is the written evidence for us to look at as a committee of the work that has been done in relation to the skills that are required

wedi cael ei wneud ynglŷn â'r sgiliau sydd yn angenrheidiol o fewn yr asiantaethau yma? within these agencies?

[186] **Mr Meller:** What I see is that there is not a problem, I don't think, within the agencies themselves, but certainly within the supporting local authorities, we're seeing a loss of staff certainly from the consultancy side—from the white-collar side. In north Wales, we used to have six authorities; there's now eight supporting north and mid Wales. Of those, Anglesey has never had a consultancy of any significance, Wrexham got rid of its consultancy about three or four years ago, Flintshire is getting rid of it this month, and I believe Denbighshire is pulling out of doing trunk road work, so there's a loss of capacity and capability taking place as we watch there.

[187] **Aled Roberts:** What's the pattern, then, as far as the agency itself is concerned, say, in north Wales? What's the standing role of the agency? What's the staffing level within the agency itself, rather than secondments?

[188] **Mr Meller:** The agency is doing well at the moment in terms of staff retention, but you do have to wonder, with the growing workload that's coming from across the industry, whether that situation is going to continue or whether there's going to be problems of losing good staff.

[189] **Mr Bennett:** If I can just add, I don't believe it's a devolution issue; it's a national one. During the last 10 years, a lot less work has been undertaken, so there's a need for fewer people to work in the agents, authorities. But, also, it's very difficult to attract youngsters into the industry as well, particularly through that difficult time when it was easier to go into other industries. The issue with civil engineers is that we are ourselves really trying to get those youngsters back into the industry, particularly girls as well. So, having a mix of people coming into the industry, at a young level, to bridge that skills gap. As I say, it's not a public sector issue; it's a problem for the private sector as well. It's increasing work, particularly in the major projects area, because youngsters will be attracted to those major projects and the agents have a routine job to do, and that routine job is looking after that network. It isn't perhaps the most attractive job for people coming through.

[190] So, for me, it's about forward planning. So, knowing what the forward budgets are, particularly for routine and normal maintenance, so that they can plan ahead, have efficient contracts, but also attract the right people into the agents that see a long-term career.

[191] **Aled Roberts:** Ond mae'ch cynlluniau chi yn dibynnu yn hollol ar arian cyhoeddus. Roeddem yn clywed gan y tystion blaenorol, er enghraifft, fod cynlluniau ariannol Highways England yn dibynnu ar 58 y cant, rwy'n meddwl, o arian yn dod o'r sector preifat. A oes yna unrhyw drafodaethau ynghylch y materion yma yng Nghymru?

Aled Roberts: But your schemes depend entirely on public funding. We heard from the previous witnesses, for example, that the financial plans of Highways England depend on 58 per cent, I believe, of funding coming from the private sector. Has there been any discussion about these matters in Wales?

[192] **Mr Jones:** A gaf i ddechrau? Roeddech chi'n gofyn a oedd yna dystiolaeth ysgrifenedig ynglŷn â'r mater yma. Yn ddiddorol ddigon, mae yna adroddiad gan yr LGA yn Lloegr, '*National Construction Category Strategy for local government*', sydd yn amcanu at—fe wnaif i ddarllen y Saesneg:

Mr Jones: May I start? You asked whether there was written evidence about that issue. Interestingly enough, there is a report by the Local Government Association in England, '*National Construction Category Strategy for local government*', which aims to—I'll read it in English:

[193] ‘this Strategy is aimed at council officers (in construction, procurement and finance)’.

[194] Rwy'n credu bod hynny'n beth pwysig hefyd ar draws yr ystod o bobl sydd yn ymwneud mewn rhyw ffordd neu'i gilydd â'r diwydiant, felly, a hefyd a fyddai o fudd i aelodau lleol y cyngor. Mae'n sôn am, I think that's an important issue as well when you look at the whole range of the people who are involved in some way or another with the industry and would also be beneficial to local authority members. It talks about,

[195] ‘work smarter through improved client knowledge and understanding of construction procurement through collaboration’.

[196] Rwy'n credu mai dyna, yn fy marn i, lle rydym ni'n colli mymryn o hyn, oherwydd mae cyd-drafod efo swyddogion Llywodraeth Cymru erbyn hyn yn fwy anodd nag yr oedd o yn ystod y blynyddoedd diwethaf yma. Rwy'n credu bod yna le inni geisio gwella ar y ddarpariaeth honno. Mae yna bedair cornel i'r diwydiant: llywodraeth leol, Llywodraeth Cymru, yr ymgynghorwyr a hefyd y contractwyr. Rwy'n credu bod yna le inni wella ein cydlyn. I ddechrau'r cydlyn, mae angen trafod. Mae trafodaeth yn bwysig iawn, iawn mewn gosod sylfaen gref i Gymru. Mae angen wedyn y weledigaeth yma o beth yw'r gofynion ac i ba gyfeiriad rydym eisiau symud yn wirioneddol o ran strwythur ac isadeiledd Cymru gyfan. I think that, in my view, that's where we lose some of this, because talking with Welsh Government officials these days is more difficult than it was in previous years. I think that there is room for us to try to improve that provision. There are four corners to the industry: local government, the Welsh Government, the consultants and also the contractors. I think that there is room for us to improve the way that we draw things together. To start doing this, we need to have discussions. Discussion is very important in setting a foundation for Wales. Then we need this vision of what the requirements are and to what direction we want to go in terms of structure and infrastructure throughout Wales.

[197] Mae'n wir i ddweud bod Llywodraeth Cymru yn gyfrifol am 1,700 km o ffyrdd yng Nghymru, ond mae yna 34,000 km i gyd. Mae'n amlwg bod y 32,500 km hynny o dan ofal llywodraeth leol. Rwy'n credu bod angen inni weld hyn fel uned gyfan a gweithredu ar y sail hynny. It's true to say that the Welsh Government is responsible for 1,700 km of roads in Wales, but there are 34,000 km in total. It's obvious that 32,500 km are local government's responsibility. We need to see this as a whole entity and to act on that basis.

[198] **Aled Roberts:** O ran eich dealltwriaeth chi, os ydych chi'n dweud, Mr Meller, bod yr adrannau yma o fewn llywodraeth leol yn diflannu—bod un Wrecsam wedi mynd eisoes, bod Flint yn mynd mis nesaf a bod sir Ddinbych rwan yn edrych ar y sefyllfa—a ydy'r adolygiad o'r strwythur cenedlaethol yn cymryd i ystyriaeth y ffaith, hwyrach, fod adrannau y mae'r asiantaeth wedi bod yn ddibynnol arny'n nhw yn y gorffennol wedi diflannu, neu a ydy llywodraeth leol yn gweithredu'n hollol annibynnol ar y strwythur cenedlaethol yma sydd yn gweithredu o ran ein cefnffyrdd ni? **Aled Roberts:** In terms of your understanding, if you're saying, Mr Meller, that these departments within local government are disappearing—that the one in Wrexham has already gone, that Flint is going next month and Denbighshire is now looking at the situation—is the review of the national structure taking into account the fact, perhaps, that the departments that the agency has been dependent on in the past have now disappeared, or is local government operating entirely independently of the national structure that operates in terms of our trunk roads?

[199] **Mr Meller:** What's tending to happen is that consultancies within the local authorities may be disappearing and losing their capability and capacity, but there are framework arrangements in place with private sector consultants. So, what is tending to happen is that there is more work probably going to be going through the private sector consultancies.

[200] But, I think you made an important point on the five-year funding period. That is what the key driver is behind the move in England to Highways England. So, yes, it is moving to being a Government-owned company, but the key driver behind that is a shift to a longer term funding period, which is mirroring what we've seen in the rail sector. Network Rail has its control periods, I think they're called, and the water industry has had asset management periods—AMPs—I think they're moving from AMP 5 to AMP 6 this year, so they've been going on for a good long time. That brings the certainty that will bring yields, very significant efficiencies, in terms of delivering projects. I've described some of the things that happen in my paper, where the funding doesn't come through until about July, there's then a rush to get the design sorted so that work can start in the autumn, and then you're into a period where you've got short working days, you've got cold weather, you've got disruption due to the weather and it's just adding to the cost of delivering that, and everything is squeezed into a shorter period.

[201] **Darren Millar:** Sandy, you wanted to come on this.

[202] **Sandy Mewies:** It is connected, up to a point. You've been talking in your papers about long-term funding, but I think all of you have mentioned the fact about that there is not a clear pipeline of work coming through. It seems that, 10 years ago, you might have had this road scheme as a priority; eight years on, it's disappeared—it's gone off and it's come back. I wondered if you could hazard any explanation for that. I don't know—I suppose, in some cases, it may well be that a problem on a road may have been alleviated by another scheme somewhere else. I presume that can happen—I don't know, and I would hope that that could be monitored. Or is it just because different Governments do different things and local authorities have councillors with their pet projects and then they go and then come back? I don't know. You've obviously identified that, all of you, as being something that's very important for the industry itself to be thinking, 'We can do that, therefore, we will go to the trouble of looking to see if we want to put a bid in', and do some planning and expend quite a lot of money on that before you even reach the first round. I just wondered what you think the reasons are for it, and how do you iron it out?

[203] **Mr Bennett:** I think, with any highway scheme that's identified, there's usually a problem that has been longstanding. So, quite often, it's problems coming to solutions or options for solutions, and, often, that problem—. It could be road safety, it could be economic regeneration, or it could be congestion. So, as these schemes develop into a package of schemes like you see in the national transport plan, there's competing priorities and, with the Welsh Transport Planning and Appraisal Guidance appraisal, you can look at five different areas. So, there's environmental—

[204] **Sandy Mewies:** But that changes. You said that it changes.

[205] **Mr Bennett:** But that changes, and some of that—you know, it's within Government's gift to say, 'We want road safety to be a priority', so, therefore, schemes with a road-safety solution may go up the agenda. A subsequent Government may say, 'Actually, economic development's our priority now.' So, there is that little bit of move, and that creates uncertainty as to which schemes will come forward. In terms of pipelines of work, I think, as an industry, we know the schemes that are coming through—they tend to be quite well identified—but without funding certainty alongside that—. It's the timing that creates the uncertainty.

- [206] **Sandy Mewies:** Right. That's the link.
- [207] **Darren Millar:** Of course, it is down to priorities at the end of the day, and the time.
- [208] **Mr Bennett:** Absolutely.
- [209] **Sandy Mewies:** And money.
- [210] **Darren Millar:** And the money. Absolutely.
- [211] **Sandy Mewies:** But there is a definite link. That's the—
- [212] **Darren Millar:** Yes, absolutely. You wanted to come in, did you, Rhodri?
- [213] **Mr Jones:** Just to say, I mean obviously there's the Armitt commission, which looked at creating a commission that would take—. Once the political determination had been in place, then it would take the delivery out of that political scenario, with, obviously, a subsequent reporting mechanism, and so on, to keep things on track. But, certainly, it's something that may be worth while considering at an all-Wales level.
- [214] **Darren Millar:** Okay, it's a fair point. You wanted to come in here.
- [215] **Mr Meller:** Yes. There's just one thing that I would say: I think, historically, there has perhaps been a case of over-ambition in the programme, and the schemes have tended to be put in there perhaps because of particular issues being raised at certain locations on the network, where, really, looking at it objectively, there's probably not been the funding there to develop that scheme. Just as an instance, I noticed one that's in annex E of the national transport plan 2010, which is A470 Pentrefelin to Bodnant West Lodge. That's in as something that's going to be investigated. Well, I was project manager on that scheme in 1993. [*Laughter.*]
- [216] **Darren Millar:** It's slipped slightly, has it?
- [217] **Mr Meller:** And we were dealing with drawings that had been produced by Denbighshire County Council, prior to reorganisation, in 1974. It's still something to be reviewed, and, in the 40 years, I suspect we've spent enough money to build it.
- [218] **Darren Millar:** Okay. Byron.
- [219] **Byron Davies:** I think my points have been more or less covered, actually, but I will just mention this because you've made a point of it, Mr Meller, in your submission. You talk about the transparency of a prioritisation of projects and you talked about projects having appeared, disappeared and disappeared and re-emerged for reasons that are not entirely clear. I just wondered whether you could give us an example of that.
- [220] **Mr Meller:** That's probably one that I've just given.
- [221] **Byron Davies:** As I say, you've answered the question, I think, more or less, yes.
- [222] **Darren Millar:** So, in terms of the current arrangements, I think the general assessment is that they've improved, but there's still more work that perhaps can be done, particularly in terms of picking up some of the good practice elsewhere in the UK, including in Scotland and in Wales, on optimising the early intervention of contractors: bringing them in early in the planning arrangements, giving some more certainty in terms of the pipeline of

schemes that are coming forward, and some security on the funding, so that everybody can just crack on with the job rather than having these delays or these pauses in the cycle from time to time, which then escalates costs. Is that a fair summary of what you've been telling us?

10:45

[223] **Mr Jones:** Yes.

[224] **Darren Millar:** Is there anything else that you wanted to add before we close the evidence session?

[225] **Mr Jones:** We've been concentrating, obviously, on trunk road work. I think it needs to be set aside, or side by side, with all the other work that is ongoing, and, when you start looking at the rail investment, the potential nuclear build, and so on and so forth, I think, in terms of resource, we need to plan properly so that we don't ultimately lose the Welsh pound from the Welsh economy. I think that that's a crucial aspect from a contracting perspective. We are being asked to, obviously, support the local economy, support and train local people and so on, and I think, somewhere along the line, there needs to be an overview of what the potential is where those particular things can perhaps go astray and we wouldn't be able to retain as much of the Welsh pound in the Welsh economy.

[226] **Darren Millar:** Okay. David, did you want to come in?

[227] **Mr Meller:** Just to pick up on that point, I've mentioned the medium scheme programme, which, in theory, is there, but is not really progressing at present, and just to emphasise that that is an opportunity to bring on those smaller and medium-sized firms to give them the experience of, perhaps, the ECI route through procurement and construction, and just to say my concern is that, with the growing workload we're going to see, even the schemes that are being delivered by the consultants that have an office—and the consultants and contractors that have an office—in Wales, there's a danger that a lot of the design work in particular will be outsourced to offices in England or Scotland or wherever. I mean, some consultants have bases in India, where they can get the work done more cheaply. It's not doing much for the Welsh pound.

[228] **Mr Bennett:** There was brief mention of private sector funding for this, and that's a debate all of its own, but I think the Welsh Government should give consideration to that funding, particularly with borrowing powers, but also, I think, the innovative contracts that come with that, the longer-term contracts of 20 to 25 years plus, where you can really invest in your assets for the future, so you don't get any short-term fixes, particularly on the maintenance.

[229] **Darren Millar:** Can you give us some good examples?

[230] **Mr Bennett:** Yes. I think in Birmingham and in Southampton they've got very long-term contracts for street lighting, and they've been able to renew their whole street-lighting network with upfront investment from the private sector, and that then is maintained by that private sector company.

[231] **Darren Millar:** So it's not just the pavement, as we would call it.

[232] **Mr Bennett:** No, no. Any element of the asset can be packaged into a contract, and these innovative contracts have been proved to improve the environment for people living in it, and I think that it's that long-term view that sometimes short-term public sector contracts don't give you.

[233] **Darren Millar:** I think it would be very helpful if you could send the committee a note just about some of those other investments, perhaps, that might not be the highway traditionally, if you like, but those other parts of the infrastructure, the trunk road infrastructure, that it could be useful to seek some private investment in. Okay, thank you very much indeed for your evidence Rhodri-Gwynn Jones, David Meller and Russell Bennett. You'll receive a copy of the transcript of today's proceedings to check it for factual accuracy. If there are any problems, then, obviously, get in touch with the Clerk. We look forward to receiving a further note on the private investment that may be potentially available to us. Thank you very much indeed.

10:45

**Cynnig o dan Reol Sefydlog 17.42 i Benderfynu Gwahardd y Cyhoedd o'r
Cyfarfod**

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

Cynnig:

Motion:

bod y pwyllgor yn penderfynu gwahardd y cyhoedd o weddill y cyfarfod yn unol â Rheol Sefydlog 17.42(vi).

that the committee resolves to exclude the public from the remainder of the meeting in accordance with Standing Order 17.42(vi).

Cynigiwyd y cynnig.

Motion moved.

[234] **Darren Millar:** I'll now move, under Standing Order 17.42, to move the remainder of our meeting into private session. Are Members content? I can see that Members are content, so we'll go into private session.

Derbyniwyd y cynnig.

Motion agreed.

Daeth rhan gyhoeddus y cyfarfod i ben am 10:49.

The public part of the meeting ended at 10:49.