HOUSE OF COMMONS

Transport Committee

Oral evidence: Transport and the National Infrastructure Commission, HC 608

Wednesday 15 January 2025

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Watch the meeting

Members present: Ruth Cadbury (Chair); Dr Scott Arthur; Catherine Atkinson; Olly Glover; Alex Mayer; Baggy Shanker; Laurence Turner.

Questions 1–68

Witnesses

I: Sir John Armitt, Chair, National Infrastructure Commission; Julia Prescot, Deputy Chair, National Infrastructure Commission; and Hannah Brown, Director of Policy, National Infrastructure Commission.

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Examination of witnesses

Witnesses: Sir John Armitt, Julia Prescot and Hannah Brown.

Q1 **Chair:** Welcome to this morning's session of the Transport Committee. It is a one-off session to question the National Infrastructure Commission on its work to provide the Government with expert advice on major long-term infrastructure challenges. Could I ask our witnesses to introduce themselves?

Sir John Armitt: I am John Armitt, chairman of the National Infrastructure Commission.

Q2 **Chair:** It is good to see you back.

Julia Prescot: I am Julia Prescot, deputy chair, and, if I might add this, I come from the private sector and have been very involved in transport investment across Europe, the US and Africa.

Hannah Brown: I am Hannah Brown, director of policy at the National Infrastructure Commission.

Q3 **Chair:** Thank you, and welcome to the Committee today. The purpose of the session is to give the National Infrastructure Commission an opportunity to explain some of your reports, particularly on major transport infrastructure challenges that the Government are dealing with and that we are very keen to have a look at.

I will start with your second national infrastructure assessment. You mention how the UK made transformational changes to the road network in the 1960s and 1970s. You say it can do so again. What do you think should be the next transformational change from the transport infrastructure perspective?

Sir John Armitt: There are two fundamental points that we make in our report. One is the need for an integrated approach to transport. You tend to have two silos in the Department for Transport, one devoted to rail and one devoted to road. There are others for air, ports and so on, but there is a much stronger natural divide in a way, because of interest, between the rail and the road. We argue that that needs to be looked at in a much more integrated and strategic approach by the Department.

The second, for which we have been calling for a long time, is more devolution of financial resources to combined authorities, coming forward of course with the latest changes to the county councils and their increased powers under Labour's proposals. It is devolution to enable people at a local level to make critical decisions about local requirements in cities, which is absolutely critical to increase the growth in cities. The current approach of having to bid for money means that a lot of resources are spent on those bids. If you don't win, that is money you could have been spending on doing things, which you have paid to consultants to put bids together for you. I argue that it should be more like the regulated sector, where you get at least five-year settlements so that you know what you have for the next five years to build the resources and the infrastructure that you need in your particular city and its environs.

Q4 **Chair:** You make a number of recommendations about cities and city regions and your recommendations also cover major infrastructure projects. We will come on to HS2 and others. As a generality, is there a challenge in terms of long-term investment?

Sir John Armitt: There are a number of strategic challenges in terms of strategic thinking. The reality is that the vast majority of journeys in this country are made by road. The continued decarbonisation of road transport of course removes one of the traditional arguments that you should use a lot more rail because rail is less polluting than road. That will not be the case in the future.

As I say, the bulk of the population is totally reliant on road. The vast majority of journeys are made by car. I don't think that people are going to leap out of their cars on to the trains, quite frankly, particularly if you are going on holiday with the family and you have all the luggage. I do not see any great, significant growth in rail, but there will be continued pressure on the roads. Therefore, to ensure that we maintain a proper level of support, and financial support, improving our road network is not a matter of building lots of new motorways. We did a study which showed where all the key pinch points are across the country. There are a lot of them. They will not all be affordable, but the Department needs to make some assessment of the economic benefits of each of those and decide which can be afforded in a reasonable period.

Q5 **Chair:** You have addressed increasing rail capacity where our rail network is severely constrained as well.

Sir John Armitt: It is severely constrained in two particular areas, in the midlands and the north. They are both east-west, basically. You have the east-west capacity, particularly from Liverpool across to Hull. Then you have the midlands capacity, which would have been improved with the eastern leg of HS2. That went by the board some time ago. In fact, to be fair, we said to Government, "If you've got limited resources, then focus on the western leg of HS2 and focus on the east-west connectivity, particularly in the north. In the meantime, make what improvements you can, particularly on electrification, on the eastern side of the country."

We now have a further reduction in the scale of HS2. That will not solve the Birmingham to Manchester capacity constraint. As you know, a number of discussions have been going on, led by Andy Burnham and Andy Street, and now his successor, in looking at what can be done. There are some proposals on the table as to how you could improve the capacity without necessarily doing the original HS2 full scope between Birmingham and Manchester.

Q6 **Catherine Atkinson:** The first national infrastructure assessment was in

2018. I believe that the final review of it was in 2023, which found that the last Government’s progress on its recommendations had been too slow, and they needed a long-term infrastructure policy. This Government are putting in an infrastructure plan. What other learnings would you take from the difficulties the last Government had in actually fulfilling the infrastructure that we need for this country?

Sir John Armitt: I have said on a number of occasions that my principal concern has been that what we saw with the first assessment, and what we have seen with many reports on individual aspects which we have done for the Government since then, is that 70% to 80% of all our recommendations are accepted in principle, but that does not create delivery.

The difficult part—I accept it is difficult—is developing detailed policy. Policy can never be developed by one Department. You finish up having to consult four other Departments in order to get your policy brought forward. The difficulty the Government have faced, and I suspect, frankly, any Government would face, is going from strategic thinking to the detailed policy that will enable delivery. With the detailed policy, as always, the devil is in the detail.

The decarbonisation of heat, particularly in homes, is an incredibly problematic issue. You have a whole series of different stakeholders, from the private sector to individuals. You have freehold, leasehold and standards that you may or may not wish to increase. You have to make sure that you have a fair distribution of cost so that people are not being disadvantaged by what almost inevitably is going to be some increase in cost. How do you persuade somebody to buy a heat pump at £13,000 or £15,000 compared with just replacing their gas boiler at £3,000? That requires a pretty dramatic intervention by Government saying, “There will be no gas boilers for sale.” That is pretty difficult to develop as a policy and to get accepted in a political sense.

We have seen the same thing with cars. Governments bounce around as to what their target date is for not allowing the sale of petrol and diesel cars. You have to react to the political reality of these things. Frankly, the biggest challenge for Government is being more open, honest and frank with the public about what the choices and consequences are. Very often, to take the challenge of sewage in rivers, if you want a perfectly clean river system, it is going to be expensive. It is going to be very difficult. It implies agricultural policy change. It is not just about the water industry.

There is a whole series of challenges there that have to be addressed, some of which will not be popular. If the increase in the bill for your water and sewerage is too much, people will rebel. We saw the German Government make a complete reversal on heat pumps when they tried to be too quick in implementing the change against opposition from the German public. They did a reverse turn in about 12 months.

Q7 **Olly Glover:** In your second national assessment of infrastructure report, published in 2023, you made a number of recommendations in the sphere of transport. How well do you think the new Government are doing so far in implementing them? I appreciate that you covered some of that in your introduction.

Sir John Armitt: Does anybody else want to have a go? I have hogged the floor so far.

Julia Prescot: One of the real focuses at the moment is development of the 10-year infrastructure strategy. The recommendations that we made in NAI2, both across the road and rail side, will be folded into that strategy. There is certainly a question about what is actually happening, but I think when the strategy is revealed—we do not have a definite date for that at the moment—it will be a real step forward in terms of our recommendations.

Hannah Brown: We have also seen some progress in devolution of transport funding and an increased focus on the CRST settlements with some of the major city regions. That is certainly a step in the right direction. As Julia said, we expect to see more when the infrastructure strategy comes out later, at some point.

Q8 **Olly Glover:** Thinking about Governments that have gone by, in terms of the past work of the commission, and thinking about strategic themes more widely, if you were to choose a couple of areas that you think we, as a Select Committee, should give the new Government a hard time on—to really probe on—given the wisdom of your experience, what might those areas be?

Julia Prescot: One area that we have always focused on is devolution and allowing cities and city areas to have control over their own budgets. As Hannah said, we have the CRSTS, but at the moment we just have that for Manchester and Birmingham. It would be good to see more definitive packages going to other cities at the next level. We have always believed that locally is the best way of deciding on your strategy, the needs of your population and how you are going to support them. Continuing to look at the whole area of cities and how their transport networks are being developed is going to be very important.

Q9 **Chair:** Thank you very much. We have touched on HS2, and the Chancellor has spoken about connectivity across the north instead of connecting the north to other regions. Do you think that is a sensible approach? If not, why not?

Sir John Armitt: We did a specific report for the Government on HS2 and the rail plan. We gave them options. We gave them a menu. We said, "Depending on what you decide you can afford, these are the sorts of things that you could, or could not, do." Basically, we said, "If you want to take a 25% increase on your budget"—which was about £86 billion—"you could increase that to about £100 billion." If you increased it to about £100 billion, then the best way to spend it would be to allocate some significant sums to east-west, which is where the pain is really felt.

It takes you considerably longer to get from Manchester to Leeds than from London to Brighton. We said, "Look, you really need to make improvements in that way to connect these cities." Connectivity between cities that are relatively adjacent to one another is going to help growth in the region. We then said, "We suggest you delay on going forward with the eastern link of HS2 in order to get a better handle on the scope of works and what the potential scope and costs would be. As you gradually develop those and you can see a way forward, then gradually bring things into play. In the meantime, there are improvements that you could make on the existing network, such as more electrification, particularly on the midlands main line."

We set out a series of options. The Government then chose something just under £100 billion and said they would not go ahead for the time being with the eastern leg. What remains to be done is for the Department, the Government, to now produce a real, integrated rail plan that the supply side can see is something that will happen at this sort of rate over these years—it is not all going to happen at once; if it did, there would be a problem—and to set out a proper, long-term plan for how the money is to be spent. That is what is currently missing.

Julia Prescot: One of the points we also made was the necessity for an integrated transport plan. As Sir John said earlier, the split between road and rail is illusory, in a way. It is decisions that we make about journeys of one sort or another. The integrated transport plan should look at the needs of road and rail together.

Q10 **Chair:** Which we believe is coming.

Julia Prescot: Which we believe is coming.

Q11 **Laurence Turner:** I want to ask a follow-up question about connectivity within the midlands. We started to get on to this topic in answer to the previous question. The infrastructure progress review said that there was a particular lack of rail journeys within the midlands, east to west. Following the cancellation of the eastern leg, what do you think the most effective infrastructure response should be? Should it be the midlands rail hub? Should it be other projects? Do you think there needs to be more political attention to connectivity within the midlands as well as within the north?

Sir John Armitt: The midlands rail hub has been on the agenda for a long time. It is one that has better definition around it, so we have always supported taking forward the midlands rail hub and the opportunities that creates. Birmingham-Nottingham was going to be a very significant time saving on the journey with that particular link. I still think that would be a sensible one to take forward, as and when it is decided that the funds are available. It is a relatively cheaper part because of the nature of the landscape, and so on. Hannah, do you have any particular other points about the midlands?

Hannah Brown: One of the other points to bring out, in addition to what we said on strategic transport, is that we have called out Birmingham as a key priority city, where we see increasing capacity constraints under a number of different scenarios in urban transport. We highlighted it as a priority city for investment in mass transit to support growth in Birmingham and its wider city region. We feel that that would also be a big priority for the area.

Q12 **Chair:** There is one last question on HS2. By bringing projects such as HS2 in-house to the DFT, do you think that will mitigate some of the risks on that project?

Sir John Armitt: I have to confess that I have never been convinced by the governance structure of HS2. Maybe I am influenced too much by my own experience, but having been chair of the Olympic Delivery Authority—where we were a separate, stand-alone body with our own ability to hire and fire, and get on and be given significant delegated powers—I think the retention of HS2 Ltd within the Department for Transport can lead, frankly, to too much oversight.

Transport is an intensely political area. I understand it being very difficult for Ministers to stand back when they are the ones who, at the end of the day, have to stand up in this place and defend what is happening. The closer they can get to the detail, the better. On the other hand, that is bound to lead to delays. I fear it is bound to lead at times to too much desire to meet every concern, objection and requirement for extra facilities in a scheme. I think there are 12,000 local agreements that HS2 had to make after the hybrid Bill. You would think, "Oh, we've got the hybrid Bill so we can now get on with it." I am sorry, guys, no, you can't. You now have endless local negotiations to take place. There is then, of course, the risk that in order just to make progress you say okay, and every time you say okay, unfortunately, that is potentially more delay, and certainly extra cost.

It is not just about it being in-house. We are then starting to move into the whole debate around the planning regime and the nature of that. We have done work on that as well, which has shown that these major projects are taking longer and longer to get through the whole consenting process, not the initial consenting process but the following consenting process at a local level. There is a natural inevitability that when government—by that I mean the whole machinery of government—is doing something, there is a desire to please people rather than a more private sector approach, which is, "Sorry, I don't have any more money. That is all we can afford." I think Government are not very good at saying that.

Q13 **Chair:** When we were looking at the cost overruns at the Public Accounts Committee before Christmas, many of those decisions were made before the decision to bring the oversight fully in-house. Am I right that you are suggesting that the governance should go the other way and be more detached from Government?

Sir John Armitt: There is a whole separate debate about what are the causes of large projects overrunning. We have been very clear that part of the problem is that there is not sufficient attention paid at the front end. In the case of rail, arguably, if you do that, it is expensive. Having been in charge of Network Rail I know the desire of the railway industry to provide a turn-back in every possible facility for every possible eventuality—"This is our chance, guys, to design something which will be great for the next 100 years and meet all eventualities." We can have an argument all day, no doubt, about the speed which HS2 was designed for, faster than any other high-speed line in Europe, and whether that was really the right thing for the UK on a relatively short piece of railway. Inevitably, that dictates a straighter alignment, which then takes you through AONBs, and is going to increase the cost of mitigation of dealing with the concerns, quite naturally, of places like the Chilterns.

There was a desire to get going. I would argue that we moved too quickly in understanding exactly what the right route would be. I believe that route was chosen largely internally within the Department. I was involved in High Speed 1. On High Speed 1 there were many routes put out publicly at the beginning. It caused a lot of villages across the whole of Kent to protest, but at least there was then a couple of years for debate, by the end of which people were saying, "Please, Government, will you make up your mind about which route you're going to choose?" If you do that internally and then produce a route that is dropped out on to the public, it is not surprising that you then get a rather strong pushback.

There is a lot to be learnt. We have been trying to learn it for the last 50 years. One of our concerns is that we seem to continue to make the same mistakes. I was talking about this last night elsewhere. We know what the best way is to manage and develop large projects, but, unfortunately, we do not always do it. It is not surprising that projects overrun on cost and go late.

Q14 **Chair:** Much of the cost overrun was through the strategic changes that you mentioned, but some is around cost management as well.

Sir John Armitt: You get into the whole contracting philosophy. You can put four people in a room and get four different views about what the ideal contracting philosophy is. Julia and I even argue about it at times.

Q15 **Chair:** What I am trying to get at is this. Is there a difference in the way that costs are managed in the two alternatives of being in-house in the DFT or the model that you suggested?

Julia Prescot: Where I have seen major, mega, projects being delivered successfully, there has been clear accountability, clear direction and a very defined delivery path. Ultimately, it is a question as to the desire and the efforts of the DFT to come up with those types of solutions. There is a danger that if that clear direction and push is not followed, again there are going to be problems. It is often a very powerful and empowered chief executive who can get many of these issues through as an individual. If that is the solution, whoever takes it on needs to take on that solution.

Q16 **Olly Glover:** Turning more to urban and suburban transport, although I suspect we will come back to HS2 at some point, your second national infrastructure assessment identified four key city regions where you feel initial investment should be prioritised. We have discussed some of those already. How do you think the funding for those areas could be put to best use to achieve transport objectives?

Sir John Armitt: I would not presume to actually decide on behalf of the Mayors and the local government of those cities what is best for their city. That is something they have to agree with their stakeholders and get the support of their stakeholders, which is fundamentally the population and the businesses in those cities.

There are choices that you are faced with. There is always a desire to have a tram system, but trams are very expensive and the infrastructure for them is expensive. You have debates about, "Do we really need a tram, or could we actually do with dedicated bus lanes?" The thing about buses is that they are immensely flexible. You can put services on and off at the drop of a hat. You cannot do that with rail systems. It is for them to decide their balance between walking and cycling or allocation of space.

When we went to Bristol and talked to members of the public in Bristol, you won't be surprised to hear that what people fundamentally regard as right is what they regard as fairness. They want a fair allocation of space between the different modes of travel in their city. They do not want it to be all one thing or the other. That is something we hear time and again when we talk to the electorate. The concept of fairness is very important in terms of how big things are paid for or how space is allocated and what systems you use.

Q17 **Olly Glover:** It is very commendable to see that you are following through in your answer in terms of the importance of devolving powers. To probe a little bit on some of the things you said, yes, accepted, trams are more expensive than buses. If we look at comparable European cities, tram systems tend to dominate a lot more. Every large French city has one, as an example. They are very common in Germany as well. In many of those countries, cycling rates are also higher. Do you think perhaps there is a risk that we write off those solutions too readily in the UK and think they are somehow alien to our culture?

Sir John Armitt: I think it is an affordability issue. I don't think you can build what you can't afford. Therefore, our analysis was that there were four larger cities where it made sense to do this. There is a fifth, which is going along in Leeds. They have been pursuing this objective for many years. At the end of the day that is a decision for Leeds.

With my personal background at National Express, and having seen the flexibility of coach and bus—by far the cheapest form of transport—I think we should never ignore that opportunity. As we move towards autonomy, you can imagine guided busways, for example, essentially a tram, but the infrastructure is a lot cheaper and the vehicles are a lot cheaper. The challenge with any rail system is the weight and the safety expectations.

If you have a rail accident, it is on the headlines and it stays on the headlines. If you have a coach accident, rightly or wrongly it does not last on the headlines for very long. There is an acceptance, I think, that because we all drive—

Chair: We don't.

Sir John Armitt: —we are all prepared to forgive somebody who has made a mistake driving. We've been there, and we know how easy it is to lose attention, or whatever it might be. When you put your life in the hands of a third party, whether it is an airline or a railway system, the expectation is rather greater.

Q18 **Chair:** But your own report showed the level of population living within 30 minutes of the city centre by public transport in comparable cities. Surely, the comparator cities are the cities that Olly mentioned that have a significant number of rapid transit options. I get your point about the cost of infrastructure being higher, but over time the unit cost per passenger, particularly because of the higher capacity, is far more efficient with trams than a traditional bus. Would I be right?

Sir John Armitt: Yes, over time. You are right that in many European cities there is the tradition of the tram. Of course, we used to have trolley buses and all sorts of things. Those all went by the way, whereas in Europe they stuck to their tram systems.

Q19 **Olly Glover:** And in some cases brought in new, modern ones as well.

Sir John Armitt: Exactly. Inevitably, to take the Edinburgh tram, we tend to be scarred by our experience of what can go wrong with the cost. To be fair, it is not the cost of the tram. It tends to be the cost of the infrastructure. As soon as you start digging up streets, you don't know what you are going to find, quite frankly. That is when difficulties set in.

I come back to my point. At the end of the day, these things are going to have to be paid for one way or another by the public and they need to understand the balance: "Am I going to pay in fares?" "What is it going to do to taxation?" Might it involve local taxation, if you are talking about the ability of cities to raise money? That is an important one, which we have touched on at times. I would argue that this is something where the right leadership and the right engagement with the public should enable you to come to the right solution.

Julia Prescot: We certainly advised in NIA2 that cities should be making their own contribution alongside central Government contributions in order to make sure that there was engagement, and also a managing down of the use of private vehicles as public transport came in. If you just take all the cars off the road and there is no way of getting around, as a result you are obviously not going to make the public very happy. You need to have that relationship between the city contribution and central Government contribution.

Q20 **Olly Glover:** You make a really good point there. There are two things that are interesting in what you said. First, all the evidence suggests it is absolutely right to say that you have to do significantly more carrot before you do stick in order to get that modal shift. Secondly, a lot of the European cities that we are talking about have things like tourist taxes. It is very common. It is 0.2 of a euro per night, which all adds up over time.

Julia Prescot: I think New York has 22 different taxes that it can raise, while we have two in an average city.

Q21 **Dr Arthur:** On that point, Edinburgh should agree its tourist tax on Friday, which I am looking forward to. It is obviously ambitious to invest in infrastructure. How do we attract the funding to make that happen? What are the barriers?

Julia Prescot: If I go and talk to all the investors around, they come back and say, "We need to have investable schemes." By that they mean, if you are going to put private funding in, it will for example often be in partnership with public funding, to have forms of partnerships that allow risk to be spread between the parties, and it is going to have a robust revenue that will enable those investors to get their return.

The final thing is that the schemes have to be generally economic. When we look at funding, we have funding from the public side; we were talking about £28 billion a year as the proposed figure for transport. We then looked at what the actual budgets are going to be. It is very uncertain on the transport budget we have at the moment with HS2 because it is still rather unclear. That is not going to cover all the schemes. We are going to have to go back and look at where we can integrate a degree of mixture of private finance, land value capture and TIF-type structures all together in order to make the investable schemes that I was talking about at the outset.

Q22 **Dr Arthur:** It is interesting to hear you mention land value capture. Earlier, we were talking about models where the Department still has oversight of the projects. If you have a project where the public sector partner wants lots of Government co-funding, but they probably do not want a lot of Government involvement in the scheme, is it a stress to get the balance right?

Julia Prescot: What we have seen are very interesting developments, particularly in Wales, with the mutual investment model. Meridiam, the funder I was formerly engaged with, is an investor there, so I have to state that. What you have there is an ownership model where the Government, on the A465 road, have a 15% ownership in the delivering company, the SPV. It is completely transparent in terms of engagement. The Government are there. There is support.

It is an interesting way to look at the future, where people have been nervous that there have been too many black boxes and it has not been clear what has been going on. We need to see more real partnership of that type. I don't think the private sector necessarily wants to say to the public sector "Keep out" the whole time.

Dr Arthur: That's right.

Julia Prescot: They actually want to engage with them in a very clear, transparent and informative way.

Q23 **Chair:** Are you seeing those other forms of investment being more readily accepted, particularly by the Treasury, which is often cited as the block on new and different forms of investment?

Julia Prescot: In relation to that particular mutual investment model, it has obviously been accepted in Wales. We are in the early days at the moment of looking at its applicability across England. In fact, it was created out of the not for profit scheme, which was used in Scotland, for example, for the delivery of the M74. There has been continuity of the scheme. We are waiting to see what happens in England in relation to that.

Q24 **Chair:** With so many transport schemes, we are so wedded to what feel like annual spending reviews and five-year plans. Five years is not enough for major infrastructure. It sounds like more options are coming forward that are likely to be adopted. Would that be fair to say?

Julia Prescot: The longevity issue is one that has now been accepted in the context of infrastructure. In other sectors, such as in water with the directly procured contracts that have 30-year contract periods, or early engagement in relation to electricity transmission lines, we are seeing a greater move towards a longer-term period for investment, and amortisation of that investment over time. The move is there. Are the models clearly delineated? Are they applicable? Are they investable across all sectors at the moment? They have yet to be developed.

Chair: That is helpful. Alex, you want to pick up on local authorities.

Q25 **Alex Mayer:** Sir John, you have spoken quite a bit about the opportunities with devolving more budgets and powers to regional and local authorities when it comes to transport infrastructure. I wonder if you might expand on some of the opportunities, but also perhaps highlight some of the risks of taking that approach.

Sir John Armitt: In terms of the risk, you can see the tension all the time. As always, there is the risk that you get a knee-jerk reaction to one thing that goes wrong. Some local authorities have not covered themselves in glory in recent years through their desire to invest, not necessarily in infrastructure, but particularly in property and other schemes, which has got them into financial difficulty. There is always nervousness, quite understandably, at the centre. There is a constant tension from the centre, "Can we trust them to use this money sensibly and wisely?"

On large schemes I don't believe that the Government will ever say to a city, "Yes, here's £3 billion and you can go and spend it." They would want to see quite a lot of detail before that money was released, and understand that it had been properly brought forward. It goes back to how you develop significant schemes. On the other hand, there is the ability of a local authority to decide, "We need to spend £50 million here and £100 million there to open up parts of the city." It may not even be on transport. It may be trying to create more open spaces, or whatever it might be. That is the sort of thing where they need to have freedom. This is not going to be a revolution overnight, I am sure. It will be a case of gradually demonstrating. Again, it is a continuity issue. You could have one set of leaders, followed a few years later by another set of leaders. Can you get continuity? That then comes back to the executive competency within cities and local authorities.

A greater number of good people with the right experience will want to work in local authorities if they can see that there will be continuity of regular, significant financial support so that there are real things they are able to do. That will attract them to go into the local authorities. I think it is a series of issues, not expecting a sudden total change. I don't think any central Government will ever be too happy with that. They will want to see demonstrable capacity and capability coming forward from the cities to develop schemes in their own way.

Manchester, in particular, and Birmingham have been the most successful at that in the past 20 years. Our cities are so important, and certainly the larger significant cities can act as a magnet for opportunity and business in the surrounding towns. It is another of our arguments. You cannot try to give a little bit to everyone. You have to make some hard choices about which are the most significant cities because they will become the magnet and will then enable growth in the surrounding towns. Coming back to the 30-minute point, if you can get good connectivity between towns and cities, it is all going to help.

Q26 **Alex Mayer:** You spoke before, and in your report, about CRSTS money that has gone to MCAs. You have also been talking a lot today about the need for clear leadership, proper delegation, accountability and perhaps removing things from everyday politics. Do you see any contradiction? Obviously, a pot of money like CRSTS is going to an MCA. All the talk about that is about partnership working, consensus and plenty of committee meetings again and again. How do you make sure, therefore, that the kinds of infrastructure projects that you would like to be given to those four major cities have the ability to be delivered, bearing in mind that it is giving a capital pot to a transport authority that does not necessarily have any highways powers?

Sir John Armitt: Clearly, there are contradictions in that. In an ideal world, would you have a Chinese approach where you have complete directive power, and you take a dictatorial approach where you just get on and do things regardless of anything else? That is never going to work here. We have to recognise that this requires communication. It requires explanation. The public have been described as stakeholders and shareholders. I think that is quite a good way of thinking of the public. They are investing in this in one form or another because, ultimately, they pay. They have strong other interests in environmental impacts or impacts on the community and so on. They have to be recognised as that, and you have to deal with it.

It is a matter of being able to show that you have listened and that, while you have not taken everything on board, there is a reasonableness in the approach that you have taken, bearing in mind that you go back to the public and say, "Look, you cannot have the penny and the bun all the time. There are hard choices to make. It's your money we're spending. Let's get the right balance between what we are trying to do for the community and what we are trying to do for growth."

Without employment, what do we do? The most important thing, to my mind, is that you create the opportunity for people to find good jobs. That is where infrastructure, transport in particular, is so important in creating those opportunities. If you cannot offer jobs, you have a problem.

Julia Prescot: I would make a differentiation between the various decision processes that are required to make a project happen right the way across the board. There needs to be a consensual approach to take something forward. But when you go into delivery mode, it is very important at the outset, once you have made your decision, to stick with it and not get sent one way or another. That inevitably increases costs. One of the things that we said in our cost report is that a major area of real focus that we need to have is on the client and response relationship and the delivery capacity. That has to be very clear. If somebody turns up, as we all know with any building project, and says, "Oh, we'll have a little bit of that," and you build a bit and they say, "Yes, we need to add that," that is a thing that happens as much on infrastructure projects and it needs to be avoided by having a very clear delivery stream and very clear accountability.

Chair: That has sort of covered your next question.

Q27 **Alex Mayer:** It has, yes, but we will go on to that anyway. What is the National Infrastructure Commission assessment of the DFT's ability to control costs on big infrastructure projects?

Sir John Armitt: You come back to the point that Julia was just making at the end. The most important person in any project is the client. It is not the contractor, and it is not the designer; it is the client. The client has to understand what he values. You cannot value everything equally. You have to make some hard choices about what things you really value and those become your lodestar. You set the culture for the project. Nobody else can set the culture for a project other than the client. Which type of approach is he going to take?

Chair: Or she.

Sir John Armitt: He or she. Sorry. I knew I would get pulled up on that one; too long in the game. That question of commercial approach, as Julia has been emphasising, is very important. It might not necessarily be the same for every project because there are some projects where the definition or the technology means that it is going to be very difficult to actually pin everything down. Hospitals are some of the most difficult things of all to do because technology is moving so quickly. The expectation of what equipment is going to go in that hospital will be different in two years' time from what it is today as new opportunities come along. Medics, quite naturally, want to see the latest and the best.

There are big discussions going on at the moment in the NHS about the nature of our hospitals and how best they are laid out. What is the most appropriate form? You have to make a decision on that and then stick to it. The worst thing you can do as a client is to say, "That is what I really value," and then 18 months later say, "Oh well, actually I've changed my mind, and I'd rather value something else." It is how the client is capable of directing his project teams. You get this peculiar definition between clients and sponsors.

Fundamentally, the person who is paying the money at the end of the day calls the tune. He has to decide how he wants that money to be spent, and what he values. Does he want an iconic architectural wonder? Okay, fine, but that comes at a price. Is he prepared to accept something more mundane and simpler, which can be built more easily and quickly and undoubtedly will cost less. The only person who can decide that is the client, working on the advice of his technical experts, the architects and so on. There has to be give and take between the two. Everyone has to collaborate on the outcome. You must have a collaborative approach, where everyone feels that they own the successful outcome, whether they are contractors, designers or the client. If they start competing with one another, or start having too strong commercial tensions with one another, you are likely to be heading for difficulty.

Q28 **Alex Mayer:** To what extent is it your assessment that for a lot of these projects the budget is set incorrectly at the outset, and they cost what they were going to cost? To what extent is money being wasted on projects because of poor management or changing your mind midway through?

Julia Prescot: We see projects where decisions are made up front and where all the work is not seen as a continuum. For example, if you are doing a construction contract on a design and build basis, it is delivered on a design and build basis. If you just do it on a design and later build contract, there are many opportunities for change to take place. The best delivered contracts are those that are very clear from the outset as to what they hope to achieve. It is quite difficult if you are constantly altering and constantly changing. That is where the costs that you are talking about increase.

Q29 **Chair:** Sir John, you talked about the client. Do you mean the client as the Secretary of State? Earlier you suggested micromanagement of HS2 being in the DFT, so under the Secretary of State, reporting weekly I believe or pretty regularly. There seems to be a contradiction in what you are saying.

Sir John Armitt: What I am saying is that if the Department for Transport is the fundamental funder of a road scheme, then the Department for Transport is the client for that road scheme. If that means that the Secretary of State has to get involved, does he? I don't know. Or she—more often it is a she these days. A lot of this is about personality. It is about trust.

Q30 **Chair:** On HS2, what is the corollary?

Sir John Armitt: The original specification of what was expected to be achieved would have been led by Andrew Adonis, who was at the time the Minister for Rail, I think. Andrew had a view. Andrew was very knowledgeable about the railways. He had a view about what he was trying to achieve, and that is fine.

Q31 **Chair:** But Secretaries of State have changed and the scope of HS2 has changed.

Sir John Armitt: The problem is that every time the Secretary of State changes, everything else can change if you are not careful.

Q32 **Chair:** Which is presumably why you suggested that bringing the management of HS2 in-house, as the Government have done—

Sir John Armitt: Puts it at more risk.

Q33 **Chair:** You were actually suggesting that the model that you used for the Olympic Park was better. That is taking it out, once the specification is fixed.

Sir John Armitt: The great thing about the Olympic Park is that you are providing sporting facilities for a number of sports, all of which have their international committees who know exactly what they want, to the millimetre, because it affects the sport and affects the ability to compete. The pool has to be a particular depth. Everything is within what they have learnt over many Olympic games. In that sense, you know exactly what you have to build in terms of the operational way in which the sportsmen can compete.

The more difficult thing is what we do with the spectators and what scale we are going to have. Of course, that can be different for an Olympics than it will be in legacy, hence the aquatic centre at Stratford was capable of taking 18,000 people for the Olympics, but a normal international swimming regatta would probably have 2,000 or 3,000. We put temporary seating into that scheme and then took it away afterwards. With the IOC, to be fair to them, you have a client who knows pretty well exactly what they want.

Q34 **Chair:** They were the client. We have gone into quite a lot of depth on the rising costs through strategic change and not being clear what the spec is at the outset and delivering it. Is there any more you want to say about cost management? Do you think that where costs within the HS2 project—there are probably other examples—have overrun, in areas where there wasn't strategic change, the HS2 management and the Department have a handle on that now?

Sir John Armitt: You have just got a new chief executive.

Q35 **Chair:** Do you have confidence?

Sir John Armitt: I have no reason to doubt Mark's ability to get a grip. Like any new chief executive, he wants a few months to get his feet under the table and understand exactly what he's got, and what he has to do. Success for HS2 over the next three years will be keeping it out of the newspapers because it is going steadily along. It is doing what it says on the tin: "This is the progress that we are going to make, and this is the budget that we have, and we are sticking to it." Clearly, the first thing he needs to do as the person who is the accounting officer is to be confident that that budget is the right one, because, inevitably, there is a bit of a drains-up exercise going on at the moment to make sure that the budget is the right budget, and then to feel personal commitment as the CEO to deliver it.

Q36 **Olly Glover:** I would like to explore a little more some of the things you have been saying about learning from past mistakes, and what we can learn from other countries. I have three case studies in mind, some of which you have mentioned.

In terms of what you said about HS1, which I know you were heavily involved with, I will out myself as a nerd. It seems to me, when travelling on it, from a design and specification point of view that the track is as you see on a French high-speed line. There is the same signalling system and the same electrification system, whereas, as I understand it, HS2 for whatever reason decided to go in a very different direction in some of the technical specification. Do you feel that one of the reasons why HS1, from a cost management perspective, was a relative success was sticking to what we already knew worked rather than reinventing the wheel?

Sir John Armitt: There was a very conscious decision by us on HS1 not to reinvent the wheel. This train was going to have travelled across Europe before it got to the UK, so why on earth would you have a different electrical system to operate the train? The Eurostars were the most expensive trains ever built because they had to operate originally on a third rail, overhead and different voltages across Europe. My argument, very strongly always, is that, if you have a technology which works and is proven, you have to have a very good reason to move away from it. It is highly likely that it will not have been tried and tested.

The most difficult aspect on railways is the signalling. It is the signals that control the railway, not the driver of the train. Of course, we increase the capacity of the railway with cleverer and cleverer signalling systems. The danger there, from my own experience, is that if you are not careful you become a guinea pig for the latest software technology that has been developed by somebody who is keen to sell you that new technology. You have to make choices: "Do I really want the latest thing that's coming off the shelf, or do I go with the tried and tested?" The more you go with the tried and tested, the more certainty you are going to have around the cost. HS2 have just awarded their major technical contracts. They have gone to European contractors who are very experienced in the systems that they will be providing. Siemens is one of the major suppliers.

In a sense, when you look at the scale of high-speed rail that exists in Europe—tens of thousands of kilometres—while we have 100 km at the moment, that is our other challenge. We do it very infrequently. The Spanish, particularly, were just churning them out. There is more high-speed rail in Spain than in France. I see no shame whatsoever in taking on board what clearly works because you want something that is going to work. The passenger, first and foremost, wants reliability. Safe and reliable are the two key criteria. Another five or 10 minutes on the journey time is not what drives you to get on, or not get on, the train. It might be good for the economic arguments that can be adopted about minutes saved, the value of a minute and so on, but passengers don't go in for that to any great degree. There are strong arguments for using existing technology, which we did on HS1. HS2 has had a rougher ride in terms of the planning and all the extra requirements. In a sense, that is because you are looking at it almost 30 years later. The development and environmental expectation over that 30 years would have been less for us than it was for HS2.

Coming back to the wider point, the challenge so often for Government and for Ministers is whether the new Minister is prepared to carry on with his predecessor's work. Is there the inevitable, "I am the new Minister and I have to show that I'm here and can make my own decisions, so let's have a pause on what was being done or considered or had almost been signed off by my predecessor and let's have another drains-up exercise"? Then, off you go with further delay. All of which, to Julia's point, does not help the private sector in seeing the UK as an attractive place to invest, or for contractors to invest in their training. That is a key issue, which we have not talked about, in the delivery of transport for the whole skills agenda in the UK.

Q37 **Chair:** We will come on to that.

Sir John Armitt: The more certainty you can create, whether it is in your technical specs or in your policy decisions, the more that helps.

Julia Prescot: Perhaps I could say something about the difference between the European contracting approaches and those in the UK. Many more integrated design and build contracts are awarded. In this country we have seen design, as I said before, followed by build. That means there is a split. With that split there is usually a cost involved because the builder can then come back and say, "This design you've given me isn't going to work, so I need to change it in order to get this price." You find with a number of the European continental contractors that they have in-house design and build, so that there is more of a separation between the two. When you apply contracts, it has been easier to get a fix on those contracts at an earlier stage.

Q38 **Olly Glover:** I wonder if there is some learning from what you were saying about HS1 and the route selection for East West Rail. I declare that I did work for them five years ago.

The challenge of East West Rail is that they seem to be doing what you have suggested in consulting on a number of route options for the new bit of railway between Bedford and Cambridge. They have done several non-statutory consultations and at least one statutory consultation. The timescale for delivering the Bedford to Cambridge bit originally was going to be 2028. It is now mid-2030s, and it still seems to be rambling on about the route selection. What are the learnings for East West Rail from some of the past projects?

Sir John Armitt: Gosh. Prepare to be unpopular. You can go on forever listening to all the different perspectives, particularly in an area like the one around Cambridge. It was the same around the Oxford end. You have a city surrounded by small villages. The small villages do not want to have the railway in their particular backyard, so everybody has an angle on it. The closer you take your railway right into the city, the more your costs are going to go up because the urban cost of building a railway is a lot higher than the rural.

At the request of Government, we looked into East West Rail. It was a project about which we then said, "Let's take that forward." It was actually a road and rail project. The road was knocked on the head pretty quickly, again partly because of concerns around the villages. We would all acknowledge, I think, that the rail scheme is going rather more slowly than we would like. It is taking a lot of consultation. That requires somebody at the end of the day to say, "Right, enough is enough. That's what we are going to do. Here's the line."

The French do a lot of consultation before they put the line on the map. Then they put the line on the map and say, "We have listened to you all. Here is the line, and now we have 12 months to kick it around and at the end of the 12 months a decision will be made." In a sense, on the one hand it is perhaps more consultative in some respects, but on the other hand it is more directive towards the back end. Julia, do you agree with that?

Julia Prescot: Absolutely. Once you have your DUP in France, nothing will move it and it can stay there for a very long time.

Q39 **Olly Glover:** You have covered the last thing I was going to ask, so I will hand back to the Chair. There was a really interesting case study on the South Europe Atlantic line in France, the Tours to Bordeaux high-speed line. I have been looking into it. There were 10 years of planning, consultation and dialogue, but then they went and built it in five for just €11 billion. There were 200 miles of track with a 200 mph line speed and some remodelling at the Bordeaux and Paris Montparnasse end. I have been on it. Paris to Bordeaux takes two hours, five minutes. Who can complain about that?

It is good to hear that you think we can learn from that. I completely agree that the Chinese approach will not fit here, but hopefully France can. It is different in some ways but similar in others. That is really interesting to hear.

Julia Prescot: As a final comment on that—I have to express an interest here as my previous company Meridiam is now the main investor in Tours-Bordeaux—one of the things that we always felt made it much more deliverable and cost-effective was the idea of having a single contractor, a single point of contract and no continual upgrading of design or contracts let to the outside, within a private sector envelope, which meant that if you made any change you had to go out and consult X number of banks and X number of investors. Therefore, you innovated rather than making the change. A really important point going forward is that, if you have an envelope, you innovate within the envelope.

Chair: Before we continue, I need to correct an impression I may have made. The issue of HS2 being more managed in-house in the DFT was a suggestion. There has not actually been any structural change to those relationships. Apologies for any impression that I made.

Q40 **Baggy Shanker:** Before I go to variability of costs, I want to come back to a point you made, Sir John, about the client setting priorities and areas where they are prepared to accept some compromise. Day one, hour one, of any project management course will say costs, scope and time. You cannot have all of it; you have to compromise somewhere. I have this bugbear—probably from my previous role in a council—with some public sector projects. We seem to put a price on it right at the beginning without getting any tendering or having received any quotes back. Do you think that helps or hinders the perception of project development?

Sir John Armitt: It clearly hinders. The sooner you try to land on a price, the greater the risk that you are going to get it wrong. There is a very cynical view, which people will have acknowledged in the past, that the only way you will get your project signed off is by having a low projected cost. "Once we've got it signed off, guys, and we're building, okay it might cost more but at least we've managed to get our project across the line. If we were up front about what we thought the real potential risks and costs might be, we might never get it signed off."

I am not advocating that as an approach because I think in the longer term it carries greater risks. I think you should be open and frank. If you can understand what the costs are, and if they are too great for what you can afford, the simple question is, "What can I do for what I can afford? How can I meet the outcomes that I am looking to achieve in the most cost-effective way rather than in the most glamorous way?" On your point—do you want time, cost or quality?—you cannot have all three in equal buckets.

The Olympics was very simple. Time was of the essence. You have a strict opening date. That is brilliant because it drives everything else. If you don't have a strict opening date, and people feel a bit casual about the programme, there is going to be a greater tendency to interfere or change your mind about what your scope might be and how you value other aspects. The challenge for Government is that most of the time, quite naturally, cost is probably the biggest concern because they are spending public money, and they want to show that they are using that money as effectively as possible. The more they can build to a cost, the better.

On the railways, electrification is a very interesting example, where we start/stop and start/stop. In a comparison between rail electrification investment in Germany and in the UK, in Germany it is a flat line; it is a steady amount of money for 30 years. "This is what we are going to spend on electrification." If you look at ours, you are looking at a mountain range of up/down, up/down. So much of that up/down is driven by knee-jerk reactions: "Oh, that one didn't go very well. Right, let's stop. Network Rail, don't do any more electrifications. We need to understand what went wrong on the last one." Another two years go by, the industry drifts away and you lose some of your skill base and so on, and you have to start again from square one.

Q41 **Baggy Shanker:** Your cost drivers report talks about variability of costs. There is quite a wide range, both for transport infrastructure generally and roads. Why do you think that is, and what are the reasons behind it?

Sir John Armitt: We were asked to do an international comparison, not just a sectoral comparison. The research was done for us by two different sets of consultants. It showed that, in general, we were within about 10% of international norms. Sometimes we were better and sometimes we were worse. The big differences were in the very large rail schemes. If I remember rightly, in nuclear it tends to be very difficult everywhere, but we hardly ever build them in the UK, so we do not have the same continuity that you have had in other countries.

On general building work, the UK stands pretty much the same as other countries in terms of its cost base. It is in civil engineering where you tend to see the bigger differences, on the very large civil engineering projects. That comes back to some of the things we have already discussed today about how we tackle those very large schemes and the amount that we are prepared to invest at the front end to minimise the risks.

You can start building a road having done 10 boreholes along your 20-mile route, or you could do it with 100 boreholes. If you do 100 boreholes, yes, that is a bit more expensive but at least you have a proper understanding of the ground conditions you are going to face. With so many of these schemes the extra cost arises in the ground. It is the ground, whether it is digging up the high street in a town or going across a natural landscape, where you can find unexpected challenges if you do not have enough information at the front end.

Julia Prescot: There is also the pipeline issue. If you look at the way in which infrastructure has been procured, again it goes back to John's mountain ranges. We get very enthusiastic and then stop, whereas Spanish high-speed rail, for example, has been continually procured at a steady rate over many years. What that does for companies is that they can look at their business plan as a company going forward and they will know these tenders are coming forward. They might not win all of them, but if they lose one they know they have the next one to do, so they invest in skills and in whatever technology is going to be required to make them win the next one.

The impact of a pipeline cannot be underestimated. Certainly, under the infrastructure strategy we very much hoped that a very clear pipeline would come out as a result, with beneficial impacts on cost. It also links to the various elements of the industrial strategy.

Q42 **Baggy Shanker:** On the variability point again, I know there are international comparators, but even within the UK we are saying that there is quite a bit of variability if you are building a road down south or up north. What drives the variability within the UK?

Julia Prescot: It would usually be the nature of the client and the nature of the procurement method and the contracting. I have already given the example that if you do design and then build, you have an interface that will cost money. If you have design and build contracts at the same time, that interface is not going to exist. You might have different contractual approaches in relation to what are, apparently, similar forms of infrastructure.

Q43 **Baggy Shanker:** Do you see some benefits of setting standards Government-wise where regions would follow that?

Julia Prescot: Absolutely. There is a great danger in setting a standard when you increase small costs. You have to make sure that everybody is fulfilling the standard. On the other hand, if you ask, "What is the most applicable approach to this particular contract? Where am I going to get the best value for money and the most constrained costs?", you will have that come through again and again in terms of procurement.

Q44 **Catherine Atkinson:** One of the things that has been mentioned as impacting on costs is skills. Skills is something that I have been concerned about for a while. There are massive skills shortages in the transport sector, and across sectors. I want to ask you about what impact that has, not just on costs but potentially even feasibility of schemes. You mentioned working cross-Department. How do we do that better to address the huge skills shortages that have been allowed to exist and not be resolved?

Sir John Armitt: I must make the point that as the NIC we have always said that there are an enormous number of interested parties, organisations and people with an opinion on skills in the UK. Are we going to add anything much to the benefit of mankind by deciding to do a piece on skills? Our answer has always been no. As the NIC we have never done a detailed piece of work on skills availability.

I have personal views on it because I was chairman of City and Guilds for a number of years, so I have seen, for example, the impact of the apprenticeship levy, which, in fact, resulted in a decline in the number of apprentices. Not surprisingly, businesses were using that money in the wider training gambit. "Let's go and train our managers to be better managers." That was not the intention of the levy. Equally the big four and others were saying, "Yes, let's have degree apprenticeships." Degree apprenticeships are quite attractive, of course, to a young person, if you can get a degree and be paid for three or four years. We have seen an increase in degree apprenticeships in the last few years.

I think degree apprenticeships are very good. They are a mixture of academic and practical training, but the real challenge for us as a country is the fact that we have a million young people who are in what is called the NEET category, neither in education, training or work. That is our major challenge and it is much more complex. It goes back to the education system. Is it working in the best possible way to deliver 16 to 18-year-olds who are ready to move directly into work, training or further education? That is a very big challenge.

Clearly, the industry itself was able for many years to rely on labour coming in from eastern Europe, particularly skilled labour. That reduced the need for contractors to do as much training as they otherwise might have done. The Government always have the ability to impose a training requirement in their contract forms. We had a 3% requirement at the Olympics; 3% of everybody contractors were employing had to be in training. We are nowhere near as effective as other countries are and have been.

When you move on to the skills required at the more senior or professional levels, you come back to the debates on continuity. “Where will I go? There is more opportunity and continuity in this sector than there would be in the infrastructure and construction industry.” As I said about local authorities, if they do not have a steady stream of investable projects, to use Julia’s phrase, they will struggle to attract the right people to come and work for them and go out into the other cities rather than stick in London.

Catherine Atkinson: I think that is what we are coming on to.

Q45 **Dr Arthur:** There are massive challenges for industry in this period when immigration to the UK is now a little bit harder. Companies have to train up staff and that takes time.

I want to turn to design and build contracts, Julia. There is a variation of this where the client and contractor work together and, if it is delivered under budget, the contractor benefits directly financially; if it is slightly over budget, the contractor is penalised slightly. We use that. Sir John mentioned the tram in Edinburgh, and in phase 2 that was used to deliver it. I think it worked quite well. Is there any evidence that that works well generally, or is it a bit of an anomaly?

Sir John Armitt: We used it pretty well totally on the Olympics. They were all what is called the target form price of contract. They are largely design and build; nearly all the major projects in the Olympics were design and build. In particular, because the contractor tends to take the major risk they can incentivise the designer. I have done that. I have said to the designer, “For every pound of material cost that you can save me on this, let’s split it 50-50.” On the Olympics, we took 97% of the risk; we left only 3% with the contractors on the overrun of costs. The argument there was to have all the brain power focused on delivering on time and keeping below budget rather than writing claims for things that might have been unexpected and gone wrong.

Today, a lot of people would argue about the combination of design and build, together with the right incentives. You can spend quite a lot of time arguing about the incentives, but at least you are having that debate at the beginning rather than spending three years after the contract has finished arguing about claims. You have to get the target and incentives right.

To reinforce Julia’s point, the construction industry is the only one that separates design from manufacture. It is manufacture. We call it construction, but fundamentally it is manufacture. Can you imagine Ford, Toyota or everybody else having their designers in a totally separate company from the one that is putting the car together? It doesn’t make sense. European contractors are doing an awful lot of work here now; they are bigger and can take more risk, and they have the beauty of having major in-house design capability, so there is constant understanding between those who have to build it and those who are designing it, which makes for a cost-efficient and productive method of building.

Q46 **Dr Arthur:** Even if it is not in-house, often consortiums are formed around these projects, which I think works as well.

Julia Prescot: Another feature we see is the different size of balance sheet and, therefore, the capacity to take risk in relation to European contractors. The UK construction industry is very fragmented and does not have the same type of balance sheet capacity to take on risk and manage that risk in its own way.

In the context of your original question in relation to outcomes, what is good is having a target and making sure that people are incentivised. Whether or not in all cases it is a pain-share, gain-share structure, of the type you saw in Edinburgh—maybe it is not as defined as that—it is important to have that target so you know what you started from.

Chair: I am conscious of time. Your examples are very interesting, particularly Sir John's, but you need to speed up your responses a bit, if that is okay.

Q47 **Laurence Turner:** One common criticism of Government transport planning is that strategic decisions across modes are not always well integrated with one another—for example, investment in rail and road—and those decisions do not always have a clear relationship with Government's wider strategic objectives, whether that is regional rebalancing or decarbonisation. Do you think that is fair criticism and, if so, what do you think is the best way for Government to improve their strategic clarity when it comes to transport infrastructure?

Julia Prescot: One of the things we certainly saw in NIA2 was the proposition that decision making on strategy is made on the basis of connectivity and economic benefits across the country instead of the rather more piecemeal approach that we have seen to date. Hannah may want to say a little more about the strategy proposals that we came up with.

Hannah Brown: What we said in NIA2 very much mirrors your question. We think we should move towards an approach where we have a long-term integrated intermodal strategic transport strategy, based on clear economic rationale, which brings together decisions on road, rail and surface transport and takes the opportunity to integrate inter-urban networks and urban networks. As policy people, we like to see the separation, but somebody driving a car or getting a train just wants to be able to get to where they want to be. That was certainly the point we made in NIA2. We hope that the move towards a 10-year infrastructure strategy will give that longer-term line of sight, but it comes back to commitment around delivery as well and how you make it stick.

Julia Prescot: Timing is another issue. We have RIS3 coming out very shortly. Our proposals were that we look into CP8 and RIS4 at those integrated schemes going forward into the late 2020s and 2030s, because we are on a trajectory at the moment.

Q48 **Chair:** Julia, going to your earlier point that the importance of pipeline cannot be underestimated, as you know, we have launched our inquiry into investment pipelines, and are hoping that NIC will contribute to that. I would be interested to know why you think successive Governments have not been better at planning pipelines. Is it because of the turnover of Ministers and change of political direction, or do you think the Treasury has not been sufficiently willing to let the DFT plan far enough ahead? What are your views on that?

Julia Prescot: It is very difficult to look at history and the decisions that were made and why, isn't it? You can only look at the outcomes. That has been a very staccato approach for making sure that we have a continual succession of projects coming through. It is often political.

Q49 **Chair:** It is a political rather than Treasury constraint in your view.

Julia Prescot: A lot of it has been political, because a lot of these pipelines in a strategic sense come up very early in the thinking and where people want developments to take place, rather than necessarily starting at Treasury level. It is about having political commitment. Where we have seen pipelines, often it is because there is a strong political commitment. Quite an old example was in Ireland, when in the 2000s a big pipeline of roads came out because they were so determined that the road network needed to be upgraded. At the same time, the same thing happened in Norway; a whole series of projects came out. It is having the initial political commitment, that you want to make change and do it continually, that makes a real difference, in my humble opinion.

Q50 **Catherine Atkinson:** On the need for pipelines when it comes to achieving what we want to achieve on infrastructure, you gave the example of Spanish high speed; electrification in Germany is another. What can we learn from other countries about pipelines being useful in achieving real progress on infrastructure?

Julia Prescot: Going back to what Hannah said about the integrated approach, once you have decided what that integrated approach is you then say, "What do I do to achieve it?" In NIA2 there is a map that looks like disconnected bits of spaghetti, but if you take each example and put it into a pipeline, the chances are that you will have significant economic impact, because those individual pieces are the pieces we have identified as having the most economic potential by increasing connectivity between cities and, therefore, the economic growth that would come from that.

Q51 **Catherine Atkinson:** We started to set that out, but why do you think we have not done it today? What have been the barriers, and what has been the impact on the supply chain of our failure to do so?

Julia Prescot: Going back to the barriers, I can only reiterate my previous answer. I don't think there has been enough political commitment to make real economic connectivity upgrades. The impact on the supply chain is that there has been no forward planning. We live in a global competitive market where the supply chain says, "Shall I put my resources in this or that direction?" Because the pipeline hasn't been there, the supply chain has not been able to respond to it. As a company, I am not going to put a lot of money into attracting skills or technological innovations if I do not know the likely contracts I am going to be able to bid for and succeed. It doesn't make corporate sense.

Q52 **Catherine Atkinson:** Would you be hopeful that, with the plans being made for an industrial strategy and infrastructure strategy, we will see those pipelines and, therefore, we will be giving that kind of confidence to the supply chain?

Julia Prescot: I have to say yes, because I am an optimist in these matters. My colleague might not agree. The strategy is not in and of itself anything other than guidance for a pipeline being created to delivery happening and the shovels going into the ground. That is what has to be driven. We cannot just sit there and say, "Oh look, we've got a strategy," because ultimately that does not relate to a shovel going anywhere.

Sir John Armitt: As I said earlier, strategy is the starting point. It has to be followed by a detailed policy that can then feed into the ability to allocate money and deliver. We have had the pipeline for a long time; Governments have probably been publishing a pipeline for the past 10 years. There are about 500 projects in it, but if you look at the 500 projects, only about a third of them ever had money behind them.

Q53 **Chair:** It goes back to the question of the Treasury's role in this.

Sir John Armitt: Look at the challenges that the Treasury is facing this week. I am the first to be critical of short-term decision making by Ministers in order to deal with the crisis of today, but at the end of the day, with the amount of pressure being placed on politicians because of the latest set of figures, the latest forecasts, and so on, as we have seen, you can have a view of what your spending review and budget would be three months ago. It will be a different view today.

Q54 **Chair:** Maybe I should not have used the word Treasury, but "investment mechanisms".

Sir John Armitt: It depends, but if you are publicly financing that is one set of criteria. You can use more private financing and show the private sector that you are committed to these schemes, that you will bring them forward and they will go into the machine. In the first place, the private sector will have to bid for them because different financial groups and so on will want to compete. We have seen the whole difficulty with social infrastructure in terms of hospitals. If we go back to 2008, PFI was a words must not cross my lips sort of thing, whereas before that we had seen it as a very important mechanism for delivery. That was not necessarily about the construction period; it was about the operational period. You then say that we should learn the lessons of what has gone wrong on the operational side of these private hospitals and put that right. Let's not say we are not going to have any more private finance going into hospitals when we have such a desperate need for hospitals. Too often, we have a tendency to throw the baby out with the bath water, rather than saying, "Okay, that went wrong. Let's learn why it went wrong and put it right," not saying that we are not going to adopt that approach in future.

Q55 **Catherine Atkinson:** You singled out electrification as something that could benefit from pipelines of work going forward. Why do you think it would work for that in particular, and what would you want to see?

Julia Prescot: On electrification, we are trying to make the particular comparator point in relation to the lower costs we have seen in Germany in having that pipeline because of replicability. I don't think it is the only sector we would point to as being able to benefit from having very clear pipelines, but it was one where there was a very clear comparator. Because of the delays in electrification, it is one that we have to try to push through going forward.

Q56 **Baggy Shanker:** On planning consent—our favourite topic—there are various obstacles in the planning system that prevent the delivery of infrastructure projects, particularly around transport. Can you describe what you think the major obstacles are but, more importantly, what could be done to work through them?

Sir John Armitt: The analysis we were asked to do on this showed that in the last 12 years we have gone from an average time of just over two years for what is called a nationally significant infrastructure project, an NSIP, to four years. We have gone from two and a half years to four years in 10 years. More alarmingly, the number of judicial reviews has gone from about 10% to 57%, so the proportion of schemes subject to judicial review has gone up very significantly. A lot of the delays are at the front end. If you believe that you will face judicial review, quite naturally as a designer you try to prejudge all the things that might come up as objections and cover them off. You design into the scheme from the get-go what you need to do to avoid judicial review. You are building in cost all the time, from the beginning, in the belief that you might be challenged on something.

To be fair to the inspectorate, they have been pretty good at delivering their conclusions within the six-month period that they are given. They do not accept a project for their consideration until it can be demonstrated by the developer or promoter that he has done sufficient pre-consultation. It is at the pre-consultation phase where we have seen the biggest increase in time, because people are consulting more and more, and have to deal with more and more statutory authorities. The number of statutory authorities that have to be consulted, brought into line and take their place, and the time that takes is very significant.

Ministers have been pretty good, by and large, at making their decisions within the timeframe they are given. It is a relatively short timeframe, so even if it doubles they may take a year rather than six months. It is at the front end where the biggest challenge occurs. It is an interesting dilemma. To go back to the point about France, they spend more time at the consultation stage, but then they have a more rigorous final decision phase. Our final rigorous decision stage has been particularly hit by judicial reviews. A separate report has come out recently by a learned member of the legal profession, a judge, who has made certain recommendations about that. You can go back for three judicial reviews on the same point. Should we consider it to be just one, or do we compromise at two? That sort of debate will be going on at the moment.

Private investors do not know when they will get consent and how long they will be waiting when they could be getting on with doing it somewhere else in another country much more quickly. It is one of the challenges that we face. It is easy to say that we are going to turn it on its head. To be fair, I don’t think that will be as easy as we might want it to be if we are trying to take public opinion with us. I think the public would be sympathetic in many respects, saying that it is all taking too long and costing us too much money to do it. It comes back to the point I made earlier about the need for us to have a bigger public conversation about some of these things.

Julia Prescot: We have seen delays in the national policy statements that are clearly the drivers behind the interpretation that is given. There have been some improvements, but one of our recommendations was to look at five-year revisions of national policy statements—some of them have not been revised for a very long time—and modular updates to those so that as various changes in the law take place they are reflected. Certainly, on the transport side some of the delays have been because there has not been an update in planning statements and policy statements.

The other area is data. There is a huge amount of repetition of data recovery in making planning decisions, which costs an awful lot of money. For an individual investor in a scheme, even on the public sector side, collecting data over and over again is not very helpful. We propose libraries of data and I believe that is under consideration. There is also the question as to who will pay for all of this so we can get the statutory consultees moving more quickly. Having compulsory service level agreements with developers is another key part of what we are looking at generally just to try to push forward the process, but we can’t overcome it with what I think has been described as the Chinese approach. Clearly, we have to be democratic in these decisions, but above and beyond all of that we need to have the conversation, to be very clear that there are benefits to communities and it is not just a question of a three-lane or six-lane motorway going past them. If that is financial and there are other ways that benefits can be given, we need to be clear about those as well. The French do that very well.

Q57 **Baggy Shanker:** If the Government were to prioritise any reforms to speed up transport infrastructure projects in particular, do you have any thoughts on what they would be?

Julia Prescot: My feeling would be a mixture of making sure you integrate national policy statements quickly enough on one side and making sure that the communities being affected have sufficient benefits on the other side. You do both ends. Whether or not we can halve planning time is another point, but I think we need to make an effort to do that; otherwise it will be increasingly difficult to develop some of these transport projects.

Sir John Armitt: There is an interesting debate—we have made recommendations on this in our planning report—about the need for appropriate compensation, whether it is to communities or individuals. This is something that we do all the time in housing. We have what is called section 106. You could argue that in infrastructure it is equally applicable, if you are being particularly disturbed. The other example that we hear at the moment is the extension of the grid and the pylons and lines required. It costs a lot more money to put it underground, so why not compensate people with lower electricity bills if they are to be affected by it for the next 20 years? We often see something wrong with that. I do not see anything wrong with it at all if you can offer somebody compensation for some inconvenience they are incurring, or you can offer them better community opportunities and things they would like to have built to make it more acceptable to their community. There is a downside, but we have a significant upside. Given the scale of these projects, you can do a lot at community level without having any significant impact on the cost of the project itself. There are lots of ways of addressing it.

The Government recently talked about trying to take a more spatial approach to environmental considerations. It will be interesting to see how that develops, because at the moment each scheme has to produce its own environmental statement, which sometimes involves thousands and thousands of pages of analysis, yet it is only 10 miles from another scheme down the road where similar environmental conditions have had to be addressed. Why can’t we take what has been learnt there and simply plug it in over here rather than start all over again with another set of environmental considerations being consulted on and written up at great length?

Q58 **Catherine Atkinson:** We have talked about the 10-year infrastructure strategy being a starting point, albeit an essential starting point. What would you like to see in it from a transport perspective?

Julia Prescot: What we looked at in NIA2 provides a series of recommendations that we would like to see. A lot of work was done and we have thought about the strategy. The NIC has been extremely good in thinking about that longer-term strategy. We would like to see those recommendations. Are there any highlights you want to refer to, Hannah?

Hannah Brown: It goes back to many of the things we have discussed today. It is continuing with further progress on devolution. It is a strategic long-term plan for investment in the transport network that gives visibility to the pipeline and, importantly, prioritises maintenance and renewal. It could look at the recommendations we put out in the assessment on investment in improving urban networks, because we believe that driving major cities in the UK as engines of growth for both them and wider regions is important. A long-term strategic inter-urban intermodal strategy, based on an economic rationale that is affordable and deliverable, would be the core recommendation in NIA2, and that we hope would come forward in the infrastructure strategy.

Julia Prescot: The focus is on inter-urban and making sure we are making economic decisions that help connectivity, and intra-urban to make sure that, particularly in the larger centres, there are agglomeration benefits in having better connectivity within those centres that are also reflected in the transport strategy.

Sir John Armitt: We have put a very strong emphasis on maintenance. You can see that for local government in particular it is a little bit hand to mouth. How much money have I got this year? Will I have the same amount next year? Can I set up a proper long-term approach to my maintenance regime with the right equipment and the right people? To the public, this is one of the most important issues. I am sure that all of us around this table have experienced the increase in potholes, not only on our rural roads but particularly on some of our main motorways. They are in a terrible state in certain areas. If you do not maintain your infrastructure it will come and bite you later on with even bigger costs, so I cannot emphasise enough the need to have a long-term approach for giving devolved finance particularly to local authorities. Highways England and Network Rail need it. Germany is in a terrible state at the moment with its railways because they have had under-investment and have lost their reputation for punctuality. Maintenance should not be seen as an afterthought; it should be seen as one of the prime ingredients in the long-term strategy.

Julia Prescot: Perhaps I could link that to resilience and climate resilience. The maintenance and renewal factor will be extremely important in making sure that we up our levels of protection in relation to climate change. It is all part of a continuum, to look not just at the future but at what we have at the moment, and make sure it is resilient enough.

Q59 **Catherine Atkinson:** What potential do you see for the infrastructure strategy supporting the industrial strategy?

Julia Prescot: They will need to be closely interlinked. If we have an infrastructure strategy that is not backed up by a focus on skills and technology providers going forward, we will have a degree of dislocation. I am not saying that the industrial strategy would not happen and I am not saying that the infrastructure strategy is not going to happen, but it would take longer and be more expensive. We have talked already about skills. We have to make sure that that interplay works effectively.

Q60 **Laurence Turner:** A number of major transport projects are currently under review. As you know, it has been claimed that some of those projects were not sufficiently taken to maturity of design, costed or funded, on which you may or may not wish to comment. As we await the outcomes of that review, how do you think the Government should prioritise which inherited projects do or do not go ahead?

Sir John Armitt: As has already been said by Hannah, fundamentally we are looking at economic growth, so the significant criteria should be which projects will contribute the most to ensuring economic growth: growth around our key cities or growth on our main corridors. One of the biggest challenges at the moment, which has been under constant review, is the lower Thames crossing. For anybody who has been to Dartford and experienced the challenges of the two Dartford crossings at the moment, the LTC is clearly a very important and necessary project. It is very expensive and it is an opportunity to say, "Why don't we do this on a privately financed basis?" You can put all three crossings together in a bundle and manage the flow of traffic across the three through a single management.

The fundamental point is let's be confident that we are putting money in the projects which will have the most economic impact and give the greatest opportunity for certainty around industries. Coming back to the industrial strategy, if we know from a spatial point of view that these are the parts of the country where we will be developing hydrogen or carbon capture and where we will have our steel industry—whatever the industries are—that gives you the first clue as to where the connectivity needs to be the best. It is according to the challenges of your infrastructure strategy. The industrial strategy is at the top level; it is the infrastructure strategy that supports the industrial strategy.

Q61 **Laurence Turner:** Do you think that our ability to project that contribution to economic growth, particularly when we are comparing different modes, is sufficiently well developed, or is there further work on the modelling that the Departments and the Treasury should be doing?

Sir John Armitt: That is a good one. We are not short of models. Hannah, do you have any comments on modelling?

Hannah Brown: A model will only show you what you put into it. One thing we have said consistently is that projects should be committed to only when they are robust for a range of plausible futures, so that you have built the impact of uncertainty into the design process. That is probably where we would come out. It is about making sure you have considered the outputs of the different models and that the value for money for a project is true under a range of alternative scenarios.

Julia Prescot: There is no perfect solution, but if we just wait for the perfect solution to turn up those shovels will not go into the ground. There is an issue of risk. It is taking a structured and modelled risk, but there is still an issue of risk and it is a question of just doing it at the end.

Q62 **Laurence Turner:** All models are wrong, but some models are useful.

Julia Prescot: Precisely. Very well put.

Q63 **Chair:** Can I move on to EV charging infrastructure? If you take it as a whole, you could say that it is a major infrastructure project. There are considerable concerns, particularly from the vehicle manufacturing side, about the roll-out of the EV charging infrastructure. I know you have done some work on it. What do you see as the major barriers, and what needs to happen to speed things up?

Julia Prescot: I should probably express an interest. I sit on the board of Allego, which is an EV charging company.

Sir John Armitt: Who best to talk about it then. We set out some years ago that we thought at least 300,000, probably 500,000, charge points were needed. It has been a slow start. We saw a 30% growth last year, but that took us only to 73,000. If you could maintain that 30% growth every year for the next five years, you would just about get to 300,000 by 2030. There is no doubt that range anxiety is the underlying concern for motorists. Clearly, it is fine if you have a drive or a garage—you can charge your vehicle at home—but if you live in an apartment or in terraced housing on the street it is an entirely different concern.

In an ideal world, you need to get to the point where you know that charging your vehicle will be as easy as it is to fill it up with petrol today, so investors will need to make very significant changes to their main service stations. Their dilemma is that if they make the investment too soon, will they be caught out because they have an asset that is stranded, in the sense that not enough people are using it to charge up their cars? It is a chicken and egg situation. Government have to be very alive to how to make their interventions in the best possible way to support that investment. Again, there is a risk. You will be accused of spending too much money too quickly, or too little or too much money too late. That can only be addressed at the end of the day—Julia will have a view on this—by the degree of discussion, collaboration and understanding that goes on between the private sector investors who are going to put this stuff in and the degree of public support.

On the roll-out of fibre, we have seen that the Government are willing to support providers in hard-to-reach or uneconomic areas for our broadband systems. The same approach clearly needs to be taken with EV charging. Compared with the tens of billions invested each year in road and rail, the amount of money that needs to go into EV charging is quite small. The other factor is distribution networks. The reinforcement of distribution networks is a key factor. We did some work on that recently. You get different views from the different suppliers of distribution networks. They feel they are coping reasonably well at the moment. Maybe they are, but we need more investment now if we are to be in the right place in three or four years' time for the quantum of electricity that will be needed, whether by data centres, EV charge points or indeed our housing as we switch away from natural gas to heat pumps, which is pretty well inevitable now.

Q64 **Chair:** My final questions are about the future of your roles. The National Infrastructure Commission is to morph into the National Infrastructure and Service Transformation Authority. How do you think combining strategic oversight and delivery under NISTA will help address some of the infrastructure challenges?

Sir John Armitt: I have already suggested today that the missing part is the bit in the middle. It is one thing to have a strategy; it is one thing to understand what are the best delivery mechanisms for delivering contracts. The connectivity in the middle is Government development of policy. I have suggested that it is not easy without the development of policy that enables projects to be taken forward because the right policy framework has been put around them. I think the challenge for NISTA is the degree to which it is able to help Government across Departments in that challenge of policy development.

Julia Prescot: There is a holistic element involved. Certainly, with the recommendations there is a tendency to silo them. We see it even in road and rail. One of the things we have been talking about is an integrated road and rail strategy. Having a single body focused on the strategy of the delivery assurance lifecycle should enable us to make sure that we are getting a better integrated approach across all the different sectors, as well as, for example, industrial strategy and infrastructure strategy. Having a core at the middle with the capacity to impact on various sectors at the same time is important.

Q65 **Chair:** That's helpful. Do you think NIC has achieved what you thought it would? Are there any more lessons for NISTA as it emerges?

Sir John Armitt: People are generally quite kind about the work which the NIC has done. The important thing in all the work we have done has always been whether it is credible. Does it stand up to third-party scrutiny? A lot of academics help us with our work. The worst thing that can happen is that you get a complete divide within the academic community. Are their researches all wrong and so on? We have been very careful in making sure that the reports we publish are well consulted on with all the different stakeholders, and that they are credible and people will support them when we publish them. That has generally been the case. It is satisfying that generally Government have said, "Yes, we get that," and in the majority of circumstances said that they believe we need to do that. Quite frankly, the frustration is how long it takes to get things moving and done. I think we have done what it said on the tin for the work we have carried out. It has been difficult for Government necessarily to move things forward at the pace required to meet the target dates we all have in mind in the different sectors.

Julia Prescot: What the NIC has done is build something that simply did not exist before. There was not this approach to infrastructure; there also was not this approach to longevity in infrastructure. We are looking to 2040 and 2050, and it wasn't happening anywhere else.

Q66 **Chair:** Finally, what role do you think this Committee can play in holding the Government to account with regard to transport infrastructure?

Sir John Armitt: In a sense, you are doing that today. What can any Select Committee do other than try to lift the stones, get underneath them and understand what is going on in a particular aspect of our economy and the services provided to citizens, and to be rigorous in its testing and questioning of what is going on under the surface? I accept that is not easy because you do not have all the resources that people outside may have. It is by thinking carefully about it and getting as much understanding before you come into the Committee about what the issues are and what the different opinions might be. There is no shortage of people you can call before you to talk about transport. Inevitably, there will be different views at the end of the day, and the challenge is to sort through those different views and decide which are the most important. What do you really value as a Committee at the end of the day? What are you trying to do to influence transport policy in the UK?

Q67 **Chair:** Are there any particular areas on which you think we should focus our scrutiny?

Julia Prescot: Delay. If you do what you can to mitigate delays and get the rail pipeline we have been talking about to go ahead, I think that would be immensely beneficial.

Q68 **Chair:** That is very useful. I am sorry I interrupted you. Was that what you were about to say?

Julia Prescot: It was.

Chair: I don't see anybody pushing me for further questions. The timing has been excellent. Thank you very much for your evidence and for your contributions. Feel free to write to us if there is anything you feel you would have preferred to cover, or cover in more detail, in your answers this morning. Please follow up in writing to the team. I think everybody has found it valuable. That concludes today's meeting.