

Transport Committee

Oral evidence: Major transport infrastructure projects: appraisal and delivery, HC 1067

Wednesday 17 March 2021

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Members present: Huw Merriman (Chair); Mr Ben Bradshaw; Ruth Cadbury; Lilian Greenwood; Simon Jupp; Robert Langan; Karl McCartney; Grahame Morris; Gavin Newlands; Greg Smith.

Questions 1 - 64

Witnesses

I: Jonathan Spruce, Fellow, Institution of Civil Engineers; James Heath, Chief Executive Officer, National Infrastructure Commission; and Bridget Rosewell CBE, Commissioner, National Infrastructure Commission.

II: Rt Hon Lord Hammond of Runnymede; and Tony Meggs CB, ex-Chairman, Crossrail Ltd, and former Chief Executive, Infrastructure and Projects Authority.

Written evidence from witnesses:

- Institution of Civil Engineers ([MTP0043](#))



Examination of witnesses

Witnesses: Jonathan Spruce, Bridget Rosewell CBE and James Heath.

Q1 Chair: This is the Transport Select Committee's opening evidence session for our inquiry into major transport infrastructure projects. In the 2020 Budget, the Government committed £640 billion towards investment projects that were designed to drive growth and level up economic opportunity. Transport accounts for 57% of all infrastructure spend.

This morning, we have two panels. Our second panel will be scene setters, with Lord Philip Hammond and Tony Meggs, the former chair of Crossrail. Our first panel are from strategic infrastructure groups. Perhaps I can ask the first panel to introduce themselves.

Jonathan Spruce: My name is Jonathan Spruce. I am a fellow of the Institution of Civil Engineers. The institution is a globally recognised body that accredits the civil engineering profession, with about 96,000 members. We use that knowledge to ensure that infrastructure delivers sustainable development outcomes.

Chair: Good morning, Mr Spruce, and thank you for being with us.

Bridget Rosewell: Good morning. I am Bridget Rosewell. I am a commissioner with the National Infrastructure Commission, which has responsibility for producing a five-year assessment but other studies as well. I particularly lead on transport projects and was on the board of Network Rail for 10 years.

Chair: Good morning, Ms Rosewell. You are joined by James Heath. Would you like to introduce yourself for the record as well?

James Heath: Good morning, everybody. I am James Heath, chief executive of the National Infrastructure Commission.

Q2 Chair: Good morning to all of you. Thank you for being with us. This is an important inquiry for us, and you are our opening witnesses, so no pressure. Perhaps we can start by asking about the Government's infrastructure priorities, specifically the national infrastructure strategy.

The key priorities set out in that strategy are to recover and rebuild the economy, level up the whole of the UK, decarbonise the economy and adapt to climate change, support private investment and build "better, greener and faster." That is obviously quite a lot to deal with. Are you concerned about the bandwidth when it comes to delivering the Government's infrastructure priorities?

Bridget Rosewell: We obviously very much welcomed the national infrastructure strategy, much of which has followed the recommendations that we set out in our first national infrastructure assessment. We are obviously pleased about that. There are some areas where Government



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have not accepted our recommendations, and we will be thinking about whether we are going to follow up further on those.

It is now all about the delivery side. That is about not what Government can do but how we bring everybody together to make that happen. For us, one of the key areas of recommendation that we have continued to press is around devolution and bringing to bear skills, expertise, energy and so on right across the whole country. That is key to levelling up as well.

Q3 Chair: Mr Spruce, I put the same thing to you.

Jonathan Spruce: Thank you, Chair. I do not think that the bandwidth is too great. What the national infrastructure strategy does for the first time is set a long-term programme. The long-term drivers, such as population change, net zero and addressing regional inequalities, are there over that long-term programme, so I do not think that the bandwidth is too great.

As Bridget said, there are some bits and pieces around devolution that could be strengthened, but the overriding issue will be around net zero. That is simply the biggest challenge facing us in infrastructure over the next 30 years. While the bandwidth is great, how the priorities within the bandwidth change over time will be important to monitor and understand.

Q4 Chair: Ms Rosewell, I leave you to bring in Mr Heath as and when you choose. During this session we want to cover recovery after Covid-19; levelling up; decarbonisation; global best practice; and updates on the Green Book. There is a lot to cover. I do not want to trample into those areas.

There have obviously been a number of big infrastructure projects around transport, such as HS2 and Crossrail, which have gone well beyond their estimated date and their budget. As an opener, can you put your finger on why we tend to do badly when it comes to dates and meeting budgets?

Bridget Rosewell: The ones that tend to become most difficult are the ones that are the most difficult. One in four projects comes in under budget, on time and so on. It is the really difficult projects that are most problematic, which is not very surprising. That is not just in the UK but across the globe. We have done some work on that as part of our work on the rail needs assessment.

There are two lessons. One is that, if it is difficult, it will be difficult. Rail projects are particularly complicated because there are so many elements to them. That is why they tend to be more difficult. The second thing is that we tend to try to make a decision about these things before we really know what they are going to cost. Great Western electrification is a good example, which I was involved with and understood quite well.

One of the real problems is that we want to make a strategic decision but we do not really know what it is going to cost. One of the reasons why,



for example, in our rail needs assessment, when we talked about the eastern leg, we said that we should prioritise the move east to west is that that is the one that is most badly served. Get going on that because it is slightly more straightforward. We do not really know about the costs on the north-south leg, north from the east midlands, and we need to make sure that we know what it is going to cost, exactly where it is going to go and what the plan is before we commit to the spend. We commit too early, and then we wonder why it has all gone a bit wrong.

Jonathan Spruce: That is right, Chair; I agree with Bridget on the decision point. We often fix the idea of a capital cost. There is also a concentration on the initial capital cost. We talk a lot less about the whole-life costs and benefits and value. Don't get me wrong, cost is important, but the value of the whole-life costs is important as well.

As it stands at the moment, the system does not necessarily lead us to the best decision making. The examples you gave, Chair, are very valid, but as an industry we often do things very well. The A14 has just been delivered on budget and about nine months early because we have learnt a lot of lessons from previous infrastructure projects. How we have delivered the A19, in a more enterprise delivery model, working in a more collaborative way, has led to a benefit.

As an industry, we need to be more about the outcomes and the benefits. Some research that the institution did as part of its submission to this inquiry, looking at the difference between initial costs and out-turn costs, suggested that about 74% of the public would rather have us talk about the outcomes and the value of the infrastructure than concentrate on the initial cost estimate.

Q5 **Chair:** To come back to the points you just touched on, do you think there are examples where blame is attached to the industry for delivering late and over budget, but in fact perhaps it has been the politicians who have underscored the project in terms of cost and duration, and who perhaps should answer rather than the construction engineers?

Bridget Rosewell: I do not think it is very helpful to say that we are going to finger any particular individual or group. It is much more collaborative than that. One of the real challenges—it comes back to what Jonathan was just saying about outcomes—is that we have got sucked into a set of methodologies that are very narrow, particularly on transport but probably elsewhere too.

One of the things that we are doing—James might like to comment on this as well—as we move to the second national infrastructure assessment is to think about what we are trying to measure against. It is a needs assessment, so what is the need? I know that you want to come to decarbonisation. That is a key issue. How are we going to think about what the benefits and the outcomes are? How do we get away from the very narrow interpretation where you end up with a benefit-cost ratio that nobody understands, is very black box and is not very meaningful?



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James, do you want to add anything about how we are thinking about the NIA for the next one?

James Heath: I could leave it to when we get to the discussion on the methodology and the Green Book. It is up to you, Chair.

Q6 **Chair:** That's fine. If it makes more sense to talk about the Green Book segment later, let's bring you in at that point.

Mr Spruce, was I being a little unfair with my characterisation?

Jonathan Spruce: I would not say unfair, Chair, but I think that Bridget is right. Collaboration is the key. We often deliver infrastructure in quite distinct silos: decision makers, client, consultant, contractor and the end user. Seeing it in those silos often leads to inefficiencies that the system delivers naturally. It is a much more about collaborative effort.

There was a report from the Institute for Government earlier this week about how we monitor and evaluate the value of projects after they have been delivered, and how we do not necessarily do that as routine, as a matter of course. That should be the case as well, so that we can communicate the ongoing value of an infrastructure project over time.

I bring it back again to net zero. Net zero and addressing regional inequalities are two of the biggest challenges facing us as infrastructure providers. We need to ensure that the reasoning behind what we are doing is front and centre. Cost is important and value for money is important, but outlining those outcomes is what we should be concentrating on.

Chair: I want to stay on the Government's infrastructure priorities and bring some Members in at this juncture.

Q7 **Lilian Greenwood:** Good morning to our witnesses. Thinking about the Government's national infrastructure strategy, are the spending commitments that have been set out consistent with the strategy's high-level objectives?

James Heath: I think that broadly they are. The infrastructure strategy set a decent down-payment on a long-term fiscal commitment to infrastructure. In the next financial year, total investment in economic infrastructure is going to be about £27 billion, broadly in line with the fiscal remit for the National Infrastructure Commission, which is about 1.2% of GDP and economic infrastructure. There were clearly some multi-year settlements in a number of parts of economic infrastructure, on roads, on rail, on broadband and on floods. In a sense, there weren't general multi-year capital settlements for other parts of the economy.

I think overall it is a good start in putting a down-payment on the public investment in economic infrastructure. The question is going to be, does that then materialise into a longer-term fiscal commitment over a period of years—over a 20 or 30-year period—in order to see sustained investment in all types of infrastructure? That is on the public side.



Clearly, half of the investment going into economic infrastructure in the UK is private. Virtually all of energy, water and broadband is private, and therefore the right mechanisms there in terms of the regulatory model are equally as important as the public funding. It is a good start.

Q8 Lilian Greenwood: Bridget, which priorities are most at risk of not being achieved? Are there any parts of the infrastructure strategy that you have concerns about? I wonder particularly about those where there is a private sector element, such as the infrastructure around ultra low emission vehicles, which lots of people have expressed concern about.

Bridget Rosewell: It is interesting that you raise that because that was exactly what I was going to come back on. There is so much cross-cutting stuff around the provision of low emission and electric vehicles, charging infrastructure, distribution of electricity infrastructure and, indeed, electricity generation. That is the space in which the Infrastructure Commission is trying to operate because it cuts across all the different sectors and silos in which we are all so used to operating. This is the Transport Select Committee, interested in electric vehicles, but now you need to be interested in where electricity is being generated as well.

How are we going to pull all this stuff together across Government, as well as across industry, regulators and all of that? I cannot think of many scenarios in which we do not want to go down the electric vehicle or electric charging route. I see how we can push in that direction. I have a much bigger problem about whether we really want to go down a hydrogen route, for example. Hydrogen seems to be becoming the possible answer for freight, and we must not forget freight because the distribution of goods and services is really important—all those vans that come to your door—but decarbonisation is much more problematic.

It is not yet clear whether we can produce hydrogen on a zero-carbon basis at scale. That is the area where I still want to see Government supporting experiments and experimentation with manufacturers of freight vehicles. There are also ports to be considered, and investment in ports. There are a few areas where I do not think we have yet paid enough attention to know what the right answer is, and what the regulatory environment is for Ofgem, Ofcom and so on, which gives them the right incentives to produce the right regulation for those sectors.

There are a lot of big issues. I am only touching on them, but it is certainly something that is front and centre in my mind.

Q9 Lilian Greenwood: Jonathan, can I ask you to comment on the same question? Will the national infrastructure strategy spending commitments meet the objectives? One of the questions that occurs to me from the previous answers is that we have these five-year spending periods for rail and road, but is five years long enough?

Jonathan Spruce: The answer to your first question I think is yes. The basis of developing the infrastructure strategy was sound. We used best



practice. We understood what the needs were, and we developed the infrastructure strategy from those needs. Within a fiscal remit, we understood the large-scale projects and the investment we needed to achieve them.

I think the strategy is sound. Going forward, we need to be adaptive and flexible on that strategy. Priorities will change. The Covid-19 pandemic is an interesting one, and I know we will come back to that later. It is how you might accelerate certain things, like active travel, to help achieve your net zero ambitions. Just because a strategy is set does not mean that the programme of delivery should be set.

That links to your second question. Five years is definitely a start to give some certainty, but when you are looking at large-scale infrastructure projects five years can hamper you a little bit. It comes back to the levelling-up agenda and knowing the particular areas. In urban and city areas, like the area you represent, a five-year funding settlement is worth while in developing some immediate strategies around a cleaner, greener city centre, for example. A five-year funding settlement is not necessarily suitable for large-scale infrastructure such as connecting the major cities of the UK or the north of England, or some of the work around the midlands rail hub. You need longer certainty of funding because that gives you longer certainty for skills development and private sector investment. That is where you start from; how do you bake the private sector investment that you need into this as well?

Q10 Lilian Greenwood: What would you need to change to get the longer-term certainty for the major projects that you have just described?

Jonathan Spruce: The infrastructure strategy and the fiscal remit that started and was initially set under the witness you will get in the second session—Lord Hammond—was definitely a start. This is again something that Peter Hendy picked up last week about a sustainable national transport network. There are some levels of project where developing certainty over time in terms of funding, rather than the stop-start approach, may well help you get certainty of delivery, and offset some of the problems we have seen of siloed working and individual working that lead occasionally to complex projects going over time and over budget.

Bridget Rosewell: May I come back on that? Even when there are smaller projects that could be delivered within five-year programmes, individual local authorities need to be able to set those in a bigger strategy for themselves. They need longer funding streams, even if the projects themselves are shorter term.

Q11 Lilian Greenwood: I will come back to you, Jonathan, to begin with. You will know that, in Government spending, £28.8 billion is set to be spent on strategic and local roads, and £2 billion over Parliament on active travel. Is that level of spending on roads consistent with decarbonising the economy and adapting to climate change?



Jonathan Spruce: It depends. Active travel, buses and light rail vehicles very often use road infrastructure. What is potentially unhelpful is the idea that it is seen as being spent on roads for private cars, for example. Some of that road budget is allocated, particularly the local road improvements, and will be diverted towards significant bus priority, on the back of the national bus strategy published this week, and active travel.

Q12 **Lilian Greenwood:** But £27 billion of that is not on local roads; it is on the strategic road network.

Jonathan Spruce: It is on the strategic road network, but some of those strategic road network improvements—this is what I was saying about some of the outcomes—will relieve issues that allow you to do other things on local roads. They remove strategic traffic from a local road network, which then allows you to reallocate road space for active travel and public transport.

That is what I was saying about seeing it as a systems approach rather than just spending on a certain piece of infrastructure. To some extent, the system drives us to talk about the benefits of the piece of infrastructure that we are providing. We do not look at the wider benefits and the value in societal benefits or what that can do.

Very often, a piece of road infrastructure will free up capacity for other things. That is where the local and the national, working together as part of overall strategy and the long-term plan, come into play. It is how you reallocate the road space that is freed up by roads or by rail projects. We had similar arguments in the north and the midlands around HS2, as you will be aware. It is understanding the real value of HS2 delivering capacity in the local network and ensuring that is part of it. That should, hopefully, be part of the integrated rail plan.

Q13 **Lilian Greenwood:** I will come back to James and Bridget on the same question: £28.8 billion on roads. Do you have anything to add on whether that is consistent with decarbonisation?

James Heath: The slight challenge is that we do not know. What I mean by that is that the Government have to set out a strategy for transport's contribution to net zero by 2050. What is the contribution of each transport mode to carbon budgets from now until 2050? Then we should map out the carbon reduction pathways for each mode in line with those targets. It is the sort of strategy you would expect to see from the Government, hopefully, in their transport decarbonisation plan later this year.

Once you have that framework, you can start to test whether major investments or a programme of investments, such as the road investment strategy, is consistent with those carbon budgets and pathways. You could have a stop-go in that appraisal process, where any investments that put carbon targets at risk are ruled out because they do



not fit with the Government's strategic objectives. I think you need that strategy in place before you try to assess the extent to which individual programmes meet the overall pathway to net zero.

Perhaps I could make one more point. While encouraging a modal shift from cars to public transport clearly has many health benefits and some congestion benefits, I do not see how it can be the answer to achieving net zero in surface transport. The scale of the shift is way too big. I think cars today account for about 60% of all trips and over 75% of distance travelled. Rail accounts for 2% and 10% respectively. The key policy challenge is as much about how you decarbonise vehicles as it is about how you modal shift people from cars to trains. That is sometimes forgotten in some of the commentary.

Q14 Lilian Greenwood: Bridget, should the Government have a target for that modal shift? They have talked about using cars less. I accept completely what James said, which is that the car is king. Should they have a target, and would that change the level of investment going into the road network?

Bridget Rosewell: Possibly there could be a target, but I think we are a long way from being able to set one that is sensible and would not therefore undermine growth and the economy, and the levelling-up part of the story. After all, the places where public transport works most effectively are in very dense large city centres. The main one of those we have is London. If we want to make sure that we can sustain economic performance in smaller cities and in market towns, we have to be much more careful about the way we try to get either more active travel or more use of buses. Trains will not work for some of the trips that people will want to make.

We need to think about the decarbonisation of the construction sector. That is really important. The Institution of Civil Engineers is looking at that. There are a lot of construction companies looking at zero carbon construction. Then there is zero carbon use of that infrastructure. What we cannot say is no infrastructure. We cannot say that we do not want any more economic growth in places where the infrastructure is lacking because that will be a disaster for people's quality of life.

Q15 Karl McCartney: There are so many questions I would love to ask of all three witnesses, but I am just going to ask one because I am conscious of the time. I want to be a bit more positive on UK plc, and look at the people behind delivering the infrastructure.

Is it still the case that we are exporting some of our expertise to overseas infrastructure projects, or are we quite capable of delivering all the infrastructure projects that are coming downstream with people who are already trained, or are coming through the education system as engineers? Picking up on the point from the Chairman, I do not suppose that we are going to be exporting either accountants or politicians for their expertise, but the people who actually do the work on the ground



are quite good at what they do.

Jonathan Spruce: We are definitely exporting less now. Part of that is because we have a forward infrastructure strategy for the first time—a real long-term infrastructure strategy. What is important about that is that it gives a long-term view and a long-term commitment from Government, and Governments beyond the current Parliament, to deliver infrastructure. That allows you to recruit, train and bring people into the industry.

As I say, the institution represents 96,000 members. We go into educational institutions. The benefits of STEM and of women in infrastructure are really key to this. We do that on the back of the commitment to a long-term infrastructure plan, which allows our corporate members and our individual economic and education institutions to train the workforce going forward.

I am absolutely convinced that we can do that. We learn from global best practice. We also have some very good infrastructure delivery in this country. We have always said that we wanted a long-term commitment to infrastructure. We feel that we have it now and can deliver the infrastructure that this society needs, all wrapped up within the net zero challenge.

Q16 **Karl McCartney:** Thank you. It's very good to hear that. Bridget, do you have anything to add?

Bridget Rosewell: Not really. I too am a fellow of the Institution of Civil Engineers and I support all the work that is being done, particularly on bringing more diverse groups such as women, as well as other groups, into the industry. Don't forget that many of the firms operating in the UK are international firms. British firms do very good delivery work in the rest of the world. They deliver things on time and on budget. We just need to get that collaboration to work effectively to do it here as well.

Q17 **Karl McCartney:** Thank you. James?

James Heath: I have nothing much more to add. From my conversations internationally, there is clearly still a lot of interest in how the UK is solving some of its major infrastructure problems, particularly in the railway space. There is a lot of interest in how the UK is able to optimise a rail network in a very dense land mass and make it work quite efficiently overall. From what I see, there is definitely a lot of interest in the expertise of the UK and how it solves infrastructure challenges, and interest in exporting that around the world.

Bridget Rosewell: The National Infrastructure Commission itself is unique. Nobody else has anything quite as long term. Infrastructure Australia has some delivery responsibilities, but only looks 10 years forward. The idea that we are thinking about the strategy for a 10-year period—nobody else is doing that. There is a lot of interest in how we are operating that.



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Karl McCartney: A big broad blue tick then. Thank you very much indeed for adding that, Bridget.

Q18 **Greg Smith:** I want to move the debate on to Project Speed, but I want to look through the lens of my own experience in my constituency where we have two big infrastructure projects. One is universally hated and toxic—HS2; and there is one that we broadly want, East West Rail. The commonality between the two is that both have had fairly big lead-ups to their approval. There have clearly been a lot of failings and a lot of things not listened to, but with input from communities and local government.

The question I want to put to you is this. Project Speed speeding up the process, and the way environmental factors are looked at and so on, will cut out even the failures of HS2 and East West Rail. To put it in context, Will Gallagher from the East West Rail company had to issue a formal apology to representatives of parishes across my constituency, in a summit held yesterday, for the level of human misery that is being caused by the construction. Where infrastructure projects are approved, controversially or not, wanted or not wanted, how will Project Speed actually impact on environmental considerations, local democracy, and the local planning process? What impact will it have on real people on the ground? How do we lock those protections within Project Speed?

Bridget Rosewell: Clearly, this is a difficult and sensitive area. With any infrastructure project—whether a road, a railway or whatever—the construction period can be very disruptive. That is not always thought about well enough at the beginning. What Project Speed should be looking at is how you do the early part of the work around how the design should be working, how the construction should be working, how you tell people about the project and how they understand the outcomes that might occur for them.

I suspect that the problem with HS2 versus East West Rail is that people can see that the outcome of East West Rail is a benefit to them, but with HS2 they cannot see that there is a benefit to them. There may well be a point when the Government say, “The national benefit of this means that you may not be the beneficiary, but future generations and other people will be.” Explaining that is obviously very hard. The real thing is to put the work in up front and not to try to cut corners later.

Q19 **Greg Smith:** May I briefly come back on that? I do not want us to look at the benefits or not of any particular infrastructure project. As you rightly say, HS2 and East West Rail are wildly different in north Buckinghamshire. One has no benefit at all and the other is positive. It is the impact of the construction. Given that Project Speed is looking to bring a lot of things forward that would previously have taken many months or years to agree, which should include the manner of construction, as you say, and given that there have been so many failings within that process over many years within HS2 and East West Rail—regardless of the benefit communities see from those infrastructure projects—how can we properly lock local decision making and local



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accountability into these projects, if the whole process is sped up? Bluntly, as a country we have failed to do this in the longer lead-up times to infrastructure.

Bridget Rosewell: There are two very different things going on. One is the way in which you set the project up and explain the benefits, to get people to buy into the idea that there will be disruption, but that there will also be benefits. The second thing is how we manage the myriad regulations that apply whenever you start a particular construction project, and the local interest in some of those.

Again, it is about understanding it at the beginning. The Great Western electrification, for example, required 1,700 different permissions along the route, to do with historic houses, roads, bridges, drainage, SSSIs and AONBs. Making sure that you have understood that, and have presented it appropriately to your local community, so that they have a chance to be engaged and that you show how the construction process can be done most effectively, should be part of Project Speed. What you do not want is lots of protestors trying to get in the way. You need to have dealt with that and make sure that you have understood it when you get started and before you get started, rather than coming along afterwards, scratching your head and saying, "Oh dear, we didn't realise."

Q20 **Greg Smith:** I may bring Jonathan in for a comment. I am not certain it is necessarily about construction companies not wanting lots of protestors in the way, because that will happen come what may. People are opposed to these projects and they will rightly protest against those projects, so long as they do so peacefully. It is actually about the impact on the ground.

To give a very practical example, East West Rail wanted to close a road for nine months that would have completely cut off a business from being able to do their deliveries. If they had talked to businesses in the area or parish councils before coming up with those plans, and consulted on them, it would not have been a problem because something could have been negotiated. That worries me. One of the levers that could be hardwired into the system as part of Project Speed, so that when infrastructure happens, rightly or wrongly, is that there is clear accountability in place for local decision making so that these projects are built with and not to people. Jonathan, what is your view on that?

Bridget Rosewell: I agree absolutely about "with and not to."

Jonathan Spruce: That is a very good example. It goes back to how the system has been set up and the silos that you chug along. One of the important things about Project Speed is to understand that it should apply to the whole life cycle of delivery. That goes back to what Bridget was saying.

Sometimes the system forces you to make decisions and bring things out quite quickly without a great deal of thought. As you say, it then has not been looked at properly and has local issues. It is a bit of a perverse



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thing when we are talking about Project Speed, but you may find that taking a bit more time at the start and doing the detail, in the lifespan of the delivery of the project, will give a better, quicker and potentially more efficient outcome that takes people along with it. I do not think Project Speed should be seen as short-circuiting the legislative requirement for large-scale projects. Bridget is right: taking a bit more time at the start may give you a better outcome over delivery.

We are learning all the time. That is one thing as an industry that we do quite quietly. We do not necessarily make a big thing about it. I referred to the A14 example and how that was done. The learning on the A14 is now being developed on the A66 transPennine connection. That is being used in Project Speed. What is happening there is that there is a lot more going on with local communities, on local consultation, local issues and understanding how you can deliver the project on that route, to shorten the overall timescale for delivery.

I think you are right in the examples that you gave, but it is important that we learn the lessons and move forward, both as an industry and as Government. It is important that the public collectively understand that.

Chair: I will interject, Greg. My Clerk has reminded me of the need for Project Speed in the Committee. We only have 20 minutes left and we have not got off the first section. I am going to move on to Gavin Newlands. I ask the witnesses to give short answers. You do not all need to answer.

Q21 **Gavin Newlands:** The project that has gathered the most headlines, whether that is a help or a hindrance, is the fixed link between Northern Ireland and the Great Britain mainland. It is identified as coming from south-west Scotland.

Given that the Prime Minister has asked Professors Doug Oakervee and Masterton to assess the feasibility, at roughly £20 million, what factors should they be looking at? Should they be looking at whether this is a necessity? Should they be looking at the feasibility of the project, given the munitions and nuclear waste that are dumped in Beaufort's Dyke, for example, at a depth of over 1,000 feet? With the cost-benefit analysis, that is likely to cost upwards of £50 billion.

Can I ask Jonathan first, and then either James or Bridget from the NIC for time reasons?

Jonathan Spruce: The important thing would be need. It comes down to understanding what the strategic need for a fixed link would be. It is right that a feasibility study is done of any major project. We would want to see the clear need for this fixed link. What are the outcomes that you are trying to deliver? Within the national strategy aspects of rebalancing or levelling-up within net zero, does it achieve and deliver against those key strategic aims?



Bridget Rosewell: I am very pleased that feasibility work is being done, which will at least give us some parameters against which you could then think about what the strategic objective would be—the exam question—against some kind of parameters around what it might cost. This is very early days, but I am very glad that experts like Doug Oakervee and Gordon Masterton are at least going to tell us whether there is any feasibility for doing it at all.

Q22 **Gavin Newlands:** Earlier, on the first question that the Chair asked, devolution was identified as an important aspect moving forward. The truth is that both transport and planning are devolved to the Scottish Government and to Stormont. Neither of them seems to want this fixed link. Is it important that there is support for any project of that nature from the Governments or local authorities where it would be based or go through? Are those authorities, which look at their infrastructure requirements and review them on a regular basis, best placed to understand what those needs and requirements are moving forward?

James Heath: It is not an area we have looked at in any detail. As Bridget was saying, we need to be clear on the strategic outcomes for the project. That has started to be enunciated in Peter Hendy's work. Then we need to do the feasibility study to understand the value for money.

It is important that a range of stakeholders and parties are involved in that process. If you are to understand the benefits that are going to flow to the different parts of the UK from this piece of infrastructure, which is presumably to try to improve flows of business and people around the UK, it would make sense to me that all the different parts, all the Governments, were involved in that process. That would seem logical to me to understand the benefits.

Bridget Rosewell: The first thing is whether it is feasible to do anything at all. That is the start of the exam question. The second thing is: who would be using it and what kind of thing would they use it for? That is in the interests of both national UK and Northern Ireland and Scotland. They all need to be balanced when coming to a final decision.

As we have been saying, taking your time to make those strategic choices is the most important thing to get going with. It comes back to the collaboration and partnership question.

Q23 **Gavin Newlands:** Jonathan, in addressing Bridget's last point, the Scottish Government published a strategic transport project review a matter of weeks ago. Obviously, the Scottish Government have been looking at strategic infrastructure priorities very recently. Given that it is devolved, surely that should take precedence in that country.

Jonathan Spruce: The danger might be what is precedent and what takes precedence. It comes back to collaboration. The Scottish Government have done this for a number of years in a devolved situation with transport strategies and with infrastructure, and refreshed them



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based on changing circumstances. Again, that is a good model to adapt for devolved Administrations across the rest of the country.

In the review from the Scottish Government, you developed a set of infrastructure and transport projects and priorities. How does this proposal fit with that? Does it conflict? Does it complement? Is there a clear demand for increased trade, for example, between south-west Scotland and Northern Ireland that is part of an overall economic plan for both Scotland and Northern Ireland, and the UK as a whole? What does it mean for net zero?

When you look at the strategic objectives of the fixed link and ally them to the strategic objectives that have led you to develop your own transport projects, do they match? Do they conflict; and how do you resolve any conflicts or maximise any opportunities?

Q24 **Gavin Newlands:** I have a question on decarbonisation for Jonathan. There has been a marked difference, certainly in the last couple of decades, in terms of the case of transport decarbonisation in Scotland and the rest of the UK, whether that be rail electrification at double the rate over the last few decades or the charging points situation in Scotland versus the rest of the UK. Is that a mindset issue or a different look at the cost-benefit analysis in Scotland? Is there a different formula when looking at these projects in Scotland versus the rest of the UK, or is it sheer political will?

Jonathan Spruce: I do not think it is any one particular thing. I think that devolution has a big part to play. Devolution and understanding your local area, and being able to deliver in that local area, is really important. The pace at which you do things and how you place the priorities become important in a devolved settlement.

The Scottish Government took a decision on electrification of the railways. It is true that the UK is some way behind, but, as we said before, electrification may not be the solution to net zero. There may be a different solution in different parts of the UK. It is for local areas to work with national Government and national agencies like Network Rail to deliver what is best for their area, and then to include that in their forward transport plans.

Gavin Newlands: *[Inaudible]*.

Chair: I am sorry, Gavin, I don't think you're on mute, but we can't hear you. It's not coming through, but thank you.

Let's move on. We have 13 minutes left. Members and witnesses will have to be brief. We want to talk about recovery after Covid-19.

Q25 **Grahame Morris:** In response to an earlier question, James Heath mentioned the levelling-up agenda. My question is related to that. Government rhetoric highlights the important role that infrastructure will play in building back better. We know that that is not just about improving connectivity; it is about bringing economic benefits.



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James, how will the construction of new transport infrastructure support economic growth? What projects would bring the greatest benefits? We often seem to be the poor relation in the north-east, particularly if you live outside one of the large conurbations. Can you factor that into your answer?

James Heath: There are two points. The first point is that transport is necessary, but it is definitely not sufficient to support regional growth and levelling up. The second point is that transport's role in supporting local growth will be more important in some areas than others. You have to look at the characteristics and needs of different places to understand which transport intervention will make most sense.

On the first point about being necessary but not sufficient, a key conclusion we have come to from all our work when we looked at rail investment in the north and the midlands is that rail will play a big role, but to maximise the economic value of new rail schemes, they must be part of a wider economic strategy, including skills, innovation and, critically, local intra-city transport if you want to try to get some transformational benefits. The second observation on transport and levelling up is that it depends. Improving local transport capacity clearly has an important role to play in many of our fastest growing towns and cities all round the country, and not just in the south-east. It is where it is heavily congested and we need transport upgrades to remove growth constraints. That is important.

In other areas that have good transport connectivity but still face economic problems, transport is probably not going to be the key factor. I am talking to you from a part of London that is right on the doorstep of the City, with access to the country's best integrated transport network, but it is still one of the most deprived parts of the country. Transport is probably not the key solution for where I sit, but it may well be the key solution for other areas with poor connectivity.

Q26 **Grahame Morris:** Bridget, in your earlier reply, you mentioned longer-term benefits. In fact, you even mentioned future generations. Could you give us your view on the economic benefits—the question I put to James?

Bridget Rosewell: Absolutely. I obviously agree with everything that James said—we work together—around transport being necessary but not sufficient. We need to pull stuff together. I am also very aware that we are just kicking off some work on towns and smaller places, looking at the mix of all kinds of investment that would support success. That is very important for levelling up in places where there are not necessarily lots of major conurbations. I am very keen on the north-east. I chair a bank based in Durham, so I have a strong connection to wanting to make that work.

My answer is about how you get a long-term funding settlement that enables local areas to come up with the infrastructure investment solutions that are right for their part of the world, and give them the



leverage to do the bigger story we have just been talking about—the major things that link to the major investments. It is getting the top down and bottom up to meet in the middle that is our real challenge for the levelling-up infrastructure programmes.

Grahame Morris: Thank you very much; that is really helpful. I will hand over to Robert Largan because he is following up on the levelling-up section.

Q27 **Robert Largan:** Thank you, Grahame, and good morning to the witnesses. My question is to James initially. Do you think that the Green Book rules are fit for purpose to deliver levelling up and rebalancing the regional economy? If not, what can be done to improve them?

James Heath: There is some room for improvement in the effectiveness of the appraisal regime for infrastructure. I would highlight a couple of things. At a high level, the current appraisal approach has perhaps over-relied on cost-benefit ratios for projects to the exclusion of developing a robust evidence-based strategic case. It is probably better to start with the policy objective, what you are trying to achieve, and then look at the extent to which different projects will deliver it. That should probably lead to closer alignment between your appraisal and your outcomes. If levelling up is your key policy objective, projects that you expect significantly to reduce regional disparities should be given greater weight. The updating of the Green Book is clearly designed to do that. It is designed to get greater alignment between policy ambitions, so that Government take account of the wider economic and social benefits.

The second point is that we should be a bit more specific about the actual economic methodology for appraisals, particularly in relation to rail, which is an area we have looked at quite hard. Here, I think there must be a much greater focus on the economic benefits and economic change from the productivity and business flows that rail can deliver. Uniquely, it does things that other transport modes do not. It provides high-capacity transport for large numbers of people into city centres from surrounding areas and other cities. We have to focus on those transformational benefits, rather than narrowly focusing on journey time savings for individuals.

The issue is perhaps less the Green Book. The Green Book allows wider dynamic analysis. It is perhaps more that implementation in practice and over-reliance on cost-benefit analysis has been the problem.

Bridget Rosewell: One of the challenges, particularly with larger projects, is that you want the future to be different from the past. Your evidence is all about the past. How do you bring to bear judgment about the feasibility of the future that you are trying to imagine? This is particularly important when we talk about decarbonisation. I am very worried that we are not going to talk about decarbonisation, but we have been trying to get it into all our answers. That is a future different from the past. Models based only on past data and a reliance on those models



is one of the ways in which we go wrong when we do the analysis of our projects. You have to stand in the future and think, "What do I need that future to look like? What do I need now to get that future to happen?"

Jonathan Spruce: The greener Green Book is definitely welcomed by the ICE, but it needs to be backed up with a greater devolution of decision making, and more regional evidence bases that understand why you need to do those things. It is understanding that the need will differ over different parts of the country. To your colleague's previous question, the role of things like the A19 and the Durham coast line, which are often seen as the poor relations to the A1 and the east coast main line, to access new jobs and new opportunities in areas of the country that are designed to be levelled up will be really important.

As James said, the five-case model and the greener Green Book are definitely welcomed. It is now about how we apply that in practice. Collaboration between practitioners and decision makers is key. It is all about collaboration, with the common goals of net zero and levelling up running through it.

Q28 **Robert Largan:** Thank you all; those are really useful answers. I want to pick up on something that you have already touched on, which is that it is beyond the Green Book and cost-benefit analysis.

It would be interesting to get your thoughts on what kind of role politics and Whitehall culture play in key infrastructure decisions, and whether you think that that perhaps has also played a role in holding back infrastructure investment in other parts of the country. Can you suggest anything that could change that?

James Heath: It is a really interesting question. There is a genuine question about the general mindset, linked to location. It is a fair point that having greater diversity of voices in the process, including spatial voices, is likely to lead to different outcomes. There clearly has been some critique of the cost-benefit ratios of different projects. There has certainly been some critique that a number of projects in the north of England with high cost-benefit analysis seem not to have been adopted. I do not know the extent to which that is true, nor do I understand the dynamics, but I certainly would have thought that having a greater diversity of voices shaping that methodology and involved in decision making would help to mitigate the risk that you may get a concentration of projects in particular parts of the country. I think that is a reasonable assumption.

Bridget Rosewell: One of the big problems has been the black boxes. Nobody understands the basis on which modelling has been done or how you have come up with a particular number for a cost-benefit analysis. It is completely opaque. Then it becomes a much more political debate because there is no clear transparency about what you are trying to achieve, why you are trying to achieve it and therefore why you might do



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it. We end up down rabbit holes, on the one hand of technocratic analysis and on the other hand of political debate.

We have to unlock that. We have to open the books such that local communities, politicians and analysts can come together to do something a bit more sensible. The black boxes really get in the way.

Jonathan Spruce: I think that is absolutely right. I am not sure that you can point the finger at one or the other. The system potentially drives you that way. We do not set out clearly the strategic need and the value of the outcome of what we are trying to do. It goes back to the discussion about HS2 and East West Rail. HS2 was all about time savings at the start. It is not about time savings; it is a transformational project that will be there for years to come. It will open up major opportunities. We never talked about that. We never set out the strategic need. When you set out the strategic need, make that public and get everybody to buy into it, I think that is a big starting point for us. We need to change the system to do that.

Robert Largan: Jonathan, I could not agree more, but I am very aware of the limited time. I appreciate all of your answers; they were very thoughtful.

Chair: I apologise to the last two Members because their time has been squeezed. Apologies also to the next panel because we are running slightly over. Ruth Cadbury will continue on the Green Book, and we will end with Ben on the global position.

Q29 **Ruth Cadbury:** I am glad that Jonathan mentioned the issue of time saving being the original aim for HS2. We all agree that too many transport projects in the past have been based on the notional value of the time saved, and saying that you get more value if you save time for a professional person than for somebody in a manual job who uses a bus, and that is wrong.

We had the Green Book update in 2020, with the aim of ensuring that place-based and environmental impacts would be adequately considered. How long is it going to take, and how is it going to happen? When will we have a better appraisal process? Whose responsibility is it? Is it going to mean that we rethink a lot of transport projects?

Bridget Rosewell: Yes, I think we can, particularly if we think about carbon and net zero as an important set of criteria for any appraisal system. I think we are at the cusp of being able to, if you like, throw away some of the outdated ways in which we have been thinking about this, which are all siloed and based on the future being the same as the past. I have been fighting this for 20 years, but I finally think that we are getting there and that everybody agrees. I said in 2009 that it is not about time savings. Nobody was listening then. Everybody is listening now.



I think that the answer is, yes, we can do this better. NIC will continue to push for doing it better with an adaptive programme and at a strategic pace. It is all that stuff. We really are getting there. All the support from you guys would be most welcome.

Q30 **Ruth Cadbury:** What are your thoughts on the process, Jonathan?

Jonathan Spruce: I think the process has already started. Some national transport bodies like Transport for the North, Midlands Connect and England's Economic Heartland have already set out their long-term strategies, but that is based around their economic need and the value it is starting to give. The Department for Transport has already picked a select number of pilot projects, where it says, "How would you rewrite the business case based on the new Green Book?" I have personally been involved in one of those. It is quite interesting that you are actually putting a lot more of that strategic need up front, so that you are almost three quarters of the way through before you get to the time-saving debate and what you are trying to do. It is how it fits with the bigger project picture in the national infrastructure strategy and with local need.

I hope that this year we start to see the effects of that. The important thing is not to see it as an end point. It is an iterative process that has some flexibility and is adaptive. We want to say, "How does this work? Does it allow us to make better decisions?" If it does not, or if it does, adapt it and move forward. It should not be a greener Green Book that we sit here with for another 10 or 15 years. We should use it as a collaborative process to make sure we all get the outcomes we want, in the best way possible.

Ruth Cadbury: Thank you.

Chair: Finally, and with apologies, Ben.

Q31 **Mr Bradshaw:** Thanks, Chair. It always frustrated me when I was a Minister that we did not do enough to learn from international best practice. I am new to this Committee, but I am struck, for example, by our failure to deliver high-speed electrified rail across the country, in contrast to countries like Italy, Spain and Germany. What can we learn from international best practice? You have five minutes in total between the three of you.

Jonathan Spruce: Part of that again is about the fact that we did not have a long-term plan for electrification of the network. Therefore, the skills that supplied and delivered that disappeared from this country. Restarting that programme was really difficult.

As Bridget said, Infrastructure Australia had a 10-year plan. We have now taken forward a long-term plan so we have learned from that. Hong Kong has something called Construction 2.0, which is about partnership and collaboration. We picked that up in the construction playbook, enabling better infrastructure, and the introduction of Project 13, which is all about



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the collaboration process that is now being used. I think we are learning from best practice.

We do some things really well. Sometimes we need to say ourselves that we are leaders of best practice. As an institution we can be part of that and collaboratively, with the infrastructure commission, show that we can do things that other people in the rest of the world can learn from as well.

Q32 Mr Bradshaw: What are we still not getting right though, Bridget?

Bridget Rosewell: I think it is the long-term delivery/skills development and creating the supply chain that Jonathan talked about. That is one of the really important things.

The other thing is being willing to spend the time to sort out what the delivery problems are going to be before you start the project. So many of the problems are because we have made a decision—"We have to do this and we must get on with it"—but people do not know enough about the ground conditions. They do not know enough about what the integration problem is going to be. They have not done the prep. We have to spend more time on preparation and be willing to spend the cost on the preparation rather than dashing ahead.

Jonathan Spruce: The other interesting thing is about long-term skills and bringing people into the industry. The people who are going to deliver the net zero infrastructure that we need by 2050 are not sat around this screen today. They are not even in our universities today. They are in our primary and secondary schools today. That is a big target. Setting a long-term plan, a vision for infrastructure and a needs assessment will be key for us as an industry in bringing skills through and getting people of all shapes, sizes, genders and ethnicity ready to deliver the infrastructure we need to deliver a net carbon future for us.

Mr Bradshaw: That is a nice note to end on. You did it in two and a half minutes. Thank you.

Chair: Thank you very much indeed, Ben. You have been very patient and my apologies. We have reached the end. We talked about Project Speed and overruns, but we have not managed to be a shining example on that front.

Mr Spruce, Ms Rosewell and Mr Heath, thank you so much for all of your evidence. Hopefully, you will listen to our next two witnesses as well. I wish you very well; thank you again.

Examination of witnesses

Witnesses: Rt Hon Lord Hammond of Runnymede and Tony Meggs CB.

Q33 Chair: I apologise to our second panel. We are running a little late. Could I ask you to introduce yourselves?



Lord Hammond: Good morning. I am Philip Hammond, former Chancellor of the Exchequer, but perhaps more importantly today former Transport Secretary from 2010 to late 2011 and, not irrelevant to the subject of big infrastructure projects, former Defence Secretary, where I experienced some of the biggest infrastructure projects that the public sector is involved in.

Chair: Good morning, Lord Hammond.

Tony Meggs: Good morning. I am Tony Meggs, former chairman of Crossrail. Before that, I was chief executive of the Infrastructure and Projects Authority in Government.

Q34 **Chair:** Good morning, Mr Meggs. You have both heard us talking about the democratic process and how that can hinder infrastructure projects. I dare say this is not a Committee that is being replicated in China.

Lord Hammond, as you touched on, you were in the two big infrastructure spending Departments as well as the Exchequer, to perhaps control some of those. In your experience, have you seen projects that you were perhaps pushed to sign off on that did not have a great business case? How did you deal with the situation where Prime Ministers would perhaps do that? How can we learn, so that we do not end up going ahead with projects that do not have value for money?

Lord Hammond: I think there are two ways in which the political process and the democratic process impinge on projects like this. The first is the area that you have suggested, where there are political pressures to do things that may not make sense even in the terms in which they are framed, and to spend money on projects that may not deliver the benefits that are proposed. I will address that immediately.

There is, of course, another aspect, which is that in a country like the UK, where we have very elaborate and extensive engagement processes around physical infrastructure development and we have to deal with objections—there will always be objections—those are a big driver of cost uncertainty and delay in any linear transport project. It is in lots of other projects as well, but particularly in linear transport projects.

On the main question that you are addressing, I think the problem is this. The benefits of a project come partly in easily quantifiable form. The criticism of the old Green Book approach is that it focused on what was relatively easily quantifiable and could be presented in that way. There are then more strategic benefits, which politicians may often like to wax lyrical about, but which are pretty difficult to quantify.

It does not mean they will not happen. I remember very well the example that the Department for Transport always used, which was that the Jubilee line extension to east London failed to produce a positive BCR case, yet has clearly been transformational in strategic terms and has had a huge impact on the economic development of east London. It has actually proved to be a huge value-for-money project.



The challenge is how we get better at assessing and estimating the value of the strategic benefits that attach to projects. What we did in the past, certainly in my time at Transport, was to assess quite rigorously the benefits that were susceptible to cost-benefit analysis. Then we made a much more narrative analysis of the strategic benefits that might also attach, but we did not really attempt to quantify them and make them part of the formulaic process.

Q35 Chair: Coming back to the changes in the Green Book—we will go into those in some detail—at the very least with a BCR you can equate it to value for money. With changes where it is not as clear, and the waters are a little muddy, should we be expecting a situation where money is wasted? While a project seems to have some virtue, it is impossible to tell from the outset whether it really will deliver value for money.

Lord Hammond: Vanity projects, I think you are concerned about.

Q36 Chair: That is a better way of putting it.

Lord Hammond: As a former Chancellor, I would have significant concern about vanity projects. This is the challenge we are facing. On the one hand, I think pretty much everybody would agree that the old-fashioned BCR-driven approach to approving infrastructure projects fails to capture all the benefits that need to be captured in a broad-based cost-benefit analysis. On the other hand, if you remove all the discipline, you run the risk of politicians coming up with, frankly, fanciful infrastructure projects, often prematurely announced before the costs are known, let alone the benefits. That runs significant risk of seeing public money wasted. As ever, the answer cannot be at the extremes. The answer is not to abolish a benefit-cost analysis approach. The answer is to recognise more clearly, as has always been the case, that benefit-cost analysis is one tool, but only one tool, in the toolbox of evaluating projects.

It is also important to recognise that there are different purposes for the analysis tools. If we are looking at a given pot of infrastructure funding money and deciding which projects we should prioritise, that is one process. If we have decided in broad terms that we are going to go ahead with a project conceptually—let's say HS2—there is still a raft of questions that need to be answered about what precisely the scope of the project is and, in the case of HS2, what precisely the route is to be. Those, as it were, micro decisions within the overall project scope are also susceptible to the same challenges. Do we use a pure benefit-cost analysis approach? Do we use a broader approach to looking at strategic benefits that will flow from the project?

To summarise, the key problem is that we do not have rigorous tools with which to assess the strategic benefits of strategic projects because, by definition, they are blue-sky projects. We are trying to envisage a world that will be fundamentally transformed, and see the benefits that will flow from that fundamental transformation.



The analogy I like to use is the development of the Victorian railways. It would have been very difficult for anybody, even the most enthusiastic railway promoter, before the railways were built to have envisaged the transformational impact of the Victorian railway on Victorian England. I personally believe that the impact of high-speed rail on the north of England will be as transformational as the impact of the Victorian railway, but it is very difficult to quantify that and to do it in any way that looks rigorous just because of the nature of the benefits that we are talking about.

Q37 Chair: Mr Meggs, looking at Crossrail as an example, you came later to the project, but did you feel that perhaps the Government of the time had not been realistic in terms of the cost and delivery date, and that you were then left to manage your way through those waters?

Tony Meggs: Let me address that, but first I will add a little bit to the ex-Chancellor's comments, all of which I agree with. First of all, I would say that in the UK we have a great structure around this. The National Infrastructure Commission and its ability to create a long-term vision in an apolitical way is unique and quite important.

The second thing on strategic versus BCR is that it used to be a kind of joke in BP, my old firm, that, if a project did not cut it, then it became a strategic project. All projects are political in one way or another, regardless of where you are doing them. I totally agree with the ex-Chancellor that getting the right balance is important. We must not throw proper analytics out of the window.

With respect to Crossrail, going back to Bridget Rosewell's comments, difficult projects are really difficult. It is very difficult to sit in 2010 and estimate with precision what it is going to cost before you have done the detailed design work and before you have interacted with the contractors. It is very difficult to judge exactly how long it is going to take.

If you go back into the history of Crossrail, it turns out that its costs were reduced at some point, through the analysis and the pressures, from about £17.5 billion or £18 billion down to about £14.5 billion or £15 billion. Some of that was through the spending review in 2010. Some of it was even before that. There was downward political pressure on the cost at the outset. I have seen that in all projects. There is always a desire to manage the costs at the beginning, and oftentimes those cost reductions are not achieved in practice.

The big problem with Crossrail, which, by the way, is a brilliant project in many ways—I stood on the shoulders of people who had done some fantastic work—was that we underestimated the complexity of the really hard bit of the project, which, after the tunnels were built and after the stations were built, was the integration of the first digital railway in the country, operating in a new regulatory environment. It was the first ROGS railway built in the country. We completely underestimated right at the beginning exactly what it would take to bring all of it together and to



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assure millions and millions of component parts and test them in an integrated way and trial run the trains, and so on.

It is what some people refer to as a kind of co-ordination deficit. We underestimate the difficulty of integration of very large and complex projects. I have to say that those problems are largely solved now. The project is on its new track and going very well indeed. I just point that out.

Q38 Chair: Mr Meggs, is there still a mindset that it is about the tunnelling and the construction rather than the digital, and that is seen as tying in the final endpiece, whereas it needs to be thought of right at the very beginning? If that is the issue, are we learning those lessons for other projects?

Tony Meggs: It is an issue. It is one of my three big lessons from Crossrail. I am glad to say that the industry, the ICE, has just produced a report on that, "A systems approach to infrastructure delivery". These projects are not civil engineering projects any more, if they ever were; they are complex systems problems. It is not just the digital component. They sit in a very wide system. Crossrail interfaces with the traditional rail network. It is about understanding the totality of that system and then thinking through at the beginning, as Bridget said, exactly how you are going to go through all the stages.

I say this carefully. The tunnelling is the easy bit. It is not—of course it is incredibly difficult—but relatively speaking, bringing all of that together and making it actually work, and thinking about it from the very first day of the project, is absolutely vital. We need to do more of that. I think the industry is on the case, but right now our project leaders and companies do not necessarily have that first and foremost in their mind.

Chair: I will bring in two Members on this section—first, Lilian Greenwood and then Robert Largan.

Q39 Lilian Greenwood: Major transport infrastructure projects often take a long time. They rarely progress from decision to delivery within an electoral cycle. This Committee has often recommended long-term funding and more devolution in preference to central funding pots that local authorities and transport authorities bid for.

Philip, do political pressures to announce or deliver ahead of elections drive short-term thinking and centralisation? I know that the National Infrastructure Commission is meant to change that, but now that you are looking from the outside do you think it has done that, or is doing it?

Lord Hammond: I do not think it is elections. That is being a little bit too cynical. On big infrastructure projects, there is generally a strong desire in Government to identify and announce big projects. As you rightly say, many of the projects that are announced with great fanfare will not be delivered within a parliamentary cycle, or indeed a Minister's political life expectancy, or sometimes several parliamentary cycles. Of



course, HS2 is a classic example. I thought we were doing groundbreaking, rapid progress work in 2010, yet here we are with, I think I am right in saying, not a piece of rail laid a decade later.

There is an issue about politicians feeling the need to announce infrastructure spending. Part of our problem around project delivery and project management is that, typically, politicians feel a need not only to announce a project but to announce a delivery date and a price tag. I am sure the experts would say that, at the stage when you announce these things, it is unwise to the point of total impracticality to even guess at a price tag or a delivery date, yet I think you will find countless examples under all Administrations of that being done.

On the question of devolution, I think there is an extremely good case for more devolution of decision-making power in this country where there are units to which decision making can be devolved that are clearly capable of managing and making those decisions. Unfortunately, we have an asymmetry. We have some extremely good metropolitan governments that are clearly capable of making decisions for their city area, but it is not universal.

The problem is that many of the big linear projects that typically the Transport Committee will be looking at are not susceptible to local or regional decision making. They are strategic national projects, and because they are network projects they have to be conceived at the network level and not at local level. There has to be a different way of dealing with, for example, a pot of funding that is intended for local transport infrastructure improvements versus a pot of funding that is about making strategic interventions in the national network.

My final point is that again politics intervenes. Let us say there was a Government in office in Westminster that was strongly pro-car. That is not very likely at the moment, but let's say a Government was strongly pro-car and wanted to push, as part of their political agenda—perfectly legitimate if that is what you have been elected on—making the transport infrastructure more appropriate for car use. That Government might be concerned about devolving funding without conditions to regional or local governments that might make completely contrary decisions. Let us say there was a local authority or a metropolitan city government that was very pro-cycling and chose to use that pot of money to do the exact opposite of what the Government in Westminster had in mind. Politics clearly intervenes, but at project management and project prioritisation level, it seems to me that for local transport projects more devolution would be a good thing generally.

Q40 Lilian Greenwood: Thank you. Mr Meggs, the former Chancellor says that the elections do not play a part. It seems to me that we have had some announcements ahead of elections that subsequently unravel. You cannot help but think that perhaps the timing of the announcements was at the very least determined by elections. What is your experience from



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the position you are in of the way electoral cycles play into decision making?

Tony Meggs: I can think of projects in Governments in the past, not actually infrastructure, that have very much been governed by political cycles. Big transformation projects in particular suffer from, if you like, trying to squeeze them into an electoral cycle when actually they take potentially many years. Universal credit is a great example of that, or a bad example.

To come back to the specifics of transport, the ex-Chancellor hit it on the head. Whenever premature announcements are made, they are damaging. It is okay to make announcements. Politicians do that. We all want to do that, but then we try to demonstrate that we have a complete grasp on it by being overly precise. We need to follow the project cycles. You start out with very rough order of magnitude estimates. The Government are moving more and more to using ranges. We did that in Crossrail. Those ranges can narrow over time, as you get more information and more certainty.

I can promise you that what happens, and I have seen it in practice, is that premature announcements of cost and budget then become boundaries. They do not always lead to the right level of openness and transparency. I could use the example of HS2, whose costs exploded, but let me use the example of Crossrail. They were so fixed on delivering on 9 December 2018—a day that was fixed some 10 years earlier—that they lost sight of what it took to get it done. A complex environment developed where it became difficult for people to tell it like it really was. I am not saying that people lied, but you create an environment like a pressure cooker, and the pressure builds so high that it can explode.

The big challenge of projects, and it is a hugely difficult challenge, especially in the public sector, is how you get the right tension in the system. How do you get targets that really drive performance but recognise, at the same time, that you are not always going to hit those targets? I could easily build you a system where every project came in under budget and ahead of time, but you would not like the outcome. You might in a sense, but you would not like the costs or the schedules. We have to recognise that there is huge art, science and political nous in setting targets, and recognising that they are targets set to challenge the team, to challenge the contractors and to keep the pressure on, but never allowing the pressure to get so intense that it explodes. That is what happened at Crossrail.

Q41 **Lilian Greenwood:** Do you think that Government have learnt the lessons from projects like Crossrail and HS2 about setting budgets too early or not doing enough preparation before you make the announcement?



Tony Meggs: I see increased use of ranges now. If you look at HS2 now, they have given themselves quite a large range of delivery dates. Those have to be narrowed with time. Yes, clearly lessons are being learnt.

It is hard. I have spent a lot of time thinking about this and working with it. Striking the right balance between achievability, deliverability, realism and setting challenging goals in the public sector where everything is wide open, as it should be, is quite hard. It is easier in the private sector.

Q42 **Robert Largan:** Picking up on the theme of political interference in infrastructure decisions, Lord Hammond, I want to ask you about the impact of the culture, particularly the civil service and Whitehall culture, on infrastructure decisions and whether that has an influence. Do you think that recent announcements such as moving parts of the DfT up to Leeds, which is probably the largest city in Europe not to have a mass public transport system, will help to change the current culture?

Lord Hammond: Obviously, everybody is affected by the cultural background in which they operate. Forgive me if I am just a little cynical about announcements that swathes of central Government are going to be relocated to the provinces. I am old enough to have heard that announcement several times in my lifetime. Of course, a lot of civil servants work outside London, but there is a reason why key policymakers tend to be clustered around decision-making Ministers. There is a logic to that.

If we find that our ways of working are genuinely transformed, and Ministers choose in the future to conduct Zoom conferences with civil servants from various locations around the country, participating in that way, that may make a significant difference. We may have passed an inflexion point. It remains to be seen whether that really happens.

The answer to your question is that civil servants, speaking generally, do the job they are asked to do with the tools they are given. They are usually very diligent in the way they do it, but they can only work within the parameters that they are given. Historically, in relation to transport infrastructure projects, they have had to try to reconcile political commitments that have been made, or that are desired, with available budgets, using the tools of project analysis that they are given, principally benefit-cost analysis, to show that the project the politicians want to do does in fact have a good business case behind it. A good civil servant will go out to try to demonstrate the case for a project that his or her Minister has asked them to evaluate.

Sometimes they come back and say, "We just cannot make a case for this project, Minister." I was listening to the earlier witness session; one of the reasons that time savings have been such a dominant feature in the benefits assessed for transport projects in the past is that often the best way to get a project over the BCR hurdle is to identify time savings. They are relatively straightforward to assess. There is a pretty simple



formula for putting a value on them, and it was the go-to thing in the past. That clearly now will change.

Q43 Robert Largan: Thank you. It is interesting to hear you talking about Ministers putting pressure on civil servants in that way. For my sins, I briefly spent a period of time as a policy adviser. I have sat in rooms with civil servants talking about an infrastructure project—I will not say which one—and saying, “The BCR on this does not really stack up, but it benefits the Chief Secretary to the Treasury’s constituency, so we will find a way to bolster the BCR.” I won’t say which Chief Secretary to the Treasury. There is definitely an element of that.

Tony Meggs: May I intervene? As an outsider to Government who came in for three or four years, and then subsequently went to Crossrail for the last six years or so, I have to say from my personal perspective that I have not seen very much of that, having had oversight of about 150 to 180.

There is a lot of literature about so-called strategic misrepresentation. People are optimistic at the beginning of projects in order to get their project approved. If you were not optimistic you would never get your project approved. That is all part of the nature of life, but I have not personally witnessed that piling on to justify things. You obviously have, but I do not think it is widespread.

Perhaps I could add one other thing. It seems small, but for me one of the most fascinating things over the last few months is this. We have the Major Projects Leadership Academy in Government, of which we are very proud. It is really world-class. People study it from all over the world. About 30 to 40 Ministers have now taken a huge amount of their own time to attend a miniature version of that spread over eight separate sessions. I regard that as one of the most important strategic interventions that the Government have made. Ministers themselves, without necessarily having any kind of project experience, can learn from academics and from practitioners how their role can either improve or detract from the success of a project. Mistakes are often made not through malice or anything like that, but simply through lack of understanding. Building that understanding is going on right now, driven by the Treasury Chief Secretary. I applaud it. I think it is a big deal.

Lord Hammond: Can I respond to Mr Largan’s question? It is too cynical to think that projects are driven by an individual Minister’s constituency interests. That would, frankly, be rare and, if it were to happen, reprehensible. That is not what I was implying at all.

Having announced a project with a budget, speaking as a former Minister, I freely admit that I have experience of this. You announce a project: “We are going to do project X and it is going to cost £10 billion.” Six months or nine months later your civil servants come to you and say, “Minister, unfortunately it looks as though it is going to cost £13 billion or £14 billion.” The typical ministerial response is not, “Oh, is it? Well, I’ll



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have to inform Parliament that that is the case.” The typical response will be, “Go away and find me a way to get it back within the budget.”

You immediately start at the very beginning with what is politely called a de-scoping exercise. There may be elements that are genuinely de-scoping—we will lop off some of the nice-to-have bits that we do not really need—but the people who are charged with the process fully understand that what they are being asked to do is go away, sharpen the pencil and look again at the BCRs. Can they find a bit more time saving or whatever to improve the business case for the project? It may be the cost that is under scrutiny or the BCR ratio. If it is the BCR ratio, you have two tools. You can either reduce cost or you can increase the benefits.

It would be naive to say that civil service project managers do not come under pressure to lower cost estimates or improve BCRs in order to keep a project on track. As Tony Meggs has acknowledged, it is also well understood across Whitehall, especially in the Ministry of Defence, I might add, that keeping costs down to get a project into the programme is an essential part of the game-playing in Whitehall. Once the project is in the programme and announced, you have a very good chance of being able to keep it there even if its costs escalate. If you go in with too high a cost estimate at the outset, there is a real danger that it will not make it into the programme at all.

Robert Largan: Thank you both. I appreciate your very thoughtful and candid answers. They are very useful.

Chair: I realise that we are being far too cynical about Whitehall, so, with that in mind, I hand over to Gavin Newlands to turn the ship around.

Q44 **Gavin Newlands:** Me cynical about Whitehall? Heaven forfend, Chair.

To move on to infrastructure strategy, Mr Meggs, in assessing the Government’s current transport infrastructure priorities, looking at economic impact, connectivity and environmental effect, what challenges do you see for the Government in delivering on those priorities?

Tony Meggs: The good news is that we have an overarching strategy in the National Infrastructure Commission, and the strategy that came out of that. That is good, and it is a different place from when I first went into Government. That is excellent.

First of all, on evaluation methodology, I should point out—it is obvious—that one of the things that Covid has reminded us of is that we live in a world of enormous uncertainty. I will give you an example, which would be to try to justify Crossrail today. As Bridget Rosewell said, it was an extrapolation of traffic or ridership in London based on the last 20 years. Who knows how many commuters there are going to be in London over the next 10 years? I would say actually that nobody knows. We are moving into a world of real uncertainty where the strategic cases will become more important than the heavily engineered benefits cases.



Frankly, any challenge in a world of great uncertainty will be to get crystal clear what the strategic objective of each project and programme really is.

The second thing is that, although the IPA has said, “We don’t have capability constraints,” I am not sure that I agree with that 100%. You need to be sure that the industry is capable of taking on everything that is out there. There are certainly examples in my old industry of oil and gas where lots of activity created massive inflation in costs. Industry capability and cost management is something to keep under review.

Q45 Gavin Newlands: Thank you. Your first point is definitely a fair one. God knows where we are going to be in the next year, two years or indeed 10 years.

Lord Hammond, we have covered major infrastructure projects in the round, and deliverability and appraisal in some detail, so perhaps I could move on to the prioritisation of infrastructure projects. How should the current Government prioritise those projects? For example, should a bridge, a tunnel or a fixed link—call it what you will—be built linking Northern Ireland with the mainland?

Lord Hammond: I would be extremely doubtful that there is a decent business case or a decent strategic case for a bridge or a tunnel linking Northern Ireland to the Great Britain mainland. I do not have detailed analysis to back that up. I just would be extremely sceptical that any project of that ambition, properly costed for the risk that must be involved in it, would generate potential benefits that exceed it. I think that is probably an outlier in our discussion, if I am honest.

Q46 Gavin Newlands: We spoke about the danger of vanity projects earlier on, and the fact that they take the focus away from other more important infrastructure projects. Would you call this a vanity project?

Lord Hammond: It is not for me to label a project that is in a very early stage. It has only been mooted at the very highest level. No work has yet been done on it. Clearly, it sends a message about the importance of connectivity between the four nations of the United Kingdom, and I absolutely support the need for that connectivity. It is a message of reassurance to the people of Northern Ireland at a time when they see some issues of concern around connectivity.

What should we be spending our transport infrastructure funding on? We should be spending it on strategic projects that will be transformational in a way that is supportive of Government policy, necessarily political judgments that a Government want to make. This Government have a very strong focus on the levelling-up agenda, particularly around the north of England, and therefore it would be appropriate for the Government to look at strategic projects that contribute to that agenda.

Every economic problem in this country comes back to the challenge of productivity. Those of you who had to suffer me as Chancellor of the



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Exchequer will remember that never once did I stand up in the House of Commons without mentioning productivity. If we can unlock the productivity problem, we have unlocked a bright future for the people of the United Kingdom. Our productivity is far lower than our competitors. One of the reasons for that—only one of them—is that our infrastructure, both public and private, is generally of a lower quality and smaller quantity than our principal competitors. Investment in infrastructure, all other things being equal, is likely to be a contributor to the raising of productivity, but it has to be the right infrastructure. Therefore, the test for any investment below the strategic level has to be, “Does it raise productivity?”

In particular, in our northern and midland cities, improving the interconnectedness of cities that are close together geographically but quite far apart in travel time is crucially important to gaining the agglomeration effects of greater populations working together as single markets. That is the area where I really do not agree with an assertion I heard in the previous session that time savings do not matter. I think time savings in terms of travel within agglomerations, within metropolitan areas, very much do matter because it is about how people see the urban area they live in. If you can get quickly and easily from one side of it to the other, it becomes a single economic geography. If you cannot, it is not and that is economically damaging.

Gavin Newlands: I very much agree with much of what you say on productivity, and the points you make about strategic and economic benefits. I have a question about political consequences.

The previous panel spoke a lot about the need for devolving decision making. What good is devolving decision making if the UK or central Government then ride roughshod over those devolved responsibilities anyway? What political consequences would you see down the line if the UK Government were to try to impose a crossing on Northern Ireland and Scotland? Both Administrations are against it, so there would only be one party in each Administration, Parliament or Assembly that is for it at the moment.

Lord Hammond: As I have said, I do not think that is a project that in reality is likely to survive beyond the initial technical and cost appraisal phase. The objection to it, I imagine, is simply that it is not the best use of strategic infrastructure funding. If the Westminster Government chose to fund a project of that nature, it would clearly bring some benefits. No one is going to suggest that there are no benefits from having greater connectivity. The question is whether the benefits get anywhere near matching the costs. My guess is that in this particular case they would not.

I understand that you are coming at it from a slightly different position and will be saying, “Give us the funding that would have been invested in this strategic project and we’ll invest it in a number of sub-strategic



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projects that will deliver greater economic benefits." I am quite sure that I will hear that view repeated by local and regional leaders across the UK.

That is not quite the point here. There are some projects that are strategic and, because of the network effect, central Government clearly have to make those strategic network investment decisions for the whole of the UK. There are other types of project and other types of spending where, I agree, decisions can best be made at a more local level.

Gavin Newlands: Thank you. I think we have kicked this particular ball as far as we can.

Chair: Thank you, Gavin. We want to touch on the impact that the Treasury can have on major transport infrastructure projects.

Q47 **Simon Jupp:** Good morning to the panel. Thank you very much for joining us. I want to focus on the purse strings of the Treasury versus the ability to deliver from that Department. I want to speak to Lord Hammond on this question. When you became Chancellor, you said it was for spending Departments to spend money and not the Treasury. In your view, do you think that is the current Treasury culture?

Lord Hammond: Let me say at the beginning that the Treasury is not only about controlling spending. Of course, the Treasury has a macroeconomic role, which necessarily is interested in the total amount of public spending and the total amount of public capital spending. The Treasury also has a role in driving value for money. I think the people who work in the Treasury would regard that as their more important and more challenging role, working alongside departmental colleagues to make sure that policy priorities get delivered, but in a way that is compatible with value for money for the public purse.

In terms of the current Administration, it is clear that the current Government have made a political decision that they want to increase the amount of spending on publicly funded infrastructure. I support that decision. It is the right decision to make. If we look around the world, we see that countries that are growing more rapidly and becoming more prosperous than us are often countries that have constrained consumption at some point in their economic development in order to fund investment.

We need to be clear what we are saying here. We cannot carry on consuming exactly what we were consuming before and spend a lot more on infrastructure investment. If what we are saying as a nation is that we want to invest in our future, and that we are prepared to constrain our current consumption a little bit in order to invest more capital in our future, I think that is a very good decision. It is a decision that will make us richer, more prosperous and more secure in the future, but we should not pretend that spending more money on infrastructure now does not have implications for how much we can spend on current consumption now.



Q48 **Simon Jupp:** That is a really interesting response; thank you. This is a broad question, and you touched on it at earlier points with regard to potential political interference and other things. When you were Chancellor, how did you retain oversight of the key value for money target that, at every turn, the Treasury has to look at?

Lord Hammond: It has traditionally been through the Green Book process. The current Chancellor has updated the Green Book. I think that is the right thing to do. It is clear that the Government wish to pursue some strategic projects. We live in a democracy. The Government were elected with a significant majority and a clear policy agenda. They are entitled to pursue their stated and announced policy agenda. The application of the Green Book processes, as were, was definitely going to hinder building a business case for some of the projects that the Government would want to invest in.

I think the reason is simply that the Green Book is very good at evaluating some benefits from projects, but very much less good at evaluating other types of benefits that have to be evaluated in a more qualitative way. It is not revolutionary, because there was always a quantitative element and a qualitative element to measuring the benefits of projects, but having an adjustment to the Green Book that recognises explicitly that more weight should be given to what we would previously have thought of as qualitative elements and less weight to the quantitative elements is a perfectly legitimate step for the Government to make.

As I said earlier, we have to make sure that we do not throw the baby out with the bathwater. If we were to find that the revised Green Book was allowing the Government to wave through fantasy projects, which all experts tell us have no chance of ever delivering benefits that outweigh their costs, that would be something I would be very concerned about. Used sensibly, the revised Green Book is a good step forward.

Q49 **Simon Jupp:** Moving on from what you are saying, as a result of some of the decisions you have just discussed, the Treasury is now responsible for funding not only big infrastructure projects but also has more control over, for example, the railway than it had previously. In your view, is that sustainable long term and, as a Department, does it have the bandwidth to deliver?

Lord Hammond: The railway is a special case. To be perfectly candid with you, I have felt for some time that the franchise model was broken. I think the Covid crisis and the consequences of it make it abundantly clear that there will need to be a new model for operating the railway; 90% of the infrastructure is publicly owned anyway. It is publicly financed. It is going to have to be operated in a different way, which harnesses appropriate private sector management skills in an appropriate way, where appropriate, but recognises that it is a publicly owned piece of infrastructure. I think the railway is a special case.



More generally, does the Treasury have the bandwidth? The Treasury is a small organisation—less than 2,000 people—but it has a lot of leverage. Small teams that have significant expertise in departmental spending areas can make a really important difference, working alongside the departmental spending teams. You did not ask this question, but I will offer you an answer gratuitously. There is a huge difference between outcomes where the Treasury spending team and the departmental spending team are effectively working together to deliver projects and agreed priorities, and areas where the Treasury spending team is using all its time and energy to act as a brake on unfettered and uncontrolled departmental ambition.

One of the big prizes in Whitehall is to get the Treasury spending teams, which are a big repository of expertise in departmental areas, working with departmental spending teams, rather than having to act as a brake on them. When I entered the Treasury, one of the first things I said was that I wanted to see the Treasury spending teams working with the Departments they monitor to be additive in getting projects delivered effectively rather than just having to be a monitor and a prefect.

Simon Jupp: Thank you. That is very interesting. My job as an MP is to reacquaint Treasury officials and Department officials with the south-west, the region that I proudly represent.

Lord Hammond: My experience is that the south-west has never been bashful about its claims on central Government's purse. That was my experience as Transport Secretary and as Chancellor.

Simon Jupp: We will continue that. Thank you.

Q50 **Chair:** Before I bring in Karl McCartney, I want to touch on something you said, Lord Hammond, with regard to the Treasury and rail in particular. The Williams review is about a year and a half overdue. When you were Chancellor, the train operators were paying in a net amount of £200 million to the coffers. This year, it is likely that the Treasury will be paying £10 billion in subsidies. One can understand why the Treasury wants a close look. We have talked about Project Speed. Things are now even slower as a result of the Treasury's concern as to spending. Is this likely to be the way we should get used to things, that an expanded Treasury is paying a lot more and therefore things will get slower as a result?

Lord Hammond: In the short term, you have to expect that any major ongoing review that started before the Covid crisis will now need additional time to review its findings, and indeed its evidence, in the light of Covid. The railways will be fundamentally affected by Covid, as Tony Meggs said earlier. Everything has changed, and every assumption that underpinned every decision that has been made in relation to rail investment now has to be revisited. We do not yet know the new facts against which those decisions have to be retested. They will only emerge as the country comes out of lockdown and we see to what extent



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previous patterns of work-life behaviour re-emerge, or whether in fact those patterns have changed for good.

Chair: Thank you.

Q51 **Karl McCartney:** First, I register the fact that I have known Lord Hammond since 1994. I think the first time we met was probably at a by-election in east London. Like many of my colleagues on the Committee, we have known each other for many years.

I want to cover some of the subjects and issues that you have answered already. You mentioned various projects in your role at Transport, Defence and at the Treasury. Do you not think that getting some projects under the line or over the bar, whichever phrase you want to use, by sharpening the pencil costs the taxpayer more in the long run? Once the projects are in the system, if you like, the costs for the nice bits of those projects are exponential compared to including them in the first place.

Lord Hammond: I think there is a real problem here. I hesitate to use the word “game-playing” but it is game-playing. Everybody in any large organisation understands that there is a process, and you have to comply with the rules of the process. Understating costs and overstating benefits at the very early stage of projects when they are being promoted in Departments is, I am afraid to say, pretty much universal behaviour in my view.

Let me phrase it differently. Understating the risks, both to costs and to benefits, is standard practice. That is why we have such extraordinarily large provisions for optimism bias in the evaluation of public sector projects in the Treasury. What happens is that projects get announced, often with over-ambitious delivery dates and unrealistic budgets. As the pressure comes on, there is constant debate about whether to de-scope, to try to keep within budget, or whether, effectively, to admit defeat and increase the budget envelope, which usually means a Department giving up some other priority. As project costs increase, of course it means that the original benefit-cost analysis that was made—the original business case—increasingly becomes irrelevant or redundant, or there is an attempt to find new benefits that can justify the additional cost.

It is a real problem. If a project starts with an unrealistic business case, it is likely to go from bad to worse, as you run through a series of challenges to delivery and increases in cost through the project life. Whether we are in the private or the public sector, the reality is that most projects increase in cost during the project life.

Q52 **Karl McCartney:** Thank you for that. Mr Meggs, anything to add?

Tony Meggs: As the former Chancellor says, these are common problems, and some of them are unconscious bias. There are three things. One is the use of benchmarking, which is something we have to get a lot better at. I know that there are efforts going on, but one of the best ways of understanding how much a project will cost and how much



time it will take is to look at other, similar projects. It is quite difficult to do that with mega projects, but there are ways and means. It is reference class forecasting or benchmarking, so that you are not just relying on the planning fallacy and optimistic experts. In my old company, no project could be approved unless you could demonstrate how you were performing against benchmarks. That does two things. One is to make sure that you do not grossly underestimate, and the second is to make sure that you do not grossly overestimate and give yourself too much slack.

The second thing is external reviews. We do those. We possibly should do more, so that you have people looking at the programme who are not vested in the outcome.

Thirdly—this is really important, learning from Crossrail and other projects in Government—we need to do more to simplify our programmes. When I think about vanity projects, I do not think about irrelevant projects. I think about projects that have too many bells and whistles, sometimes in response to political requirements, ambitions or whatever. There is a huge opportunity to think systematically at the very beginning of very large projects: “What can I do to simplify it and take out risk by standardising things, by doing offsite construction, or by testing things offsite?” There are many things we can do. We can make projects smaller. Can we break projects down into smaller component parts? There is definitely a clear relationship between the scale of a project and its propensity to overrun. That is bad news for HS2, but it is just a fact because of the complexity they entail.

I strongly urge simplification and standardisation. Simplification does not mean poor, low quality or cheap. It can be world-class brilliant British design, as Crossrail is. Crossrail, as an example, could still have achieved a brilliant outcome with a great deal less complicated design and construction.

Q53 Karl McCartney: Perhaps I could pick up on a point that you mentioned, Philip, with regard to trains across the country and the way the system might be changed. Lilian was asking this point earlier. Do you think there is a possibility that some senior politician might end up with their own train set, like Lord Prescott did with Hull Trains?

Lord Hammond: I can speak freely; I do not speak for the Government. My view is that the franchise model is now broken, but that we still need the skills of private sector management in operating railway infrastructure, and that that will probably be best done through relatively short-term management contracts with some incentives structured into them. We must recognise that the railway is a piece of public infrastructure, and ultimately it must be Ministers or regional political leaders who make decisions about service frequency, stopping points and pricing. We need to be transparent about those, and we need to fully understand the cost implications. They are essentially political decisions



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but, in my view, the operation of the railway needs to be done by private sector managers who are answerable to public authorities.

Chair: Lord Hammond, you have touched on productivity and its related subject. I hand over to Ben Bradshaw to talk about skills.

Q54 **Mr Bradshaw:** Lord Hammond, I do not know whether you had the opportunity to hear the earlier panel. At the end, I asked them about global best practice. While they said that we were getting better in many areas, skills were still a real problem. Would you agree with that? Do you think that current Government policy is doing enough to address the skills gap?

Lord Hammond: Yes, I agree with that. We have a skills challenge in the UK. I think it was said in the previous session, and I very strongly agree with the view that, while infrastructure investment is an important contributor to productivity improvement, it is not enough on its own. It is one factor. It is not a magic bullet. Of course, the irony in terms of skills is that we need the skills both to ensure economic growth once the infrastructure is there and to deliver the infrastructure in the first place. Yes, it is a big issue.

In terms of current Government policy, the T-level project, which was kicked off under the previous Government in which I was Chancellor, will make a significant difference. We have talked a lot today about the cynicism of Government decision making. That was a decision to spend money on a project that would in no circumstances deliver visible output in the life of that Parliament. We will only start to see the benefits of that project coming through over the next two, three, four or five years. It is none the less essential. That is a positive, and I think we are moving in the right direction after a very long pause.

I have said this many times before; I think it was Haldane, back in the early 1900s, who recognised that British technical skills training was falling behind Germany and noted the potential military impacts of that. It has taken us 100 years to respond to that warning and introduce a new system that properly recognises the value of technical skills.

Where I think the current Government's policy agenda will not be so helpful is around immigration policy. The infrastructure industries in particular have typically relied on a free and easy flow of skilled labour to support infrastructure development. I know that under current policy people with appropriate skills and salary levels will still be able to get in through sponsor processes, but that is not the same as being able to bring in labour from Europe freely and quickly, without any bureaucratic hurdles, to work on a specific infrastructure project or a specific micro-portion of an infrastructure project. It might be bringing in a team of electricians for a few weeks to deal with a specific stage of a project. That is all going to be much more complex and difficult in the future.

Q55 **Mr Bradshaw:** Do you think the Government should revisit that if they



are to meet their infrastructure commitments?

Lord Hammond: The Government do not need to make an announcement; they do not need to make any fanfare, but I think it would be a very good idea for the Government to look at how immigration policy might impinge negatively on some of their own key policy agendas, and then prepare contingency plans for dealing with those circumstances if they arise. They need to monitor very closely the implementation of policy and be ready to move quickly if they find that their policy agenda is being undermined by their migration policies.

Q56 **Mr Bradshaw:** Tony, do you have anything to add on skills? I was particularly struck by the earlier witness who said that in order to have the right skills for a zero-carbon world we need to be focusing on primary schoolchildren now. With your experience, what more do we need to be doing on skills?

Tony Meggs: First of all, I acknowledge the importance of that. Great people deliver great projects, and people are the most fundamental thing. Secondly, we have some very brilliant project leaders in Britain, but it is a global market. They work all over the world—to some of the earlier questions.

One of the things we ought to look at in terms of skills is the way that our construction industry currently works. I am not saying anything out of order because the construction industry recognises this itself. Very few of our big projects get done without bringing in big construction firms and infrastructure firms from France, Spain or Italy. You will find them pervasive. One of the reasons for that is that in some of those jurisdictions those companies are more advanced.

We have a very separated industry, if that is the right term. It is very siloed. There is a lot of work going on around that and it is recognised by the industry. The industry itself needs to build more capability. It needs to hire more people on a full-time basis and improve training within the industry. Again, industry leaders would agree on that.

The Government have a big role to play in the way they do their contracting and in the way they interact with the big companies to provide a long-term, stable platform for those companies to go out and invest in their people and in modern methods of construction. You cannot build a factory to improve your construction productivity unless you know that you have several years of work ahead of you.

I think it matters at the primary school level, but we need to look to our contracting industry, and to the Government working with them, to help the whole industry build strategic muscle, technological capability and so on.

The last point is that 40% of the people at the frontline of Crossrail in its heyday were from the continent of Europe, mainly eastern Europe.



Q57 **Mr Bradshaw:** Do you share Philip Hammond's concern about the impact of the new post-Brexit immigration rules?

Tony Meggs: I cannot say that I am familiar with the rules. I have not heard from my friends and colleagues at Crossrail that they are experiencing a problem today with getting the skills they need. I have not heard it as a problem right now.

Mr Bradshaw: Thank you. I had better go, not least because my washing machine has decided to go on its spin cycle. Apologies, Chair.

Chair: That is very apt for a politician. Thank you. I will hand over to Grahame Morris and then Greg Smith with regard to some of the other barriers impacting appraisal and delivery of major infrastructure projects. This will be our last section.

Q58 **Grahame Morris:** Lord Hammond, you have given us some very useful evidence, particularly from your experience at Defence. You have unparalleled experience in several Departments, including as Chancellor at the Treasury. I was very interested in Tony Meggs's evidence, when he talked about what could be done to ensure that we do not have overspending. I am struggling to think of an example of a major transport infrastructure project that has been delivered on time and on budget. Tony talked about benchmarking, external review, simplification and standardisation.

Lord Hammond, is there something more that can be done that you have not already indicated? Are there any issues around cross-departmental co-operation? It seems to me that there is a bun fight every year with the Treasury to get the resources in order to take particular projects forward, and Transport is competing with other Departments. Could you give us some insight, in your view?

Lord Hammond: I think that is inevitably going to be the case. There will always be more good infrastructure projects for which a case can be made than there is capital funding available for them. There will be competitive tension. I have already elaborated on it and I do not want to go over it all again, but the problem is that in order to get selected projects have to look attractive. Therefore, there is a huge incentive for project teams to—I say this cautiously—maximally state the benefits, play down the costs and, most importantly, play down the risks. Of course, it is not hard costs that drive project economics; it is the allocation of risk. Most big projects have huge risk, which, at the very early stages—the stage when they are first included in the programme—are largely unquantified. Minimising the risk around a project is a classic way of making it look more attractive at that stage. That is the first problem.

The second problem is how people respond when, over the life of the project, problems start to emerge. I am overstating the case for effect, but this will largely have happened with all projects. How do you deal with the fact that the original business case unravels through a



combination of changing circumstances around us? Projects have long delivery times and rising costs. How do you respond to that situation? Clearly, projects get to a tipping point when there is no question of being able to stop them and they have to be completed. There is often an attempt to de-scope them and lop bits off them. That sometimes has significant impact on the overall cost-benefit ratios.

I remember, for example, on HS2 that the full "Y" construction adds significantly to the cost-benefit ratio because the last bit of the "Y" is relatively low cost to build and adds quite significant benefits. If you take it away from the project, you undermine the BCR case overall.

Q59 Grahame Morris: Can I ask you again, Lord Hammond, about the cost-benefit analysis? As I represent a part of the world that is a little bit isolated and feels badly done to, particularly in transport allocations, I feel that we accentuate the positive and do not look at the negative.

We heard a little bit in the earlier session about the levelling-up agenda. Do you think perhaps that in the cost-benefit analysis we should look more at the costs of doing nothing, in terms of not meeting the levelling-up agenda, instead of trying to construct an argument that time reductions and so on are going to give X benefit, or am I being silly?

Lord Hammond: I think the better way to do it is actually the way the Government have gone, which is to say that benefit-cost analysis plays an important role, is an important tool and we should always do it, but it is not the only consideration. There are other factors that should be considered alongside it, and a balanced judgment formed. I think many of the concerns in northern England about the way benefit-cost analysis has led to projects not going ahead, principally because the value of time saved is often scored at a much lower level, will be dealt with by the new approach that the Government have brought in.

Grahame Morris: Thank you. I realise that the clock is against us so I will hand back to you, Chair, or to Greg if there is time.

Chair: If it is okay with both your diaries, I want to find time for Greg. Lord Hammond, you focused a lot on the Oxford-Cambridge corridor. Greg's constituency is right in the middle of that.

Q60 Greg Smith: Good morning to the witnesses. We have talked a lot this morning about benefits of projects over the long term and what they will actually bring. What we have not focused on so much is the impact on communities that suffer the brunt of those infrastructure projects, often without any benefit.

Given the way that Governments tend to work on this and the contracting process, how can the Government lock into the process of big infrastructure, doing things with communities affected rather than to communities affected by that build? I think it is instrumental in the way the contracting and planning processes work from within Government on that. For many people, the overall benefit of a scheme is irrelevant; it is what actually happens to them, their own businesses and their own day-



to-day lives.

Lord Hammond: I listened to your comments in the previous session, and I am afraid that we are not going to agree on this. Central Government's role is to take a UK-wide view of costs and benefits. It will sometimes be the case, and HS2 is a very good example, that the benefits will accrue in one part of the United Kingdom and in other parts there will be a cost burden to be borne.

One of the challenges we have around infrastructure delivery is the tendency to try to deal with the problem that you have identified by adding bits to projects to try to deliver benefits to communities that are negatively impacted by the project. I hold my hand up and plead guilty because, for example, in the early stages of the HS2 project the attitude was, "When you run into resistance, try to find a way of buying out that resistance." If you have a community that is vehemently opposed and is mobilising objection to the project, is there a way we can build a tunnel or a deeper cutting? Is there a way we can somehow make the project more expensive but buy off the objection of the community?

I am afraid that is one of the things that makes our projects more complex and more costly. It is a political view, but I think that the function of central Government is to rise above local views of costs and benefits and look at the national interest. It is clear to me that East West Rail will produce strategic national benefits for the UK, linking directly together two very important centres that are driving economic growth, in Oxford and Cambridge, and creating a corridor that could rival some of the famous corridors elsewhere in the world like Silicon Valley.

Q61 **Greg Smith:** I did not oppose East West Rail in the first session.

Lord Hammond: I understand that.

Greg Smith: I am very much opposed to HS2. We see the local benefit of East West Rail. I accept your argument that a Chancellor, a Prime Minister or a Transport Secretary has to look at the UK-wide benefit, but that should not be entirely to the detriment of local communities that have to suffer the impact.

The question remains. Other than buying out opposition, which clearly could not happen along the whole track because nowhere in my constituency has buy-out of that opposition, and they remain firmly opposed to the project, how can the Government work better with communities, parish councils and local authorities when planning big infrastructure?

Lord Hammond: You are right that East West Rail is different because obviously it follows an existing rail alignment. That is defined, whereas in HS2 there was a little bit more scope about the exact route.

In this country, we have probably the highest level of engagement at local level or community level in the early stages of linear infrastructure



projects. If you take the other extreme and go to China, infrastructure projects are determined centrally and are just built. There is very little, if any, local community engagement. Even in European countries, there is not the level of community engagement that there is here. There is not the level of democratic engagement in the strategic planning process. There is a balance to be struck. If you go too far down that route, you end up with no strategic infrastructure getting built, or strategic infrastructure being built at a cost that makes us uncompetitive with our peer group of countries.

I know it is not the answer you want to hear, but I am afraid that when it comes to where we put a runway or a rail link the difficult job of central Government is to weigh up the balance of advantages and disadvantages, costs and benefits, and make those decisions. Sometimes people who are directly impacted by the infrastructure will feel very aggrieved by decisions that are made in the national interest.

Tony Meggs: Could I add a comment? First of all, on the UK approach, I completely agree with the former Chancellor. We can look at the hybrid Bill process and see how much actual cost is added to a project in the course of that. I am not saying it is a bad thing, but it is the price we pay for the open, liberal society in which we live.

The second thing is that there should be, and there is, a big onus on the people actually doing the projects to interact well with the community. For example, at Crossrail, which end to end is more than 73 miles long and covers lots of area, there is a huge number of bodies and groups of people to consult, to solve local problems. Often the problems are local problems, rather than problems of disagreeing with the philosophy: "How can I get in and out of my house?", "How is this affecting the local shops?". Open dialogue around that is absolutely the responsibility of those given the job of implementing the project. As far as I have seen, the ability to deal with those local issues is growing all the time.

Greg Smith: We could get into a very long dialogue on that, but everyone on the Committee knows where I stand. I can feel the Chairman's eyes bearing down on me, and the clock.

Q62 **Chair:** I think the witnesses know your view as well as the Members, Greg. I have two final quickfire questions. We have focused on politics but we have not focused on perhaps judicial activism and campaigning groups holding matters up. Do you think there is more reform needed when it comes to the courts holding up transport projects?

Lord Hammond: That is a political decision. It goes to the debate we have just been having about the balance between Government having to make decisions in the national interest and then impose them against the wishes, undoubtedly in every case, of some people and some groups. If we want to get big infrastructure done, we need to find ways of making sure that the process does not get any longer or more long-winded.



Q63 **Chair:** Thank you. Mr Meggs?

Tony Meggs: I do not want to comment on the legal system. I would just say that if you look at the cost of infrastructure projects across the world, transport in particular, those that operate in a common-law environment tend to be more expensive—this is a sweeping statement—than those that operate in a civil law environment. There is something about our system, where people can raise objections and so on. It is the way we live. Because it is all a balance, I would hesitate, quite honestly, to advocate a more interventionist and dirigiste approach in our country.

Q64 **Chair:** I will put the final question to Lord Hammond, given comments during this week. We have the ability to create, innovate and find solutions for our own net zero challenge. Obviously, there are bigger challenges in countries like China, where we could be selling transport technology, but we seem to be turning our back on trade with China. Do you feel that we should be more inclusive in terms of our exports to that market?

Lord Hammond: We do not have enough time to discuss it fully now, but my view is that, if the UK wants to make a success of departing from the world's largest trade bloc and going it alone in the global trading environment, we cannot afford to cut ourselves off from the world's second largest economy. Of course, we have many areas where we have strong disagreements with China, but we also have areas like climate change where we can make common cause, and we can influence Chinese policy. Influencing people means engaging with them. If you disengage with them, you will have no influence on them.

Chair: Huge thanks from all the Committee members to Lord Hammond and Tony Meggs for such an interesting insight into what works and what does not work with regard to transport infrastructure. It has set the scene beautifully for us to delve further. I hope you will keep in touch with us. For now, thank you.