



Built Environment Committee

Corrected oral evidence: Infrastructure policy-making and implementation in central government

Tuesday 13 December 2022

11.30 am

[Watch the meeting](#)

Members present: Lord Moylan (The Chair); Lord Berkeley; Lord Best; Lord Carrington of Fulham; Baroness Cohen of Pimlico; Baroness Eaton; Lord Grocott; Lord Haselhurst; The Earl of Lytton; Lord Stunell.

Evidence Session No. 3

Heard in Public

Questions 24 - 29

Witness

I: Jonathan Spruce, Policy Fellow, Institution of Civil Engineers.

Examination of witness

Jonathan Spruce.

The Chair: Welcome to the second evidence session today for the Built Environment Select Committee's short inquiry into infrastructure policy-making and implementation in government. Our witness is Jonathan Spruce, trustee for policy and external affairs at the Institution of Civil Engineers. Could members and our witness please keep answers relatively brief? It is very easy for us to overrun on time because the subject can be so very interesting. We are going to start with a question from Lord Best.

Q24 **Lord Best:** We are looking at how government makes infrastructure investment decisions. What does the Institution of Civil Engineers think about the current way we do things? Can I throw in something else? Since we have just been talking to the National Infrastructure Commission, can also ask how you see the role of that body? How does it play into the picture?

Jonathan Spruce: Good morning, everybody. Civil engineers want to build a more sustainable world, which requires stable decisions and infrastructure system development focused on long-term strategic needs. The fundamental reason for setting up the National Infrastructure Commission is absolutely sound, and we would fully support that. Infrastructure is ultimately about making people's lives better. Again, that is a key focus of the commission.

As a practical first step to that, the institution supports putting the commission on a statutory footing and giving a statutory underpinning to the national infrastructure strategy every five years. That is really important to give long-term certainty on what infrastructure is needed.

The commission does a really good job. The second national infrastructure assessment is in process. Its focus is on energy, climate change and transport—very important aspects. Supporting the work of the commission and, to emphasise, putting it on a statutory footing, is really important.

Lord Best: Long-term certainty sounds great, but ultimately these decisions are political. The politicians themselves and their policies change frequently. Are we doing it as well as we could within those constraints?

Jonathan Spruce: With the National Infrastructure Commission, given where we have come from over the last 10 years, we have made a really good start. The transition to net zero, which is the key thing we are all focusing on, is a challenge of unprecedented complexity and scale. The necessity to look long term at how we deliver net zero by 2050 is really important.

Planning for that long term allows us to work in the shorter term on innovation and on delivering things more efficiently. It also allows us to

view infrastructure as an investment, not as a cost. That is really important because what we do now and in the short term on things such as low-carbon energy solutions and renewable energy will give us long-term benefits towards that net-zero transition and energy security, which are two really big challenges.

The Chair: Just coming back to your comment, we have heard different views about the question of whether the National Infrastructure Commission should be placed on a statutory footing. You support that idea. What practical effect and difference would that have? What would you like to see the commission doing differently as a result of being on a statutory footing?

Jonathan Spruce: The statutory footing does a number of things. It provides the industry with much greater certainty. The industry would benefit from the cycle of updates and the long-term certainty that the commission was giving. We at the institution do a lot of work with our international partners. Infrastructure Australia, the equivalent in Australia, is on a statutory footing. That allows the individual states, at a state level, to plan with the industry the delivery of the necessary infrastructure projects much more effectively and efficiently, with an idea of ensuring that the skills are there as well. That benefit of pipeline certainty in programmes that the statutory footing would give is really important.

It would also allow Parliament and government to use the commission as a provider of advice on infrastructure system development. It could help with scrutiny and challenge of government decisions, to address the problem we have just talked about of how long-term infrastructure planning is necessary but can often be short-circuited by short-term political planning.

Q25 **Lord Carrington of Fulham:** My interest is really in the financial aspects of what is happening. Are you satisfied with the way projects are evaluated by the Treasury? Does the Treasury understand how to do this properly? Does the Treasury do it accurately enough? Does it prioritise projects in the right way? In other words, does it manage to analyse whether one project should be brought forward as opposed to another?

One of the characteristics of major infrastructure projects is that the initial costings tend to be way out of line with the final cost. Is this something that we could get a better hold of? Could the Treasury, and indeed various other bodies, do a financial analysis of projects at their start that better reflects the likely outcome and helps control cost overruns in the process of construction?

Jonathan Spruce: On your first point, the ICE definitely welcomed the refresh of the Green Book in 2020, which is the book by which the Treasury appraises projects, because it included a stronger requirement to establish very clear objectives on infrastructure spend, which drive the appraisal process.

However, the issue with the Green Book to some extent is that it is designed to appraise projects and programmes based on very clear, measurable and quantifiable metrics. In a transport project, for example, we might be talking about journey time savings. The Green Book is very good at quantifying that.

It is not so good at quantifying things in some of the key policy areas we are facing, such as net zero and levelling up, because the metrics have not really been defined. There is definitely a need for more detailed definitions and clarity on targets for infrastructure to help deliver these outcomes because, ultimately, it is the outcomes that we are looking at.

That plays into your second point as well. There is no doubt that the industry needs to get better at costing and understanding what costs are. There are two parts to that. The first part is, when the first cost estimates are made, doing much more detailed planning and understanding of those estimates. We are very quick and often driven to come up with a number very quickly, but that number has lots of assumptions in it. Understanding that a lot more in advance is important.

Secondly, and probably more importantly, more weight should be attached to the whole-life benefits of projects and programmes as opposed to being fixed on this idea of a capital cost of delivery. Some research the ICE did in 2022 said that quite a lot of the public would support that. About 68% of the people we polled supported that view of outcomes—because these are outcomes.

There is evidence of projects such as the Olympics and the Elizabeth line where the outcomes that have been delivered probably are value for money, and most people would say they are value for money, even though the project itself cost more than the original estimate, which was probably a very early estimate driven by the pressures to get a number out.

It is about refocusing what we understand by whole-life cost, outcome cost and value cost, which the Green Book does not really do a very good job of. As an industry we do not often go back four or five years after completion to ask, "What has this project really delivered?"

Lord Carrington of Fulham: The problem with project delivery—HS2 would be one, but Crossrail is another fairly obvious example—is that the anticipated outcome or use that is made of the infrastructure development being built turns out to be different from what was planned or anticipated at the start of construction. In other words, an infrastructure project frequently will generate unanticipated benefits that are therefore impossible to cost in.

I suspect that one of the main problems—I would like your view on this—is that these projects get changed during construction. There are, therefore, massive changes to the costings, cost overruns that are unanticipated and a lot of bad publicity, which then feeds into the next project because everybody says, "We can't afford it. Look at what

happened to the last one—it went 200% over budget”.

Jonathan Spruce: I entirely agree with that. That negative publicity feeds into the project and has a snowball effect on how the industry is perceived. That is why we need to tackle how we articulate the value and the outcomes. We have evidence of proper outcomes and those secondary benefits you are talking about.

Take the Olympics and Queen Elizabeth Olympic Park. The regeneration that has gone on in east London is a very tangible benefit of the investment in infrastructure that went on as part of the Olympics. We can understand what that quantity is trying to be.

I know that a number of local authorities—Manchester is one—are trying to understand what the value of development land can be around their key interchanges to put into an appraisal process. We are learning this all the time, and we are trying to do it.

To come back to your original point, we also need a bit of movement from the Treasury and particularly a future review of the Green Book to allow that sort of evidence—it would be hard evidence; it would not be hearsay—to be brought into that process of appraising projects.

As you said, we need that understanding that there will be change. The only certainty at the start of a construction project is that when it starts, there will be change. What you start off anticipating building will not be what you complete. Again, understanding that within the process and within the Green Book is really important.

There are models such as Project 13, which is an enterprise-based model, focusing on outcomes rather than simply hard numbers and risk. Again, the construction industry is getting much better at that. We need to embed these principles in the work that we do.

Q26 Lord Grocott: A lot of the points about cost have already been developed. Thanks very much for your answers on that. They were very helpful. If I can ask about one aspect of that, cost or, rather, inaccurate estimates of expenditure must be to some extent related to the length of time it takes to deliver a major infrastructure project. I wonder whether you have any thoughts on why it is that they seem to not just cost more but to take so long to develop.

If I can give an example of a subject dear to my heart, the railways, we had a London to Birmingham line built in the 1830s, and we are now building another London to Birmingham line, which I very much support. One of the major differences between the developments of these two railway lines is that the first one was built literally with picks, shovels and wheelbarrows—there are lots of paintings of the activity—whereas we now have all the modern technology, with bulldozers, JCBs and goodness knows what else.

Why does it take us so much longer? The Victorians built a phenomenal rail network in a much shorter time. Are there any explanations for that?

I can think of a few. The main point I am getting at is that we would get far better cost estimates and outcomes if we did not take so long to do the job.

Jonathan Spruce: That is right. In actual construction terms, the differences will not be that great. Modern manufacturing processes will speed that up. As we are doing more fabrication off site and understanding how that works, that will be where we go in the future.

The delay is often in the approval and the on-site start of projects. I have just come off a call where I have been talking about a rail project in Rotherham, South Yorkshire. With construction inflation running at between 10% and 15% per year at the moment, delivering that project a year earlier could save £5 million or £6 million on the overall cost of the project. The construction cannot be done much more quickly, but going through the approval process to get to the point when you start on site will take four years.

Again, that comes back down to one of the questions at the start about the National Infrastructure Commission. If you give the industry long-term certainty over the programme, the industry can respond to that and improve the preconstruction period.

If we take the rail industry, the integrated rail plan is a really good example of that. Whatever you think about the content of the rail plan, a £96 billion investment in the northern and Midlands rail network is a good news story. However, it has been over 12 months since that was announced, and there is still no detailed programme following that about how that £96 billion is going to be spent and implemented, which would allow the industry to respond, to build the skills up and to bring in efficiencies. The Enabling Better Infrastructure programme, the Project 13 principles and all these other things could help deliver this much more quickly and save money within that £96 billion, which could then be recycled somewhere else. For a year, it has been a £96 billion-plan as opposed to a programme.

Collectively, we all need to get better at that front end. That is part of programming, project appraisal and getting to construction. As an industry, we are very good at looking at efficiencies, and we have a number of programmes in train to make them happen. It is that front end where we can do some work to help speed things up.

The Chair: You have identified some of the things we are not doing well in the preconstruction phase. Does the ICE have a view on how the decision-making process should be changed in practical terms to make it better?

Jonathan Spruce: When it comes to creating the benefits of pipeline certainty and programmes, the ICE definitely thinks there is an increasing role for an overarching national infrastructure strategy and something like a national transport strategy as well. The subnational bodies that

have been established and the directly elected mayors then play a real role in bringing this together locally and pushing this forward.

The idea of longer-devolved settlements, which is coming through transport, is really helping to give that certainty at a local level, but there is still a gap between those national projects and those subregional projects which needs to be filled.

If you look at the work going on in the mayoral combined authorities, the Tees Valley is a good example. It is using its devolved funding to bring forward a key pipeline of improvements to its transport network, in terms of regeneration, its energy supply and what it is doing with the local economy. That has been driven by devolved funding. At that local level, that helps bring forward those projects.

Again, the structures are in place. We just need to do more about that link between a national framework—again, that comes back to the work of the commission and national policy statements on infrastructure in particular, such as a national transport strategy—and that locally devolved funding and governance that can help drive this forward.

Q27 Lord Haselhurst: The key to overcoming resistance is, once a decision is made, adhering to it so people are clear where they stand. The question of planning blight exists if things are not done very quickly.

There was a plan affecting my former constituency when I was a Member of the House of Commons. When I was saying, "Please, some villages need to be bypassed because of the weight of road traffic that goes through them", I was told, "There is a plan". This was 45 years ago.

I was told that this is how we would connect the east coast ports with the Midlands and the north. One half of the equation was to see the building of the Orwell Bridge, and that would then be connected with an improved A14 expressway. At the same time, I was told there would be a route along the A120 road from the east to the junction with Stansted Airport and the M11.

The latter has still not been completed. The uncertainty just rumbles on, and people get sour about these things. Therefore there is then a popular block, no doubt expressed through their locally elected politicians and their Members of Parliament. How does one get over that?

Jonathan Spruce: This comes back to a theme running through a lot of this evidence in your inquiry. It is about making the right strategic decisions and then committing to delivering them. Again, the role of the National Infrastructure Commission is really important in providing an independent, clear and well-evidenced approach to policy and decision-making—that framework we were talking about.

It is then about giving the powers and the funding to the right level of government structure to make these projects happen. You are not looking at circumventing due process—that is not it at all. It is about making those clear, evidence-based decisions you are talking about,

based on why these projects are important, and then committing to the long-term programme.

All too often we change, whether it is a change of political party or a thematic change about what we are doing. That long-term commitment and the clear evidence that the National Infrastructure Commission can give is really important, followed up by subnational governance and funding.

Q28 The Earl of Lytton: Mr Spruce, good morning. I am a member of RICS, which is your institution's next-door neighbour, so I understand a little bit about proposal appraisal, net present value and project variables.

To what degree does government properly look to the professions—infrastructure involves both engineering and other professions—to back its political decisions as opposed to using the professions to inform them?

Put another way, could the Government make better use of the professional expertise that is about? You talked about the pre-project, conceptual aspects to this a moment ago. I would be very interested to know how that could be made better and how the conduct could be made better, perhaps by better engagement continually with the professions.

Jonathan Spruce: A lot of the engagement the profession has at the moment is through things such as the Infrastructure and Projects Authority and the National Infrastructure Commission. That is really welcome. We had a round table last week at the institution with the NIC about national infrastructure assessment 2 as part of that process. We definitely feel that our voice is being heard.

The one thing the institution can do is bring global expertise. A lot of the things we are talking about, such as time, cost and delivery, are not solely UK issues; they are international issues. We have done a lot of work with our colleagues in Australia, New Zealand, Canada and Hong Kong about best practices elsewhere.

We stand ready to provide that, and we can provide written evidence to the committee based on the work we have found elsewhere, if you would like that. There is definitely more we can do to feed that process in, but I think government is listening to the National Infrastructure Commission.

In terms of that preconstruction phase, it is about the length of time it takes to go through an approval process. That is probably based on the fact that at the moment, a lot of the approvals still have to be made centrally. The decisions are not devolved. There might be a funding bid and then a business case, which go back to Westminster and go through the motions, and that loses time.

To some extent, it also levers in quite a sequential process. There is a preliminary design, then a business case, then a detailed design and then construction. The Project 13 programme and the Enabling Better Infrastructure programme, which the ICE has been a part of and supports, are about getting expertise of construction professionals in

early and making it much more of a system and an enterprise model.

Rather than somebody sitting in a design office and trying to design something and then the construction industry saying, "That could never be built", you are getting them together earlier in the process. That will help you with the initial cost and help you think about how you deliver these things.

The industry itself is doing this through its approaches but the process is still very sequential. You get approval for the strategic case, then for the outline case, and then for the full case. That sequential process, which often has to go down to Westminster each time, adds layers of complexity. It almost prevents the industry's collaborative model that we are developing from working in practice.

The Chair: We would be keen to see any written evidence you wanted to send us on international comparisons.

The Earl of Lytton: Is this something we just have to live with or is there anything we can do with this linear decision-making process?

Jonathan Spruce: This comes back to the idea about the role of subnational institutions and devolution. That can help speed the process up. Where funding has been devolved more locally at a subnational level, those other outcomes become much more part of the appraisal process and can help speed that process up. You are not necessarily arguing about a benefit-cost ratio or net present value; you are talking about the outcomes.

From a communications point of view, and to go back to the previous question about how this is sold to the public, we can do a lot more to sell the outcomes and benefits of our infrastructure investment to the public if we talk about those as part of the business case. The public do not want to know about net present value or the benefit-cost ratio. They want to know what this means to their lives, how they can get to education or employment more easily—what it means to them. If we communicate that in the business case, it helps with the process of delivery and working with the public to make sure they get the infrastructure that is needed.

The Earl of Lytton: That is very interesting. Thank you.

Q29 **Lord Berkeley:** Mr Spruce, I hear what you say about the length of time it takes to get to projects. Maybe you could make some comments about the different means by which big projects get permission, whether they are hybrid Bills, going through the planning process or whatever.

We have a long history of democratic accountability here. Years ago, when I was doing the Channel Tunnel, it took two years to get permission for that in the UK and six weeks in France. There are different ways of doing it, but the issue is to maintain trust. If the contractors can maintain trust all the way with government, they will get somewhere.

Perhaps you can tell us this. Big projects have big contracts, and the main HS2 contractors still do not have signed contracts. It must be very difficult with risk, reward and everything else for them to get on and do anything if they do not know whether they have a signed contract. Maybe the answer is smaller contracts. Do you have a view on that?

Jonathan Spruce: It comes back to this recurring theme about pipeline certainty. You are absolutely right: the stop-start nature of some of these decisions does not help us going forward.

It would help to start with a single national policy statement for infrastructure, based on the NIC's work, to give the industry a framework—so it would know that "This is our policy on infrastructure. This is what we are going to invest in." Going back to the commission, that could have a statutory footing. If it did, there would be merit in some of the processes, whether it was a hybrid Bill, planning or a development consent order. Having that policy statement and that statutory footing for the National Infrastructure Commission would help move things along.

You are right about the contracts. In practice, risk gets cascaded down through the contracts as it happens, because that is just how the industry will work. Having more of an enterprise model based on that certainty, such as Project 13, where risk is shared between those who are most capable and we look at outcomes, is the way to go.

As I said before, the back end is there in the models the industry has been developing, adapting and adopting over recent times. It is the front end that we need to work on. That is about that idea we talked about, the statutory footing for the institution, as well as all sorts of other things.

If the NIC was on a statutory footing, regulators would have to give regard to that statutory footing. The private sector as well would be bound into it. Collectively, both the public and private sectors would be working for one aim. That does not necessarily happen at the moment with our system.

The Chair: Mr Spruce, can I just come in there? The national planning policy statements—I know they are out of date, but that could be addressed—all have a statutory footing based on the 2008 Act, but they have not worked magic. I just want to probe this question, because you keep emphasising it, about what having a statutory footing would do.

The Government could create a national infrastructure planning policy statement under the 2008 Act today, if they chose to do so. It would have a statutory footing, it would have had parliamentary approval, and it would stand as a standard against which planning decisions would have to be made. Is the means not already there? I am just wondering what the extra is that would make the magic.

Jonathan Spruce: It is that framework; it is that umbrella that we are talking about. A single national policy statement on infrastructure would be that umbrella linked to the work of the National Infrastructure

Commission.

We have individual policy statements, which can sometimes work in silos. Some are updated; some are not. They predated the establishment and work of the National Infrastructure Commission. You now have this ability to say that the work of the National Infrastructure Commission, the national infrastructure assessment 2, gives you the evidence to create a national policy statement on infrastructure. You are right that the legal framework is there to do that. Beneath that can sit specific national policy statements on areas if you want, and then that cascades down through the process.

The Chair: I have got it. It is not so much a new statutory framework you want as a new overarching planning policy statement that translates the upcoming recommendations of the National Infrastructure Commission, and an updating of the existing individual planning policy statements to co-ordinate with that overarching one. I see that. That makes a lot of sense to me.

Jonathan Spruce: Going back to the statutory footing of the NIC, every five years the recommendations of the national infrastructure assessment would feed into an update of that national policy statement on infrastructure. That would be refreshed on a cyclical basis, and it would then feed down. At the moment, the national policy statements are updated as and when. A couple of them have been delayed by 18 months or two years.

The Chair: We understand that some of them are terribly out of date.

Jonathan Spruce: We can send you a lot more written evidence on this idea of how a national policy statement on infrastructure would work within the existing structures and help give certainty in long-term pipeline planning.

Lord Stunell: Mr Spruce has referred several times to Project 13. He and I know what that is, but I wonder whether that is something that could come to the committee so we could understand it. Maybe Mr Spruce could very briefly outline what it is.

Jonathan Spruce: We are more than happy to give you a bit more detail about Project 13. It is essentially a new model of developing and delivering infrastructure. It goes away from this transactional model that you have with buyers, sellers, contractors, clients and everything. It is really about having a new model and new principles, collaboration, and focusing on the long-term outcomes. The teams within the delivery of that infrastructure are all focused on those outcomes and helping with each other.

It talks about early engagement and relationships. The reward is based on value rather than time, cost or volume. It is that intended focus on how outcomes work. It is about leadership and governance. As I said before, it is about embedding what the public really want to see. It is

about the role of the institution and the engineering profession: delivering sustainable outcomes for people and for the planet.

The Chair: Mr Spruce, I would like to thank you very much indeed for the time you have given to us. It has been very interesting and valuable.