

Public Administration and Constitutional Affairs Committee

Oral evidence: [The Government's management of major projects](#), HC 1631

Tuesday 9 July 2019

Ordered by the House of Commons to be published on 9 July 2019.

[Watch the meeting](#)

Members present: Sir Bernard Jenkin (Chair); Ronnie Cowan; Dame Cheryl Gillan; Kelvin Hopkins; Dr Rupa Huq; Mr David Jones; Eleanor Smith.

Questions 367 - 479

Witnesses

I: Professor Michael Bourne, Cranfield University, Project X, Dr Richard Kirkham, University of Manchester, Project X, Professor Michael Lewis, University of Bath, Project X, and Professor Terry Williams, University of Hull, Project X.

Examination of witnesses

Witnesses: Professor Michael Bourne, Dr Richard Kirkham, Professor Michael Lewis and Professor Terry Williams.

Q367 **Chair:** Can I thank our panel of witnesses for joining us today to give evidence on our inquiry into the Government's management of major projects? Can I say at the outset there are four of you and there are seven of us? We could fill a great deal of time by talking a lot. We will try to keep our questions as crisp and as short as possible. When you answer the questions there is no need to repeat what another witness has said if you agree with it. If you also could keep your answers as crisp and short as possible, we will get through our 18 questions.

Can I start by asking each of you to introduce yourself for the record, please?

Dr Kirkham: I am Dr Richard Kirkham, senior lecturer in the School of Mechanical Aerospace and Civil Engineering at the University of Manchester.

Professor Bourne: I am Mike Bourne, Professor of Business Performance at the Cranfield University School of Management.

Professor Williams: Professor Terry Williams, University of Hull. I direct the Risk Institute there.

Professor Lewis: Professor Michael Lewis, Professor of Operations and Supply Management, University of Bath School of Management.

Q368 **Chair:** You will have to speak up a little bit because the microphones are not brilliant. You do not have a microphone in front of you. There is a project to improve the sound system in our committee rooms.

First of all, can I ask you to introduce us to Project X in terms of what it is and what its objectives are?

Dr Kirkham: Project X was conceived in around 2015, prior to the Public Accounts Committee report and inquiry into major projects in Government. This was prior to the newly formed Infrastructure and Projects Authority. Terri Harrington, who was then head of Portfolio Insight, had identified an opportunity to improve academic/civil service collaborations and, in particular, to address some of the key issues that the PAC report had identified, such as tracking project performance, good use of data, assurance and governance. That became the starting point.

We then reached out to various other institutions with research and teaching interests in project studies, with a long-term ambition to secure funding from the research council to enable us to build capacity, both in



HOUSE OF COMMONS

terms of supporting the civil service in using evidence to deliver successful projects and programmes, but also to build a vibrant community of post-doctoral and PhD students and academic staff. The main objective of Project X is to improve the evidence base by which the projects delivery profession operates and hopefully to bridge the gap that is frequently cited between policy, project delivery and operations.

Chair: Does anybody want to add anything?

Professor Bourne: To also improve the delivery of projects in Government through the evidence provided. That is what it is really about.

Q369 **Chair:** Whose idea was this project?

Dr Kirkham: It was Terri Harrington, who was then head of the Portfolio Insight Team in the Infrastructure and Projects Authority. She was ex-MPA before the merger. Terri has now left to become major projects sponsorship director at Highways England but retains interest in Project X.

Q370 **Chair:** How much longer will it go on for?

Professor Bourne: We do not know.

Q371 **Chair:** It is a standard capability now?

Professor Bourne: We are trying to make it a standard capability, yes. We have funding for the next two years but we are looking for funding beyond that from the research councils.

Q372 **Chair:** How do you work with the Government?

Dr Kirkham: The current structure of Project X encourages senior civil servants from Departments with major stakes in the GMPP to work with academics to identify particular research challenges, or research questions, which are aligned with issues that the delivery profession has identified. We bring the theoretical and methodological expertise and the senior civil servants bring the research problems. The idea is that we work on projects that will hopefully deliver benefits, not just for the delivery profession but ultimately for citizens and the broader society.

Q373 **Chair:** How did you agree on the six themes, or who decided that?

Professor Williams: They emerged from discussions with the IPA. The themes are a mechanism of organising the work. If you look at the six themes, any major project cuts across all six of them so we have all done work that cuts across all of them.

Professor Lewis: There is some evidence with Theme B, initiation and handover, consistent claims in practice and in theory that this is under researched, so consequently there is an emphasis on filling gaps as well, both emergent and some deliberate aspects to this one.

Q374 **Chair:** The findings and recommendations that you make, I presume that



HOUSE OF COMMONS

you are constantly producing those. How do you measure how much impact they have?

Professor Bourne: I do not think we currently do measure how much impact we have. We have reports that go outside, we have reports that go just into the Civil Service and stop there. It is something that we are probably not doing as well as we should at present.

Q375 **Chair:** Is there a mechanism? What mechanism exists for you to transmit your findings into the machinery of Government?

Professor Bourne: It is personal relationships.

Professor Williams: We supply reports to IPA, which then becomes a repository and it is our sponsor in the sense of sponsors within Government.

Q376 **Chair:** Is it responsible for disseminating your findings?

Professor Lewis: Plus, of course, we are under an obligation to disseminate our work through our usual channels to a wider audience. Impact is a critical component of a higher education landscape so it features very heavily. I would also be slightly more positive than Mike, in the sense that a lot of this work is being co-produced. We have partners from the Departments, from IPA, working in this research environment as well. The workshops we do are not just a way of extracting data. They are also part of a process of helping the SROs in key projects to reflect on some of the challenges and learn some of the lessons from their peers.

Q377 **Chair:** How independent are you able to be? How often have you thought, "We had better not say that"?

Professor Williams: We are quite happy to be independent and we are allowed to be independent but sometimes information is confidential. That does not mean to say that we say what we are asked to say but sometimes we have to say it at a level of generality that we cannot name case studies.

Q378 **Chair:** I appreciate that. I am thinking more in terms of how undiplomatic some official or Minister might think something you might be saying is. How much trust is there that what you are saying is constructive even if it is superficially very unhelpful?

Professor Williams: I think there is trust because we have had publications cleared. We do ask for them to be cleared by IPA before we publish but we have not been blocked from saying something we think we should have said.

Q379 **Kelvin Hopkins:** If I can quickly add to what you have been saying, Chair, some of the conclusions you have come to may be unpalatable to Government. Are you prepared to be the Rottweiler and say, "I am sorry, Minister, but this is the case"?



HOUSE OF COMMONS

Professor Williams: Yes. The unpalatable things are often things that IPA or other bodies are saying as well, or NAO would say. We are more independent so we are happy to be unpalatable.

Q380 **Chair:** Do you say more in private than you perhaps publish?

Professor Bourne: I would say yes to that as well. It is an interesting thing because you have conversations in private that allow you to understand things that are going on behind it. We are not always there saying, "This has worked" or "has not worked". What we are much more interested in is why it has worked or why it has not worked and, therefore, what can be done in the future to do it better. That is quite a lot of what we focus on.

Q381 **Dame Cheryl Gillan:** First of all, what is the co-operation like for all of you? I presume there is a larger number of you, because there are only four of you. How many professors are there in total? Who are the other professors?

Professor Williams: There are nine professors involved.

Dame Cheryl Gillan: They are all men, I presume.

Professor Williams: I was about to say one of the reasons for the ESRC grant was, yes, we are all old—mostly old—white men. Part of the logic for the capacity building that Richard talked about was the new researchers were all named researchers, nearly all female and a number are not English. We very much wanted to expand the diversity of the research base and that is part of the problem.

Dr Kirkham: It is probably worth adding that the senior civil servants who are working with the academics in the themes are mainly female SCS project delivery professionals. We have tried to balance the gender in that way.

Q382 **Dame Cheryl Gillan:** That was just an aside. Do you think, for example, that the IPA is freely sharing all the information with you that it has available, to enable you to extrapolate your reports and make your recommendations?

Dr Kirkham: There has been excellent co-operation and support from the IPA. I was fortunate in receiving funding from the ESRC to be seconded into IPA for a period of time. I used that time to understand the data that was available, its maturity and how we might then be able to use that in methodologically rigorous research. There has been openness. Of course, we have to respect security issues around the use of that data, but, whenever we have wanted to request information that the IPA holds, on the whole we have not faced any resistance to accessing that.

Q383 **Dame Cheryl Gillan:** You do have restrictions placed on the information that is made available to you?

Professor Williams: Part of the long setup for Project X was organising non-disclosure agreements, so part of the reason why we have Project X



HOUSE OF COMMONS

is that researchers can go in already armed with a non-disclosure agreement, already armed with security arrangements and under the auspices of IPA as a blanket over all of us. There are obviously limitations to what we can say but we have not had limitations on our access.

Dame Cheryl Gillan: You have all signed NDAs?

Professor Lewis: Yes.

Dame Cheryl Gillan: All nine of you have?

Professor Bourne: The universities have.

Q384 **Dame Cheryl Gillan:** What happens to your reports? Are you satisfied that they are reaching the right people?

Dr Kirkham: I think that is fair to say. There are a number of different methods by which we do publish the findings. As academics we are—

Q385 **Dame Cheryl Gillan:** Can I access them, for example? Are they up on a website?

Dr Kirkham: Yes, there are some reports that are already well circulated, especially the work we have done on assurance and governance through the Project Management Institute. That has attracted a great deal of interest. We have some other papers related to our benefits work that are also likely to get published fairly shortly as well. We are pretty confident that we are getting out through journals but also through the project delivery profession in Government.

Professor Williams: We did have a report that we wrote that looked at a number of gateway reviews that were confidential. We wrote a report that IPA held and a limited circulation of people in the funders, which is the Project Management Institute, and we wrote a White Paper and an academic paper on those, which were freely disseminated. It is an aggregation issue and the details of the case studies were confidential; the overall lessons learned were public.

Q386 **Dame Cheryl Gillan:** It would be fair to say you have better information than we do as parliamentarians?

Professor Bourne: I would think so.

Q387 **Dame Cheryl Gillan:** I will give you one example. The IPA decided to withhold—or the Secretary of State decided to withhold—the reports on HS2 because they were amber red. It was decided not to publish those or even make those accessible to parliamentarians. I presume you have access to those reports?

Professor Williams: We have not asked IPA for them.

Dr Kirkham: We have not requested them.

Q388 **Dame Cheryl Gillan:** It would be interesting to know because I would like to know who gets access to these reports that parliamentarians



HOUSE OF COMMONS

cannot get and then presumably, if you draw conclusions that are unfavourable, how you make those conclusions then available or whether the IPA just sits on them because it is inconvenient because it was backing the projects in the first place.

Professor Williams: If we wrote a report on large infrastructure projects, it would be generic conclusions of how to do these things better. If it was specific about HS2, we might have trouble publishing.

Q389 **Dame Cheryl Gillan:** I presume you would always use examples and, therefore, you would want to look at what was happening in real time.

Professor Williams: As far as we can, yes.

Professor Lewis: I would add one thing to that as well. It presupposes that the data that is available is in the format that we want and accurate. You have had previous witnesses, I know, who have bemoaned the challenge of data in this space. A key part of Project X—certainly for colleagues here—is to shape that data in a way so it becomes more transparent, so it becomes more useable and is tracked over a more extended timeframe.

I do not want to fall into the trap that we will criticise projects, initiating far too rapidly without thinking about what the benefits are going to be, how we are going to capture them and how we are going to measure them. The mechanism for transparency of the data is a critical part for me of the existence of Project X.

Q390 **Dame Cheryl Gillan:** How were all nine of you appointed?

Professor Bourne: To Project X? I turned up.

Dame Cheryl Gillan: You are a self-selecting group?

Professor Bourne: In my case it was quite simple. I was running the project leadership programme at Cranfield, I wanted to get more closely involved and I offered the IPA some resource to do some work. That is how we started, in the same way as Richard started.

Q391 **Dame Cheryl Gillan:** Have any of you changed over the period of time since 2015?

Professor Bourne: We have added.

Professor Williams: We have added a couple but the actual community of people researching this area, we all know each other and it tends to be fairly limited. The last Government REF bemoaned the lack of research in this area. That is part of our desire to capacity—

Professor Lewis: Let me add that, although I am a young middle-aged man, I am not one of this community. I think there was a deliberate attempt to broaden out. My interests and specialisms are in procurement, in commercial work and in supply chains. The funding for my activity is partly joined with some work that is sponsored by EDF through the



HOUSE OF COMMONS

Hinkley Point C project. We have a supply chain innovation lab there. That brings in again a different community of scholars and participants, so there has been some attempt.

Q392 **Dame Cheryl Gillan:** Do you get any financial support from the IPA?

Professor Williams: No.

Q393 **Dame Cheryl Gillan:** So you are always going out to get grants to support you, so it is a hand-to-mouth existence?

Professor Williams: For the first two years it was hand to mouth. We get very good support from the Project Management Institute. We had about \$400,000 in particular grants. Part of the work, as Richard said, was to build up a research council application, which got awarded in February. We are now getting going for that and that appoints 0.7 post-doctorals, I think, and three PhD students who will work full time on this. That is just getting going.

Q394 **Dame Cheryl Gillan:** How long is that funding for?

Professor Bourne: It is the best part of three years.

Q395 **Eleanor Smith:** To what extent are you able to access the project information from other countries as part of Project X?

Professor Williams: I think it goes the other way around, to be honest. We have good contacts with other countries. We were talking about Norway outside. We have very good contacts with a concept programme in Norway, which is the equivalent. We bring those contexts to IPA as much as them bringing us contacts.

Q396 **Eleanor Smith:** How does the UK compare with similar countries in its delivery of major projects?

Professor Bourne: That is the \$64,000 question. Terry will talk a little bit more on that. What we have been doing through the PMI work is looking internationally at comparisons. We started off with eight countries and came down to four. The UK looks pretty well compared to those four.

Q397 **Eleanor Smith:** Which four are those?

Professor Bourne: The last four were Canada, the US, Australia and the UK.

Professor Williams: Norway does very well and monitors these things very well but it has smaller and better understood programmes. The trouble with the IPA projects is that they are very big; they are very diffuse and more complex than a lot of programmes. It is quite difficult to compare with other countries.

Dr Kirkham: It is quite a challenging portfolio, the GMPP as well, if you look at the diversity of the projects and programmes that are currently on that. It is probably the most challenging of all of the international comparisons that we have looked at.



HOUSE OF COMMONS

Professor Lewis: New South Wales came in very well at understanding what it wanted out of its projects and how it manages them.

Professor Lewis: Also a strong public procurement policy logic in New South Wales, with strong conceptual thinking there.

Q398 **Dr Huq:** It is nice to have the professoriate in, as a former academic myself. The Government have supposedly put in place an extensive early assurance process with pre-commencement vetting and updating the Green Book, dating back to Tony Meggs in the early 2000s. It still does not seem to have stopped things going wrong with HS2, Garden Bridge, and even Crossrail. To what extent would you say this new process has helped produce better estimates of costs, benefits and timeframes?

Professor Williams: Just one comment to start, which is that that is a framework that civil servants understand and use. That does not stop Ministers standing up and announcing a project before anybody has actually thought about it. I am not sure whether those three examples would be any of them but sometimes a project happens because it has been announced before civil servants are even aware that it is going to happen.

Dr Huq: Would the others agree?

Professor Lewis: I will not speak to those specific projects except to say that only three years ago Crossrail was being praised for having done exceptionally well on a number of those—initiating, adopting the NEC and working effectively with its supply chain, meeting its targets and managing its risk. In some ways it would have been considered best practice three years ago and now is not in that place. One of the great challenges is at what point in flight do you capture whether this is good or bad?

Coming back to the question, the idea of having a longitudinal objective alongside evaluation as part of the critical evaluation is missing in the current setup, so maybe Project X or some equivalent could form part of that. That is what clearly they have in the Norwegian setup.

There is a challenge but every time you introduce a procedure or a process, a framework, an initiation route map, an outsourcing playbook—call it what you will, like stage-gate models—it is often said that the most effective entryist is that who can coat their project in the language of the technocrat. For every great project that succeeds more effectively or is stopped by those procedures, because of the nature of these projects—they are polycentric, they are complex, they are emergent—there will always be projects that struggle in that frame as well; the language of the framework.

Professor Williams: We also have the impression now where the emphasis perhaps of IPA is on the delivery of the project as defined: getting it on time, on cost, as defined at the beginning, and the actual benefits that the project is there to deliver sometimes get—I will not say



lost but there is less priority put on that than the actual delivery of the project.

Dr Kirkham: There is a slight irony, in the sense that the letter that the senior responsible owner for a programme will sign commits them to accountability for benefits realisation. Of course, that individual may move off on to other projects or programme or merely to the civil service at the point where it is most likely that those benefits will be realised. There are some issues that need to be ironed out in terms of that role.

Professor Bourne: The IPA's responsibility for benefits ends at the project's delivery, so they do not see the benefits beyond the end of the delivery of the project.

Q399 **Dr Huq:** There need to be some more longitudinal studies?

Professor Bourne: Very much so, yes.

Professor Williams: Many of these projects are facilitating benefits. HS2 will deliver a railway line. It is hoped it will deliver regeneration in the north, but it itself will not. It will facilitate that and someone else has to harvest those benefits. Putting responsibility for harvesting of the benefits on the people building the infrastructure, there is a mismatch there.

Q400 **Dr Huq:** I have HS2 and Crossrail in my seat. A couple of years ago Crossrail was seen as the angels and HS2 were the baddies and now everyone is annoyed with both of them.

Dame Cheryl Gillan: Also in mine.

Dr Huq: Yes, and in Dame Cheryl's seat for a long time as well. We have a tension between deliverability benefits and the business case. I want to ask about another thing: short-term political considerations. How far would you say that they affect the planning and development of major projects when they set these pie in the sky, unrealistic targets? I would say Garden Bridge, which is probably too small to be within this framework, is one of those.

Dr Kirkham: We did not look at the Garden Bridge because we have been focusing on GMPP projects and programmes, but, from our experience and conversations with those working in the delivery profession, there is an issue with being able to articulate to Ministers the complexity that underpins many of these announcements.

I also feel that there is a responsibility—possibly with us as academics as well—to equip the public with a greater understanding so that they can probe Ministers and others to challenge decisions or propositions that are made for major project investment.

Professor Williams: As you say, there is a mismatch between political timescales, the lifetime of a Minister and the span of some of these major tickets.



Dr Huq: Electoral cycles and all those things.

Professor Lewis: That is a broader issue for the whole project; in a 25-year PFI project, the people who started it, initiated it, ran it, and may well be dead before you get to a decommissioning phase. The whole challenge of playing with long-term assets and how you conceive of that is a profound challenge. People may not yet be born who will be doing the decommissioning on Hinkley Point C, so how do you bring the knowledge that is being learned at this phase through that process?

Again, that is an area that the project could reasonably expect to contribute to the idea of the baton passing—as one of my colleagues calls it—of knowledge down these long extended supply chains, a 50-year baton race.

Professor Bourne: We were looking very briefly at B-52 bombers in the United States and they were talking about that being a 100-year project. You think, “God, an aircraft is a 100-year project”. It just blew your mind.

Dr Huq: With no break clause.

Professor Bourne: No.

Q401 **Eleanor Smith:** Just to come back to the benefits, when you are looking at a project. I know everybody is talking about HS2. I happen to live in the Midlands where we probably could see the benefits of it. How much are social benefits considered when these long-term things are coming? Do you actually consider that side of it?

Professor Williams: We held a workshop two weeks ago for many of the benefit delivery professionals and we were presenting the results of some of this research. Without the social benefits, a lot of the financial cases do not stack up. You have to consider them. The trouble comes when some of these concepts are very difficult to quantify. For instance, community cohesion for a Home Office project is difficult to quantify but it might be the driving force behind the project. We have to take them into account and we have to consider them. They are the rationale for some projects but they are very difficult to balance up against a pound sign.

Dr Kirkham: We come across evidence in some Departments that there is work to try to build a centre of excellence around the five case model for the Green Book, in particular issues of social value or social benefit. I think that is a good thing because it is a challenging area to be able to consider monetising or quantifying some of the benefits that are highly emergent and potentially difficult to foresee over long durations of benefits realisation.

Professor Lewis: We have a specific interest in those with heritage benefits, for instance. We are in one of those projects now, if one thinks about the A303 Stonehenge project as well and some of the challenges



that are inherent in quantifying the benefits around heritage and legacy. They are fascinating as research projects and definitely front and centre in our interests currently.

Q402 Chair: Concentrating on Crossrail for a moment, Professor Lewis, you said that Crossrail was praised until recently for keeping everything on time and on budget but there is an ambiguity in that comment. Are you saying that what has happened recently at Crossrail casts doubt on how credibly it was running the whole project, or are you saying that we should still credit Crossrail with everything it did so well up until that point?

Professor Lewis: We are currently doing a deep-dive in all of that data so I am going to be a little bit hesitant in a very academic way. I think it is a bit of both. I do not think we should be overcritical of a project that we were recognising for its strengths only a few months ago. One of my colleagues talks about Aesop's fable of the lion, and it is very easy to have an attack on the dying lion. It has done extraordinary things over a long period and has achieved many great things.

Clearly things have happened, and NAO has elaborated on a number of those recently. That means that as it moves towards this final phase challenges have come to the fore. One might argue that we could go all the way back to initiation and the over-specifying of some of the costs and timeframe at that point, but it is a mixed point. It is very easy to say that a project is good or bad, but that is problematic in and of itself and not categorical enough.

Q403 Dame Cheryl Gillan: How in-depth do you study the disbenefits of any programme? You are all talking about the benefits. Everyone always talks about the benefits and nobody ever seems to concentrate on the disbenefits. For example, we had a report on HS2 that came from a leading firm of accountants and consultants where, conveniently, the report about hollowing out the economies of surrounding areas and towns was hidden until it was flushed out. How do you look at that?

Dr Kirkham: It is an issue of better engagement with stakeholders and that is something we have picked up on transformation programmes, listening to their voice.

Dame Cheryl Gillan: It does not happen. It actually does not happen.

Professor Bourne: I am thinking of California Rail. It has a very strong benefits culture. It has to go to the public with its information because it is very big in California, but it does recognise that some of the benefits that come out—like improving house prices in certain areas—will disadvantage people in those areas as well. It sometimes happens.

Q404 Dame Cheryl Gillan: HS2 is great for my colleague in the Midlands but I get absolutely no benefits in Buckinghamshire at all, quite the reverse. I get absolutely irreparable environmental damage, as well as personal damage and people having their homes and livelihoods removed from



them by the state.

Dr Kirkham, you said your work is to help give the public better information. There was no stopping HS2 because only the MPs along the route who were affected by it would vote against it, because nobody else was bothered. It had nothing to do with the public; it was an entirely politically driven project. I am not sure where your work benefits the public in that sense and I would be interested.

Dr Kirkham: I live in a constituency that is very close to the proposed alignment south of York as well, so my non-academic conversations that I have with my fellow villagers would suggest that you are right, that there is a genuine perception of disbenefits. As an academic teaching in a civil engineering school, my view is that High Speed 2 at least gives an opportunity for my students to see a future in their profession in big projects that excite them. Certainly the work that we have done in trying to understand how effective project teams are in consulting with stakeholders and listening to their concerns, there is absolutely more work that needs to be done in that space.

Q405 **Dame Cheryl Gillan:** We heard from Professor Denise Bower of the Major Projects Association that there was a lack of consistent methodology for assessing benefits. How robust are the techniques for doing this?

Professor Williams: That has come on. There is now a guidebook from the IPA, which there was not some months ago.

Dame Cheryl Gillan: When was that issued?

Professor Williams: About a year ago.

Dr Kirkham: That was led by a civil servant who has gone to DfT now, Laura Geddes-Brock. That was 2016, I think. It was designed to coalesce evidence and expertise across the various Government Departments in benefits. DfT was traditionally seen as ahead of the curve when contrasted with other Departments. We are potentially looking to do a project now to assess how successful that guidance has been in Departments in standardising—if that is the right word—the approach to benefits identification.

Professor Williams: That is standardising the processes. Standardising the way we quantify it is less advanced. If you go to again Norway or the EU they will have it more standardised across the board. Different Departments tend to have slightly different ways of monetising or measuring the benefits.

Professor Lewis: It is hard to study because of the dynamic nature of it. People will be upset about something ex ante, "This is the worst thing that can happen", and then it happens and suddenly that evaporates, so how do you capture whether that was a disbenefit or a benefit over time? Looking at the projects that are stuck is quite helpful here. If you look at



those that have failed to launch over a number of years, at least that gives us a basis for studying the competing benefits space and trying to understand how we might both measure and then maybe reconcile them to move those projects forward.

Q406 Dame Cheryl Gillan: Have you been looking at individual Government Departments and are you able to say whether any best practice that exists is being applied inconsistently, even within Departments or within the same Department? If so, could you name those Departments?

Professor Williams: I am not going to name those Departments. Interestingly, when we looked at eight different countries, in all of those country the department for transport had gone further in standardising the way it measured benefits and things like waiting times.

Dame Cheryl Gillan: Our Department for Transport?

Professor Williams: Similarly, it seems to be well advanced in Highways England.

Professor Bourne: Then it is a simple calculation of benefits in some ways, isn't it? It is a transport project, you affect some people, and you get people moved. When you get to your transformation project, it becomes very different; a MoD project projecting power. They are different situations.

Professor Williams: Highways England have moved to the sponsorship model now, which I think is designed to provide that strategic oversight of benefits, not just the delivery of the road or the bridge but the longer term delivery of benefits to society.

Dame Cheryl Gillan: Is it all capable of robust scrutiny, the anticipated benefits of a project? In fact, is it being scrutinised? In my experience, the scrutiny of something as large as HS2 is almost impossible and is failing. Unless individual MPs do due diligence on little aspects of whatever gets finally published, there is no scrutiny and there is no holding to account. Would you say that that was fair?

Professor Lewis: By definition, with these large scale projects that is one of the endogenous problems. They are large. They are multifaceted. They are multicentric and the governance is overlapping and conflicting. Very often—to come back to an earlier question—in the ways we are encouraging benefit accrual and cost measurement, we create coalitions to get projects over the line, which makes them even more polycentric and, therefore, stores up exactly the problems you are going to talk about later. That is why general best practice to try to simplify projects is generally a rule of thumb that is worth adhering to in all consequence.

Q407 Dame Cheryl Gillan: These projects do get lives of their own?

Professor Lewis: Inevitably.

Dame Cheryl Gillan: That puts them beyond reasonable scrutiny.



Q408 **Kelvin Hopkins:** Can I follow what Dame Cheryl has been saying? The HS2 business case is based upon—apparently—18 trains an hour leaving London. These are going to be the size of Eurostar trains with 20 carriages and possibly over 1,000 seats on each train, 18 trains an hour. The market is simply not there. We will see expensive trains on an expensive track rattling about the country empty, isn't that the case? Have you pointed this out to Government?

Professor Williams: I am not sure. Have we looked into HS2 at all in Project X?

Dr Kirkham: No. Our emphasis in the research is predominantly on projects delivery. Yes, we are considering business cases and the implications that the business case has for those who are charged with the responsibility for delivering phase 1 and for phase 2, but the minutiae of the detail around capacity and how that argument or that story around HS2 strategy has changed over time is not something that we have looked at in any great detail within this project so far.

Q409 **Dame Cheryl Gillan:** Professor Williams, did I hear you right? Did you say you were not sure that you had looked at HS2 at all, any of you? Is that correct? Did I hear you correctly?

Professor Williams: You heard me correctly, yes.

Q410 **Dame Cheryl Gillan:** This is the largest infrastructure project in Europe and yet Project X has not actually looked at it?

The silence speaks for itself.

Professor Bourne: Can I clarify that? First of all, we do not see our job as looking at individual projects. That means that we may not have looked—it is the largest but we do not see that specifically as our remit.

Q411 **Chair:** How much have you been discouraged from looking at HS2?

Professor Williams: I do not think we have.

Professor Bourne: No, not at all.

Dr Kirkham: No, we have not. On the whole, those who we have spoken to, who have been involved in that programme, have been forthcoming. I think their concern—and maybe this is something that you share as well—is that their work occupies column inches in publications like "Private Eye" and they worry about whether they can be confident in sharing information with us. We have to be able to maintain trust with those people; we have to gain their confidence so that they will share information and data with us that will be of help to our research. That is a challenging and time-consuming process. I am quite proud of what we have done in this project so far in being able to build that trust. It has come at a great personal cost to many of us who spend more time down in London than perhaps they do, in my case, in the north, but we are



HOUSE OF COMMONS

getting there and we need to encourage that openness and willingness to share information.

Q412 **Chair:** To be clear, you are not scrutinising projects in order to expose them, but one would assume there might be some learning that you could derive from HS2.

Professor Bourne: I am sure.

Chair: We would encourage you to extract learning from HS2.

Professor Lewis: If I can triangulate to the original question from Mr Hopkins, the idea of hunting the benefit, building business cases—some SROs and workshops have described it as the Christmas tree effect, constantly adding the baubles to make it look like it is attractive. I believe previous witnesses have talked about entryism, the whole idea of creating a benefits space that gets through the stage-gate hurdles. There is definitely evidence across more than one individual project of that. That is the level of analysis that we aspire to deliver messaging on rather than individually targeting specific projects to say things about them.

Q413 **Kelvin Hopkins:** In your written evidence, you have noted that too much emphasis is put on pre-decided solutions rather than on the best project concept to address need. What do you mean by this?

Professor Williams: We mean that projects should be there to address a need and, having decided to address a need, you should then think about how to address it. There is quite an emphasis on, "Here is a solution and this is a solution we will use" and then thinking about how it addresses a need.

One of the publications we published was very much on: you decide on the project concept and how you are going to answer it. In other words, you want to get from one side of the Thames to the other, that might be your need, rather than saying, "We are going to build a bridge, now let's think about that bridge", just to take that example.

We have had comments from people about feelings that technology can solve all the answers, without again thinking about what the problems that are trying to be solved and whether that is an appropriate technology. We see rushing into solutions rather than deciding on the most appropriate solutions to those questions. It is the logical setup of the project when you start.

Q414 **Kelvin Hopkins:** If we go back to Eddington—on railways again—Eddington said what we need is serious investment in and around the big conurbations right across the country to get people to and from work. That is the priority, not on big projects. Subsequently he was ignored and marginalised and HS2 was decided upon. Who is deciding these solutions, pre-deciding these solutions? Who is it doing it, where has it come from?

Professor Lewis: Some of it is what is sometimes called the Abilene paradox. It is a rather arcane way of saying that a group of friends are on



holiday. They get up in the morning and say, "What are we going to do today?" If they are like my parents they have to do something every day. "What are we going to do? Where are we going to go?" They end up in Abilene for no other reason than no one else would make a decision. There is a large amount of emergence around those deliberate projects.

That is one extreme, a completely emergent trajectory. The other is a very charismatic individual with a very clear vision, "I want an app. I want something else", especially as an asset because an asset is very easy to communicate rather than transformation, as my colleague says. Rather than focusing on the problem—movement, environmentally friendly urban movement, whatever it might be—you fixate on a solution and then you move that forward. It is also easier to attract resources to a solution than is the continuous articulation of the problem. Sometimes it is an individual or a group of individuals but sometimes it is just a strangely emergent character of large projects.

Q415 Kelvin Hopkins: Is it politicians using will over reason and common sense, the facts, the reports that have said what needs to be done on the basis of need?

Professor Lewis: A great project needs both that and the business case to be ultra reductive. It is very easy for them to become out of balance and the business case goes hunting for support or the political will goes hunting for a business case. The project that works is the one that does the two and you can see how easy it is for them to tip out of balance in one way or the other.

Q416 Kelvin Hopkins: Why does the assurance process not weed out these pre-decided, inappropriate projects and what would need to improve to make it harder for such projects to proceed?

Professor Bourne: It is to do with getting through the Treasury approval. Basically, there are two ways of getting through the Treasury approval. One is you produce a business case that meets the requirements and the other is it is something the Government want to do. That is a valid reason for Treasury approval, because the Government want to do it. That is the political case.

Q417 Kelvin Hopkins: Sometimes the Treasury is overridden by political will. Isn't that the case?

Professor Bourne: Yes, I would think so.

Professor Lewis: There is also an empirical phenomenon here. We do not generally see the ones that are abandoned, the options that are closed down. That is an area for interesting future research, to examine where the system does work, does close down options and does prevent a poor business case proceeding. We end up with those that proceed because they become projects, so there is a skew in your sample if you are not careful.



HOUSE OF COMMONS

Q418 **Kelvin Hopkins:** My final question in this section. Professor Flyvbjerg attributes the continued failure of major projects to realise their anticipated benefits, or to be completed on time and to budget, to deliberate deception on the part of politicians and officials. Those with a keen interest in seeing a project go ahead deliberately overstate its prospective benefits and understate budget, timescale and level of risk. He was saying that it is Government deceit.

Professor Williams: He has been saying that for 15 or 20 years and I am sure there are elements of that. Others have found it difficult to replicate that as a constant theme, but there are always case studies where you could find that.

Professor Lewis: In our workshops, SROs are talking about entryism as a phenomenon. Sometimes it is not a deliberate policy. It is, "My job is to deliver this project". Consequently, at what point does that become a blurred line between the objective facts and the political will? So, yes and no.

Q419 **Eleanor Smith:** In regards to the Heathrow expansion, are you looking at that as well? Would that be part of your remit in regards to the projects for this?

Dr Kirkham: We are picking up information as the decision-making process continues. Some of our international colleagues, who are involved in airport expansion-type projects, have provided some quite useful insights. There is an example I can refer to in the Middle East. I was having a conversation with one of the construction directors and asked, "How is it that you can build an airport here so quickly, whereas here in the UK we are still talking about airport expansion at Heathrow?" His reply was, "That is the price of democracy, Richard".

I thought that was an interesting reflection on some of the challenges around our planning system. He said, "You spend a lot of time speaking to stakeholders in the UK about doing things, whereas here we do less of that and will pursue a project and get it done because it is an important political statement".

We will continue to watch developments with airport expansion and of course the subsequent involvement of the National Infrastructure Commission in accelerating change in that space.

Professor Lewis: Colleagues at UCI were heavily involved in the T5 work, in the subsequent T2 work, with lessons across the board. We will be definitively embedded in that process as well, so we have a very strong relationship in that project area.

Q420 **Mr Jones:** In assessing the likely costs, benefits and schedules of proposed projects, to what extent is the experience of previous and comparable projects drawn upon?



HOUSE OF COMMONS

Professor Bourne: The Government do have a database, which has references there to look back to, so some of that is done.

Q421 **Mr Jones:** At what stage?

Professor Bourne: It should be done at the business-case stage.

Q422 **Mr Jones:** Is it done at that stage?

Professor Bourne: It is done to some extent, yes.

Mr Jones: I am not hugely reassured by the tone of your response.

Professor Bourne: No, you are probably not. The difficulty is: how do you make the references? This project, which project does it look like? That is the tricky bit. If you want to get your project through you could choose some comparisons and not others. It is gameable, let's put it that way.

Q423 **Mr Jones:** Yes, and politics can overbear technical considerations. What is being done, do you know, to rectify that? Clearly, if you can have regard to comparable projects that have proceeded, you are more likely to get a new project right.

Dr Kirkham: That is an ongoing piece of work. We spent some time back in 2016 looking at the GMPP and the four classifications—IT, transformation, defence and infrastructure. Within each of those subsets it is quite difficult to make comparisons among the projects and programmes that are in those categorisations. It might be that, as the data that sits within the GMPP becomes more mature, we are able to do more sophisticated things to look at comparisons. I would say that at the moment it is quite difficult to do.

Professor Williams: We are more advanced on cost and time than we are on benefits because we already said benefits are a more diffuse sort of thing. In military projects, for instance, it is quite difficult to define the benefits of an aircraft carrier in a way that is comparable to the previous aircraft carriers.

Professor Bourne: Other countries do shadow costing.

Mr Jones: Other countries do what, sorry?

Professor Bourne: Shadow costing. They will set up a shadow-costing team and say, "This is the project, what do you think the cost will be?" They then compare the shadow cost with the actual cost.

Q424 **Mr Jones:** That does not happen in this country?

Professor Bourne: I have not seen it happen in this country.

Professor Williams: The Norwegians will give it to a completely external body of consultants to cost up a project and look at the risk, and that is compared as part of the parliamentary submission.



HOUSE OF COMMONS

Q425 **Mr Jones:** Speaking as a layman, I can see the benefits of that. As experts, do you think that is something we should be adopting in this country?

Professor Bourne: There is a cost involved. There is also a benefit involved because you have somebody who has no axe to grind doing the costing.

Q426 **Mr Jones:** I would guess that potentially there are huge savings to be made if that is pursued too.

Professor Bourne: You may not do the project at all.

Q427 **Mr Jones:** Exactly, so that would be an enormous saving, for example in the case of HS2.

Professor Bourne: That would be a big saving but projects are done to deliver benefits, so you would not have the benefits either.

Eleanor Smith: We are still looking at the social benefit side of it.

Professor Lewis: That is the general paradox of these early phases, the initiation phases, if you want to call them that—the gestation phases, perhaps—that we do not spend enough resource at that phase and then we spend a lot of resource later.

Q428 **Mr Jones:** Presumably because by that stage the political decision has been made and there are politicians who do not want to lose face.

Professor Lewis: There are also spending lines and contracts. It is very easy to spend the money. It can be quite hard to spend the money on what looks like—consultants to do external costing can look like something that you do not want to spend money on, a waste of money, even, but it is clearly critical to spend time and money at the front end.

Q429 **Chair:** Can I ask a supplementary on that shadow cost implication? Could you invite someone to do shadow costing at any stage of a project? Ideally at the beginning but could you do it halfway through?

Professor Bourne: Yes.

Q430 **Chair:** Would there be benefits of doing so? What would be the benefits of doing so?

Professor Bourne: I know it was done in the Olympic Games. The costs went up just over threefold as a result of that, just after we won it. What was the benefit of that? We knew earlier that the original cost estimate was out three times.

Q431 **Chair:** It helped get more money out of the Treasury, I suppose.

Professor Bourne: The Treasury asked for it.

Q432 **Chair:** The Treasury asked for it?

Professor Bourne: Gordon Brown, yes.

Chair: One thinks of one or two other projects where this technique



might be applied.

- Q433 **Kelvin Hopkins:** A quick additional question while we are on the question of costs. Another disbenefit of mistaken big projects is the opportunity costs of sucking up resource from other projects. In railways—I will go back to those—have we not seen a large number of projects that have been paused or abandoned, electrification schemes, investment in northern railways, which are appalling, all of that has been sucked out by concentration on projects that may or may not be wise?

Dr Kirkham: I agree.

- Q434 **Dame Cheryl Gillan:** Electrification of the line down to Swansea would have had a lot of social benefits in Wales had it gone ahead, but of course we are going ahead with HS2. If the Olympic Games is anything to go by, it is not going to cost £50 billion or £100 billion. It is going to cost north of £150 billion, which will make it absolutely the most unaffordable railway in the world. I am sure the ticket prices will reflect that.

Who evaluates how a major project is delivered? Is there any one centre that evaluates that and should there be?

Professor Williams: The NAO has a role.

Professor Bourne: The IPA itself.

Professor Williams: The IPA itself.

Dr Kirkham: We have an internal audit agency. There are three lines of defence, essentially.

Professor Williams: Going back to the Norwegian example, it does have a treasury body within a university that looks at the bids at the beginning and then looks at the end to whether the outturn was like the original bid. It has shown over the years a gradual coming together of bids and actual spends. I do not think we do have that sort of joined-up system but we have many more and much bigger and much more complex projects.

- Q435 **Dame Cheryl Gillan:** We would benefit from looking at what the Norwegians do and seeing whether it would apply to us?

Professor Williams: I think we would. The problem, as I have said, is quite often what comes out the end of a project is quite different to what started, because life has changed in a way beyond most of those Norwegian projects.

- Q436 **Dame Cheryl Gillan:** I make no apology for going back—on the question of time—to HS2. The project was dreamt up by Andrew Adonis in the Labour Government in 2009, then taken by our Government and then just run through without even interrogating it. It is now 10 years and yet not a single inch of track has been laid. What we are contemplating is in fact old technology. Is there any stage at which an evaluation is done about how technology has moved on? With these large projects, even the



HOUSE OF COMMONS

IT projects, things are moving so fast that in fact they are outdated and it may well be that they need cancelling, re-evaluating or diverting the funds elsewhere, which would be more—

Professor Williams: Part of the gateway system set up a decade ago was to have what is called a gateway zero step, to take a step back and say, “Do we still want this project? Is it satisfying the needs?” That mechanism is there if the political will is there to do it.

Professor Lewis: That is a foundational challenge. How much do you want to pay for the flexibility for the future? T2 is a great example of that, with the Star Alliance wanting the whole thing to be as flexible as possible because it recognised its fleet would change and maybe even its membership would change over time, but BAA was under pressure to deliver an asset at cost effectively and as on time as possible. You had a real tension in the evolution of that story between classical flexibility and cost. That really comes down to a policy decision: how much are you willing to pay for the options to change at some point in the future?

Dr Kirkham: Probably overcoming the sunk cost fallacy as well. We tend to focus our attention on what has already been spent rather than what could be saved by taking a difficult decision to say, “No, that is it”.

Q437 **Dame Cheryl Gillan:** It is interesting that HS2 already has such an enormous property portfolio from which it is earning money. It could divest itself of that property portfolio, which would reduce the cost to the taxpayer by quite a considerable amount. We are talking billions not millions.

Dr Kirkham: With the head of steam—for want of a better expression—that the programme has at the moment, I would rather hope that local authorities and transport executives are empowered to at least start to identify what benefits may be obtainable in the short to medium term as High Speed 2 develops. As you know, at the moment it is quite a fragmented landscape particularly in my part of the world in Yorkshire.

Q438 **Dame Cheryl Gillan:** Of course, the trouble with a lot of these projects is that the benefits cannot be realised unless other parts of Government have money to spend on it, or the private sector, which is not necessarily so.

Professor Williams: That is what we said about the harvesting and the harnessing of benefits.

Dame Cheryl Gillan: Therefore, it is smoke and mirrors.

Q439 **Mr Jones:** To what extent are the Government routinely collecting the data they need to make a robust evaluation of how well a project has been delivered?

Professor Williams: Part of the point of Project X starting was IPA starting to bring together that database. It has done an immense amount



HOUSE OF COMMONS

of work the last four or five years in getting a database, at least at the GMPP projects.

Professor Bourne: The biggest projects, there is a quarterly return to the Government central database. That is quite focused on delivery, although there is the question about how confident people are in delivering the benefits, but that is the central database.

Professor Williams: The NAO report recently on those projects that have left the GMPP said that the data was quite weak in the early days because it had not started collecting it. As time went on, more data was available.

Q440 **Mr Jones:** Is it fair to say that the improvement in data collection is a consequence of the establishment of Project X?

Professor Williams: No, I think it is the other way around.

Dr Kirkham: There has been some really great work that has taken place in IPA, around the analysis piece and providing better analysis to senior civil servants and to Ministers in delivery of confidence assessments for some of these major projects and programmes. What I think we are trying to do in Project X is also recognise that data is not just on Excel spreadsheets and transparency data. It is the conversations that we can have with those who are responsible for delivering some of these major projects and programmes, and understanding the challenges that they face in being able to deliver these successfully. That is just as valuable data to us as things that are inputted on to spreadsheets.

Professor Williams: Can I just explain my comment so it is not misunderstood? What I meant was it was building this database within IPA that gave it the thought to start off Project X. That was all part of its thinking at the time.

Professor Lewis: There is a huge opportunity here as well. It is one of the reasons that the Project X existence is so attractive, to use more advanced methods in characterising and analysing the kind of data that Richard is talking about: topic modelling, large-scale analysis with machine learning of text, so that we can extract rich data from what would otherwise previously be free text in someone's folder and never be visited again. We are actively pursuing that as a methodological intent within the project, with the hope that that would be transferrable across into the Cabinet Office and IPA afterwards.

Q441 **Mr Jones:** Is that data being made widely available outside the project base?

Professor Lewis: At the moment no, because it is early days, but that would be the hope, clearly, both through reports and publications; back to our earlier answers on those conversations.



HOUSE OF COMMONS

Dr Kirkham: I think the current transparency data that is made available, plus the reports that emerge from the three lines of defence, when coalesced together probably provide the really good overview to citizens of what is going on. I have not seen anything that is better than that in our international comparative work at the moment.

Mr Jones: That is encouraging, thank you.

Q442 **Dr Huq:** Back to the difficulty of defining benefits, be they social, economic or whatever. How do the Government know whether projects they have commissioned have achieved the benefits they were expected to deliver? Expected in actual outcomes.

Professor Bourne: For the GMPP it is something like two-thirds of the projects actually have NAO reports afterwards. There is a report there that does pick that up, so that is the evidence.

Q443 **Dr Huq:** After completion?

Professor Bourne: Yes.

Dr Kirkham: There is scant methodological and rigorous research, though, in that area and that is absolutely one of the priorities for us. We are lobbying for that through recognition of the importance of project delivery in the Industrial Strategy. Graham Higgins's Cabinet Office recently updated its areas of research interest document to reflect Government major project delivery and the importance of benefits tracking.

Speaking pragmatically, once the projects or programmes are closed there is a, "Well, who cares what the benefits are, let's move on to the next job" so we need to raise the profile of that and make sure people are aware.

Professor Williams: The other issue is: in a business case there should be a line of sight between what the project is and the benefits and you try to replicate that after the project, but quite often the environment and the economy have changed and it is quite difficult to distinguish between what you have done. Part of the benefits of the international work we do is we looked at the EU and we asked them the same question: if you have a big EU project, how do you know it has achieved benefits? They just say, "We don't because the economy has changed, 10 years on everything is different. We do not bother trying".

Q444 **Dr Huq:** Yes, benefits, timeframe, price, all these things are quite shifting, aren't they? When I used to teach social research methods rule No. 1 is that research projects do not turn out as expected.

Professor Bourne: Neither do Government projects.

Q445 **Dr Huq:** Yes, and you have written research bids and everything so you are familiar with these words. In your view, are the timeframes used to assess these project benefits appropriate? Should we be a bit more open



HOUSE OF COMMONS

minded about a range of end dates rather than fixing it in stone at the beginning?

Professor Bourne: One of the difficulties is the end dates. When we were looking at the US that was always what they came back to: what date do you actually pick to do the projects? Which date you pick determines the benefits you can count into the project. Having a rule for it is a good idea, but then for some projects it will work and some projects it won't. Having it open-ended is a good idea, but then will people pick the dates where they can tell that story. It is difficult to do.

Professor Lewis: The recent Department for Transport lessons learned document does stress the idea of waiting at least three years, I think, post-project completion closure before you start evaluating benefits. You are stretching into that post-delivery phase.

I think it relates to a question earlier, if your entire focus is the project rather than the problem and the solution to, then the project starts and the project finishes. Hence, why we have problems with initiation and hand-over because it is not the project and yet those are critical phases in that value stream over time. If we can move towards a broader problem framing rather than just the project silo, I think we are in a stronger place to make the evaluations you are talking about.

Q446 **Dr Huq:** What alternatives could you have to a fixed timeframe at the beginning, though? Should you have a constant re-evaluation as it is going on?

Professor Lewis: I will revisit my comment about cost and flexibility there. If you do have a very open-ended one, you may well end up with a very attractive project but you might also end up with one that is almost never ending. There are paradoxical pressures at play here. You have to make decisions and trade-offs between those, the desire to finish something and move on and the desire to keep making it the best it can be.

Dr Kirkham: It may be that there needs to be some refresh of the Green Book or Orange Book potentially to create that change of culture in view of benefits costs, obviously decision-making is driven by that set of instruments at the moment. I would see the Treasury push as a natural first step.

Professor Bourne: One thing I have seen, and it has been very rare, is a project director working out her options before the project kicked off, bearing in mind the political uncertainties around it and having ways of closing the project down as Government policy has changed, while still giving some benefit out of what they had spent. I have not seen that very often. In the one case where I have seen it it worked extremely well, and a project that one Government was supporting and the other Government ditched was shut in three months and there were benefits to other parts of the system as a result. I do not see that very often.



HOUSE OF COMMONS

Q447 **Dr Huq:** It is not a bad idea to have a tipping point. With the Garden Bridge, it was anecdotally said that they wanted to get it to a point that you could not cancel it because so much money had been put into it.

Professor Bourne: That is one way of doing a project, isn't it?

Q448 **Chair:** Professor Bourne, are you able to identify that project for us?

Professor Bourne: I can do because it was not through research; it was the national identity scheme.

Q449 **Dr Huq:** How much money had been committed to that?

Professor Bourne: I do not know the details of how much was committed. All I know is that it was going this way. They changed aspects of how passports were produced to fit with it and, therefore, made improvements in the passport service. When the project shut, although the identity card did not go on, the passport improvements were left as a deliberate legacy.

Q450 **Chair:** Very interesting. How reasonable would it be to expect the NAO to judge whether projects have achieved the benefits they were expected to deliver?

Professor Williams: I asked that question of them about a week ago and the answer was: they are there to scrutinise, they are an audit organisation, they are there to check that a Government Department is evaluating whether benefits are achieved, rather than evaluating themselves whether the benefits are achieved. That was an individual I asked that question to. They are there to audit rather than—

Q451 **Chair:** What did you think of that response?

Professor Williams: When you come to some of the social things—and it is more difficult to quantify benefits—I wonder whether the Department is better placed to evaluate those than the NAO would be.

Q452 **Chair:** That is a very diplomatic answer.

Professor Williams: The NAO are there to audit whether the Department is doing their job properly, full stop.

Chair: Therefore, we should expect Departments to do that evaluation.

Q453 **Eleanor Smith:** The Government have been prioritising improving capabilities in areas, including project management, commercial and digital. How much difference has this made to its delivery of major projects?

Professor Bourne: It is certainly building a cadre of people to do it. We have the major projects academy at Oxford, the project leadership programme I run; we have orchestrating major projects, so a lot of work is being done there. It is not the only work that is being done because there is some academy work going on within Departments. There is



HOUSE OF COMMONS

project management work going on there, whereas at Cranfield and Oxford it is about leadership.

They have also put the standards and capability frameworks in. They are collecting an awful lot of data. They understand where their capabilities are and they are building them. That is what they are doing.

Dr Kirkham: I have observed in the recent Committees on civil service leadership, questions you are asking about reflection and how that is being used to improve leadership and decision-making. We are seeing much more of that happening now as well, which I think is good, allowing early career civil servants to use the experience of those that have been in the delivery profession for longer to make good decisions, to look at what has gone right and what has gone wrong in a safe space. There is a real genuine enthusiasm to embrace that approach, which is creditable.

Professor Williams: Those three areas that you mentioned are all improving individually. One thing that has been suggested to me that would be good is to see those three working together. The Government Digital Service, Crown Commercial Service and the project delivery are sometimes three separate things. Of course, they need to work together because to commercially deliver a big digital project requires all three.

Dr Kirkham: Connecting the operational delivery profession to the project delivery profession as well is a great opportunity going forward, because it is those that are at the coalface of delivering public services that ensure the legacy of decisions taken in project delivery and policy development.

Q454 **Kelvin Hopkins:** The Government often uses an arm's length special purpose body to deliver their largest major projects. In your view, is this appropriate?

Dr Kirkham: We have not encountered any evidence in what we have been looking at that would suggest that it is inappropriate. In fact, there are some innovative models around sponsorship of major projects and programmes that appear, on the face of it, to look good. It provides an opportunity to bring expertise together in a centralised organisation, which may be specific to the particular needs of that project or programme. Drawing on the evidence we have so far, there isn't a particular concern that we would have about the use of those types of organisations.

Q455 **Kelvin Hopkins:** Isn't the reality that they become a vested interest and the people working inside them, who are often on extraordinarily high salaries, are not going to tell the truth to Government or the public interest, especially if costs are starting to rise? They are going to carry on and try to disguise everything because it is in their interests to do so?

Professor Williams: If you see projects within Government, they will take on lives themselves and will have vested interests.



Kelvin Hopkins: Is there not a case that inside Government civil servants do have some sense of commitment to the public interest—and, indeed, the Treasury might have a say in all of this as well, very directly—and that that is different from people in the commercial sector who have a very highly paid job, want it to carry on whatever the situation and are not going to tell the bad news to Government? I am not hearing an answer.

Professor Bourne: Reputation is reputation wherever you are, isn't it? If you do that, the procurement system should stop you from doing anything, yes.

Q456 **Kelvin Hopkins:** In cases where a major project is delivered by an arm's length body, how should the Government ensure that the project progresses as planned?

Professor Bourne: I do not see there should be any difference from the way it is done with major projects. We have an assurance regime, we have inspections and things like that, and each should follow the same route. I am not sure we need to ensure—

Professor Williams: The Government themselves do not execute the projects. The Government do not build an IT system. They employ somebody to do it, so in a sense you tend to be employing industry through contractual mechanisms. The answer to the question is: it all comes down to contractual mechanism use, and study those contracts. Perhaps I should turn over to Mike Lewis because he is the expert here.

Q457 **Kelvin Hopkins:** In previous times, projects have been undertaken by Government that have not used these particular methods. They have had methods that are closer and tied in more closely to Government. Is that not the case?

Professor Lewis: There are two things: one is to speak up for SPB a little. The critiques are legitimate: they always are. Given earlier questions about the vagaries of political dynamics and timing and so on, an institutional body that gives you a little bit more longevity is very appealing; it allows greater stability for some of the contracting we have talked about, so you are not constantly worried whether the next election cycle is going to lead to abandonment of a major commitment. There is a question of stability amid the vagaries of the world.

Also then, yes, it is a question of using the contracting effectively, recognising contract review, using the correct methods to allow people to both come together and be subject to critique and scrutiny. It always comes back to good governance, good scrutiny. The format in which you create the market or the supply chain does not really matter. You would have to have the data, the scrutiny and the independence to make judgment and the willingness to speak truth to power and say, "No, we should stop this".



Professor Williams: If you look back 40 years in the defence industry, that was where Government tended to build things themselves and the Conservative Government came along and said, "This is ridiculous. We should be giving the risk to industry". I think the comment was, "If I buy a car I do not have to bid for it. I know exactly how much I am going to spend, so we will put the risk on industry. We will let them build the things for us and we will just specify what we want out of it"—that was felt to be a more appropriate way—"and we will govern that through contracts". That was a better way of spending public money.

Q458 **Kelvin Hopkins:** That brings me on to my next question, which is about risk. Where does risk truly lie in these situations? Where does the risk lie?

Professor Williams: Ultimate risk always lies with the Government. There is always a risk that, if you give work to industry, it could default so you can pass off as much risk as you can but, ultimately, risk always lies with the Government.

Q459 **Kelvin Hopkins:** Therefore, holding things closer into Government with more direct Government involvement, one way or another, and the public interest central to all these things, isn't it more sensible where risk actually ultimately lies with the Government?

Professor Lewis: It is good to see in the outsourcing playbook very recently that Make-or-Buy has made its way into a front and centre conversation again. If the supposition is not, "It will always be out, it will always be an arm's length body or supply chain", it could be possible for the Government to hold more of that more closely. That has been missing for a long time, so perhaps that is an attempt to create some of that corrective balance that you are talking about.

Professor Williams: The other danger is, if you outsource lots of things, you cease to be an intelligent customer.

Professor Lewis: Buying more than you know.

Q460 **Kelvin Hopkins:** We have had reports on IT in particular. Just finally, where those inside at the top level in these special purpose bodies are spending vast sums of money, if they can see a risk that is going to be a future problem they can choose to go elsewhere, move on, "I have done my bit". We have seen that at the top of certain major projects where there has been quite a change of senior leadership—a complete change of senior leadership over time—and the others, if anything goes badly wrong, cannot be blamed because they have left the scene a long time previously.

Professor Lewis: Again, good risk management. Senior leadership chairs are a key indicator of risk, so consequently a strong governance regime would be on top of that and ask the question, "What is going on here?" That is a visible indicator but, yes, of course that is the reality of organisations.



Professor Williams: There is a concern within Government of the turnover of senior responsible owners. We pointed out that a senior responsible owner can bring in another the next year and another one the next year, which sometimes is appropriate if it is a change in the stage of a project but sometimes it is the sign of a not very successful project.

Kelvin Hopkins: I could ask more questions but I think I have had my share. Thanks, Chair.

- Q461 **Dame Cheryl Gillan:** It is a similar point to what Kelvin was making. Professor Lewis said that an arm's length body sometimes gives you that stability and continuity. When you have rapidly changing personnel at the top of the project it cannot possibly give you that stability. It means that the risk gets increasingly concealed from Government.

Professor Lewis: I cannot comment on that without a specific example, I guess, but institutionally you have created a vehicle that has a purpose, which is the embodiment of some policy intent. You are not as exposed to changing the ministerial portfolio and changing the priorities in that way. That is what I meant about a degree of stability. It does not give you guaranteed stability.

- Q462 **Dame Cheryl Gillan:** If you have this combination of the changing of the ministerial responsibilities as well as the changing of the personnel, the risk to the taxpayer—who is ultimately bearing the risk—goes up exponentially I would have thought. Plus, of course, you bring in somebody new and I found that you bring them into your office and you talk them through the history of the project and some of the things that have gone wrong, and their eyes are wide open in surprise because they have not known about that before they took the job.

Professor Lewis: Yes, I am sure that is true.

- Q463 **Dame Cheryl Gillan:** How can we solve that problem? It really is a problem.

Professor Lewis: Again, you cannot expect structure to solve your problems of governance and oversight. That is the issue. It comes back to the idea of clarity of data, transparency of oversight and having robust institutional oversight and critique. Those are the mechanisms regardless of the structure in-house, out-house, made or bought that would give you the control you seek.

- Q464 **Dame Cheryl Gillan:** Would you say with some of these major, major projects—like HS2—that there should be a dedicated Minister of State just looking at those projects to keep that control and to keep that faith with the taxpayer that their money is being looked after properly.

Professor Lewis: I see no meaningful advantage to that, except insofar as you end up again obsessing about the individual project rather than the broader portfolio question of the mission of the Department capturing the benefits for their local community, thinking about the problems they face. There is always a risk that the more you fixate on that project and



increase that status you exacerbate rather than solve some of the problems.

Q465 **Dame Cheryl Gillan:** Except even you must admit that it is not obsessing about a project when it looks like it may be costing northwards of £150 billion? That is a major problem for any Government.

Professor Lewis: No, but you should not need a Minister to see that.

Dame Cheryl Gillan: Or even to take responsibility for it or interrogate it.

Chair: We must move on.

Q466 **Dr Huq:** What would you replace the failed experiment of PFI with?

Dr Kirkham: PFI is a very interesting question because we have not specifically addressed this as a research area project. We were invited to make contributions to the work that the National Infrastructure Commission was doing, and in particular an evaluation framework of private finance versus traditional capital funding.

As a young undergraduate student, I had the pleasure of working on one of the first ever PFI projects which was for Fazakerly Prison up in Merseyside. Having followed that project over the last 15, 20 years or so I observed peaks and troughs in its performance. Early days a fantastic success, on time, in fact ahead of time, on budget, widely regarded as a fantastic project, but then operational experienced a number of issues and then back up again.

There is probably about 100-odd PFI type projects that are coming towards the end of their concession period at the moment, which offers a fantastic opportunity to do some really good studies. We are chomping at the bit to get hold of that data and do some good stuff. I am aware that the IPA has also got a team that have been collating that data to give us, as academics, an opportunity to get stuck in.

Q467 **Dr Huq:** These are post mortems, are they?

Dr Kirkham: Yes. Absolutely, we are all aware of the major failings of PFI and of costs, and that may have framed the Chancellor's decision to abandon PF2 at that Autumn Statement. I would also like to see where there is evidence of good practice so that that can be fed into any future private sector involvement in public services.

Q468 **Dr Huq:** You envisage a sort of son of PFI then, with the good elements you are referring to?

Dr Kirkham: I don't know. The question was asked earlier about risk as a key thing, because when the Government decide to initiate a PPP type deal they need to be competent in understanding their risk. We have been invited to contribute to the cross-governmental Risk Improvement Group, which brings risk experts across government together. We hope that we will be able to use our experience and research to inform that



HOUSE OF COMMONS

debate. That to me is an important thing, ensuring Government are a good, intelligent client and understand the risk that their decisions introduce to public service delivery.

Q469 **Dr Huq:** Any other thoughts on post-PFI?

Professor Bourne: It is not my area of expertise.

Professor Lewis: Where we have studied PFIs, first wave hospitals in particular, the Great Western Hospital in Swindon for instance, again we would separate the mechanics of the financing of the asset from the operation of the asset. There were examples, as Richard said, of really great practice but also poor practice, almost completely separate from the financing model at play. I think there are two questions there.

There are models of governance and operating models that are different. Some that merged under PFI that are worth looking at, but the question of the financing is a different one and seems almost entirely separate. I am not sure that was the original intent. I think the idea was that the financing would change the operating models and we did not find much evidence of that.

Q470 **Dr Huq:** If Government can borrow more cheaply than the private sector, why do we rely on private finance at all for major projects?

Professor Williams: I am not sure I have an answer for that.

Dr Huq: Okay, I think we are all agreed.

Q471 **Chair:** Is there really an end to PFI or is this a semantic end?

Professor Williams: Certainly, people we know who were planning projects based on PFI have now had to tear that up and they are starting to plan them without PFI. I understood it not to be a semantic end but to be an actual policy change.

Q472 **Chair:** How are the Government going to fund all the things they want to fund unless they either borrow the money or finance it from the private sector?

Professor Williams: That is a good question. I do not have an answer to that.

Q473 **Chair:** Can I move on to the role of IT in projects? Indeed, in the GMPP the category with the largest number of individual projects is governed by transformational service delivery, which are very IT dependent. Yet we find that very often these are projects where there are very significant problems, such as in the Government's Verify digital identification project. Professor Flyvbjerg has said, "If a major project is not already messed up, injecting a good dose of ICT will do the job". How fair is that assessment?

Dr Kirkham: If our solutions were that easy we would be out of a job in Project X. Reflections on the C-Nomis programme are potentially useful.



That was a hugely ambitious IT programme to improve the way in which the justice agencies were co-ordinating information and data in a way that would ensure that public protection is maintained. However, like many IT projects, London Ambulance Service for example back in the 1980s, past stakeholder understanding and engagement led to a service project, which was not addressing the particular needs of those that needed it the most.

When we are talking about transformation, we are also talking about behaviour change. Citizens, civil servants capturing what that behaviour change looks like in the business case is really challenging, and then tracking that behaviour change into operations as well. The research that we have done at Manchester has identified that as a key issue that programme and project teams should be discussing as early as possible. It is that behaviour change that I think ultimately ensures the success of the project or the programme.

IT can be a very expensive drug to be addicted to and, if you are not careful, you can end up adding extra complexity to an already complex programme.

Professor Williams: The lesson from C-Nomis, particularly, is that it was not an IT programme; it was a transformation of the prisons and the probation system, which is going to be enabled by IT. If you regard it as an IT programme, and let a load of programmers write a programme, as Richard said, you are missing 90% of the problem. If you drive it as an IT programme, you are lost before you start. Transformation programmes and transforming the way the Government works—

Dr Kirkham: I can recall a good example. It is a smaller scale one, so it is not GMPP; it was the prison visits booking system that delivered a trial method. There was quite good use of research, a bit of engagement in there. The evidence that we see at the moment is that is working really well in improving operations within prisons around people's visits, which obviously is important. There are good examples.

Professor Lewis: That is the irony of IT in this context. It is certainly empirically true that previous ICT projects have been inordinately expensive and often complete failures. The contemporary digital tool set allows for these agile methods, where you can simplify, make very, very small individual asset deliveries, continuously deliver, engage with users, and revise change. In some ways, the additive new technologies do hold all the potential: the challenge is—as I am sure Richard will attest—when you try to integrate with legacy or are trying to do everything all at once. That would be a problem for any project as well. The modularity, simplification are critical themes in all of these projects.

Dr Kirkham: The TSB banking project is a good example. Events like that may have put the Government into a more risk adverse mode.

Q474 **Dame Cheryl Gillan:** These Government transformation projects—I hear



HOUSE OF COMMONS

what you say that it is the transformation of the departmental work, whatever they are doing, rather than the IT—do they increase the risk of potential disruption or fraud? I am just thinking about the news reports this morning on Universal Credit.

Professor Lewis: Within my group, Bath has a large group of people who are interested in cyber security and the risks and vulnerabilities that come with modern technology systems. It is clear that it introduces all sorts of novel risks: whether there is additive risk is a moot point that I could not comment on, but certainly new risks very, very clearly. A lot of them are driven by behaviours, people unaware of the behaviours that have been triggered by the systems that they are getting, so they get an e-mail.

Ironically, our undergraduate students are incredibly vulnerable—or they are arguably very bright—when they arrive on campus because they are dislocated from family and friends and feeling insecure, and then they get e-mails that look like they are from the university saying, “By the way, your accommodation cheque has not gone in” and they are very vulnerable. The criminals in this case are very attuned and the behavioural gap opens up and can be exploited with these digital tools, so new vulnerabilities.

Dame Cheryl Gillan: Sounds like we need a few poachers turning gamekeepers.

Q475 **Mr Jones:** How do we assess the true benefits of these transformational projects? We are told that the cumulative monetised benefit of the GMPP’s transformational service delivery projects is £330 billion from a cumulative cost of £83 billion, which looks quite surprising to me. How much credence should we be placing in those sorts of figures?

Dr Kirkham: There is a degree of optimism in those benefits forecasts. As human beings we are cognitively optimistic sometimes, aren’t we, and I get that in the case of trying to get you through the Treasury approval process and getting these programmes out into live.

In the case of transformation, where you are relying on a broad range of benefit recipients to deliver the long-term outcomes, it is very difficult to put those numbers down. It is: be more honest with the public about the potential variability in what those benefits might look like, not anchoring us to one particular figure but saying, “You know what, this is Government work. It is complex. That was mentioned in the Government’s transformation strategy and we do not quite know what the long-term realisation of these benefits will look like, but we think it is the right thing to do for citizens”. It is making a coherent argument that does not anchor us specifically to numbers, which is something that we could potentially do in Project X to improve the broader understanding of project delivery.

Professor Bourne: We seem to go for points, don’t we? “The cost is going to be X. The benefit is going to be Y”, rather than, “The cost is



HOUSE OF COMMONS

going to be within this range and the benefits are going to be within this range". We do make the things over precise.

Q476 **Mr Jones:** It is noteworthy that the projected benefits of these transformational projects are significantly higher than, for example, infrastructure projects or transport projects. Is there a particular reason for that?

Dr Kirkham: I do not know if there is a particular reason. I suspect that the nature of transformation is such that it is harder to put those figures down, than it would be infrastructure where there is probably more data or evidence to inform the calculations.

Q477 **Mr Jones:** Therefore, I would have thought—again, as a layman—that people making these projections would be erring on the side of caution rather than being so buccaneering.

Dr Kirkham: Yes, quite.

Professor Bourne: With infrastructure projects sometimes the risk is smaller. You have something that is going to be there, you are going to use it. Transformation projects, the risks are quite great so you are probably going to have a larger benefit because of the risks involved.

Chair: That is interesting.

Q478 **Kelvin Hopkins:** I can see President Trump making this sort of claim in America, but I thought we would be a bit more sensible.

Dr Kirkham: It is funny you mention America because legislatively they have made some big changes out there with major projects: the Program Management Improvement and Accountability Act, which is designed to introduce greater rigour, not just to the decision-making process but its execution. I wonder whether there is mileage in legislation like that here in the UK in the future. It would be interesting to see.

Q479 **Eleanor Smith:** The Government have strengthened their in-house digital capability. Do you think that this has improved project delivery?

Dr Kirkham: If there is one kind of weakness that we have within the Project X community at the moment it is engagement with GDS. We are aware of projects that are our theme leads are involved in that are connected with GDS, but at the moment we haven't really done anything of substantial detail that I would be willing to talk about here today.

Anecdotally, it looks to me that there is real enthusiasm in Government now to support digital transformation and the upskilling that is necessary to achieve that. In universities we are doing a lot of work on industry 4.0 now, data analytics and machine learning and all the things that are in the industrial strategy, which we hope will deliver new, competent professionals to work in that sector going forward.

Chair: I think we have exhausted ourselves. Thank you very much for your evidence. If you have other thoughts you want to give to us, please



HOUSE OF COMMONS

do send them in. They can be private or published, as you wish. You have given us the benefit of a very wide range of experience and insight that has been very helpful. Thank you very much indeed.