



House of Commons
Committee of Public Accounts

Progress with preparations for High Speed 2

Fourteenth Report of Session 2016–17



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*Report, together with formal minutes relating
to the report*

*Ordered by the House of Commons
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The Committee of Public Accounts

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Summary

The Department for Transport (the Department) and HS2 Ltd have made considerable progress with preparations for High Speed 2 since the previous Committee last reported on the project in 2013. They have issued tender documents for major civil engineering contracts on phase 1 and plan to announce the preferred route for phase 2b later in 2016. However, we are concerned that the Department's timetable for High Speed 2 is overly ambitious, which is exemplified by the fact that the Department and HS2 Ltd are now looking at delaying the planned opening date for phase 1 by up to 12 months from December 2026 to December 2027. The cost estimates for phase 2 are still volatile and currently exceed available funding by £7 billion. We remain to be convinced that proposed savings of £9 billion can be made without adversely affecting the benefits of the programme. HS2 Ltd's recent recommendation to the Department that the planned High Speed 2 station in South Yorkshire be moved from Meadowhall to Sheffield Midland station is one example of the significant uncertainty that remains about plans for phase 2. We welcome the Department's commitment to set out how the UK railways will operate as a single, integrated network, but a great deal of work is still required to integrate plans for High Speed 2 with other rail investment proposals, and with the existing network. Furthermore, greater assurance about sources of funding and finance for regeneration and growth is required to ensure that the promised regional benefits from High Speed 2 materialise.

Introduction

High Speed 2 is a programme, split into three phases, to create a new high speed rail service from London to Manchester and Leeds, via Birmingham. Phase 1 between London Euston and the West Midlands is due to begin construction in 2017 and open in 2026. Phase 2a, between the West Midlands and Crewe is expected to open in 2027, with phase 2b, completing the full network to Manchester and Leeds, due to open in 2033. The Department for Transport (the Department) is the sponsor of the £55.7 billion programme (2015 prices) and HS2 Ltd is responsible for developing, building and maintaining the railway. The Department's objectives for High Speed 2 are to enable economic growth by increasing capacity to meet existing and future rail passenger demand and to improve connectivity between UK towns and cities. The Department also aims to encourage additional investment to drive regeneration, particularly in areas around stations.

Conclusions and recommendations

1. **We are not convinced that the timetable for delivering High Speed 2 is realistic.** The Department for Transport (the Department) considers the programme to be on schedule, citing the fact that it recently issued the invitations to tender for major civil engineering contracts for phase 1 on time. However, HS2 Ltd is only 60% confident that phase 1 will open in December 2026. The Department and HS2 Ltd consider this to be too low. HS2 Ltd has been asked to increase confidence to 80%. As a result HS2 Ltd is assessing the impact of extending the phase 1 opening date by up to 12 months from December 2026 to December 2027. The Department maintains that delays to phase 1 will not have an impact on the phase 2 timetable. Nevertheless, there remains considerable uncertainty about the phase 2 route, with an announcement due in the autumn.

Recommendation: *The announcement of the route of phase 2b this autumn should include a realistic timetable against which we will hold the Department and HS2 Ltd to account. At the same time the Department should confirm whether it intends to open phase 1 in 2026, or 2027.*

2. **The Department does not have a clear enough picture of the estimated costs for phase 2.** The cost estimates for phase 2 are still volatile. At the time of the 2015 Spending Review, the Department submitted to the Treasury a cost estimate that was £7 billion over the agreed funding of £28.5 billion. Six months later, following a Cabinet Office-led review of the estimated costs of the programme, the Department and HS2 Ltd had identified up to £9 billion of potential savings. A large proportion of these potential savings result from HS2 Ltd having applied the more mature and detailed estimates for the unit cost of the viaducts, tunnels and cuttings from phase 1 to the phase 2 plans but it is not clear why these assumptions could not have been applied at an earlier stage. It remains to be seen whether these planned savings on phase 2 can be delivered without adversely affecting the expected benefits of the programme.

Recommendation: *The Department should produce a firm cost estimate for phase 2, setting out the basis on which it was compiled by the time of the route announcement in autumn 2016.*

3. **The impact of proposed route changes in South Yorkshire on passengers, on local communities and on growth and regeneration is not clear.** HS2 Ltd has recommended changing the location of the planned High Speed 2 station in South Yorkshire from Meadowhall to Sheffield Midland station. The Department and HS2 Ltd have identified around £768 million of savings in the new proposed route. However, the published report proposing this change contained no quantification of the benefits for each of the alternatives although it is clear that fewer trains will stop at Sheffield than under previous plans. Five high speed trains-per-hour were initially planned to stop at Meadowhall but only one or two high speed trains per hour are planned to stop at Sheffield Midland. The nature and scale of potential disruption to communities that were not expecting to be affected by High Speed 2 is not yet clear. The Department expects to announce its decision as part of the phase 2b route announcement.

Recommendation: *The Department's decision on the location of the South Yorkshire station should set out the basis on which the selected option was chosen, including quantification of the impact on passengers, local communities, and on forecast growth and regeneration.*

4. **We are concerned that the Department may find it difficult to secure the skills required for all of its major transport infrastructure plans.** The extensive programme of infrastructure investment over the next few years is increasing the demand for engineering, project management and commercial skills across the industry. The Department and HS2 Ltd are competing with consulting and engineering firms, and other government projects for scarce skills, which represents a key challenge that will also impact on project costs. To address the skills shortage for High Speed 2, HS2 Ltd and the Department are engaging with the industry and developing a long term plan, which includes the establishment of a national college for high speed rail. Although the Department failed to mention it during our evidence session, it published a Transport Infrastructure Skills Strategy in January 2016.

Recommendation: *The Department should report back to the Committee in 12 months' time on progress in securing all the skills needed to deliver all its infrastructure programmes.*

5. **Sufficient funding will be required to secure the promised regeneration and growth benefits of High Speed 2.** It is encouraging that the Departments for Transport and Communities and Local Government have learned lessons from High Speed 1 and have started planning for regeneration and growth benefits. However, on the whole, the £55.7 billion funding package for the project does not include provision for the regeneration around High Speed 2 stations. Instead, local authorities are required to identify sources of finance and funding. The main exception is Euston where the Department has long term funding to pay for works to enable future development about the High Speed 2 station estimated to cost £417 million.

Recommendation: *The Department should seek assurances from the relevant local authorities that they have plans in place to identify sources of funding and financing, to secure the local regeneration and growth benefits of High Speed 2.*

6. **It is not clear how High Speed 2 will work with the rest of the transport system.** The Department is developing a plan for how the UK's railways will operate as a single, integrated network once High Speed 2 opens. However, significant uncertainties remain which need to be resolved. For example, it is unclear how High Speed 2 will interact with proposed transport investment in the North of England, and what the cost of future spending to integrate High Speed 2 with the wider network might amount to. Particularly pressing is a decision about the design of the High Speed 2 trains and how they will be compatible with the rest of the network.

Recommendation: *The Department should publish its plan for how the entire rail network will operate once High Speed 2 has been built at the time of the phase 2 route announcement, in autumn 2016.*

1 Progress with delivering the programme

1. On the basis of a report by the Comptroller and Auditor General (C&AG) we took evidence from the Department for Transport (the Department) and HS2 Ltd on progress with preparations for High Speed 2.¹

2. High Speed 2 is a £55.7 billion programme (at 2015 prices) split into three phases, to create a new high speed rail service from London to Manchester and Leeds, via Birmingham. Phase 1 between London Euston and the West Midlands is due to begin construction in 2017 and open in 2026. Phase 2a, between the West Midlands and Crewe, is expected to open in 2027 with phase 2b, completing the full network to Manchester and Leeds, due to open in 2033. The Department is the sponsor of the programme and HS2 Ltd, a company wholly owned by the Department, is responsible for developing, building and maintaining the railway.²

3. The Department's objectives for High Speed 2 are to enable economic growth by increasing capacity to meet existing and future rail passenger demand and to improve connectivity between UK towns and cities. The Department also aims to encourage additional investment to promote regeneration, particularly in areas around stations.³

4. Each phase of the programme requires primary legislation in the form of a Hybrid Bill to be passed before authority is granted to construct that section of the railway. In 2013, the previous Committee described the timetable for gaining Royal Assent for phase 1 as ambitious and unrealistic.⁴ The Department subsequently delayed the target date for achieving Royal Assent by 21 months to December 2016 and are now on course to achieve this.

5. The Department told us that the programme is now on track to start construction next year and for phase 1 to be finished by the end of 2026.⁵ However, HS2 Ltd is only 60% confident that it will be able to deliver phase 1 by 2026. The Department's view is that this is too low, and it has asked HS2 Ltd to revisit the programme schedule in order to increase confidence in delivery to 80%, without increasing costs. In doing this, the Department has asked HS2 Ltd to consider the impact of delaying phase 1 by up to 12 months from December 2026 to December 2027. The Department and HS2 Ltd have missed programme milestones since the beginning of the programme and only 15% of ground investigation work has been completed against a target of 26%.⁶

6. The Department told us that the phase 2 timetable would not be affected if they were to delay opening phase 1 by 12 months. The Department explained that the two timetables were not dependent on each other. Both were more dictated by the legislative process and the funding profile. However, there remain considerable uncertainties about the phase 2 route, such as a decision about the location of a High Speed 2 station in South Yorkshire.

1 C&AG's Report, [Progress with preparations for High Speed 2](#), HC 235, Session 2016–17, 28 June 2016

2 [C&AG's Report](#), para 2

3 [C&AG's Report](#), paras 1–3 and 1.2

4 Committee of Public Accounts, Twenty-second Report of Session 2013–14, [High Speed 2: a review of early programme preparation](#), HC 478, September 2013, para 5

5 [Qq 21, 22–23](#)

6 [Qq 22, 54–55](#); [C&AG's report](#), para 3.13

The Department plans to announce the phase 2 route this autumn.⁷ The estimated costs of both phases 1 and 2 currently exceed available funding. On phase 1 the estimated final cost, including contingency provision is £27,384 million, £204 million above available funding. Available contingency for phase 1 currently stands at around 32.5% and the Department has asked HS2 Ltd to restore this level to around 35%.⁸

7. On phase 2, cost estimates are more volatile. At the time of the 2015 Spending Review, the estimated cost of phase 2 exceeded available funding by £7 billion. The Department told us that it had known enough about potential areas for reducing phase 2 costs at the time of the spending review to decide not to seek an increase in the funding package. Six months later, a review commissioned by the Cabinet Secretary, involving staff from the Department, HS2 Ltd, the Infrastructure and Projects Authority and other government departments, identified potential phase 2 savings totalling around £9 billion.⁹ Nevertheless, HS2 Ltd explained that, as there was still a lot of work to be done on the phase 2 cost estimates and route design, it would not commit to all £9 billion of savings being realised or that phase 2 would be delivered under budget.¹⁰

8. The Department and HS2 Ltd consider that around £2.4 billion of these savings are the result of revised assumptions, based on more mature estimates for phase 1, about the unit costs to build, for example, viaducts and cuttings. In addition, HS2 Ltd told us that High Speed 2 provided an opportunity to address long-standing issues in supply chains for engineering projects in the UK, which are characterised by a lack of integration, with large numbers of suppliers all taking profit. HS2 Ltd told us that, with long-term planning and improved visibility for the supply chain of those plans, there was an opportunity to make savings of around £1.7 billion on phase 2.¹¹

9. The Department and HS2 Ltd expect some of the £9 billion of proposed savings to come from a change to the location of the planned High Speed 2 station in South Yorkshire. In 2013, the Government proposed that South Yorkshire should be served by High Speed 2 stopping at Meadowhall, north of Sheffield. However, on 7 July 2016, HS2 Ltd published a high level report about the route and station options that HS2 Ltd had considered in South Yorkshire. The report recommended a new option that runs as far as possible parallel to the M18. The HS2 service would serve Sheffield Midland station in Sheffield city centre by running high speed ‘classic compatible’ trains, which can operate on both the High Speed 2 network and the existing network. If the recommendation is accepted by ministers, the Department estimates that savings of around £768 million could be realised. The Department expects that a decision about the South Yorkshire station will be made and announced in the autumn, at the time of the announcement of the proposed route of phase 2b.¹²

10. The new proposed route will affect groups and communities that were not expecting to be affected under the previous plans for the South Yorkshire route. Currently, the scale of disruption and the impact on passengers is yet to be determined. The Department told us that there were a range of regeneration benefits that could be realised under the

7 [Qq 3–4, 62, 96](#)

8 [Qq 145; C&AG’s report](#), para 2.3, 2.11 and figure 6

9 [Qq 69, 73, 77](#)

10 [Qq 87; C&AG’s Report](#), para 2.11

11 [Qq 66, 73, 90, 106 and C&AG’s report](#), para 2.3, 2.11 and figure 6

12 [Qq 3–4, 86; C&AG’s report](#), para 2.12

new proposal but did not provide details of them or a quantification of the benefits. The Department stated that there were no other planned changes of this scale on the rest of the phase 2 route.¹³

11. In addition to High Speed 2, the Department is overseeing a number of other programmes of investment in transport including Crossrail and the roads investment programme. This level of infrastructure investment means that there is a high demand for engineering, project management and commercial skills across the industry.¹⁴ The Department said that it was not completely satisfied with the level of commercial and project management skills that it currently had in grades below the Senior Civil Service. It told us that it had a plan to increase its capability in these areas but it was not clear whether this plan extended to the delivery bodies that it sponsors such as Highways England and Network Rail.¹⁵

12. Developing organisational capacity and capability is also a challenge for HS2 Ltd. The company told us that it had increased the proportion of permanent staff from 45% to 70% over the last two years and estimates that this has produced savings of around £10 million in the last year as a result of using fewer consultants. However, HS2 Ltd acknowledged that it faced competition from consulting and engineering firms for scarce skills. There was also a risk that high demand for scarce skills would increase costs.¹⁶

13. HS2 Ltd told us that the construction of phase 1 would require around 25,000 people and that the development of skills in the civil engineering industry required for High Speed 2 was particularly challenging because much of the technology required for the programme does not yet exist. To address the skills gaps, HS2 Ltd is planning and engaging the market early to provide clarity about the skills that are required and encourage training.¹⁷ HS2 Ltd also told us that its civil engineering contractors would be contractually required to train around 2,000 apprentices in the National College for High Speed Rail, for which campuses were being built in Birmingham and Doncaster. The Department expected the college to train around 900 people a year and that this training would benefit High Speed 2 and other infrastructure projects.¹⁸

13 [Qq 5, 86](#)

14 [C&AG's Report](#), Box 3

15 [Qq 37](#)

16 [Qq 45–48](#)

17 [Qq 37, 39, 81](#)

18 [Qq 44](#)

2 Programme benefits and integration with the wider network

14. The promised benefits of High Speed 2 are to increase capacity on the railways, improve connectivity and to drive economic growth and regeneration. To achieve these objectives the Department for Transport (the Department), HS2 Ltd and other stakeholders and delivery bodies need to have clear plans for how High Speed 2 will integrate with the rest of the rail network when it opens and how growth and regeneration will be delivered.¹⁹

15. The previous committee reported on the lack of planning for delivery of regeneration benefits on High Speed 1, particularly at Ebbsfleet. The Department appears to have learned lessons from this experience and is developing, in conjunction with the Departments for Communities and Local Government and Business, Innovation & Skills and local authorities, plans for delivering the growth, skills and regeneration benefits. This is encouraging given the relatively early stage of the programme.²⁰

16. The Department told us that plans for delivering regeneration benefits vary from local area to local area. At Old Oak Common, regeneration plans were in place and the Department was working on the transfer of public sector land to the mayoral development corporation so that the corporation has a stake in the development of the land and could negotiate with developers. Solihull was planning a development along the lines of a new town, and was setting up an urban regeneration company to lead the project. In Birmingham, an enterprise zone has been set up and plans have been developed to, for example, improve connectivity between the planned High Speed 2 stations at Curzon Street and Birmingham Interchange, support businesses and capitalise on employment opportunities provided by the planned maintenance depot at Washwood Heath.²¹

17. The £55.7 billion funding package for High Speed 2 covers the cost of building the railway and buying new trains and maintenance depots in order to deliver the capacity and connectivity benefits assessed in the economic case. However, it is up to the local authorities to identify and secure funding and drive these regeneration and local growth benefits.²² The Department told us that local authorities were engaged with the challenge and mentioned that the enterprise zone in Birmingham would provide funding through business rate retention. But it was not clear what support would be available to local authorities struggling to secure the necessary funding.²³ The main exception to this is at Euston, where the Department has committed to providing funding for work to enable development above the High Speed 2 station at an estimated cost of £417 million.²⁴

18. The previous committee recommended in 2015 that the Department should develop a long-term strategy for the transport infrastructure in the UK.²⁵ The Department told us that it had recently decided to do more to articulate how it expects the High Speed 2

19 [C&AG's report](#), paras 1.3–1.5

20 [C&AG's Report](#), para 14; Committee of Public Accounts, Twenty-eighth report of Session 2014–15, [Lessons from major rail infrastructure programmes](#), HC 709, January 2015, para 16

21 [Q 117](#); [C&AG's report](#), para 4.13

22 [Q 117](#); [C&AG's Report](#), para 13

23 [Q 118](#)

24 [Qq 25, 117, 112](#)

25 Committee of Public Accounts, Twenty-eighth Report of Session 2014–15, [Lessons from major rail infrastructure programmes](#), HC 709, January 2015

and the existing railways to operate as a single integrated network. The Department has established a specific team within its rail group, which oversees the existing network, to carry out this work.²⁶

19. Integration of High Speed 2 with the wider rail network, and the road network, will be a significant challenge and there remain several uncertainties that are yet to be resolved. For example, it was unclear how High Speed 2 will fit with planned rail investment in the North, such as the proposed line connecting Manchester and Leeds sometimes referred to as High Speed 3. The Department told us that it was currently working on plans for how High Speed 2 could be built in such a way as to enable a link with High Speed 3 in the future.²⁷

20. Another critical decision that has not yet been taken concerns the specification of the high speed trains and how they will integrate with existing services. This presents particular challenges where High Speed 2 trains are expected to use the existing network. On some sections of existing track, High Speed 2 trains may have to slow down in sections where existing trains tilt to maintain speed, reducing the speeds of other services. The Department and HS2 Ltd noted that they were assessing a range of rolling stock options and ways for improving existing infrastructure to enable high speed trains to maintain speed.²⁸

21. The Department and HS2 Ltd told us that some of the costs of integrating High Speed 2 with the wider network were being met from the £55.7 billion funding package. For example, the Department told us that there was a provision of around £100 million to improve infrastructure on the existing west coast main line to enable non-tilting trains to run at sufficiently high speeds to minimise the impact on other services, though the Department was looking again at the assumptions underpinning these costs.²⁹ However, the Department told us that additional works that are required to enable integration would require additional funding.³⁰

22. It is not yet clear what the impact of the proposed change in location of the High Speed 2 station in South Yorkshire will be on the benefits of the programme for passengers and local communities. HS2 Ltd's report contained no quantification of overall benefits. In addition to cost savings, the Department considers that the new proposed route serves Sheffield city centre more directly, may also provide journey time savings for passengers travelling to Leeds and would contribute to regeneration of Sheffield City Centre. However, the Department also told us that instead of five high speed trains stopping in South Yorkshire at Meadowhall every hour, only two high speed trains per hour are planned to stop at Sheffield Midland station.³¹ The new proposed route would affect communities that were not expecting to be affected under the previous plans for the South Yorkshire route, but the scale of disruption and the impact on passengers was unclear.³²

26 [C&AG's Report](#), para 4.10; [Qq 130, 141](#)

27 [Qq 35, 133](#)

28 [Qq 130–132](#)

29 [Q 142](#); [C&AG's report](#), Box 4, page 39

30 [Qq 130–132, 139](#)

31 [Qq 1](#)

32 [Qq 5, 86](#)

Formal Minutes

Wednesday 7 September 2016

Members present:

Meg Hillier, in the Chair

Mr Richard Bacon	Bridget Phillipson
Chris Evans	John Pugh
Caroline Flint	Karin Smyth
Kevin Foster	Mrs Anne-Marie Trevelyan
Nigel Mills	

Draft Report (*Progress with preparations for High Speed 2*), proposed by the Chair, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 22 read and agreed to.

Introduction agreed to.

Conclusions and recommendations agreed to.

Summary agreed to.

Resolved, That the Report be the Fourteenth of the Committee to the House.

Ordered, That the Chair make the Report to the House.

Ordered, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

[Adjourned till Monday 12 September 2016 at 3.30pm]

Witnesses

The following witnesses gave evidence. Transcripts can be viewed on the [inquiry publications page](#) of the Committee's website.

Monday 11 July 2016

Question number

Philip Rutnam, Permanent Secretary, **David Prout**, Director General, High Speed Rail Group, Department for Transport, and **Simon Kirby**, Chief Executive, HS2 Ltd

[Q1-157](#)

Published written evidence

The following written evidence was received and can be viewed on the [inquiry publications page](#) of the Committee's website. HS2 numbers are generated by the [evidence processing system](#) and so may not be complete.

- 1 Alstom ([HS20033](#))
- 2 Birmingham City Council ([HS20009](#))
- 3 Buckinghamshire County Council ([HS20004](#))
- 4 Build UK ([HS20031](#))
- 5 City of York Council ([HS20008](#))
- 6 Civil Engineering Contractors Association ([HS20021](#))
- 7 D2N2 LEP ([HS20013](#))
- 8 Department for Transport ([HS20035](#))
- 9 East Midlands HS2 Strategic Board ([HS20010](#))
- 10 Greater Birmingham and Solihull Local Enterprise Partnership ([HS20017](#))
- 11 Greater Manchester Combined Authority ([HS20028](#))
- 12 HS2 Euston Action Group ([HS20016](#))
- 13 HS2 Into London ([HS20024](#))
- 14 Leeds City Region ([HS20030](#))
- 15 London Borough of Camden ([HS20025](#))
- 16 London Borough of Hillingdon ([HS20014](#))
- 17 Lord Berkeley ([HS20018](#))
- 18 Mr Andrew Bodman ([HS20002](#))
- 19 Mr John Marriott ([HS20015](#))
- 20 Pan Camden HS2 Alliance ([HS20003](#))
- 21 Professor Roderick Smith ([HS20020](#))
- 22 Railway Industry Association ([HS20034](#))
- 23 SHOUT2 ([HS20022](#))
- 24 Stop HS2 ([HS20023](#))
- 25 Tees Valley Combined Authority ([HS20029](#))
- 26 Trades Union Congress ([HS20007](#))
- 27 West Midlands Combined Authority ([HS20026](#))
- 28 Wigan Council ([HS20019](#))

List of Reports from the Committee during the current session

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Public Accounts Committee

Oral evidence: High Speed 2, HC 486

Monday 11 Jul 2016

Ordered by the House of Commons to be published on 11 Jul 2016.

[Watch the meeting](#)

Members present: Meg Hillier (Chair); Deidre Brock; Chris Evans; Caroline Flint; Kevin Foster; Mr Stewart Jackson; David Mowat; John Pugh; Karin Smyth.

Sir Amyas Morse, Comptroller and Auditor General, Adrian Jenner, Director of Parliamentary Relations, National Audit Office, Rebecca Sheeran, Director, NAO, Marius Gallaher, Alternate Treasury Officer of Accounts, HM Treasury, and Richard Brown, Treasury Officer of Accounts, HM Treasury, were in attendance.

Questions 1-157

Witnesses

I: Philip Rutnam, Permanent Secretary, Department for Transport, David Prout, Director General, High Speed Rail Group, Department for Transport, and Simon Kirby, Chief Executive, HS2 Ltd.



Examination of witnesses

Witnesses: Philip Rutnam, David Prout and Simon Kirby.

Q1 **Chair:** I welcome you to the Public Accounts Committee this Monday 11 July 2016. We are here to discuss the National Audit Office's Report on High Speed 2, which is an important stepping stone in the discussions by this House on this huge and important programme. In advance of welcoming our witnesses, I welcome the hon. Member for Luton South and the hon. Member for Holborn and St Pancras. I know that other hon. Members are expecting to come in or have sent representatives, which is a sign, I think, of the extreme interest that there is around the country in this major infrastructure project. *[Interruption.]* Luton North. Forgive me, Mr Hopkins.

I am delighted to welcome to our panel today: from my left to right, Simon Kirby, who is Chief Executive of HS2 Ltd; Philip Rutnam, permanent secretary at the Department for Transport; and David Prout, who is Director General of the High Speed Rail Group at the Department for Transport. Our hashtag for today is #HS2, if anyone is following on Twitter.

As I said, this is a hugely important infrastructure programme, and we are hoping today to get from both the Department and HS2 an idea of how progress really is going and what problems may lie ahead, because we are keen for openness and honesty about how this programme will go forward. Before we get into the main bit of the Report, I want to ask about the recent announcement about the change of station at Sheffield from Meadowhall to Sheffield Midland. Moving the station at Sheffield is partly a way of dealing with cost increases, so one of the big issues here is: is this a one-off, or if cost increases arise elsewhere, will you be able to find savings as relatively straightforwardly as you have for Sheffield? Are there more station moves, potentially, along the way? Does Simon Kirby want to pick up on that?

Simon Kirby: I am happy to start. There are no planned other changes of this significance. It is more that we had the station at Meadowhall that delivered the requirements of HS2, but we are very mindful of the different needs of the city and the region, and it was a very difficult decision, from the route perspective. We have done further work, and have come up with what we believe is a good recommendation: to run classic compatible services into Sheffield Midland, providing two trains an hour; a high-speed link to Chesterfield; and the option of a further service up into Leeds. I am sure that colleagues at the Department will comment on where that will now go, in terms of the decision.

Philip Rutnam: Could I just comment briefly? I think it is important to be clear that this is not a decision; it is a proposal from the company. The Secretary of State asked Sir David Higgins some time ago for further



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advice on station options in South Yorkshire, and Sir David has come forward with this advice. It will now be a matter for the Department to consider what to do with that advice, and if it were to be taken forward, it would need to be subject to further consultation. Just to be clear, cost was not the primary issue here. The primary issue was how to deliver the best service, or the best option, for South Yorkshire, given that there had been strong views there, notably in Sheffield.

Q2 Chair: In the Report published on 7 July, there were no quantifications of the impact of this new proposed route. Is that because it is a proposal and not a decision? If so, Philip Rutnam, is that something your Department will look at?

Philip Rutnam: No qualifications in terms of the impact on what? The benefit-cost ratio?

Chair: On benefits.

Philip Rutnam: I think David might want to comment on that question.

David Prout: When we come to make the final recommendation to the Secretary of State, we will take into account the costs and benefits of the alternative proposals. However, as Sir David Higgins has put together this proposal for the Secretary of State, he has taken account of the various different studies that have been done locally into the different locations of the station. The key thing from the point of view of the BCR and the Department for Transport methodology is the demand, and our instinct is that the demand will be satisfied by the services going into Sheffield city centre.

Q3 Chair: Can I ask another question as well? If you are changing this route, what is the actual timetable for the decision by the Secretary of State? We won't go into the timetabling area of our questioning now, but what is the impact on the timetable?

David Prout: We will make recommendations for the whole of what we call phase 2b in the autumn, and I would imagine that the Secretary of State would make a decision around about the time of the autumn statement.

Q4 Chair: Right. So the decision around Sheffield will be in the main decision around phase 2?

David Prout: Yes. Correct.

Q5 Caroline Flint: I declare an interest, because the new proposed route goes through my constituency and other parts of Doncaster.

May I just press you a little more, Mr Rutnam, on the proposal? My understanding is that this new eastern alignment route provides wider national benefits, both in terms of journey time and cost savings, but concerns have been expressed by Mayor Ros Jones of Doncaster; she has written to the Secretary of State on this point. According to their economic assessment of the new route and spur option, it will constrain



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jobs growth and gross value added by up to 50%, compared with the original Meadowhall route.

I suppose one of the questions will be this, given that we locally elected representatives also have to cope with the impacts of the new route: how will we realise the economic benefits, job growth and GVA if this new route is possibly going to reduce all that, and will the Department have a look at that when it is considering the proposal and see what more they can do to help with that?

Philip Rutnam: I will just comment briefly. First, obviously we will look very carefully at any representations from Ros Jones and others. I think you are right that the proposal, as put forward by HS2 Ltd, offers some significant benefits. It offers the cost savings that have been identified. It also offers a means of serving Sheffield city centre directly, with a possible option for station stops also in Chesterfield, so there are potential benefits for that area. There is also, I believe, the possibility of some journey time savings for serving Leeds. The journeys into Sheffield city centre would be very slightly longer than via Meadowhall, which was the previous suggestion, but without the need for an interchange.

There are a range of benefits. I have to say that I have not seen evidence myself that there is scope for less by way of benefits, in terms of regeneration and ancillary benefits; if anything, I think perhaps that may point the other way.

Q6 **Caroline Flint:** I think you appreciate that the HS2 station at Meadowhall has been a central, integral part of the Sheffield city region growth plans. I know it is not necessarily just the Department for Transport's responsibility; I think the DCLG has a locus in this, in terms of partnerships and developments for regeneration and growth. However, will you have a look at how the existing growth plans for the Sheffield city region will perhaps have to be reconsidered in light of this new proposal, to make sure that the proposal is taken into account? Maybe an impact assessment could be done on that particular issue.

Philip Rutnam: I will ask David Prout to comment on that.

David Prout: We will take that into account. The figures that the Mayor of Doncaster quoted are from the study that Doncaster, Rotherham and Barnsley put together in order to assess the impact of the station at Meadowhall. Sheffield City Council put together an economic analysis of the benefits of a city centre station in the centre of Sheffield.

I would say two things: first, a lot of the benefits from high-speed rail are driven by agglomeration factors, and you get better agglomeration factors where jobs are concentrated—in city centres. That is widely recognised, and the potential difficulty with driving development in city edge stations is widely recognised when looking at high-speed stations. Secondly, we propose to put the high-speed services into Sheffield Midland station. The connectivity of Sheffield Midland station is better than Meadowhall, in terms of existing train services. We were able to convince ourselves that



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we would be able to form a transport hub at Sheffield Meadowhall, but the connections there were very difficult.

Q7 **Chair:** You say this phase 2b route will be announced in the autumn. In civil service terms, I know autumn can stretch for a very long time; have you got a more definite date?

David Prout: As I said, around the time of the autumn statement, I would expect.

Q8 **Chair:** Okay. Will that then be the final word on Sheffield and on phase 2b generally?

David Prout: No, it won't be. It will be the final word on the vast majority of phase 2b, but as Simon said, we have a recommendation from David Higgins. The Secretary of State will need to take a view on whether that becomes his preferred option. If it is his preferred option, we will then need to consult on that, and we will then take a final decision in March or April next year.

Chair: I will come back to that when we come to timetabling. Caroline Flint now has a follow-up; then we go to John Pugh.

Q9 **Caroline Flint:** Is it correct that we are going to go from a proposed six-trains-per-hour service to a connected HS2 station to a one-train-per-hour service to a Sheffield terminal?

David Prout: It will be one or two trains an hour into the centre of Sheffield. There were five or six trains that were going to stop at Sheffield Meadowhall.

Q10 **Caroline Flint:** So I was roughly right.

David Prout: Yes.

Chair: Just before I ask John Pugh to come in, I want to welcome the hon. Members for Banbury and for Middlesbrough, who are in the room as well.

Q11 **John Pugh:** Planning a railway is a bit of a strange business in the UK, because it is dependent on there being a business case. The big element in the business case is the economic case, and the big element in the economic case is the cost-benefit ratio. It would be fair to say that in the early stages for this particular project, the cost-benefit ratio has been quite variable. Is that not the case?

Philip Rutnam: I would not accept that. As is commonly the case with transport projects, you assess them at different points. The benefit-cost ratio will often move around a bit because economic circumstances will have changed. Something will have happened to demand forecasts. A range of new factors need to be taken into account. However, since 2013 when we published the strategic case for HS2, I think the benefit-cost ratio has been reasonably stable. At present, for the whole Y network, we estimate the benefits—these things are always to be taken as indicators rather than absolutes—to be about 2.2 to 1.



Q12 John Pugh: You are familiar with the previous NAO Report that identified errors in the construction of the BCR, which missed out VAT. It pointed out that it was a very much more optimistic benefit-cost ratio than had been prepared for HS1. It pointed out certain areas in it. If you read that Report, it is not flattering about the accuracy or the reliability of the BCR, is it?

Philip Rutnam: I think you are referring to the 2013 Report.

John Pugh: I am.

Philip Rutnam: I would not disagree with your characterisation. Things have moved on a lot since then. We have certainly done a lot since then. Looking at the evidence, in 2013 when we published the strategic case—the full Y—the benefit-cost ratio was estimated at 2.3 to 1. Our latest estimate, which was published in late 2015, was 2.2 to 1. That takes account of all sorts of thing that have changed since then.

Q13 John Pugh: We will come to what you are estimating at the moment. A cynical view that I sometimes have is that if the political will is there, the business case follows in train. The current Report says in paragraph 4.3 that “Since we last reported...the Department has adjusted its methodology to reflect industry practice, and improved its presentation of the economic case.” Do I take it that you have employed different consultants here?

David Prout: No, I don’t think that is what it is referring to; it is referring to the strategic justification for building HS2. The criticism back in 2013 was, more or less, that the Government were promoting—

Q14 John Pugh: It is talking about the economic case; the economic case is the BCR, and it does contain the BCR. What I am asking you is: who is now doing that work for you?

David Prout: What that was talking about was the way in which the Government had presented the strategic case. What it was saying in 2013 was that too much emphasis had been placed on speed. Actually, the reason for building HS2 is based on capacity, and speed is secondary. What the Report is saying this time round is that in the 2013 strategic case, which followed the 2013 NAO Report and PAC hearing, we changed our presentation.

Chair: Can I just bring in the NAO to clarify that last point?

Rebecca Sheeran: I would not disagree with anything that Mr Prout has just said about the strategic case. On the economic case point that you raised, John, what we talk about in terms of the improved presentation there is around modelling of a range of different scenarios, and presenting a range of possible outcomes in a bit more detail than they had previously. Also, looking again at the value of time, they commissioned some additional research and advice. That is what we are referring to.

Q15 John Pugh: I do understand that, but there is a tool that is used for the industry standard for constructing business cases—is it MOIRA, or



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something like that?

Philip Rutnam: MOIRA is one of many tools—

John Pugh: One of many tools, right.

Philip Rutnam: But you were asking whether this was the result of using different consultants. No, it was not the result of using different consultants. It was the result of the Department reflecting on a range of feedback and input that it had received, including from this Committee, and applying the very best minds that we could find within the Department, as well as across the industry, to do two things in particular. One of those is to put more emphasis on scenario analysis, because none of us can know the future with any exactitude. We have put a lot more emphasis, in the strategic case in 2013 and since, on thinking about alternative versions of the future and how resilient the project is to that. Secondly, on the point that Ms Sheeran made about thinking about the value of time—if you remember the long debates about whether people work on trains or not—we have decisively moved beyond those points by getting much better evidence. That involved surveying 11,000 travellers on how people actually assess the value of travelling by train. The result of that was to come up with a higher value for time savings on long-distance rail journeys. I am sorry, but this was not the result of consultants; it was the result of some mature, considered reflection in the Department.

Q16 **John Pugh:** Okay. There was the accusation made at the time— back in 2013—and possibly applicable today, that the methodology being used to assess this project differs from that which might be used for other transport schemes. Can you assure me that is not the case?

Philip Rutnam: No, it is not. The methodology used by the Department for assessing this scheme is founded absolutely in the standard methodology for assessing transport projects. That is known, somewhat inconveniently, as WebTAG, or web—like it is on the internet—transport appraisal guidance. That is the standard methodology for appraising transport schemes, large or small.

Q17 **John Pugh:** Okay. Would you now, just for the record, give the cost-benefit analysis of the scheme—first in its entirety, and secondly for the two sections of it—as you currently believe it to be?

Philip Rutnam: The latest assessment that we have published for the full Y was in late 2015. That was a benefit-cost ratio, as I mentioned a moment ago, of 2.2 to 1. That includes what are known as wider economic impacts, and I can go into that point if you like.

Chair: We don't want to go into that too much.

Philip Rutnam: We have discussed that before. The latest assessment for phase 1 on its own was 1.7 to 1.

Q18 **John Pugh:** In terms of weighing the costs, I am told that a huge amount of your Department's energy is now being consumed in this project, and a huge amount of the nation's available railway skills are being consumed



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by this project. Is there not a sort of opportunity cost element here? Those people cannot, at the same time, be working on HS3, trans-Pennine railways and a range of other issues that, we have picked up, are suffering a skills shortage. Is that included in the cost-benefit ratio?

Philip Rutnam: The costs that the Department incurs in taking the project forward are, of course, included in our assessment of the costs of the project, so they should be included in an assessment of the BCR. To go back to your question of whether our work on HS2 means we are displacing work on other things, no, I wouldn't accept that. In fact, the Government's strategy—the coalition Government and now this Government, at least since 2012 or 2013—has been to see a very significant increase in transport infrastructure spending in the round. I am pleased to say that in support of that, we have managed to secure from the Treasury the administration costs—the funding for the human resources needed in the Department to take forward not just this programme but also, for example, the trebling of investment in the strategic rail network.

Q19 **John Pugh:** On the human resources side, when Network Rail says—as it has said—that it is struggling to find the right amount of skilled labour to proceed with other schemes, that is not an impact of HS2.

Philip Rutnam: That is not an impact of HS2, or certainly not at the moment. I was answering your question about the skills situation in the Department.

Q20 **John Pugh:** I was just nailing down the costs a little bit better. May we quickly go on to the benefits? Clearly, the benefits will diminish the more the timetable shifts—am I correct to assume that? Shifts into the future, I mean.

Philip Rutnam: Broadly, yes, but it is not a straightforward, linear thing.

Q21 **John Pugh:** Am I correct in thinking that a lot of the timetables have shifted in the wrong direction?

Philip Rutnam: No. The programme continues to be on track to deliver the start of construction, as planned, next year, the completion of phase 1, as planned, by the end of 2026, and the completion of—

Q22 **John Pugh:** So when the Report says, "It has completed 15% of ground investigation work against a target of 26%", that is not a slippage? I think there are slippages in the planning area as well.

Philip Rutnam: A whole range of different things need to be done, of course, to achieve the construction timetable that I have talked about. I can assure you that in relation to the things that are needed to stick to the critical path, we are on track. That does not mean that it is not challenging and ambitious; I would accept that it is challenging and ambitious.

Q23 **Chair:** Mr Rutnam, you say that, but the Department's review point 1—the first-stage cut, really, which was supposed to be made in 2016—HS2 did not pass. This delay of phase 1 will now overlap with the beginning of



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phase 2, so as Mr Pugh is saying, there is a delay. Surely you agree with that—a delay of 12 months.

Philip Rutnam: Sorry, I think you are talking about different things. There is no delay in the critical path needed to achieve the start of construction and the completion of construction. For example, the company has just issued something that is absolutely on the critical path, which is the invitations for tender for the main civil works.

Q24 **Chair:** But the danger is that you will have bits of phases overlapping, unless everything moves a year.

Philip Rutnam: It has always been intended that there will be some overlap in construction between the different phases. We could talk about that. If your question is about review point 1, which did move back, obviously we can speak to the reasons why it moved back, but the most important single point about it was that it is an entry point—a kind of gateway—to issuing the invitations to tender for the country's largest civil engineering construction ever: the main civil works for phase 1 of HS2. That was delivered at the right time to allow us to be on the critical path. In other words, originally, review point 1 was planned to happen many months ahead of that point on the critical path; it ended up happening much closer to it.

Q25 **John Pugh:** We're really trying to make life easier for you, Mr Rutnam, because in a sense, this project is fraught with uncertainties. Clearly, any exceeding of the cost envelope or the timetable will alter the BCR and the viability of the scheme, so if that is at all probable, we ought to know it in advance, or at any rate have an indication that it is a likelihood. On the benefits side, though, it is a question of assessing what is included and what is not. I have got a feeling that a principle of latitude is being used here. An awful lot of things are included in the benefits that are not dependent directly on the activity of the Department for Transport. Is that fair?

Philip Rutnam: No, I don't think it is fair, if you look at the Report and previous Reports. Figure 11, for example, summarises the benefit-cost ratio for the business case for HS2. The benefits that are included are, first and foremost, transport benefits. They are what is described—sorry to use this terminology—as benefit-cost ratio without wider economic impacts. They are overwhelmingly transport benefits: journey time savings, which we talked about a moment ago; and changes to things like reliability, punctuality, interconnection, and waiting times—well-known benefits that are well understood by transport modellers and have been at the heart of transport appraisals for many decades.

Q26 **John Pugh:** So what you are essentially saying is that even if the wider economic benefits did not take place at all—if nothing happened—the BCR, purely based on transport, would be good enough to proceed with the project.

Philip Rutnam: Well, the figures are in figure 11: my 2.2 with wider economic impacts becomes 1.8 without the wider economic impacts. Your



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question was about the extent to which these benefits are dependent on activities of the Department for Transport, which I will extend to include HS2 Ltd and the like. Most of the benefits from the programme are transport benefits.

There is then a second category of benefits, which is well established, but is through lots and lots of economic and econometric analyses, which is to do with what happens to the economy when you improve connectivity. What happens to the economy is things like this phrase “agglomeration effects”—the fact that productivity goes up because firms are actually working closer together; maybe not geographically, but in terms of time, they are working closer together. There are competition effects and there are labour market effects.

Now, are those directly dependent on the Department for Transport? Obviously we will not be able to go out and tell the companies to behave in this way, but I can assure you that it is well founded in many years of economic analysis—so dependent on what we do but at one remove from purely transport.

Chair: Mr Rutnam, I am going to ask you to keep your answers a bit briefer.

- Q27 **David Mowat:** You have just described wider economic benefits. You probably recall a session we had six months ago on HS1 at which your Department presented to the Committee a BCR out-turn of less than 1, and one of the points you made on that was that there were problems with the methodology for BCR and all the rest of it, and you were going to go away and have a look at it, and that is how we got into that “wider, wider” economic benefit discussion. Have you done that work, and are you happy now that the benefits that you are telling us this project has got are not going to suffer from the same issues that HS1 had?

Philip Rutnam: I think I wrote to the Committee after that useful session to explain the work we were doing. What I said then was that, to take these three categories: transport benefits—well established; wider economic impacts—well established. The next category, which is essentially to do with the way in which things like land use might change over time, is still an area of development, so we have not put quantified assessments into our appraisal of this project for that third category. In time I hope we will be able to, but no one in the world is yet at the point of doing that robustly, to my knowledge.

- Q28 **David Mowat:** That third category was the one that we talked about as “wider, wider”, so that is not in this that you presented to us. At this stage of HS1, what benefits—presumably there was a benefit case at that time that was more than 1, and somehow it deteriorated in your own methodology. I am just concerned that the same thing is going to happen this time. What did we have for HS1? I don’t know if your predecessor did a Public Accounts Committee and came to see all the people and said, “Oh, it’s 2.2, 2.4.” Do you know that number?



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Philip Rutnam: I was involved in HS1, back in the 1990s—involved in the economic case. I don't remember the number. We will find out the number and are very happy to write to you.

- Q29 **David Mowat:** All right, but if you would just give us, just to cut this, your assurance that you are absolutely confident that your successor won't be sitting before a Committee like this in so many years' time, with an Atkins report that says that the BCR has turned out to be 0.7.

Philip Rutnam: I think it is very unlikely, and one very good reason for that is that the mistake we and others made on HS1 was overestimating demand in what was essentially a new market—cross-channel high-speed travel. That was massively overestimated. We can all look back with hindsight and say, "How did they get it so wrong?" In this case we are talking about markets that already exist, and that are very large—markets for travel inside the UK; long-distance travel from north to south and vice versa. A huge amount more is known about that. That is the difference.

- Q30 **John Pugh:** Clearly—to talk not about the wider economic benefits, but about the transport benefits exclusively—transport benefits very much depend on a degree of successful integration. For example, the Report mentions possible integration with a high-speed link across the Pennines. Paragraph 2.13 talks about a "major hub station at Crewe" and Manchester airport helping out with the cost of development, in a similar way to Crossrail. Those are not part of the HS2 budget. Does the fact that they might occur feature in an assessment of the benefits of HS2, or could these things not happen and HS2 maintain the same cost-benefit ratio?

Philip Rutnam: No, I can assure the Committee that our assessment of both benefits and costs is consistent. What is needed by way of physical change, operating the railway and so on, including anything that is required on the existing network to deliver these benefits—the two things have been thought about rigorously and consistently—has been checked and assured multiple times. That does not mean that there is not more to be done to think about long-term integration of the existing railway and HS2, but not for delivering the business case as it stands.

- Q31 **John Pugh:** Am I right to assume from your answer that if a major hub station at Crewe does not happen, if the proposed station at Manchester is not paid for by third-party sources and if the trans-Pennine route does not go ahead, the cost-benefit ratio will remain unaltered?

Philip Rutnam: Let me see if I can answer that. The hub station at Crewe is an interesting and very attractive proposal, but it is not part of the business case for HS2 in terms of either benefits or costs. It is a separate project that obviously is closely linked to HS2 but is not part of the business case. The same is true of the proposed improvements to high-speed rail across the Pennines. The Manchester airport case is slightly different. I wonder if David Prout would like to pick that one up.

David Prout: Both the costs and benefits of that station are included in the BCR.



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Q32 **John Pugh:** Both the costs and benefits?

David Prout: Yes.

Q33 **John Pugh:** Even though the costs are expected to fall upon Manchester airport in part.

David Prout: Correct.

Q34 **John Pugh:** Okay. A number of people have suggested various tweaks to this route. There is still a debate about exactly what the northern spur consists of. That could obviously alter the BCR in one way or another. Is the Department open to novel suggestions that would enhance or improve the economic case? I am thinking—possibly parochially—of the scheme put together in Liverpool for getting a better link to HS2. In your view, will things like that substantially enhance, or are they not welcome at all because they just complicate the picture?

David Prout: Under our current proposals for HS2, high-speed trains will arrive at Liverpool Lime Street station twice an hour.

John Pugh: Well, of course we cannot have high speed all the way.

David Prout: They will still be there much, much quicker than they are at the moment.

Q35 **John Pugh:** No, I'm not talking about—you are probably not aware, but there is a scheme from Liverpool city region for building a new line that will link to HS2.

David Prout: I was going to come on to that. We are well aware of the proposals from Liverpool city region and are in frequent contact with Liverpool City Council and the transport authority. What we are working on at the moment is what we would call passive provision on the HS2 network that would allow proposals for HS3 to be linked in, in due course, once they are agreed and funded.

Q36 **Chair:** I am going to bring in Kevin Foster in a moment, but I want to pick up on the point you made, Mr Rutnam, in response to Mr Pugh's questions about skills. You kindly wrote to us as a result of our discussions about franchises. In your letter, you said: "In June of this year, the passenger services team at the department"—the department dealing with franchising—"had vacancies of 8.5% and an interim staff of 13.5%." Permanent staff were up from 44% two and a half years earlier to 78%, which is a good improvement, but those are still some pretty significant vacancies—particularly if you talk to any Southern rail passengers or any rail passenger worrying about franchising. Do you really stand by what you just said about there being no particular problem around skills? If you had to prioritise the many large infrastructure projects you are dealing with, where would HS2 fit in?

Philip Rutnam: I will just comment on those figures. I would always expect some level of vacancies in an organisation. Every organisation I have been in has had some level of vacancies.



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Chair: Interim staff may have their place.

Philip Rutnam: There is a role for interim staff, certainly in an area like rail franchising, because there is a peak—

Q37 **Chair:** As you can gather, my point is that in the round you could end up with vacancies or people moving around the system. I just wonder what your views are on that.

Philip Rutnam: My response to Mr Pugh was about, in the round, whether the fact that we are investing in HS2 means we are not investing human resource—people—in other things, and I am pretty confident that it does not. We have secured, in truth, pretty reasonable settlements from the Treasury for the human resource we need to be an effective Department.

Am I completely satisfied? Of course not. Actually, I am almost never completely satisfied with everything. I want to see in the Department a continuation of the overall downward trend in the number of interims—it is nothing like as acute an issue as it was two or three years ago—and I want to see an upward trend in the number of people we have with programme and project management skills at a high level and commercial skills. I have many of those people. I am reasonably comfortable with the number and volume of those skills at senior level, but I want to see more of those skills at the level below the senior civil service and the level below that. If I was to talk to you about the capability programme in the Department, it would be about exactly those things.

Q38 **Chair:** That is at the top level. What about down the chain? How many people out there in the world—we are in an interesting place in the world at the moment since the referendum—are available to do the very intense engineering work that needs to take place on, without listing all the projects, Crossrail 2, High Speed 2 and so on, and even highways work?

Philip Rutnam: Indeed. Going beyond the Department, which of course is a very small part of the overall picture, you are quite right to stress the importance of developing the supply of skills needed to undertake many of these programmes simultaneously: the roads programme, the HS2 programme and others. That has been an area of focus for the Department. A while ago we developed and published a transport infrastructure skills strategy. There is a whole range of things under that with plans to develop many apprenticeships. Mr Kirby has a role not just as chief executive of High Speed 2 Ltd, but in taking forward industry-wide co-operation. He may want to add to that.

Q39 **Chair:** Mr Kirby, are you confident that we have the right people?

Simon Kirby: Am I 100% confident? This is a big issue for the industry. There are a couple of points. We have spent a long time engaging with the market, so over the last three years we have had over 400 events talking to the supply market. We have talked to over 4,000 companies.

Q40 **Chair:** What do they say?



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Simon Kirby: They are basically saying that if they are engaged early enough they can get the skills for this programme.

Q41 **Chair:** What is the time needed to get these high-level skills?

Simon Kirby: To construct phase 1 we require about 25,000 people—it creates about 25,000 jobs. We released invitations to tender a few weeks ago, and effectively when we contract with those first-tier organisations they will contractually commit to training 2,000 apprentices in the new colleges that we are building at Birmingham and Doncaster.

The issue with High Speed 2 is that a lot of the technology, by definition, does not exist yet in this country and the civil engineering space is about long-term planning. The railways systems and the software systems for the high-speed technology are really much embedded in the colleges, and as we contract with people they will commit to train the skills. This is not something you can give a yes or no to. It is about long-term planning and the creation of those skills.

From the HS2 Ltd perspective, we have consciously hired people with experience of building greenfield new railway systems, which is different from Network Rail and Transport for London. Most of the experience in this country is about enhancing the existing network.

Q42 **Chair:** But that is at a higher level. Some of the skills you need are low level. How many of the people who are currently working in the system are EU nationals. Perhaps this is more for Philip Rutnam or David Prout. Do you have any figures for that?

Philip Rutnam: I do not have definitive figures.

Q43 **Chair:** Are you thinking of doing any analysis?

Philip Rutnam: We are, of course. Our research suggests that across the construction industry, which is of course a very wide category, a bit over 10%—I saw one figure of 14%—of the workforce are non-UK EU nationals. We are doing further analysis, as you would expect, and we expect it to vary between different parts of the country—it will probably be higher in London and lower outside London—and between different types of work, such as house building, compared with major projects such as this.

Q44 **Chair:** Are you having any serious discussions with the Home Office about the need for a swift solution to the fact that a lot of key people might not have leave to remain in the UK? We don't have any serious answers on that.

Philip Rutnam: We will of course be discussing with the Home Office and with colleagues in the Cabinet Office, in the new unit set up to advise on the UK's exit from the EU, this and many other issues linked to the implications for transport.

It is important, however, to stress that we are already energetically engaged in seeking to increase the total supply of skills from within the UK. In addition to the initiatives Simon has mentioned we now have, right



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under construction in Doncaster and Birmingham, the National College for High Speed Rail, which is intended to train something like 900 people a year in the skills needed, and not just for this project but also for other major projects.

We have other initiatives underway in procurement, for example. We have set new standards for anybody supplying into projects from HS2 Ltd, Transport for London, Highways England, Network Rail, for the level of investment we expect from them in apprenticeships. So there is a range of things already underway in the system to increase the supply.

- Q45 **Chair:** We know that. So, Mr Kirby, let's go back to you on this. You have got to deliver this project. We have already seen some slippages, and we will keep talking to you about that this afternoon. Will you be outbidding the Department with some of the jobs that you need to ensure that High Speed 2 goes ahead? Are you going to be paying over the odds to ensure that you have got the people in place?

Simon Kirby: Absolutely not. We have consciously looked at the programme versus a Crossrail or an Olympics. Because of the longevity of the programme, we decided about 18 months ago that the right thing was to create the programme management capability to deliver this programme in the public sector. We have consciously hired people directly, rather than consultants. Two years ago 45% of our staff were HS2 core employees. We are now at plus-70%. That is all about creating that capability. As I mentioned before, it is not about competition. It is about hiring the right people.

- Q46 **Chair:** You say it is not about competition, but if you were a high-quality engineer working for you or Crossrail 2 and someone wanted your skills, isn't there a danger, as we have seen in other parts of the public sector, of a bidding war that goes on and increases the cost of fee or salary?

Simon Kirby: Yes, it is about competition between ourselves and some consultancies. That is correct. We have been very happy with the type of people we have hired from consultants and contractors. We have got relationships with all the key clients and the Department for Transport.

- Q47 **Chair:** Let's be clear: you are going to be really reliant on some of these key people.

Simon Kirby: Yes.

- Q48 **Chair:** If there is temptation and they get poached, you might really need that person, and that might be a tactic to increase their salary. That has happened—we know it happens. How are you guarding against that? How can you sit there and say so clearly that you are not paying over the odds? Or are you saying that you are afraid it might arise?

Simon Kirby: All I can say is that we have hired some great people and we are certainly paying less than consultancies would pay for those people. This year we have saved £10 million on our staff costs because of the type of people we have hired on to our permanent staff rather than using consultancy, which is the traditional way you would in a programme,



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as I am sure the Committee would appreciate, with less timeframe. Our current attrition rates are just over 5%, which is quite low, but it is something that we have to keep an eye on; you are absolutely right. As we start to create the capability, I am sure people become more marketable and that is something that we have to keep an eye on.

Philip Rutnam: Perhaps I can reassure the Committee that I regularly discuss with the chief executives—not just of HS2 Ltd, but of Network Rail, Highways England, Transport for London and so on—the need to ensure that we work together to grow the market, to bring talent in where we need it. Where we need to bring talent in, we bring it in from outside the UK or other sectors inside the UK, rather than any element of poaching or competition within the public sector. We have a good, strong collaborative approach to this. The issue is recognised.

Q49 **Chair:** A lot of this interlinks in to timetable and I will come back to that in a little while. The Comptroller and Auditor General wanted to come in.

Sir Amyas Morse: I wanted to ask a factual question, which I hope will help. Just out of curiosity, have you an estimate of the resources you need in the Department for Transport? You were saying that you were building up capacity. Do you know what you are trying to build it to?

Philip Rutnam: Yes, we have a resource plan for this year and for the future. That is part of our business plan. We have 150 full-time equivalent posts or thereabouts at the moment.

Sir Amyas Morse: So you could share with the Committee what your plan is for building up your resources in the Department.

David Prout: Are you talking about my group or the Department as a whole?

Sir Amyas Morse: Mr Rutnam has just been talking about how he would build up resources in rail and road and so forth, so that you had the right level to handle all these projects. I am interested to know what level that is, if we could have that. It would be interesting to see that. We have not come across that information.

David Prout: We can send you the resource plan for my group.

Sir Amyas Morse: For the Department as well?

Philip Rutnam: And we can do that for the whole Department.

Sir Amyas Morse: Thank you.

Philip Rutnam: We have a resource plan. Of course, it is more detailed for this year than it is for future years, but it is at the high level, and it certainly recognises the scale of task on the Department.

Chair: It would be very helpful to receive that.

Q50 **Kevin Foster:** Looking back, last year we discussed the performance of



Network Rail in delivering some of its other projects—I think of great western electrification, where the moment the first piles went in, the costs absolutely rocketed. What learning have you taken from that type of project to ensure that that does not happen in this one?

Simon Kirby: There are various reasons for various project growths. We do a lot of work across an organisation called the Major Projects Association in terms of different types of project learning. On the great western electrification one, we have had a number of sessions with the project team. The key lessons learnt are—they are very different projects to compare. The overhead line technology we will use on High Speed 2 will be standard components and a standard system, because it is a new system.

Q51 **Kevin Foster:** Mr Kirby, I was not focusing particularly on the electric wires that go over the tracks. What I was more looking at was the fact that the assurances we have been given today around costs and the processes you have been through were remarkably similar to the comments being made around the beginning of that one. I do not want to get into an engineering discussion around track. What reassurances do we have that, this time around, the process you have been through is more robust and more likely to produce an outcome? Given that, in your own words, that sort of project—enhancing the rail network—is what you specialise in, and this greenfield railway line is not.

Simon Kirby: The risk profiles are very different on a railway system that we are delivering on an existing network versus a new system, and the cost profiles we have reflect the different risk profiles. So, for the overhead line system, and indeed all of High Speed 2, we are still under way with a project of extensively benchmarking international cost benchmarks across other high-speed rail projects. So the unit rates we have built into here are effectively buying a system and installing a system on a new greenfield railway. That is a very different risk profile—

Philip Rutnam: Could I add something? I am not an engineer, as the Committee has probably worked out, but at a higher level I would say that the same principles apply to any project. Getting it right is about planning, getting the planning phase right with preparation that is then matched by a comparable and requisite level of detail and specificity, and then there is a point about mindset—openness to challenge and openness to learning.

We discussed the great western electrification last year. If you look back at what happened, one of a number of things that happened was there was not enough time and clarity around the planning phase and, when you go back to the debate about the role of the regulator, for example, there also was not the requisite level of clarity about roles and responsibilities. So I think at the level of principles, it is about getting things like those right up front.

Q52 **Kevin Foster:** Has there been enough time for challenge this time around, given that we are obviously dropping back in terms of the schedule, with phase 1 starting to butt up to the delivery schedule for



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phase 1a in 2027? Do you feel there is still time for both this and that to be taken forward?

Philip Rutnam: I am absolutely clear, as are David Prout and Simon Kirby, that while this is an ambitious and challenging timetable, we need to apply at every step the levels of challenge and assurance and independent-mindedness needed to ensure that we really are ready for the next step. That is the way in which we approach things like review point 1, that is the way in which we have approached issuing the invitations to tender and that is the way in which we have approached the hybrid Bill. It is about combining, if you like, recognising you have this timetable that is really important to me and, at the same time, making sure that we hold ourselves to really high standards of assurance and clarity.

Q53 **Chair:** Just to pick up on that before I hand over to David Mowat, the 2026 target open date for phase 1 is at risk, as paragraph 8 on page 6 of the NAO's Report says. You sound very confident, Mr Rutnam, which is great if it is true, but are you really confident that you can open phase 1 at the time you have set it, or is there is a danger that you will slip by 12 months?

Philip Rutnam: I will say something, but David or Simon might want to add to this. As I have said, we are confident that we have achieved thus far the critical milestones needed to start construction—

Q54 **Chair:** The question was: will phase 1 slip by 12 months?

Philip Rutnam: If I may answer the question about my level of confidence in the timetable, in the last assessment of confidence in the timetable, which was back in May, we had 60% confidence in the schedule. That was the assessment, and 60% is not bad. Last year, it was 50%, and the year before it was 40%, so 60% is not bad, but would I like it to be higher? Yes, of course I would. I am not 100% confident. I cannot be 100% confident that the timetable will be met, but do I believe it can be met? Yes, absolutely. I think that 60% is a reasonable reflection.

Q55 **Chair:** The right hon. Member for Chesham and Amersham has highlighted—we have highlighted this before in the Committee—that the Major Projects Authority has given the project amber/red at each stage. You have 60% confidence. The project has never had a green in terms of go-ahead. How alarmed should we be about that? You are sitting there very coolly saying that 60% is fine, but if it slips, that could have huge cost implications. That is what we are here to talk about today.

Philip Rutnam: I would not like to say that 60% is fine; 60% is not bad, and I would like to see it better. The Major Projects Authority's most recent published assessment, which came out the other day, was done in September last year—before the spending review, before we had been through review point 1 and before we had issued the invitations to tender, so it is some while ago. I am clear that since then, the programme has made steady and significant progress. It is in a better place than it was last September.

Sir Amyas Morse: We think you have made progress as well. None the



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less, paragraph 8 of the Report—which is an agreed Report—says about 60% confidence: “The Department’s view is that this is too low, and it has asked HS2 Ltd to revisit the programme schedule in order to increase confidence in delivery to 80%, without increasing costs.” That’s right, isn’t it?

Philip Rutnam: Yes, it is right, and it is consistent with what I was saying a moment ago.

Sir Amyas Morse: Are we at risk of going through this programme, making optimistic noises and gradually shunting it backwards? I ask that because that is an understandable strategy to adopt, but there may be times when re-planning the whole programme is the right thing to do. Forgive me for being so direct, but it sounds like we are very cheerful about everything when a fair number of points have slipped.

David Prout: The Report is a nice, balanced report. It says we have made significant progress. It goes on to look at the key risks to be managed. We agree with the assessment of what the key risks are, and one of the key risks is whether or not we are trying to do it too fast. That is a risk we have identified. We have therefore invited the company to make proposals and to offer us advice on whether or not we should extend the programme by up to 12 months. We have not received that advice yet. As things stand, we have programme baseline 6, which shows delivery in 2026, with a 60% level of confidence that it can be delivered then. We have asked the company to look again and advise us on whether or not we should put some more time into it.

Q56 **Chair:** Mr Kirby, where are you getting to with that advice?

Simon Kirby: Now is absolutely the right time to ask that question, because the underlying issue is right. Most of the opportunities to improve the programme and reduce cost are in the design phase of the project, which is over the next two years. Now is the right time to ask the question. It is not just a schedule question.

Our question is: how can we come up with a plan that will deliver 80% confidence and reduce the cost of the programme to increase the contingency levels? The current contingency levels are just over 32%—you will see it in the Report—which the risk approach says is the right number from a numeric perspective. At this point in the programme, I would like to see 80% confidence and at least 35% contingency. To do that, we are looking at using up to a year’s additional time. That is not to say it will be a year, but we will use that intelligently over the next few months.

The real issue, though, is to get on board the contractors who are going to construct the programme. That is where the tendering that we mentioned before will bring on board the partners next year who will design the programme.

Q57 **Chair:** But you will appreciate that, although we like to think we are a popular Committee, it is not normal for lots of Members of the House of Commons to come in and sit in on Committee sessions. I have had far



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more interest even than from those who are able to be present; we know that people up and down the country are really concerned. Would it not be more straightforward now to say very clearly what the timetable is? Longer uncertainty—it looks like there is a potential for 12 months; we have all discussed that slippage—can have a big impact on what is happening around local stations and on the supply chain of skills and goods. When will we know what the actual timetable is? That certainty is one of the key things, and the longer the uncertainty, the higher the risk of costs going up.

Simon Kirby: I completely agree. That is where we need to get to. Based on what you said—

Q58 **Chair:** When will you be able to get that information to the Department?

Simon Kirby: Dare I say it? This is the truth: we will be producing a report to the DFT in the autumn, based on your earlier comment.

Q59 **Chair:** Ahead of the spending review?

Simon Kirby: Yes. It will be September or October. We have it well under way.

Q60 **Chair:** Will that be a public report to the Department?

Philip Rutnam: It will be advice to the Department; obviously it will ultimately be a matter for Ministers to take decisions on what the timetable is—

Q61 **Chair:** But once they have made the decision, will the High Speed 2 Ltd report be available publicly? I can see that it will be advisory while the decision is being made, but after the event will those figures and that information be made available to the public, so we can see the assumptions it is built on?

Philip Rutnam: We will need to see what the report is first—

David Prout: We have asked the company for an interim report in the autumn, followed by what we call baseline 7—a further baselining of cost and schedule that will be available next Easter—before we award the main work civils contracts. That is the right way to do it in terms of the programme, because those are the key milestones that we face going forward.

Q62 **Chair:** So by next spring, people will have a very clear idea. Phase 1 will be affected if there is a change. Will you undertake to look at phase 2 timetabling as well, as a result of lessons learned from that?

David Prout: The phase 2 timetable would not be affected by an adjustment by up to 12 months of the phase 1 timetable. The key issue on the phasing of phases 1 and 2 is the profile of spend and the availability of funding. If all goes well, we anticipate Royal Assent for the phase 2b Bill by 2022. We would then be in a position to start building before 2026, if that was the decision made, but the profile we have projected currently shows us starting work on phase 2 in 2026.



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Q63 John Pugh: Just while you are oozing confidence, one of your poor early estimates was on the cost of compensating Network Rail and train operating companies for reduced revenue. The estimate had a 220% increase, which is pretty big. Are you convinced that you now have a better grip on that aspect of it?

David Prout: Yes, we are. We have what we call baseline 6. Baseline 6 is the first time we have brought together cost and schedule in an absolutely coherent way. Before that, we had about 1,500 lines in our programme; we now have more like 18,000 lines. We are much, much happier with baseline 6 than we have been with any baseline since—

Q64 Chair: Given all the conversations about phase 1, are you sitting here confidently saying that you are really sure that the phase 2 timetable is realistic? You were very confident, Mr Prout; I just want to be really clear that you are saying that there will be no change to the phase 2 timetable.

David Prout: Correct. That is what I am saying.

Chair: That is very clear. Thank you.

Q65 David Mowat: That is very interesting, and it leads on to what I would like to talk about now. Figure 7 on page 23 of the NAO Report is about the events around the £7 billion overrun you had on phase 2, which was then sorted out. I would like just to go over those events. Am I right in saying that at the spending review, you discovered that there was a £7 billion without-contingency shortfall? That is what the Report says and what the figure says.

David Prout: Yes.

Q66 David Mowat: If the answer to that is yes, that's fine; we will go on. I guess what surprises me a bit is that we then have a review by somebody outside the project, who comes up with £9 billion-worth of stuff that you can save and that on the face of it does not affect the scope—I think that is the position.

Many people have done projects—I have done projects. I would have tried, if I had been doing a project with a £7 billion overrun, to find some of those things myself before I went public on my £7 billion overrun. One of them, just as an example, was different unit costs, I think, for viaducts on phase 1. That is information that must have been known about within HS2. Therefore, when HS2 came forward with the £7 billion overrun in the first place, that was including that. It does not imply a process that is either rigorous or well controlled.

David Prout: Of course we were already working on our cost estimates, and we had already identified, I think, about £2.5 billion-worth of savings before what we call the periodic update was launched.

Q67 David Mowat: This is the update by the Cabinet Secretary.

David Prout: Correct. That update—I mean the process for doing that—was a collaborative process involving a team put together from HS2 Ltd, the Department for Transport and the IPA, and they worked through the



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phase 2 estimates in a logical way, dividing it down to assets now. Some of that work was brought forward, but none of it was unanticipated. Part of that work, for example, is to look at proposals for—

Q68 David Mowat: So when you announced the £7 billion overrun in the first place—I don't know who you announced it to: to the Chancellor, among others, and to the Treasury—you announced it and said, "But don't worry, we have got a process and we think we are going to find all these billions of pounds. We are announcing it anyway." Is that the process that you did?

David Prout: We talked at length with the Treasury and, of course, with the company, and our estimate was that the right thing to do for the public purse was to go after the savings and not to put the budget up. You have got two choices. You have got an estimate which says you are going to come in over budget, and you can either put the budget up or you can go after the savings. We decided to go after the savings, and that is what we have done.

Q69 David Mowat: Yes, but the choice I suppose many people would have gone for would have been managing the programme so you weren't declaring a £7 billion overrun.

David Prout: Well, it is a process which takes a design, gradually refines the estimates, understands the design more and more, moves from a level of generality to a level of precision over a period of time—and that is how you narrow down the range of what it is going to cost.

Q70 David Mowat: Yes, but as you have described that, it is not a £7 billion overrun, which is what you declared. That is a work in progress—"We are looking at everything here and we are doing value engineering." In process terms it seems quite poor.

David Prout: I think it is quite standard, actually, that you take a snapshot of a particular point in time and you do that as frequently and transparently as you can.

Q71 David Mowat: Well, if it is standard, at some point—we are getting into questions like who owns estimates, then. If it is standard that you declare a £7 billion overrun, who owns that overrun? Does somebody turn up with a, "Here it is; I have looked at all the numbers and we are going to be £7 billion over budget. Bung that into the spending review and then we will have a look at it."? Is that the process? Who owned that number? Whose number, on figure 7, of the three of you, was the £27,668 million on the second line? There must be an owner of that number. Who owned it—HS2?

David Prout: That is the programme's figure and I am the SRO for the programme. I own that figure.

Q72 David Mowat: Right, so it is your number—your hand is up: that is the number.



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David Prout: What we said was “This is our estimate at this time, but we think we can deliver within the funding envelope,” and the Treasury said “The funding envelope is unchanged; you have got to come back to us and show you can deliver it within the funding envelope,” and that is what we have done.

Q73 **David Mowat:** The way you are putting this out now is that it was always a number that was beatable. It is dramatic—you have taken £9 billion off it. That is fantastic. The Cabinet Secretary needs to be congratulated if that is what he can do on projects. That is a third of the thing gone out, by doing things that don’t appear to be miraculous.

David Prout: We knew what the level of maturity of the design was and we knew there were savings to be had, and we have got at those savings. One of the key inputs into those savings was baseline 6, which was only available in May. That is when we established our standard rates for viaducts, tunnels, cuttings, and so on; and that is how we were able to do the read-across from phase 1 on to phase 2 and deliver the savings set out in the table.

Q74 **Chair:** Can you give examples of these updated unit costs? I am referring again to figure 7 on page 23. This is the savings under “Updated unit costs for viaducts, embankments and stations”. I share David Mowat’s amazement, really, that it seems that just popped up. We paraphrase, but only slightly. Can you give us any examples of that?

Simon Kirby: I kind of get, if you read the Report cold, why you would assume what you are assuming. The point is that this has been a long-standing process. Phase 1 is a far more mature design than phase 2, so part of this is how much learning we take from phase 1 into phase 2. Running in parallel with that, we have been looking at international standards and what the costs are internationally. For example, how does the width of a viaduct compare in the cost base we had with the cost base in other countries? You can imagine that if you change the inclines of a cutting slightly, the amount of earth you are removing differs—all within the red lines of the hybrid Bill process. Lots and lots of detailed examples have gone into building this up. It did not just happen over a few weeks; this is an ongoing exercise. The international benchmarking is still very much under way, and it is proving the differences in construction costs between the UK and international comparators.

Q75 **David Mowat:** All that is right. The Chairman asked you a question about how confident you were on the timescale for phase 2, and the answer came across that you are very confident, but I would question how you can be equally confident about a £27 billion project and a £20 billion project. They are different things. Implicitly, they have different timescales. If you can change the estimates like that, it makes one wonder how solid stuff is behind it.

David Prout: We were confident that we would be able to deliver within the funding envelope, which is the lower of those two figures.

Q76 **David Mowat:** If you were that confident that you could deliver within



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that funding envelope, I suppose I just ask why it is you declared an overrun in the spending review. Did you think the Treasury might just say, "Okay, don't worry; it's only £7 billion," or what?

David Prout: That is where we were at that time. We already knew at that time—

Q77 **David Mowat:** It is not that long ago. It was December. We are now six months on. It is £7 billion.

David Prout: It takes months to develop the alternative engineering designs, to do the route refinements that reduce the cost, and to establish where the costs we have put in around what we call extraordinaires are required or not required. That is the work of months, but back at the spending review time, we were confident already that that £7 billion was £4.5 billion.

Q78 **David Mowat:** It is £9 billion, in fact. Of that, you are happy about £2 billion—you call it secured—and another £2.5 billion is based on all these benchmarks. You have one called "supply chain efficiencies". What is that?

Simon Kirby: We have looked internationally at the structure of the supply chains delivering the different aspects of a high-speed railway and how they are basically configured—profit on profit on profit in supply chains and the level of integration. So now, for phase 1, we have put a very limited value against that because of the timeframe, but for phase 2, there is opportunity to plan that differently with the supply chain, with long-term planning.

Q79 **David Mowat:** So that is your contractor base and being able to get better contracts from the contractor base, which you will not know until you are actually bidding it, I suppose.

Simon Kirby: It is giving them long-term visibility of the plan so they can structure for that, and then they commit to those costs on the project.

Q80 **David Mowat:** Do you have a sense that what you have put in now is reasonable and they are happy with it? Is it something you have validated with your big contractors?

Simon Kirby: Something I am really keen about on this project is that because of the scale, we have the opportunity to change UK construction and infrastructure for the better. We will be putting a lot of the rates we have got out of the international benchmarking study into our target costs and agreeing those with our suppliers for phase 1. I have spoken over the past week and a half to the nine CEOs of the bidders for the first phase tenders—you appreciate that while the first phase and the second phase are two phases, we are talking to the same sort of market—and they have demonstrated the achievement of those rates on other projects, so it is a question of, "Why can't we achieve those in the UK?" That comes back to standards, design and the supply chain. With long-term planning, those bidders are saying, "Yes, they can be achieved."



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Q81 Chair: We hear this often, but the supply chain is not something that HS2 alone can resolve. Not even the Department can, because the supply chain may also apply to other parts of the wider construction industry, as you highlighted earlier, Mr Rutnam. It sounds so easy to say, "We can sort it out." I am not suggesting that you are saying sorting out the supply chain is easy, Mr Kirby, but it is an easy phrase to use. It is a very big task—beyond, I would suggest, High Speed 2 alone—so are you really confident that you can bank some of those changes?

Simon Kirby: Yes. I am confident that we can bank the changes. I think you are absolutely right—this is not just HS2 and the supply chain—but HS2 is big enough in terms of scale; it is the biggest civil engineering procurement this country has ever seen. We have a better chance than anyone else of starting to address some of those issues. The message we get from the market is that if they are given the long-term commitment, they will invest in training, skills and integration of the supply chain to deliver some of these projects. The international benchmark also shows continuity and long-term planning and some of the benefits of that. On other projects that have not had those long-term planning aspects, we have seen the opposite side: cost increases. Sorry, that was a bit of a long, rambling way of saying that yes, I am confident.

Chair: We like people saying yes. We will hold you to that.

Q82 David Mowat: It is something, though, is it not, that you didn't know about, or at least didn't feel that you could recognise, last December—six months ago—but you do feel that you know about and can recognise now?

Simon Kirby: As you will appreciate, going through the spending review, we had to convince ourselves and others that we could bridge the gap. Some of the efficiencies, some of the costs and some of the scope changes were already in. We have learned a lot, benchmarking internationally.

Q83 David Mowat: But not the £1.6 million that we are talking about, because it wasn't in the £27 billion at the top, was it?

Simon Kirby: Some of it is ongoing activity that we have, benchmarking what we are seeing achieved on other projects and moving that into—

Q84 David Mowat: The other big number is that you took £1 billion out of the project management overhead. What is that?

Simon Kirby: That is a mix of a number of different aspects. As I mentioned before, because of the longevity of High Speed 2, we can create public sector capability; other projects have used big delivery partner organisations, which have a higher cost base. The estimates on High Speed 2 were originally based on outturns from other projects that had, built into them, overheads from using that type of supply chain. So by using a different type of supply chain with more staff employed by HS2 Ltd—more integrated with our supply chain, longer planning—we have identified having that sort of cost now.

Q85 David Mowat: This process that has taken place, since the spending



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review and up until now, has resulted in phase 2 costs presumably being lower. You were out by £6.9 billion before, and now you have found £9 billion of savings. If they all come through—I understand that they may not—you will be declaring an underrun, won't you?

Simon Kirby: I think the maturity of phase 2, the design—there is a lot of work to do to design the physical route, even once we have established the route. I wouldn't want to make that judgment at the moment. The good thing is that we have got the difference in a positive sense. We know there is an opportunity there. I would not want to commit to that sort of thing in the short term.

Q86 **David Mowat:** It does seem a little odd to me, given how complicated it is—the route isn't finished and all the rest of it—that you can vary your estimates by 50% like that even at this stage, and seem to be telling the Committee that that is a normal process.

Simon Kirby: You have to break it down to the component parts. It is not quite as straightforward as that. As we have said, and the Report reflects, there are over £2 billion of changes to scope. The Sheffield change in itself has got a significant reduction of £768 million. It is not just a question of unit costs. When you actually break it down to the individual unit costs, they vary by about 8% to 12%, in terms of reduction.

Q87 **David Mowat:** I understand that, but your budget was £20.6 billion, and the list of savings here is £9 billion. All I am saying is that these are big numbers and these are big volatilities. I am just a bit surprised that at this stage of the project they are that big, but you are telling me not to worry about it, that sort of the thing is normal for a thing of this type, and it is all under control.

Simon Kirby: I wouldn't say not to worry. I like people who worry about these things, because we have got to make sure that we actually deliver what we are saying. This is early days on the project. Yes, we have identified that opportunity—nearly half of that is through scope change—but this needs long-term planning and follow-through to deliver it. I wouldn't want to say, "Don't worry about it," because—

Q88 **David Mowat:** You say nearly half of it is scope change, but that is not what figure 7 says to me. It might be that I am reading it wrong. Which bits of it are what you call scope change? I understand that the Sheffield station is, but that is quite a small number on here—they are all big numbers actually, but it is small in the scheme of all this. For most of the rest of it, the scope stayed the same. I was hoping for a scope change—I will come on to that in a minute—but there isn't much in the way of scope changes here.

Simon Kirby: We have secured just over £2 billion, which is effectively route changes and different—

Q89 **David Mowat:** So you call it a scope change. A route change is not really a scope change, because you have still got the same answer. You still go to Manchester; you go to all these cities. That is not a scope change. I would call a scope change missing Manchester or something.



Simon Kirby: No, there is no other significant scope change like that.

Q90 **David Mowat:** So the scope hasn't really changed. You found near enough £8 billion or £9 billion through efficiencies, thinking about how you are doing it, perhaps being cleverer on the route—some of those types of things. That is what the facts are. I make the point that that is a huge number at this stage of the project, but I accept your explanation. The other point I would make to the accounting officer is this: your evidence to us was that you went with a budget with a £7 billion overrun to the spending review, but you were kind of shrugging your shoulders at that time and saying that you had ongoing activities there and you hoped to get it down a bit. If I was the person receiving that £7 billion overrun from you, I would probably have expected a bit more than that.

David Prout: We gave them a bit more than that.

Philip Rutnam: We gave them a bit more than that. Just to be clear, we operate in an environment of complete transparency with the Treasury. If the reality of the situation at the point of the spending review was that the cost estimates had got to that point, that is what we shared with the Treasury. We shared with them our plans for bringing things back into balance as well. One consequence of further discussions between us, the Treasury and the Cabinet Office was to bring forward some of that work, essentially by six months, which is what this IPA review was about.

David Mowat: But the evidence you have given to us is that you always had a fair bit of savings in your back pocket.

Philip Rutnam: At that point, against the £7 billion cost pressures, as David Prout has identified, we thought we had pretty securely identified £2.5 billion to offset, which left £4.5 billion. What this process has done is show that the range of potential options goes wider than £7 billion. To be clear, there is a lot of work to be done, particularly on the bottom half of table 7, and we are not changing the funding envelope for phase 2 at all.

Q91 **David Mowat:** Can I ask just one final question on this that interests me? You had a black hole, and therefore did a review and found £9 billion. It could be argued that if you were a well-run project, you would have found that £9 billion whether you had a black hole or not—i.e. you would always be looking for those savings and not just spending the money because you have got it.

Philip Rutnam: I believe it is a well-run programme, and I believe we would have found these savings. The change that happened, and what we did earlier this year, was to decide to bring forward the work from the second half of 2016 into the first half of 2016, which is what the IPA review did. It was surfaced, identified and scoped earlier than otherwise planned. Simon Kirby has made the point several times that this is not unusual; I am sure the Committee will have seen the example on the following page of Crossrail. On that programme, at a much later stage in its development than phase 2 is at now, there was a £3 billion saving that was identified. Cost pressures were identified in 2010, again at the time of the spending review. The right leadership and action was put in place to



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deal with those, and the cost of the programme was reduced by some £3 billion.

Q92 **Chair:** Does that not rather beg the question of why that was not factored into the planning of HS2?

Philip Rutnam: It shows the importance of using the planning and preparation phase to really pin down, scope and benchmark what costs should be, and to drive efficiency through the supply chain—the kinds of things we are doing now.

Q93 **Chair:** Can I just refer to cost issues and the Lords Economics Affairs Committee report, which I am sure you are familiar with, which raised some issues? I won't go through it all, obviously, but one of the questions is: how high-speed does high-speed need to be? One of the big issues is actually about capacity. The Lords Economic Affairs Committee estimates that you could save perhaps 9% of the capital costs, giving a saving of £6.4 billion, if trains were a bit slower. On the international benchmarks, the need for a railway to operate at 360 kph rather than, say, 300 kph has never been challenged. I don't know if you've got any thoughts about that. It fits in as well with interaction with the rest of the network. Have you given any thought to how fast high-speed needs to be? Presumably this has been thought through. Perhaps you could explain?

David Prout: Yes. Our railway is designed to speed standards for an operating speed of up to 360 kph. That is built into the design from very early on.

Q94 **Chair:** Why?

David Prout: Because if you are building a new railway, you want to get the maximum possible benefit from it. The incremental cost of going from a low or normal-speed railway to a high-speed railway is more or less 10%. Under those circumstances, a policy decision was made way back in 2009-10 that this should be a high-speed railway, and not a standard-speed railway. That then informs the whole design of the railway. As a basic example, to run at this speed, the radius of the curves is 8 kilometres. That dictates the way you find your way through the country. You can't change your mind at this stage and say, "Let's run at 250 kph and save 10%." You would have to redesign the entire railway.

Q95 **Chair:** So that is one of those decisions that you really now can't change.

David Prout: You cannot change that. You would need to withdraw the Bill, deposit another Bill, and redesign the entire railway. Yes.

Q96 **Chair:** As I set out at the beginning, one of the concerns is that, whatever you think about this, if it goes up in cost, it is going to cause a lot of challenge for people, especially those who were against it, who will see the costs going up on something that they don't want to see anyway, and those who were for it will lose support.

Can I go back to the issue about the timetable, because I am still concerned about that? Mr Prout, I think you said that baseline 6 had



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slipped; we know that it has slipped by 10 months. You said that you couldn't make the decision about the phase 2 costs until this May. I think Mr Rutnam said something similar when we were looking at the review period. May was a key date, and you could not make decisions on phase 2 costs until baseline 6 was apparent in May. Are you still telling us that there is no relation between the slippage on phase 1 and what might happen with phase 2? I just want to nail that down. You have been very confident. I want to be clear that you will hold to that confidence.

David Prout: The timetable for phase 2 is not reliant on the timetable for phase 1. It is more dictated by the legislative process and the funding profile. That is what dictates it.

Q97 **Chair:** Mr Kirby, we talked about reform to the supply chain. If that reform does not work, does that mean your costs go up, and the cost to the taxpayer therefore goes up? Or are you passing the risk on down the line?

Simon Kirby: The Report recognises that the process we have gone through about early contractor involvement is good practice in a project of this scale. Partly, the Olympics delivered on that type of approach, as have other projects, so I am confident that if we can give stability to the market, with long-term planning, and can get them involved in design and let them bring innovation into design, that is absolutely the right thing to do. That will deliver the efficiency and will also give us, in 18 months to two years' time, an increase in confidence that phase 1 will be delivered to those international benchmarks, because by then we will have target costs, with our key suppliers contractually locked into those rates.

Q98 **Chair:** So you are confident that if it works, it will work, and there will not be a cost to the taxpayer.

Simon Kirby: We have seen it done internationally. We have seen how it can be delivered through better management, organisation of construction and the supply chains.

Sir Amyas Morse: I think the sort of thing you are saying is good practice. Important though that is, and supportive as we are of your going in that direction, the question the Chair was asking was: if it does not work quite as well as you think it does, and there is a shortfall in the efficiencies, whose account is that cost for? In other words, who is underwriting the risks? That was the question.

Simon Kirby: It depends. Clearly, it would be a mix of potentially either the contractor or High Speed 2. It depends on the reason for that. There are obviously various risks we are novating to the contractors through the process, and various risks we will retain through the process. If there is an efficiency there through delivery of efficiency in the supply chain—they are contractually committed to that—I would hold the contractor accountable for that cost at that point.

Q99 **David Mowat:** It is in the air a little bit, actually. My question is about what the official number is for phase 2. You were at £20.6 billion. The



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spending review said £27.6 billion. You have identified these savings, but you have not banked them. What is the number?

David Prout: The funding envelope is the same as was agreed in the spending review 2015: £28.54 billion.

Q100 **David Mowat:** Right, but what is the project number that you are working on? The official number is £20.694 billion. That is what the Treasury thinks it is. You have come up with £27 billion, but you have found all these savings. Do you have a number now that you as accounting officer believe it to be, as your best number?

Philip Rutnam: The £20.694 billion in figure 7 is the point estimate. The funding envelope for phase 2, as for phase 1, includes contingency. Including contingency, the funding envelope for phase 2 is roundly £28.5 billion.

Q101 **David Mowat:** That is the 40% contingency.

Philip Rutnam: There is no change in the funding envelope.

Q102 **David Mowat:** That I understand. What is the project manager's number? His number is your number—that is an HS2 number. It is somewhere in the middle of all that.

Philip Rutnam: Mr Prout can explain.

David Prout: We have now formally instructed the company to include these efficiency savings in its build-up of costs.

Q103 **David Mowat:** So if you formally instructed it to include these efficiency savings in the build-up of costs, and these efficiency savings are bigger than your overrun was, does that not mean that you formally instructed it to reduce the budget?

Philip Rutnam: Can I try to explain? There is a funding envelope that is held by the Department and HS2 Ltd together from the Treasury. Within that funding envelope, there is then a level of contingency. It is more developed on phase 1 than on phase 2, but the principles are the same. There is a level of contingency that the Department has access to but HS2 Ltd does not have access to, so there is a sub-budget within that.

Q104 **David Mowat:** That is part of the 40%.

Philip Rutnam: Effectively, yes. There is a challenge figure within all of these budgets, which is what is held by HS2 Ltd and which Simon Kirby and the HS2 Ltd board is accountable for. There is then a margin of contingency that is held by the Department.

Q105 **David Mowat:** What you are telling me, I think, is that you have the ability to release contingency to HS2. Some of it you have released, and some of it you have not.

Philip Rutnam: That is not something we would expect to do. We expect the project to be delivered. There is a series of checks and balances within the overall funding envelope; I think that is a fair summary.



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Q106 **David Mowat:** I suppose what I find a little hard to see is what the number is. I can see that you are controlling the project. You are the shareholder, in a way, and you have a number that has been approved by the Treasury. You cannot diverge from that; therefore you have to tell the company what they have to do to deliver it. What I am trying to get to is what they think they will deliver it for. We have all agreed that all of these things are not going to happen, but if they did happen, it would be an underrun. What is the number?

David Prout: As the NAO's Report says, we have a higher level of confidence in some of these savings than in others, and we have a reasonably high level of confidence in £7 billion-worth of savings. If you look at the proposed savings in the table on page 23, the ones we have a high level of confidence in are Sheffield and viaducts. We have a lower level of confidence in the supply chain efficiencies at this stage. There is then the income opportunities, the additional efficiency savings, some of the others and the rolling stock savings. Those add up to about £7 billion. We have less confidence in the other £2 billion.

Q107 **David Mowat:** By happy coincidence, that brings you back to dead on, more or less, and that is where you are.

David Prout: Yes.

Q108 **David Mowat:** Somewhere in the Report, they use the phrase "value engineering". I think that is a very good phrase, because it means to me that at all times you are looking at incremental business cases of doing things in a slightly different way at different points. I speak as a Member of Parliament who is very supportive of HS2, but the bit that comes to my notice is the Wigan spur. It strikes me there is an absolute absence of value engineering in that, or maybe I just do not understand it. I wonder if you could tell me whether there are any other scope changes on that. I know you cannot announce the route now, and I don't expect you to, but is that in the mix of scope changes?

David Prout: We call the Wigan spur the Golborne spur. We are aware of some of the concerns people have about the depot, which was consulted on. It is part of the northern end of the spur, but that spur itself is crucial to the business case, because that is what gives us access to the west coast main line north of Manchester, where the congestion is not so bad, so that we can get trains back on to the west coast main line up to Preston and Scotland.

Q109 **David Mowat:** Well, it takes 10 minutes off the route for those trains.

David Prout: It is also the congestion that it bypasses on the routes there.

Q110 **David Mowat:** Yes, you can use that logic. I don't want to spend too long on this, but I'm going to say this. You used the words "agglomeration benefits" earlier, which is right; that is basically the thrust of the benefits case for all of this. That's to do with Manchester, Liverpool, Leeds and the big cities being linked better to London. I haven't looked at the business case for a while, but when I did look at it, that was basically most of it.



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That is not to do with building a bit north of Manchester, which will cost £1.5 billion or £2 billion. I agree it is a good thing to do. It would be a good thing to go all the way to Preston—why not? But it doesn't imply that you are doing value engineering. Or are you saying that that spur, which is incremental, has a stand-alone business case which you would be willing to send to the Committee?

David Prout: We haven't done a stand-alone business case on the Golborne spur, but it is important because it bypasses congestion and gets high-speed trains back on the west coast main line north of Manchester and Liverpool, and allows them to go on up to Preston, Glasgow and Edinburgh.

Q111 **David Mowat:** It is incremental, so it would not be that hard to do a business case for it, would it? We know the costs are about £1.5 billion for the civil engineering and I look forward to seeing whether your viaduct unit cost estimates will work for that bit of the company, but you will find that out in due course. Is that something you could do? We all agree the term "value engineering" is important. It is about incremental benefits. Could you do that business case?

David Prout: You could write a business case, yes. You could calculate what the BCR is for that. It is not something we are planning to do at the moment.

Q112 **Chair:** I think Mr Mowat may have other views and may lobby you about that in other ways.

May I move on to some of the issues around stations? The station regeneration and improvement budget for Euston is £417 million, but the other stations—my colleague, Deidre Brock will pick up on some of this—do not have funding. On the Euston money, are you confident of the costs for that huge engineering project?

David Prout: That £400 million is for what we call the over-site enabling works. Those are the works necessary to allow development to take place above the station at Euston.

Q113 **Chair:** So things like the concrete plinth.

David Prout: Yes, and deeper piling and stronger structures to support what is above it.

Q114 **Chair:** But you are confident about the cost. That is my question.

David Prout: Yes. There is a separate BCR for that investment.

Q115 **Chair:** It is quite complex, as you have just highlighted, with the piling and so on because of the density. It is the densest area of development for HS2. You will be aware—we are all aware—of challenges to that locally. Have you set aside contingency for a legal challenge to the works at Euston?

David Prout: We haven't set aside contingency for a legal challenge but over-site development at Euston station is part of the local plan. We are in

conformity with the local planning authority's aspirations for Euston station. Indeed, the authority would like us to go further and to redevelop the whole of the rest of the Network Rail station there. At our station at Euston, don't forget, the platforms will be below street level. You will be able to build new buildings there that you can simply walk into at street level because our trains will be under street level.

Land values round there are very high. Demand for office space in the Euston area is absolutely huge and unmet, forcing prices up to over £80 a square foot. Not to make use of that public asset—the land which we own—and to deliver an economic return on that land would not be right.

Q116 Chair: Notwithstanding that there is provision in the local plan for some of these things, many residents and the leader of the council among others, including the local Member of Parliament for Holborn and St Pancras, have raised real concerns that many residents will have a lot of impact. There must be some discussions about compensating those individuals for the challenge of living in one of the biggest building sites in Europe for many years.

David Prout: Yes. Camden Council's opposition is, in principle, opposition to the station. If the station is to be built, its position is that the best possible use should be made of it and the best return should be made to the local community. All our compensation is set out clearly. We do not specifically compensate for disruption, but nor does any other developer. This is something that Mr Dobson asked me about in a Select Committee. The fact is that in any major development, we do not provide compensation for disruption or just for the fact of that development taking place. Such compensation is not provided under our system.

Q117 Deidre Brock: At point 13 in the summary it says, "Local authorities, in partnership with others such as Local Enterprise Partnerships, are responsible for driving regeneration and local growth benefits." How confident are you in local authorities' ability to do that, given that many of them are pretty cash-strapped at the moment?

David Prout: The situation in each of the local authority areas is different. If you look at the four stations on phase 1 of the railway—that is: Euston; Old Oak Common; Birmingham Interchange, which is effectively where the NEC is; and Birmingham Curzon Street—the local authorities have set up different arrangements to govern the regeneration that will take place.

At Euston, the primary regeneration benefit comes from what we will build on top of the station. That is under control and funded. At Old Oak Common, the Mayor has set up a mayoral development corporation, which is a separate institution that is governing the regeneration of that area, and we are working on a transfer of public sector land from DFT to the mayoral development corporation so that they have a stake in the area and can negotiate with developers. At Solihull, they are looking at creating a new town-type development and they are setting up an urban regeneration company to lead that. And in Birmingham, an enterprise zone has been set up, which will provide business rate retention to fund—



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Q118 **Deidre Brock:** I appreciate that different authorities have plans in place, but I wonder how confident you are that they will be able to fulfil those plans, given the troubled economic times we are going through.

David Prout: All the authorities are engaged, as you can see from the—sorry, too lengthy—description I just gave. This is a decade-long project. They are engaged. We are funding some of that work ourselves and we are confident that they will get on top of it.

Q119 **Deidre Brock:** So you are funding some of that. How else will you help? If you felt that an authority was struggling, for example, what actions would you take?

David Prout: Well, there are various instruments that the Government has, but they have not been used in recent years. Planning powers can be taken into specific, purpose-designed bodies, but this Government does not go down that route at all—in fact, quite the opposite. What this Government says is that it is for the local authorities to take ownership of these things and drive that development at the right level.

Q120 **Deidre Brock:** Did I see that DCLG is responsible for co-ordinating some of this?

David Prout: They are.

Q121 **Deidre Brock:** DCLG has obviously had quite considerable cuts to its budget, or it is about to experience those. So, again, how confident are you in it being successful?

David Prout: They have set up a specific team that deals with this, headed up by a deputy director. There is a programme board, which I sit on, which is chaired by a director general colleague at DCLG—

Q122 **Deidre Brock:** You feel confident—

David Prout: That they have got the bit between their teeth at DCLG? Yes.

Q123 **Chair:** Can we bring in the Comptroller and Auditor General, then Deidre may want to come back in?

Sir Amyas Morse: I just wanted to ask you if they have got the bit between their teeth at Camden as well? In other words, is this a long pole in the tent? When you get your negotiations with Camden completed, will that set a quite high, significant precedent for what can be got out of co-operating with the project?

David Prout: I am not quite sure I follow. I am sorry.

Sir Amyas Morse: All right. Is there a risk that what happens at Euston sets a precedent for what other local authorities who are being asked to co-operate can expect in terms of contribution from Government?

David Prout: The £400 million being spent on enabling works for over-site development at Euston is based on the fact that that land belongs to us—it belongs to the public sector. That investment will have a good



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return, albeit over a long period of time, and it is the right thing to do. It is not a side deal that is done with Camden as a local planning authority—

Sir Amyas Morse: You are going to have a dialogue with Camden about it, aren't you?

David Prout: Of course—they are the planning authority.

Sir Amyas Morse: They are the planning authority. So what I am asking you is: if they are able to press you on what they are looking for, and you indicated that they have more aspirations, does that push up the market for what other authorities might expect? If the answer is no, fine.

Chair: Sheffield, for example.

David Prout: They are all so different, that is the thing. Each of the station places is so different that it is very difficult to say you can apply that lesson to somewhere else.

Q124 **Deidre Brock:** This is quite a specific question on paragraph 2.13, about assumptions. It mentions the expectation that "the proposed station at Manchester Airport will be paid for by third party sources." You mentioned Crossrail before, but there was a similar assumption made then—that Heathrow would pay £230 million for the cost of Crossrail—and then the Civil Aviation Authority stepped in and determined it should only contribute £70 million. So can you just tell us: who are those third party sources that you expect to be paying for that?

David Prout: The Greater Manchester authorities wrote to the Secretary of State in 2012. What they basically said was "Can you please go via Manchester airport, and if you do so we will make a significant contribution to the costs of doing so?". Going via Manchester airport is a more expensive route than other routes into Manchester city centre, and our expectation is that the programme will pay for the more expensive route, but the Greater Manchester authorities will pay for the station itself.

Q125 **Chair:** So it does sound, as the Comptroller and Auditor General has just said, as if there is room for bargaining by local authority areas around stations and development around stations. When does the door close on those discussions? We have had Sheffield, Manchester airport—there are lots of discussions around Euston.

David Prout: Yes, but they are all very specific and different discussions.

Q126 **Chair:** We are not suggesting that they are blanket discussions; but there is room for local discussion and negotiation about what happens locally.

David Prout: We are constantly discussing HS2 with our local authority partners. We are up and down the whole time.

Philip Rutnam: And the Government's position on all the station sites is clear, including our expectation about the third party funding for the station at Manchester airport. We will obviously be making decisions on the phase 2 route in the round in the autumn; the one issue on which we



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have now received specific advice is around station options in south Yorkshire. I don't want anybody to get the impression from this hearing that we are open to lots of new negotiations, because in truth we are not.

Q127 **Chair:** I just wanted to make that clear because we are going through quite a list here. As Deidre Brock was saying, the Manchester airport one is interesting because what happens—where does the risk lie—if Manchester airport cannot come up with the cash?

Philip Rutnam: I think the risk rests with Manchester airport.

David Prout: No, the Greater Manchester authorities.

Q128 **Chair:** So it will be the council tax payers of Manchester, not the council tax payers of the UK that will pay for that.

David Prout: Probably not the council tax payers. There are various different ways of raising funding for this kind of infrastructure project; but I don't think council tax is one of them.

Q129 **Chair:** Okay, the taxpayers of Manchester. Somehow or other it falls on the public purse, because of Manchester airport's ownership. There is no big corporation that is going to have to delve deeper into its pockets.

David Prout: Well, Manchester airport is jointly owned by the local authorities and the private sector.

Q130 **Chair:** Well, I am sure we will come back to that; I am sure Manchester MPs will, as well.

I just want to touch on a few points in our final 15 or 20 minutes or so. One is a really key issue about interaction with other parts of the system. Colleagues have touched on that in specific local areas, but if we just look at page 39, box 4, that highlights some of the interactions with the existing rail system. One of them is the type of trains that could be used. As I understand it, if non-tilting trains are used on High Speed 2, then they will go slow on the bit of track beyond the connection points, which perhaps rather reduces the benefits. Who is thinking about the interaction with other parts of the network, and particularly on rolling stock, first of all?

David Prout: All of us are thinking about interaction with the railways. HS2 Ltd is tasked to give the Department advice on rolling stock procurement. My group are looking at that and at how different types of rolling stock would impact on the benefits, and Bernadette Kelly's group, the rail group, is working with us, or rather leading the work, on the impact of HS2 on the existing network.

Q131 **Chair:** We have had, obviously, interesting sessions here about Network Rail, and now we can actually look at Network Rail's financing in this Committee, which we are very pleased to do, but there are an interesting lot of challenges for Network Rail. There are interesting challenges around franchising. I am using "interesting" as an interesting word in itself; I could be more negative. Those are big challenges. It seems to us that if you don't get that right, that inter-relationship, it could cause huge



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knock-on effects. Even if you deliver HS2 successfully within the envelope of money and on time, there could be negative impacts on the wider system if you don't get it right. You basically have these Whitehall people talking to each other, but who is doing the real work on the ground to make sure that the engineering connections are there? Is that the men and women in Whitehall?

David Prout: That is being done jointly by the company and by Network Rail.

Q132 **Chair:** Simon Kirby, do you have anything to add?

Simon Kirby: HS2 is about capacity and connectivity, so you are absolutely right that how it interfaces with the rest of the system is a core part of the output. That is partly rolling stock-dependent, partly the timetable and partly the reliability of the classic network that we all travel on.

We are currently doing what we call a sifting process, so we are looking at different rolling stock options, which is a mix between classic-compatible trains that will go on both the high-speed network and the classic network, and captive trains that will just go on the high-speed network. On the classic-compatible trains, there are still choices on braking and acceleration that could compensate for tilt or no tilt, so I wouldn't draw an absolute conclusion that they will be slower. There are different options, and we still have to go through that process. Part of the process is what we call market soundings, which will start shortly. We will talk to the market about different cost variables, which will then go into our optioneering, our sifting, to come up with a recommendation to our colleagues in the Department.

Q133 **Chair:** We are quite concerned about that, and it is perhaps one we will pursue later. Another interesting issue, which was raised with me by the hon. Member for North Warwickshire, is that in his neck of the woods there is an interesting interaction with Highways England because of the nearby road connections. That needs to be resolved, and I don't know whether you are also working—Mr Prout is nodding. Can you tell us how you are working with Highways England? How are you resolving these issues locally?

David Prout: We have had a long-term ongoing relationship with Highways England. As HS2 has become more of a reality, rather than just a plan, Highways England has become more and more engaged and interested. Jim O'Sullivan, the chief executive of Highways England, has spoken to us about this, and we have put in place a process that started with a meeting on, I think, 4 July between the company and Highways England to ensure that we have a high-level forum where these kinds of issues can be resolved.

Q134 **Chair:** Will their timetables for any road changes and improvements fit in with the timetable for High Speed 2? A little local mismatch can easily cause problems that reduce the potential benefits of High Speed 2 to some of the communities that are supposed to be benefiting.

Simon Kirby: We have a working-level dialogue at a very constant level. As David just identified, I meet the chief executive every six months to keep an eye on this. We have to make sure that the roadworks required for High Speed 2 and future investment in the midlands area—and it is the whole midlands area—are co-ordinated, so we are joining up our plans. There are some pinch points, and there are some issues, but we are more and more confident that we can engineer out a lot of the disruption to the motorway network from High Speed 2 by doing things like bridge sliding, rather than having to close motorways to construct them.

Q135 **Chair:** Can you tell us what bridge sliding is?

Simon Kirby: You slide a bridge.

Chair: It literally slides into place?

Simon Kirby: You literally slide a bridge, which is quite common practice. Network Rail now do it on the operating railway network. They have recently done it for the work at Stafford.

Q136 **Chair:** One of the things that drives taxpayers and constituents mad is when something is done and then unpicked in order to do the next bit because the work wasn't co-ordinated. You sound very confident that that is okay. We will hold you to account for that.

Simon Kirby: It is another example of long-term planning. If we can plan for the long term, we can do these things.

Q137 **Chair:** All this integration work is potentially quite costly. How are you factoring in the costs? When will you be able to tell us what that integration work—rolling stock, highways and other interactions with parts of the rail network—will cost?

David Prout: All the costs to deliver the benefits identified in the business case are covered by the £55.7 billion.

Q138 **Chair:** All the integration costs are covered by that?

David Prout: All the costs that are necessary for delivering the benefits identified in the business case are covered by the £55.7 billion.

Chair: But that is not all the integration costs.

Q139 **Deidre Brock:** Does that include the integration costs in Scotland?

David Prout: Page 38 of the Report has a schematic that shows, on the left-hand side, what is here called the core programme benefits. All of that is financed by the £55.7 billion. On the right-hand side are what should, in Mr Mowat's terms, be called the wider, wider programme benefits, to go back to the previous discussion. Those are not funded by the HS2 programme. They would be additional calls on funding.

Q140 **Chair:** We look at transport quite often here, and we look at individual projects. Do you think all these discussions about interrelationships would be easier if there was a wider general national transport strategy, Mr



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Rutnam?

Philip Rutnam: I think the Government has a very clear strategy for transport, which is set out in a range of documents that I could discuss.

Q141 **Chair:** Isn't that the point—that there is a range of documents? Then you've got bodies like Transport for London, and other moves to devolve transport, so there is no single document.

Philip Rutnam: I think the Government is very clear about the strategy for the things that it is responsible for. It set that out after both the 2013 and the 2015 spending reviews, so it has been set out clearly and concisely in single documents. One thing that is mentioned in the Report, which you might be alluding to, is the fact that we decided relatively recently to do more to articulate how we expect the rail network to operate as a single integrated network with both HS2 and the existing rail network, which is a point that the Committee has made before. That is something that we are actively taking forward.

Q142 **Chair:** Good. I am glad to hear that the Committee is having some effect. It matters to people, and it makes it easier for anyone investing in businesses and communities to know what the benefits are.

Going back to figure 13 on page 38, which you highlighted, Mr Prout, does the £55.7 billion include work that might have to take place on the west coast main line to accommodate non-tilting, high-speed trains?

David Prout: Yes. I think there is £100 million for that.

Q143 **Chair:** Okay, so some of that money could be saved, depending on what decision is made about what happens on the west coast main line.

Philip Rutnam: Possibly, but there may be other trade-offs. Some of the options in relation to—

Q144 **Chair:** It seems to me that this envelope of money magically fits whatever is needed. As Mr Mowat managed to get from you, you are not actually offering up any reductions.

Philip Rutnam: We are not offering any net savings at this stage, no. Instead, we want to work through the issues, such as the interactions between tilt and infrastructure, very steadily and professionally.

Q145 **Chair:** Well, Mr Rutnam, we want a successful project. Just think about your place in history, if you are able to offer up net savings as accounting officer on an infrastructure project of this size. You would probably be elected president, in the current climate.

I want to go back to the issue of the planning phases, going back to figure 8 on page 29. You have already allowed HS2 to issue invitations to tender. I touched earlier on the review point. You said that in all major respects, if I am quoting you rightly, you were content that you had met key milestones, and you allowed HS2 to go ahead and tender. You allowed them to do that, but it begs the question: what is the point of having a review point if, when HS2 doesn't meet all the requirements,



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you carry on anyway? Can you explain in very simple terms why you allowed the tendering to go ahead, and what the point now is of review points?

Philip Rutnam: Review points, as a general point, are a very important part of the process of taking stock of where the project has got to. They are a structured process for taking stock of readiness to move on to the next stage. That is what review point 1 was. We are reflecting on the lessons from review point 1 in thinking about review points 2 and 3, but personally I think there is huge value in having a very structured, systematic process with independent assurance to assess exactly where the project has got to. That is how review point 1 operated.

There were, in fact, five modules in review point 1. Four of those—they covered capability in the Department, capability in HS2 Ltd, the funding regime and readiness to the delivery strategy for the programme—were unambiguously clear to proceed. The fifth, which was about costs and schedule, was also a positive assessment, but we still wanted the company to do better, if you like. To go back to the point about the schedule, it was 60% confidence, as Mr Kirby and I have both said. We want a higher level of confidence. The message coming out of review point 1 was that the company was fit and ready to proceed with the tenders; there was no doubt about that. It was ready to get on with delivering the tenders, but we want the company to work harder at increasing confidence about schedule from 60% to 80%, and to seek to restore the contingency from 32.5% to 35%.

Q146 **Chair:** Okay. Are you confident that you have now learned lessons for how you do phase 2?

Philip Rutnam: Phase 2 the programme, or review point 2?

Q147 **Chair:** The review point for phase 2.

Philip Rutnam: Well, the review point regime operates for phase 1 because it is at that stage of preparedness.

Q148 **Chair:** Okay, so do you think you have learnt lessons for when you set the review points for phase 2?

Philip Rutnam: Indeed. We are already reflecting on the lessons from review point 1 for review point 2 for phase 1, and for review point 3. When the structure was set up in the development agreement we had with the company, there was a very clear link between the review points and successive levels of delegation to the company for procurement processes. In truth, that has not quite worked as we intended.

Q149 **Chair:** Okay. I just want to go back to the issue of franchising. The Bowe review has come out—I can't remember whether it came out since we last saw you. How is implementing and developing a strategy under the Bowe review going? Is that the review that you were talking about earlier?



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Philip Rutnam: The Bowe review was about Network Rail's enhancements programme.

Chair: Forgive me; it was.

Rebecca Sheeran: I think you mean the Shaw review.

Philip Rutnam: It is quite tricky to keep track of all these reviews. The Shaw review was about the future and structure of Network Rail. Essentially, the message from that was about devolution. Shall I speak about both reviews?

Chair: Yes, please.

Philip Rutnam: The big message from the Bowe review was the message we discussed here about Network Rail's enhancements programme, which included the things we talked about earlier—the need for a much more disciplined approach to planning and to letting projects through gateways. That is well in the course of implementation. The Department has significantly upped its capability to act as client to Network Rail in the same sort of way in which we act as client to HS2 Ltd. The role of the regulator in relation to enhancements that had been critical has now been redefined to be rather lesser; it is still important, but lesser. That is well in the course of implementation, but of course this is a large and extensive programme of enhancements so it is continuing real delivery on the ground.

The Shaw review is at an earlier stage. The lead on implementation for that rests firmly with the board and the chief executive of Network Rail. The company is well in the course of developing its plans for what is essentially devolution within the business to eight, largely regional, businesses.

Q150 **Chair:** That interlinks with my earlier point about how HS2 is interacting with the rest of the system and all those other stakeholders. You have set up a team to manage those relationships now. I don't know if it is the team you were touching on, Mr Prout, with Bernadette Kelly and co. Who is actually in charge of that team? Is it you, or is someone else in charge of that team on relationships between HS2 and other stakeholders?

Philip Rutnam: Between HS2 and Network Rail, or HS2 and stakeholders more generally?

Chair: Stakeholders more generally, although presumably Network Rail is one of those stakeholders. Maybe there are different groups that I am not aware of.

David Prout: Just dealing with Network Rail, there are different mechanisms. There is obviously a direct relationship between the company and Network Rail, and between my group and Network Rail, which is focused on the HS2 project itself. On the wider interaction with the railway network, the lead on that—the end-state railway—sits with Bernadette Kelly and Rail Group. We have mechanisms for working jointly with them.

They have a senior director who has responsibility for ensuring that all of that takes place in an appropriate way. We are still in the foothills of working out the details of the end-state operation.

Philip Rutnam: Can I just add one thing? Going back to the link with the enhancements programme, there will be a material—although not huge—body of works that Network Rail will need to undertake on its network as part of the HS2 programme. They are known as on-network works. Crossrail also has on-network works. By analogy to that, we would expect to use a similar mechanism, which is referred to in the Report as a protocol, but it is effectively a contractual mechanism for defining what it is that Network Rail needs to deliver, by when and how, to ensure there is clear accountability and clear and appropriate incentivising to get that relationship right. We are using that sort of model—effectively a contractual model—which has worked overall pretty well for Crossrail, Thameslink and programmes like that, rather than the regulatory model that we talked about before, about enhancement of the electrification programme that has gone awry.

Q151 **Chair:** Can I ask a question that is important to people in Crewe? The planned date for phase 2 to Crewe is 2027. We have talked a lot about timetable today. You have said several times that you do not see any problem in slippage. Can you be clear today that the opening date for phase 2 to Crewe is still 2027? Are you prepared to commit to that now? I can see Mr Kirby nodding confidently. Do you want to say for the record, Mr Kirby? Mr Rutnam is going to take the words out of your mouth.

Philip Rutnam: It is absolutely and firmly in our plans. That is exactly what we are working towards. It will of course depend on the parliamentary passage of a hybrid Bill, which the Government are planning to introduce in 2017.

Q152 **Chair:** Subject to Parliament passing the legislation, are you confident that the plans are in place?

David Prout: Yes.

Q153 **Chair:** Mr Prout says yes, and Mr Kirby?

Simon Kirby: We have put it in as an option in our procurement as well, so that we can get continuity and efficiency, as we discussed earlier.

Q154 **Chair:** To be absolutely clear, you are confident that that potential for slippage in phase 1 is not going to have an impact on further phases. Nods all round.

Philip Rutnam: Yes.

Chair: Thank you very much. John Pugh then Deidre Brock.

Q155 **John Pugh:** Very quickly, under interrogation or cross-examination by Mr Mowat, you made it clear, Mr Kirby, that you had driven down costs in quite an appreciable way by international benchmarking. It is generally



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observed that maintaining, running and developing railways is much, much more expensive in the UK than it is in almost all other parts of the world.

Do you think that you have learned something from this that could be applied to other schemes of a smaller size, or is it simply just using your muscle as a very big contractor or client, or whichever badge you want to wear? There is a kind of permanent legacy of this. We now understand better how to develop railways more cheaply and more efficiently.

Simon Kirby: Just to clarify, we have identified how we are going to drive down costs; we have yet to drive down the costs, which is obviously not unimportant. I don't think it is a scale thing. I think we just have a better understanding of some of those comparisons.

As I said before, the scale of what we are procuring gives us an opportunity to make a step change, and we have contracted in a number of different factors in our invitations to tender that mean it is not just about delivery costs; it is about legacy of skills as well. I think there is an opportunity there. The underlying message is one of long-term planning and continuity. If we can provide that long-term continuity, those skills can be deployed and we can deliver those efficiencies.

Q156 **John Pugh:** So there is a read-across to smaller schemes up and down the land that may be in gestation.

Simon Kirby: If planned and integrated, I think there is an opportunity there, yes. If they are treated as individual schemes and not planned in a holistic way, then probably not.

Chair: We hear from Mr Rutnam that there are plans to do more integration and strategy, so we are beginning to join up. Deidre Brock.

Q157 **Deidre Brock:** Just quickly, I understand that the UK and Scottish Governments are very much committed to decisions in 2017 on reshaped rail and road programmes, in order to assist with the integration of HS2 networks with the existing lines, is that right? Are you able to give us an update on how that is progressing? Is it intended that that will be included in the hybrid Bill, whatever the outcome of those discussions may be?

Chair: Ms Brock might spend many years on a hybrid Bill discussing this, so she is keen to know.

David Prout: It is not currently within that. Works to Scotland are not currently included in the scope of the phase 2 hybrid Bill. You will remember that we published a report before Easter on high-speed rail to Scotland, and that undertook to do further work on reducing journey times, improving reliability and improving services to Scotland. That work is now underway. Network Rail launched that work in the past couple of weeks, I think.

Chair: I thank our witnesses for coming along. You have been very confident today about the timetable and delivery, so we will obviously be



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holding you to account for that, as well as for the money, which is what we are really here to do. This Report flags up some potential risks, which I hope we have delved into in some depth today, but we will watch this in future. As I flagged up before, a lot of Members of the House of Commons are very interested in this, as I don't need to tell you. We will call you back as things progress. Thank you for your confidence, which we hope is not misplaced. We will call you back in future to discuss that.