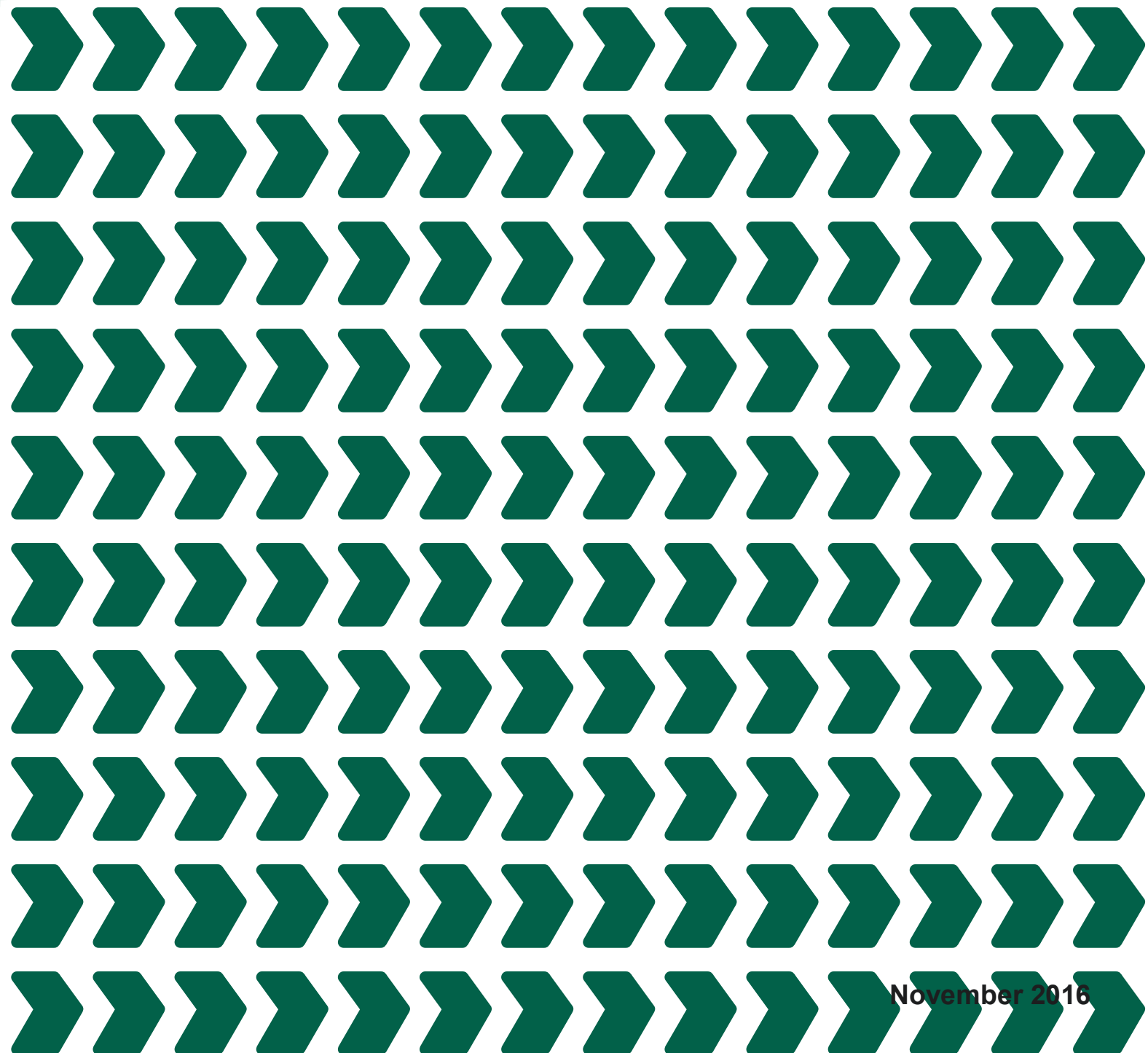




Department
for Transport

High Speed Two Phase 2b Strategic Outline Business Case Financial Case

Moving Britain Ahead



November 2016

The Department for Transport has actively considered the needs of blind and partially sighted people in accessing this document. The text will be made available in full on the Department's website. The text may be freely downloaded and translated by individuals or organisations for conversion into other accessible formats. If you have other needs in this regard please contact the Department.

Department for Transport
Great Minster House
33 Horseferry Road
London SW1P 4DR
Telephone 0300 330 3000
Website www.gov.uk/dft
General enquiries: <https://forms.dft.gov.uk>



© Crown copyright 2016

Copyright in the typographical arrangement rests with the Crown.

You may re-use this information (not including logos or third-party material) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence, visit <http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/> or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: psi@nationalarchives.gsi.gov.uk

Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.

Contents

1. Introduction and Scope	4
Taking Forward the HS2 Programme	5
2. Phase 2b Funding	8
Scope of the Financial Case	8
Spending Review 2015	8
3. Cost Estimate	10
Approach to Managing Costs	10
Managing Costs against the Spending Review Envelope	11
Periodic Update	12
Approach to Contingency and Risk	14
4. Key Assumptions and Exclusions	16
5. Affordability	18
Summary of Affordability in Construction Phase	18
Scenario Testing	18
6. Assurance of Outputs	19
7. Accounting Implications for DfT	20

1. Introduction and Scope

- 1.1 This document sets out the Financial Case for completing the full HS2 Y network, building on Phase One and Phase 2a. It is part of the Government's Strategic Outline Business Case¹ (SOBC) for HS2 Phase 2b, in line with the HM Treasury Green Book guidelines. The SOBC stage of developing a major project outlines the high level outcomes the project intends to deliver. The five cases are:
- Strategic Case
 - Economic Case
 - Financial Case
 - Commercial Case
 - Management Case
- 1.2 The Strategic Case is supported by the four other cases and sets out the need for intervention and how this will further the Government's aims and objectives. It provides suggested or preferred ways forward and presents the evidence for decisions taken at this stage, including the costs and benefits, which are laid out in more detail in the Economic Case.
- 1.3 The scope, costs and schedule will be refined as the project moves forward, and an Outline Business Case (OBC) is developed. This will be done alongside the deposit in Parliament of a hybrid Bill for Phase 2b in 2019. The business case is then further refined to give greater confidence in delivery by the time a final investment decision is taken at the Full Business Case (FBC) stage. Therefore, the designs and train service specification (TSS) set out in this SOBC are intended to give Government sufficient confidence in the intentions and outputs of the project to proceed, but will continue to be refined and may change as the project develops.
- 1.4 Below is our indicative timetable of the key stages of the process:



- 1.5 HS2 is a new high speed rail network for the UK, connecting London with major cities in the Midlands and the north of England. It is a Y-shaped network that will be

¹ See www.gov.uk/dftr

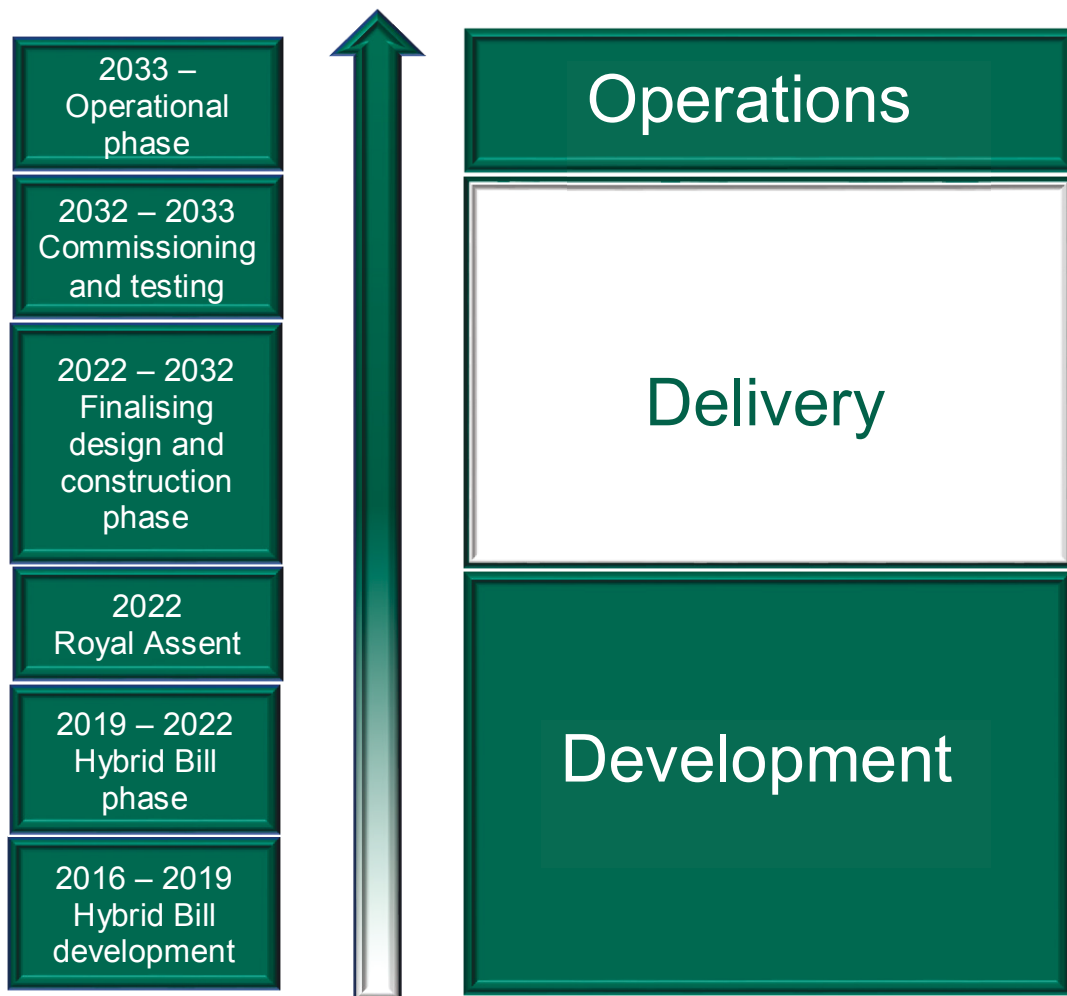
delivered in several stages. Trains will also run beyond the Y network to serve places such as Liverpool, Preston, Newcastle and on to Scotland.

- 1.6 Phase One of HS2 will see a new high speed line constructed from Euston to north of Birmingham, where it will re-join the existing West Coast Main Line (WCML). New high speed trains will serve Birmingham city centre and an interchange station designed to serve the wider West Midlands. At Old Oak Common in West London, a new interchange will be built connecting HS2 with Crossrail and the Great Western Main Line. Phase One will be built and operational by 2026 (subject to Parliamentary approval of the Phase One hybrid Bill).
- 1.7 The proposals for Phase Two extend the line to the North West and North East, to Manchester with connections to the WCML at Crewe and Golborne, and to Leeds with a connection to the East Coast Main Line (ECML) approaching York. There will be new stations in Manchester, Leeds and the East Midlands and the route will also serve South Yorkshire. Phase Two will be completed seven years after Phase One, in 2033.
- 1.8 In November 2015 the Government announced its intention to accelerate delivery of the section of Phase Two between the West Midlands and Crewe (Phase 2a). This document now sets out the Financial Case for the remainder of the Phase Two route (Phase 2b), from Crewe to Manchester and Golborne, and from the West Midlands to Leeds and Church Fenton.
- 1.9 The preferred route for the Western Leg of Phase 2b has a total length of 51 miles (82 km). At its southern end it connects to Phase 2a to the south of Crewe. Going north, it passes under Crewe in a tunnel. At its northern end the Western Leg joins the WCML at Golborne, south of Wigan. A spur from the main line serves a new station at Manchester Airport before entering into an 8 mile (13km) tunnel to reach a new station at Manchester Piccadilly. Following refinements developed since the 2013 consultation, we are proposing that the Western Leg also includes a rolling stock depot located to the north of Crewe, between the HS2 route and the WCML.
- 1.10 The preferred route for the Eastern Leg of Phase 2b has a total length of 123 miles (198 km). At its southern end it connects to the Phase One route at Marston. At its northern end, the Eastern Leg joins the ECML via a connection at Church Fenton. The Eastern Leg includes a new station at Toton (East Midlands Hub) and a spur from the main line goes to a new station at Leeds. Following refinements developed since the 2013 consultation, we are proposing that South Yorkshire is served by HS2 trains running into Sheffield Midland using a dedicated high speed spur, allowing services to join the existing network south of Chesterfield at Clay Cross. The Eastern Leg also includes an infrastructure maintenance depot located at Staveley, and a rolling stock depot at New Crofton, though HS2 Ltd is currently examining alternative locations for this depot.

Taking Forward the HS2 Programme

- 1.11 HS2 is a programme of such national significance that it requires Parliamentary approval to proceed. Phase One of the HS2 Programme, which covers the route from London to Birmingham, has followed the hybrid Bill process. Our original intention was to obtain powers for constructing Phase Two of HS2 through one hybrid Bill. However, as we are now intending to accelerate construction of Phase 2a by 2027, we intend to introduce two separate hybrid Bills for Phase Two.

- 1.12 The Secretary of State’s intention is to deposit the hybrid Bill by the end of 2019 to enable construction of the Phase 2b route, following:
- A decision on the majority of the route in autumn 2016
 - A consultation on those parts of the route that have changed since consultation in 2013-14, known as the design refinement consultation
 - A decision on the full route following consultation in summer 2017
- 1.13 The current high level outline plan for the delivery of the Phase 2b route is set out in the diagram below. Train services are expected to commence by the end of 2033.



- 1.14 Following the 2016 route announcement, HS2 Ltd and the Department for Transport (DfT) will develop the hybrid Bill.
- 1.15 To support development of the hybrid Bill, HS2 Ltd is procuring services under a suite of professional service contracts to support the overall management of the programme, and undertake development work on rail systems, engineering, environmental issues and land ownership for the route.
- 1.16 In preparation for the hybrid Bill, the initial design for the route will be finalised. Following the deposit of the Bill, expected by the end of 2019, Royal Assent is anticipated in 2022.

1.17 The programme anticipates entering the final detailed design and construction phase between achieving Royal Assent in 2022 and 2032. Detailed design and construction will be led by HS2 Ltd on behalf of the Government, consistent with the delivery of Phase One. After commissioning and testing the new infrastructure, operations would then commence by the end of 2033.

2. Phase 2b Funding

Scope of the Financial Case

- 2.1 This Financial Case² sets out:
- Phase 2b funding
 - Cost estimate
 - Key assumptions and exclusions
 - Affordability
 - Assurance of outputs
 - Accounting implications for DfT
- 2.2 Whilst the Strategic Case sets out the policy and strategic context for Phase 2b, the Financial Case addresses the extent to which there is agreed funding in place to meet projected costs and the extent to which this is affordable. This contrasts with the Economic Case, which examines the costs and benefits of Phase 2b in appraisal terms and converts these into present values for the purposes of producing a benefit-cost ratio (BCR).

Spending Review 2015

- 2.3 At the 2015 Spending Review (SR15), HM Treasury restated the long-term funding envelope for delivery of the full HS2 scheme to be £55.7bn in March 2015 prices, including contingency. This maintained the budget set at Spending Review 2013 (SR13), uprated for inflation.

£bn	Phase One	Phase Two	Rolling Stock	Total
SR13 Budgets (in 2011 prices)	21.4	21.2	7.5	50.1
SR15 Budgets (in 2015 prices)	27.2	28.5	0.0*	55.7

* Rolling stock costs were incorporated into the respective phase totals at SR15

Table 1: HS2 Funding Envelope

- 2.4 SR15 set a funding envelope for Phase Two of £28.5bn in 2015 prices. Of which, the indicative allocation to Phase 2a is £3.7bn, with the remaining £24.8bn (including rolling stock) allocated to Phase 2b.
- 2.5 In addition to restating the funding envelope, the SR15 settlement set a year by year funding allocation for HS2 for a period of five years (2016-17 to 2020-21, inclusive).

² See www.gov.uk/dfit

Following the precedent set by Phase One, we will capitalise all expenditure following second reading of the hybrid Bill – our prudent assumption is that this will be from April 2020.

£m, nominal	Total for SR15 Period
C-DEL ³	436.95
R-DEL ⁴	427.30
T-DEL⁵	864.25

Table 2: HS2 SR15 Phase 2b Settlement

- 2.6 The SR15 settlement provides a funding allocation from 2016-17 to 2020-21 for Phase 2b of £864.25m. The Phase 2b allocation is given in nominal terms (i.e. the allocation assumes forecast inflation for the SR15 settlement period using indices relevant to the HS2 programme).
- 2.7 The infrastructure element of the SR15 settlement profile for Phase 2b includes 40% optimism bias (OB), which has been applied in line with HM Treasury Green Book guidelines. At this stage of the project, there is insufficient maturity in design to develop a thorough Quantified Risk Assessment (QRA) for Phase 2b of the programme. The process for how HS2 Ltd has developed its approach to risk and contingency is set out from paragraph 3.25.
- 2.8 Given the experience of DfT and the wider rail industry of major rolling stock procurements, Phase 2b rolling stock cost assumptions have been subject to a detailed QRA process to arrive at a more accurate profile of risk.

³ C-DEL is Capital Departmental Expenditure Limits

⁴ R-DEL is Resource Departmental Expenditure Limits

⁵ T-DEL is Total DEL, being the sum of C-DEL and R-DEL

3. Cost Estimate

Approach to Managing Costs

- 3.1 DfT and HS2 Ltd both intend to deliver the most cost effective design for the railway and ensure that the best value is achieved within the agreed funding envelope of £55.7bn (2015 prices).
- 3.2 An oversight regime for delivering HS2 and managing costs is in place, and includes:
 - The Development Agreement, which sets out the shared values and objectives of DfT and HS2 Ltd, the scope of the project, governance arrangements, cost control procedures and respective roles and responsibilities
 - A dedicated High Speed Rail Programme Board which includes representation from HM Treasury and the Infrastructure Projects Authority (IPA) and oversees the overall HS2 programme and report progress to Ministers and DfT’s Board
 - Management reporting and controls to enable DfT as the programme sponsor to have visibility of programme costs and exposure against risk limits. Trigger points where intervention or escalation is needed will be agreed in the delivery phase. HS2 Ltd has received ISO 9001 certification, which demonstrates that the company has an appropriate management information system
 - Cross-departmental oversight between DfT, HM Treasury and IPA on the progress of the project against the cost programme, the budget envelope and levels of risk exposure through a remitted Cost and Risk Group
- 3.3 We expect to capitalise all Phase 2b expenditure from the date of the second reading of the hybrid Bill. Our current prudent assumption is that this will occur in April 2020 based on the hybrid Bill being deposited by the end of 2019. This does not impact the cost estimate, but affects the balance of capital and resource funding needed to develop and deliver the route.

Milestone	Accelerated route to Crewe (Phase 2a)	Remainder of Phase Two (Phase 2b)
Bill deposit	July 2017	October 2019
Royal Assent	End 2019	Autumn 2022
In service date	2027	2033

Table 3: Phase Two Key Milestones

- 3.4 In order to secure powers for a hybrid Bill, HS2 Ltd needs to develop the route to provide a sufficiently detailed level of design for the submission of a hybrid Bill. HS2 Ltd will procure suppliers under Professional Services Contracts (PSCs) to finalise the design and the environmental statement that will be required to support the deposit of a hybrid Bill in 2019.
- 3.5 These PSCs will provide technical services across a range of disciplines and support the development of the project. These technical services will better inform the cost estimates for the next stage of the business case and assess the risks that will be used in developing a QRA. A QRA is a probabilistic assessment of the overall risks to HS2 and allows contingency to be calculated at various confidence levels. HS2 Ltd also expects to procure a Development Partner which will be integrated with its own management structures and will support the management of the programme and the PSCs.
- 3.6 The Commercial Case provides further information on work to better understand the environmental, civil engineering and system requirements for Phase 2b, which is due to start once the PSCs have been mobilised. This process will improve our understanding of the risks to better inform the risk and contingency approach to the route.

Managing Costs against the Spending Review Envelope

- 3.7 The central assumption at this stage of the project is that Phase 2b will be delivered within the funding envelope of £24.8bn (2015 prices, including contingency and rolling stock). This is consistent with the cost for Phase 2b with the M18 route option, including the southern spur and northern junction of the loop which uses the existing railway to serve Sheffield Midland as evaluated in the Economic Case.
- 3.8 As set out in the National Audit Office's report 'Progress with preparations for High Speed 2'⁶ (July, 2016), at the time of SR15 £7bn of savings were required to bring the costs of the whole of Phase Two within the agreed funding envelope. Owing to a rigorous programme of efficiency identification and management, HS2 Ltd did not seek additional funding from SR15 beyond the funding envelope agreed at SR13, uprated for inflation. The majority of these identified potential efficiencies, and more, were confirmed by the Periodic Update, described in more detail below and are being progressively developed by HS2 Ltd and worked into the cost estimate. The figures presented below will differ from the National Audit Office report as they are shown for Phase 2b only and efficiencies were re-estimated when incorporated into the Phase 2b estimate.
- 3.9 Going forward, HS2 Ltd will be able to take advantage of past experience and learn lessons from the Phase One and Phase 2a processes. This provides additional confidence that by the time Phase 2b reaches OBC stage (expected to be in October 2019) there will be an appropriate level of maturity around the Phase 2b cost estimate.

⁶ See: www.nao.org.uk/report/progress-with-preparations-for-high-speed-2/

Periodic Update

- 3.10 In April 2016, the IPA was commissioned to lead the Periodic Update, working collaboratively with HS2 Ltd and DfT. The purpose of the Periodic Update was to look at options for savings to enable the programme to reach an internationally efficient cost. In doing so, it also reviewed savings already identified by HS2 Ltd.
- 3.11 Following the Periodic Update, DfT has required HS2 Ltd to examine and incorporate the findings and savings identified in the Periodic Update as part of the cost estimate updates for all phases of the programme. These savings will bring the cost estimate for Phase 2b within its SR15 funding envelope.
- 3.12 The Periodic Update confirmed potential savings already identified by HS2 Ltd through refinements to the route and identified efficiencies for Phase 2b, which can broadly be described as relating to one of the following categories:
- (i) Benchmarking
 - (ii) Value engineering, supply chain and rolling stock
 - (iii) Other efficiencies
- 3.13 It is appropriate that varying levels of confidence are attached to achieving the different categories of savings and efficiencies identified by the Periodic Update at this point in time, given the stage of design for Phase 2b. Overall, HS2 Ltd has a high level of confidence that it will be able to achieve the vast majority of these potential savings.
- 3.14 At the time of this Financial Case, the Phase 2b cost estimate incorporates only a portion of these savings. Specifically, the route refinements and some benchmarking savings have been progressively assured and incorporated in the estimate.
- 3.15 The savings already incorporated have reduced the pressure of the SR15 funding envelope to around £1.13bn. This pressure is expected to be addressed and the estimate potentially further reduced as additional efficiencies are assured and incorporated into the cost estimate, which will bring the cost estimate for delivering Phase 2b within its SR15 funding envelope.
- 3.16 Following the route announcement supported by this SOBC, further progression of the preliminary design and design evaluations will allow the development of a more mature design which will in turn enable HS2 Ltd to incorporate the savings associated with value engineering and supply chain efficiencies, and rolling stock into the cost estimate. These further potential efficiencies are estimated to amount to some £3.55bn. The SOBC Economic Case published alongside this document includes a sensitivity with these efficiencies realised.
- 3.17 Chart 1, below, demonstrates the progress made in relation to the Phase 2b cost estimate by HS2 Ltd. It shows the efficiencies that have been incorporated into the cost estimate to date, while setting out the further efficiencies referred to above. HS2 Ltd expects that Phase 2b will remain within its funding envelope once the further efficiencies identified through the Periodic Update (PU) are reflected in the cost estimate. These efficiencies would also achieve the benchmark design cost of £65m/km detailed in paragraph 3.21.

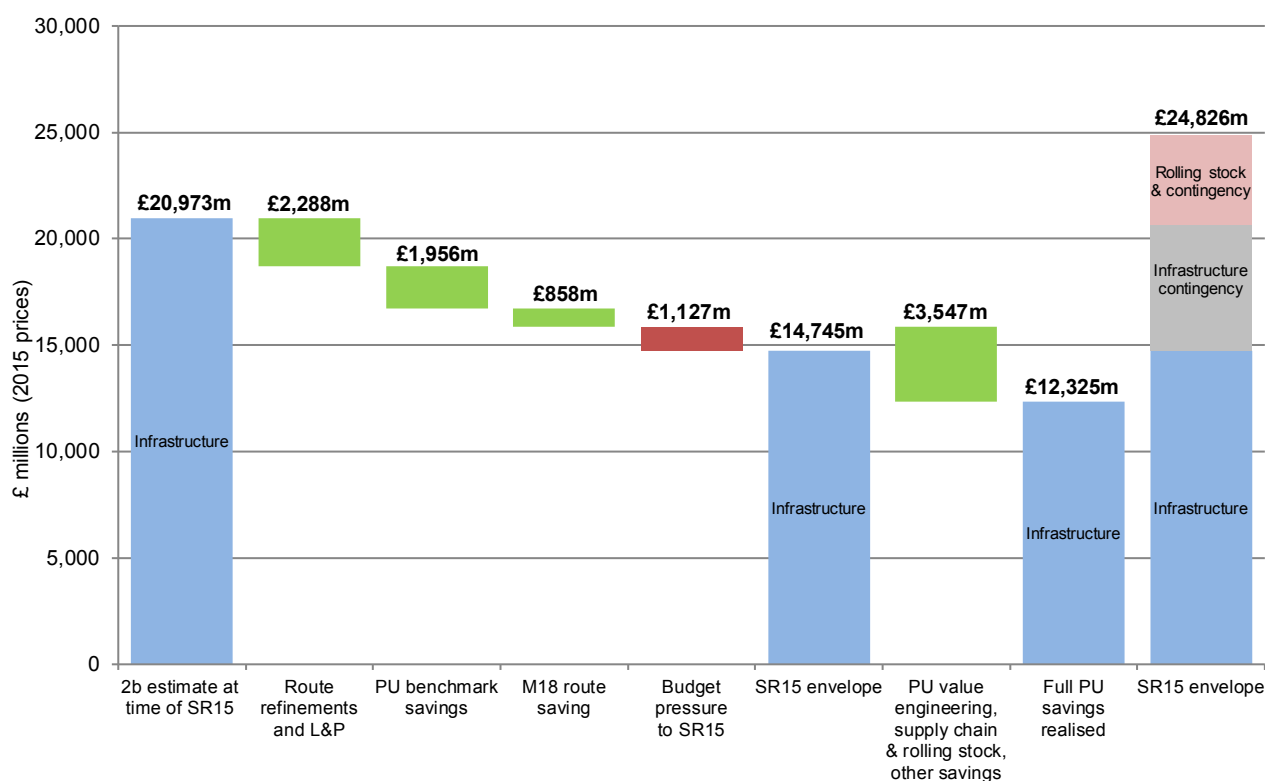


Chart 1: Phase 2b Cost Estimate

Route Refinements and Land & Property (L&P)

3.18 HS2 Ltd has made a number of refinements to the Phase 2b route which have contributed to a reduction in the overall cost estimate. These include removing the Northern Chord of the Manchester Junction, moving the route to avoid the need to tunnel under East Midlands Airport, and serving Sheffield via a loop enabling a new alignment following the M18 to be adopted through South and West Yorkshire. HS2 Ltd have also revised their Land & Property cost estimate. The saving for the Sheffield alignment is £858m and the savings for other refinements and Land & Property update total £2.29bn.

Benchmarking

3.19 The £1.96bn benchmarking cost savings relate to applying more suitable cost rates, derived from the assets of comparable projects, i.e. stations, earthworks and viaducts. These benchmarks are applied across the cost estimate and route refinements.

3.20 In line with the approach taken for Phase One, we will also establish a Target Price for delivery of the Phase 2b infrastructure ahead of procurement of major works. In the interim, the Secretary of State for Transport has set a benchmark design cost for the Phase 2b infrastructure, in line with international best practice, to guide HS2 Ltd and its contractors as they develop the design of the scheme. This benchmark design cost of £65m/km (including contingency) is part of the incentivisation mechanism for HS2 Ltd's professional services contractors and delivery partner.

Value Engineering

- 3.21 Value engineering (VE) seeks to reduce cost by modifying the railway's design without compromising delivery of the sponsor's requirements, for example reducing the trace width of the route and replacing viaducts with embankments.
- 3.22 A number of items have been identified within Phase 2b that generate potential VE savings. A team is now in place within HS2 Ltd, working through the detail of these VE opportunities to deliver the associated savings.

Supply Chain and Rolling Stock

- 3.23 As a result of its exploration of comparable international projects, HS2 Ltd identified cost savings that emanate from incorporating more efficient procurement practices and supply chain management that are employed internationally.
- 3.24 Savings have also been identified in relation to rolling stock, by applying benchmarked cost rates from comparable projects.

Approach to Contingency and Risk

- 3.25 At this early stage of the project, HS2 Ltd has applied 40% Optimism Bias (OB) to Phase 2b, which has been derived from guidance set out in HM Treasury's Green Book *Appraisal and Evaluation in Central Government* (2011), and the Supplementary Green Book Guidance. This approach to OB has been agreed between HS2 Ltd and DfT.
- 3.26 The DfT's web-based Transport Analysis Guidance (WebTAG) generally recommends a 66% OB rate for rail projects at an early stage. The 40% level of OB was calculated in accordance with the Green Book OB guidance, using a blend of the recommended rates to reflect the make-up of the Phase 2b programme. For example, the guidance applies 66% to "non-standard civil engineering" whereas (at the lowest end) 24% is applied to "standard buildings". Downward adjustments have also been applied where allowances for specific emergent issues have been included in the cost estimate. An update of this calculation was carried out for Phase 2b by HS2 Ltd during early 2016 and found that 40% remained an appropriate rate. The rate has also been validated using a reference class forecasting method which compares the outturn cost and estimated cost of similar historic projects. The SOBC Economic Case published alongside this document includes a sensitivity with 50% OB applied.
- 3.27 The current exception to this approach is the way that contingency has been applied to rolling stock costs. Given the experience of DfT and the wider rail industry of major rolling stock procurements, rolling stock cost assumptions have been subject to a detailed QRA process to arrive at a more refined profile of risk.
- 3.28 In the time between this SOBC and OBC, HS2 Ltd's approach to deriving contingency will mature in line with the maturity of the scheme design. Quantitative Risk Analysis of the schedule (QSRA) and cost (QCRA) will be conducted as the design is developed and as interim deliverables are completed. It should be expected that the earlier QRAs will have a wide outcome range and should not be used to assess the appropriate funding contingency. During this period, the QRAs will be used by HS2 to focus areas of risk management prioritisation and risk response effort. As the design matures the QRAs will be refined in support of OBC and Full Business Case to fully inform those key decision points, replacing OB as the method for deriving contingency.

3.29 A number of wider uncertainties remain with regard to the current cost estimates. For instance, any scope changes made during the passage of the hybrid Bill could add cost and reduce the amount of contingency available. Officials from DfT, HM Treasury, HS2 Ltd and IPA continue to work together to ensure that any scope changes are subject to clear decision making and governance.

4. Key Assumptions and Exclusions

- 4.1 In developing the cost estimate for Phase 2b, a number of key assumptions have been made:
- a. The key funding assumption remains that HS2 will be fully publicly funded upfront. The Government intends that the HS2 Infrastructure Manager will levy an Investment Recovery Charge on all operators using the new high speed network (inclusive of Phase One, 2a and 2b). The current intention is for HS2 Ltd to fulfil the role of Infrastructure Manager. The ability to levy the Investment Recovery Charge is critical to recovering investment costs for the taxpayer and ensuring the long term affordability of HS2. We will determine the level and structure of this charge at a later stage in the project as part of the decisions on the broader charging and operating framework. We will also continue to investigate private financing and third party funding where this could reduce cost to the taxpayer and promote value for money.
 - b. A recommendation for the preferred location for the station that serves South Yorkshire was made by Sir David Higgins (Chairman, HS2 Ltd) in July 2016. This recommendation includes serving Sheffield Midland via a connection to the classic network, and adopting a new route along approximately 70km of the Eastern Leg. The cost estimate includes provision for the spur to the existing railway south of Chesterfield which enables HS2 to serve Sheffield Midland station. The estimate also includes expected costs relating to a junction to the north of Sheffield which would support the aspiration of Transport for the North for a direct connection between Sheffield and Leeds city centres. The cost estimate includes the electrification of a short section of the classic network from the spur to the boundary of the Midland Main Line electrification scheme at Clay Cross, south of Sheffield. The Phase 2b cost estimate does not include the cost of electrifying the Midland Main Line or the section of the classic network to the north of Sheffield, which is assumed to be done before HS2 services commence. This proposal is subject to consultation.
 - c. While the funding model for Manchester Airport station is yet to be concluded, the Government has made clear that development of a station at Manchester Airport is dependent on agreeing an appropriate local funding package. HS2 Ltd's budgeting is in line with that. HS2 Ltd will continue to pursue avenues that encourage third party, non-Governmental funding.
 - d. During construction of the route infrastructure, it is anticipated that the works will impact the business of several railway companies. Compensation will be required to be paid to operators (likely via payment to Network Rail). It is assumed that such amounts will be determined in accordance with established industry access mechanisms.

- e. We expect the HS2 train service specification to be refined over the scheme's lifetime until the opening date. Decisions on rolling stock fleet size and mix will improve our understanding of rolling stock costs.
 - f. The broader operating framework for the 'end state' railway has not yet been determined. HS2 Ltd has commissioned advice to assist in informing a decision in this regard.
- 4.2 Changes to these assumptions or adding scope to the programme could make it more difficult to deliver Phase 2b within the allocated funding.

5. Affordability

- 5.1 As set out in section 2, SR15 provided a specific long-term funding envelope for HS2, as well as specific funding for the SR15 period. This settlement underlines the Government's long term commitment to upfront funding of Phase 2b.

Summary of Affordability in Construction Phase

- 5.2 Phase 2b can be considered affordable providing the overall costs of the programme do not increase above the funding envelope established at SR15 and providing future Spending Reviews allocate sufficient annualised funding as the programme progresses.

Scenario Testing

- 5.3 Given the significant number and material scale of risks and opportunities either crystallising or falling away, the Financial Case presented here is premised on a central case only and no sensitivities have been presented. The approach adopted in relation to risks, contingencies and mitigations is documented in this Financial Case and throughout the entirety of the Phase 2b SOBC. It is considered that this approach enables a robust level of uncertainty to be factored into the central case. The Economic Case provides analysis of some variant scenarios.

6. Assurance of Outputs

- 6.1 Assurance has been applied to the cost estimate which was developed by HS2 Ltd. Specifically, assurance of the estimate was provided by the HS2 Ltd Phase 2b cost team, which constitutes a 'First Line of Defence'. HS2 Ltd's Programme and Strategy Directorate team, who own HS2 Ltd's estimation approach, methodology and systems, also provided assurance for the 'Second Line of Defence'. DfT's Project Representative team have also reviewed the cost estimate. Additionally, HS2 Ltd's Funding Team internally assured that the funding position (the baseline for assessing affordability) has been accurately reflected in this Financial Case. DfT's Strategic Finance team provided further assurance of these figures.

7. Accounting Implications for DfT

- 7.1 Following the precedent set by Phase One, we will capitalise all expenditure from the time of the second reading of the hybrid Bill. Our prudent assumption is that this will be from April 2020.
- 7.2 At this time it is not possible to assess the accounting treatment during the operational phase as the broader framework for the 'end state' railway has not yet been determined. HS2 Ltd has commissioned advice to assist in informing a decision in this regard.