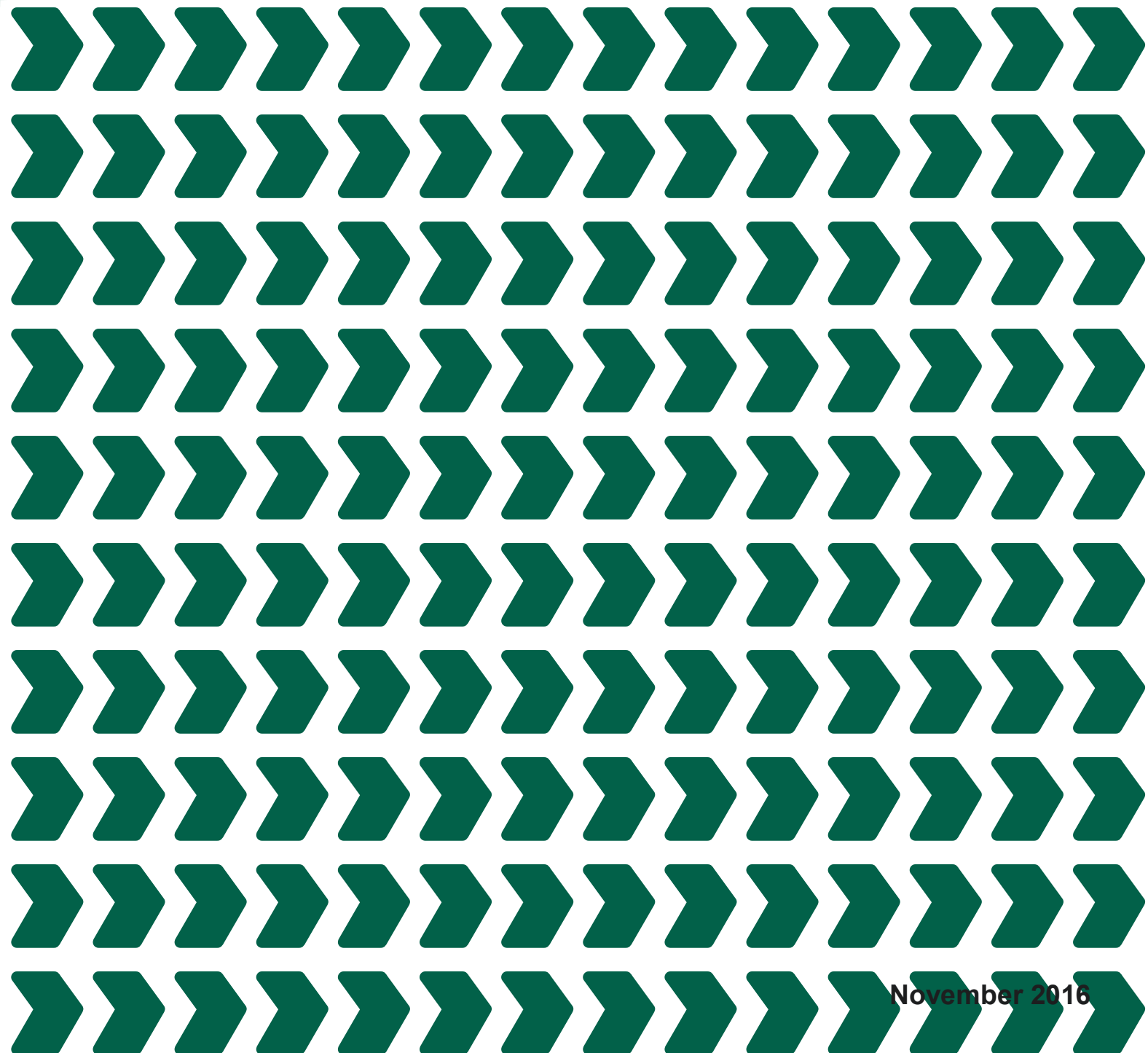




Department
for Transport

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

Moving Britain Ahead



November 2016

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1. Introduction and scope

- 1.1 This document sets out the Commercial 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 which 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 are 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 train service specification (TSS) and designs set out in this SOBC are intended to give the 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 See www.gov.uk/dft

- 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 delivered in several stages. Trains will also run beyond the Y network to serve places such as Liverpool, Preston, Newcastle and 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 the Elizabeth line 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 the delivery of the section of Phase Two between the West Midlands and Crewe (Phase 2a). This document sets out the Commercial 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.
- 1.11 HS2 is the biggest infrastructure project in Europe and will have a significant direct impact on the relevant markets, particularly in engineering and construction. The budget for the whole network, at £55.7bn for infrastructure, including around £7bn for rolling stock (2015 prices), is over four times that of the London 2012 Olympics. Phase One alone involves 140 miles of new

infrastructure including four new stations, with the Phase 2a route providing a further 37 miles of infrastructure.

- 1.12 As explained above, Phase 2b includes a number of new stations, depots, and interfaces with the existing network. Given the complexity of the scheme, effective management of the supply chain is vital to ensure that value for money is achieved and that the programme delivers according to the necessary timescales.
- 1.13 HS2 Ltd's contract management team supports the business in driving the greatest possible value from contracts through active monitoring and control of the goods and services provided by the supplier under the contract. Contracts are prioritised depending on a number of factors including value, risk and likelihood of scope variation. This influences the approach taken to managing the contract, and the level of support provided by the Contract Management Team. All major contracts have a dedicated Contract Manager or Contract Management Team.
- 1.14 A Contract Management Plan is produced for every major contract. Each plan addresses:
 - Governance: transition from tendering process, clear ownership and high level governance
 - People: appropriate staff resource, training and development, job description and objectives, and the wider contract management community
 - Administration: storage and records, and reporting
 - Relationship: supplier continuity and liaison, user feedback, and problem resolution processes
 - Performance: service management, service level agreements, and performance metrics and reviews
 - Payment: invoice checks, and incentives or penalties
 - Risk: risk management
 - Contract development: negotiation of new terms or changes, new services, and value for money testing
 - Supplier development: development plans, value measurement and capture, supplier boards, shared training, and innovation
 - Supplier relationship management: a structured relationship management programme, and senior relationship governance
 - Market management: market intelligence, capability and capacity, and re-competition
- 1.15 Each Contract Management Plan is supported by standard detailed processes and procedures. These processes cover mobilisation, management, and close out of contracts.
- 1.16 This document sets out the Commercial Case for the Phase 2b scheme.

Scope of the Commercial Case

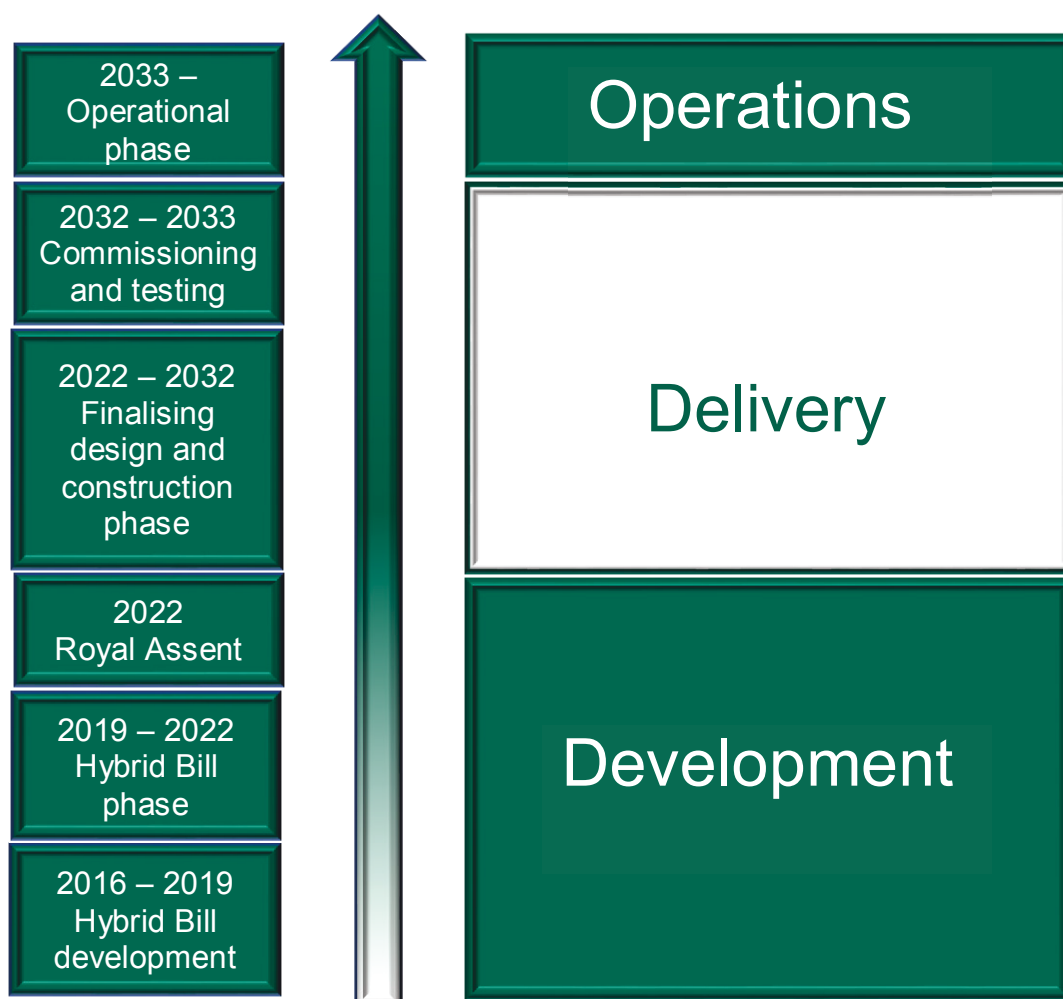
1.17 This Commercial Case sets out the resource requirements and how HS2 Ltd is intending to manage the programme of works for this project.

1.18 In this Commercial Case, we consider:

- The lifecycle of the project: development, delivery, and operations, and whether HS2 Ltd has the appropriate capacity, capability and skill level to deliver the necessary development and delivery work
- The procurement strategy, and whether the approach planned will manage the supply chain effectively to balance the deliverability against price/value for money

1.19 At this stage, due to the level of maturity of design and development, the Commercial Case is focused on the development stage of the project, and on HS2 Ltd's ability to meet the above requirements and provide a hybrid Bill for the project to Parliament. Nevertheless, it provides some initial thinking on the delivery stage of the project and end state operation, drawing upon Phase One of the project. This will continue to be developed as part of the business planning process.

2. Development, Delivery and Operations



Phase 2b Development

- 2.1 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.
- 2.2 The PSCs will be focussed on services needed to support the development of a hybrid Bill. This includes ground investigations, and environmental and archaeological surveys. These will inform a better understanding of the work sites which will enable HS2 Ltd to further develop the design, schedule and cost estimate. The PSCs will also support HS2 Ltd's engagement with landowners, to enable the procurement of land to build the route.
- 2.3 As with Phase One, it is also proposed to procure a Development Partner (DP) to support HS2 Ltd with the overall management and integration of the various work packages. The DP will be integrated into the HS2 Ltd management structure and will help oversee and co-ordinate the work delivered against each package. The general structure of this approach is shown below:

DfT			
HS2 Ltd			
HS2 Phase Two / External Project Management (DP)			
PSCs			
Environmental Overview Consultant PSC (Overseeing assessment and ES)	Site Access, Land Referencing & Engagement Services	Railway Systems	Other Specialist Consultants / Partners
Civils Design and Environmental Services (PSCs)			

Table 1: HS2 Phase Two Organisational Management Structure

- 2.4 The DP and PSC contracts will be managed through NEC3 contracts, in common with the contracting approach used during previous stages of development.
- 2.5 The PSC contract has an incentivisation mechanism to help drive down costs and achieve a timely, cost efficient design.
- For the PSC and DP contracts, HS2 Ltd will provide an incentive fund of 7.5 per cent of the values of the services undertaken, which will be allocated in the following proportions:
 - Production of cost efficient design (60 per cent)
 - Achieving milestones (20 per cent)
 - KPI performance (20 per cent)
 - Incentive payments would only be made for milestone and KPI performance where such requests are supported by a project estimate that is below the 2015 Spending Review (SR15) budget envelope.
 - This scheme incentivises the delivery of a project below SR15 £72m/km to the efficiency target of £65m/km. The incentive is then structured to provide greater reward for savings below £65m/km and is intended to encourage designers to further explore delivering efficiencies where the perception may be that they are more difficult to crystallise.
- 2.6 Pre-Qualification Questionnaires for these procurements were issued in March 2016. Following tender appraisal, Invitations to Tender (ITT) were issued in September 2016. We expect to award the contract for a DP by February 2016, with PSC contracts awarded shortly after this.
- 2.7 The DP will support HS2 Ltd with a number of key activities including:
- Management of PSCs and assurance of PSC deliverables
 - Market and industry engagement
 - Value management
- 2.8 Design and environmental work will be undertaken by a number of PSCs. It is proposed for development purposes to break the Phase 2b route into six areas. This builds on lessons learned from the Phase One project and reflects the area-based approach that HS2 Ltd proposes to take to the development of the scheme. This approach offers the best balance between manageable contracts

and the need to provide consistency across the scheme. The areas have been defined based on route length, administrative boundaries, and the key features (such as stations or other civil engineering) on each section of route.

2.9 These areas have then been grouped into three work packages as shown below. The table below reflects the Reference Case route via Meadowhall, which has been incorporated into the ITT. These packages will be updated based on the recommendation to adopt an alternative approach to serving South Yorkshire. This would not however have a fundamental impact on the overall approach to the procurement.

	Leg	Section	Name	Key Features				
				Length	Stations	Depots	Tunnel (km)	Other
Lot 1	Manchester	M1	Manchester leg spine	53.4		Rolling Stock Depot	4	Cheshire salt fields Manchester Junction Ship Canal Viaduct WCML Connection
	Manchester	M2	Manchester leg spur	28.9	Manchester Airport Manchester Piccadilly		12	
Lot 2	Leeds	L1	Leeds Leg South	43.9			3	Phase One Interface Kingsbury viaduct
	Leeds	L2	East Midlands	36.4	East Midlands Hub		0	Soar Valley Viaduct
Lot 3	Leeds	L3	Leeds Leg Central	56.3	Sheffield Meadowhall	Infrastructure Maintenance Depot	4	Heritage features (Sutton Scarsdale, Hardwick Hall, Bolsover Castle)
	Leeds	L4	Leeds Leg North	48.4	Leeds	Rolling Stock Depot	1	Woodlesford Junction ECML Connection
Environmental Overview Consultant Services								

Table 2: Design and environmental work areas

2.10 The role of the DP will be to support the integration of activities across the six areas of the Phase 2b route, to maintain consistency in approach and ensure that the programme is achieved. The role of the DP is set out in greater detail in the Management Case of this SOBC.

2.11 One of these lots will also include the role of Environmental Overview Consultant (EOC). The role of the EOC is to oversee the environmental work undertaken in each package, and to support the development of the Environmental Statement. Based on market engagement, it is proposed to include the EOC in Lot 3.

- 2.12 As part of the procurement for Phase 2a, frameworks for land referencing and railway systems PSCs were established, covering the full Phase Two scheme. It is therefore proposed to 'call off' services against these frameworks, in order to build on these PSCs' existing understanding of the scheme and realise operational efficiencies. These frameworks were set up with the express intention of covering both Phase 2a and Phase 2b and will therefore remain in place during the development of the Phase 2b project.
- 2.13 The role of HS2 Ltd and its contractors will be to deliver the materials necessary to support the successful deposit and passage of a hybrid Bill. A full list of outputs will be developed as the project evolves from the development stage following the deposit of the Bill, however, the outputs at this stage are expected to be:
- Bill scheme design
 - Environmental statements
 - Undertakings and assurances
 - Third party agreements
 - Funding programme
 - A procurement strategy for the delivery phase
 - An operating concept - a high level proposal on how the line is likely to operate, including options for a regulatory regime (which is likely to follow Phase One)
- 2.14 Alongside these outputs, PSCs and the DP will be required to support activities including the development of the OBC to support the deposit of a hybrid Bill, and a Full Business Case (FBC), which will then support further procurements required following Royal Assent.
- 2.15 Parliamentary Agents are required by Parliamentary Standing Orders for developing and managing the Phase 2b hybrid Bill (the hybrid Bill will seek the necessary powers to enable Phase 2b of HS2 to be constructed and operated). We plan to issue the invitation to tender (ITT) for Parliamentary Agents in 2018.
- 2.16 As there are no agents employed by the Government, it is necessary to procure them from the commercial market (although there is no benefit in running a wider based competition as only approved "Roll A" Parliamentary Agents are acceptable to the House Authorities). There are seven firms within the UK that are "Roll A" Parliamentary Agents who act for the promoters of private legislation or can assist in opposing it in Parliament.
- 2.17 The Parliamentary Agents for the Phase 2b hybrid Bill are procured by the Department for Transport (DfT) as it is responsible for legislative activities. Should there be conflicts of interest, there are plans in place to manage these responsibly, e.g. by way of Information Barriers, the suitability of which has been approved by HS2 Ltd and DfT in the earlier promotion of Phase One.
- 2.18 The Government intends to implement measures that will address any barriers that prevent UK suppliers of steel from competing effectively for public sector contracts.

2.19 The Cabinet Office issued Procurement Policy Note 16/15 in October 2015. The note provides guidance to Government procurers of steel, under the Public Contracts Regulations 2015, to take the following actions:

- Signal future pipelines of demand for steel
- Undertake effective pre–procurement engagement
- Ensure transparency of the supply chain and advertising of supply chain opportunities
- Assess potential suppliers in the supply chain at selection stage
- Ensure value for money is calculated on a whole life cost basis
- Evaluate social and environmental benefits and impacts

2.20 Procurement Policy Note 16/15 has since been mandated across the entire public sector.

Phase 2b Delivery

2.21 Although the construction of the route for Phase 2b will not commence until 2023, decisions made in the development phase, such as the design of the route and the details within a hybrid Bill, will have an impact on how the delivery phase is managed. Decisions have purposely not been taken at this stage where this would lead to unnecessary restrictions in the delivery phase, and potentially, affect the commercial prospects of delivering the route.

2.22 Based on this and the broader alignment of the HS2 project, the key areas that will be prioritised in the development phase include:

- Organisational structures and governance arrangements for delivery
- Potential regulatory regimes and the impacts on the operating structures
- Commercial strategy for realising value from HS2 (including how wider spatial planning affects the value proposition)
- Value management and efficiency challenge, building on lessons learned from Phase One and Phase 2a

2.23 HS2 Ltd has now appointed an Engineering Delivery Partner for the delivery of Phase One, and is expecting to award Main Works Civils Contracts in spring 2017. The experience gained through these activities will inform the approach adopted to the delivery of Phase 2b. We expect that the development of this approach will be an ongoing process within the development phase and will be designed for the OBC stage of the project, at which time the hybrid Bill will be deposited.

- 2.24 As outlined in the *Infrastructure Cost Review*² (2010) recommendations for planned procurement activities, HS2 Ltd intends to engage early with the industry to ensure:
- The market's capabilities can be assessed against the requirements for the HS2 programme
 - That industry can advise on how work can be packaged to minimise risk and maximise efficiency
 - That industry is able to deliver requirements within an affordable envelope and is value for money
- 2.25 This engagement will build on the lessons learned from industry engagement for Phase One and Phase 2a.
- 2.26 Building on the work underway for Phase One and Phase 2a, there will need to be ongoing dialogue between HS2 Ltd and industry about the work required to deliver Phase 2b, so that there is a high level of transparency and confidence over the pipeline of forward work.
- 2.27 In addition to the work that will need to take place in the development of the construction requirements for the route, DfT has made the assumption that it will be procuring a Franchise Operator in accordance with the wider industry model. We would expect to procure a Franchise Operator to work with HS2 Ltd in the testing and commissioning of the railway, and ensure that the operations were in place to operate from the principal change date in 2033. This is consistent with the approach adopted for Phase One and Phase 2a.
- 2.28 DfT has delegated responsibility for the design, development and construction of HS2 to HS2 Ltd. Phase One is currently proceeding through Parliament, with a view of achieving Royal Assent by December 2016. A further hybrid Bill for Phase 2a is in development.
- 2.29 It is the Government's intention that a hybrid Bill for Phase 2b will be laid before Parliament in 2019. This allows the Government and HS2 Ltd the opportunity to learn lessons from the hybrid Bill for Phase One and Phase 2a. Officials leading on Phase 2b within HS2 Ltd will work closely together with colleagues from Phase One and Phase 2a as an integrated team. This will help to ensure that the route aligns and the technical requirements fit, and help to deliver the Sponsor's Requirements placed on HS2 Ltd from the Department.
- 2.30 The delivery model includes a formal relationship between HS2 Ltd and DfT with a contractual Development Agreement. The Development Agreement specifies the scope of the works, the agreed budget, funding to meet the budget, and the rights and obligations of both parties. The proposed delivery model sees HS2 Ltd continue in its capacity as the delivery agent for the project. This includes delivering all phases of the route and continuing to support DfT on the development of the wider high speed programme.
- 2.31 In line with the approach taken for Phase One, we will establish a Target Price for delivery of the Phase 2b infrastructure ahead of procurement of major works. In the interim, the Secretary of State has set a Benchmark Design Target Cost (BTDC), in line with international best practice, to guide HS2 Ltd and its contractors as they develop the design of the scheme. A BTDC of £65m/km is

² http://www.hm-treasury.gov.uk/iuk_cost_review_index.htm

included in the incentivisation mechanism for HS2 Ltd's Professional Services Contractors and delivery partner.

Capabilities and Resourcing

- 2.32 HS2 Ltd was created in 2009. Since then, the organisation has developed its capabilities and strengthened its resources, particularly since the development stage of Phase One. This means that the organisation is in a significantly more mature position than when preparing the SOBC for Phase One.
- 2.33 HS2 Ltd has set up a specific team to lead on the development work for Phase 2b. This team has grown in capability in parallel to the wider progress of the organisation, and the senior management team structure of HS2 Ltd³ shows that the organisation has adapted to reflect the development of the programme thus far.
- 2.34 We plan that the HS2 Ltd team will continue to develop to take account of the Parliamentary business requirements, the environmental and engineering works necessary, and the wider development work required to integrate Phase 2b into the wider HS2 programme.
- 2.35 We expect that the team within HS2 Ltd will continue to have a mix of permanent staff, contractors, and secondees from public and private sector organisations.
- 2.36 This will ensure that the team is well placed to deliver Phase 2b and align its objectives with the wider project. We expect that the team will be suitably resilient and recruitment has started with a view of deploying those resources flexibly to manage the upcoming requirements, for example in order to ensure that the transition to a new head office location in Birmingham is managed, and that work is appropriately resourced within that transition period.
- 2.37 The Government expects to maintain its current levels of resource throughout development and delivery process for Phase One, Phase 2a, and Phase 2b. DfT has project teams to work with HS2 Ltd, ensuring that appropriate levels of engagement are maintained and that requirements are appropriately developed and initiated with HS2 Ltd.
- 2.38 DfT has been developing its intelligent sponsor functionality over the last year, ensuring that it has the right capability and credentials for managing a project of this magnitude. DfT is responding to a recommendation by the Infrastructure and Projects Authority (IPA) that consideration should be given to further strengthening the commercial and construction delivery capability within the Department, by planning to widen the scope of the Project Representative (P-Rep) function when it is re-procured by autumn 2016 so that it includes the provision of specialist advice on commercial and construction issues.
- 2.39 Delivering the HS2 project successfully will require long term investment in skills and education. This is reflected in the HS2 Ltd strategic goal to “create opportunities for skills and employment”. The work undertaken by HS2 Ltd aims to support the development of the workforce that will be required to deliver HS2, inspire a more diverse range of people to work in the industries associated with HS2, and maximise the social return from HS2 investment by creating new job opportunities for local people and disadvantaged groups.

³ <http://reference.data.gov.uk/gov-structure/organogram/?pubbod=high-speed--ltd>

2.40 Some of the main ways that HS2 Ltd is advancing this agenda include:

- Supporting the development of the National College for High Speed Rail
- Inspiring young people through the HS2 Education Programme
- Embedding skills, employment and education requirements into our commercial contracts
- Prioritising the creation of skilled apprenticeships for our workforce ensuring we have the right people with the right skills at the right time

In addition, HS2 Ltd supports future talent through the development of apprenticeship and graduate programmes.

Continuous improvement and lessons learnt

2.41 Embedding a culture of continuous improvement and ensuring that the programme takes account of lessons learned from other recent major infrastructure projects is vital for securing value for money.

2.42 A key component of continuous improvement will be ensuring that work is undertaken to identify lessons from Phase One and Phase 2a, and ensuring that these are implemented in Phase 2b. Our approach to the development of Phase 2b is an example of how the lessons learned from Phase One are already being applied to the development of the programme. For example, key value engineering changes that were applied to the Phase One route during the hybrid Bill design have already been applied to the Phase 2b route. Undertaking this work at an earlier stage of design means that we can provide greater confidence over the footprint and operability of the railway.

2.43 As with other major projects, DfT, alongside its own assurance and approvals cycle, seeks further assurance from the IPA to review the delivery of the programme at key stages of the project. The lessons highlighted by the IPA concerning organisational capability have been incorporated into HS2 Ltd, along with its capability learning structure, ensuring that training is focussed on guaranteeing that the organisations have the right skills at the right time.

Phase 2b Operations

2.44 Phase 2b is the final stage in the delivery of HS2 as currently defined, and will be operational by December 2033. The train service that operates on HS2 will be the product of dialogue between the rail industry, DfT, and other stakeholders such as Network Rail and HS2 Ltd.

2.45 HS2 Ltd and DfT are continuing to consider how the operational railway should be managed, and DfT has established an Operations Strategy Board to oversee this work. Our current working assumption is that the operations aspects of the railway will fall within a franchise.

2.46 HS2 Ltd expects to produce a number of operational strategies by the end of 2016. The Proxy Operator strategy will consider the requirements of future train operators once the scheme is running, and will continue to develop over the long term. The Infrastructure Management Strategy will explain how we would expect to manage the HS2 network once operations start.

- 2.47 Based on current assumptions, Phase 2b will require both classic compatible and captive trains. By the end of 2016 HS2 Ltd will produce a Rolling Stock and Depots Strategy that will set out the proposed technical and commercial approach to the procurement and maintenance of rolling stock. This work covers the full HS2 programme to ensure that it is taken forward in a holistic way. It is expected that the body responsible for rolling stock operations will also be responsible for management of rolling stock depots.
- 2.48 We assume that the maintenance of HS2 infrastructure, including renewals, will remain the responsibility of HS2 Ltd or a successor organisation. This would include the operations and maintenance of infrastructure maintenance depots. Similarly, our current assumption is that operations and maintenance of stations on the HS2 network would be the responsibility of the same organisation.

3. Phase 2b Procurement Approach and Contracting Strategy for Delivery

- 3.1 HS2 Ltd is subject to the Utilities Contracts Regulations 2016 (UCR 2016) and intends to ensure its procurement approach is compliant in order to ensure a fair, transparent procurement achieving optimal value for money through the identification of the most economically advantageous bid.
- 3.2 The remit for HS2 Ltd aligns with the definition of contracting authority within the UCR 2016 and was issued by the Secretary of State for Transport on 26 July 2011. This remit requires HS2 Ltd to develop proposals for Phase Two of the HS2 programme.
- 3.3 The Secretary of State expects to issue further directions and remits to HS2 Ltd to cover the requirements of Phase 2b, although this will largely be achieved through the Development Agreement. This will confirm HS2 Ltd's role in leading the delivery of the project through the development phase and therefore in the business of promoting a railway.
- 3.4 This chapter sets out the proposed procurement approach to the delivery of Phase 2b.

Commercial & Procurement Strategy

- 3.5 We recognise that there are a number of pressures that will give rise to risks for securing an affordable and value for money proposition from the supply chain. This is particularly the case within a market that is being stretched through the type of work being procured for Phase One, and the level of demand on the supply chain, given the broader level of infrastructure works currently also being progressed within the UK. It is important to take note of the procurement and delivery timescales of the HS2 programme in this context.
- 3.6 HS2 Ltd's Commercial Strategy describes HS2 Ltd's approach to its contractual relationships with third parties, from pre-procurement to contract close. These overarching commercial principles will be enshrined in the various procurement strategies and management plans that will form the detailed basis of how HS2 Ltd manages its relationships with its contractors over both Phase One and Phases 2a and 2b of the HS2 Project.
- 3.7 HS2's complexity requires substantial numbers of skilled resources and high calibre, incentivised suppliers to deliver its requirements through effective commercial and contractual arrangements. Many suppliers will be required to develop innovative design solutions to: meet new high speed design standards; construct tunnels, surface routes and stations; and develop, build and install sophisticated railway systems including new high speed rolling stock.

- 3.8 Early engagement and collaboration with the suppliers will be an important consideration, as will the responsibilities for subsequent design and the incentivisation arrangements that will align suppliers' behaviours and objectives with those of HS2 Ltd.
- 3.9 Previous market engagement activities undertaken during earlier phases of the project have developed HS2 Ltd's relationship with the market, ensuring that they were made aware of the timing, scale objectives and requirements of HS2 Ltd. This level of pre-engagement activity gave rise to positive responses from the market and a clear strategy for the packaging of construction procurement. A similar approach is being adopted for Phase 2b.
- 3.10 Additionally, and building on the activities already undertaken by HS2 Ltd, there are a number of reasons why the supply chain will have the capability, capacity and appetite for the HS2 programme, including the following:
- The timing of the different phases of the HS2 programme, including the timing of Phase One and Phase 2a, which are running ahead of Phase 2b. Consideration of timing issues will need to contemplate whether there are clashes with other major transport infrastructure projects. We anticipate that Phase One will have secured Royal Assent by the end of 2016, and will move into the delivery stage. Meanwhile, the major development activities for Phase 2a will need to be complete for deposit of a hybrid Bill in 2017. Similarly, operations are proposed to start on Phase One in 2026 and Phase 2a in 2027. This phased approach should help with supply chain issues, although we will need to assess the impacts of other planned projects e.g. Crossrail 2 and wider rail enhancement schemes
 - HS2 Ltd has sparked significant international interest. Being part of a prestigious project will enhance the reputation of suppliers and improve their wider contract prospects. Contractors may also feel that early entry into the HS2 programme provides them with knowledge that could increase their chances of gaining further contracts in the HS2 programme
 - Experience from other major transport schemes shows that there have been no issues in attracting market leading organisations
- 3.11 Detailed procurement strategies for Phase One construction activities have already been developed and will be set out in the FBC which will be required in support of Royal Assent to Phase One. We anticipate using this as the basis of an overarching approach for Phase 2b, and the basis upon which HS2 Ltd demonstrate to DfT its capability of meeting the requirements under the Development Agreement in meeting the Review Point One.
- 3.12 The development of the procurement strategy for any of the major work packages is iterative and the version developed for the FBC will take into account the views of a wide range of stakeholders including the supply chain, industry groups and associations, leaders from other major projects and other Government departments.
- 3.13 Phase 2b will require both captive and classic compatible rolling stock to operate the services proposed in the Strategic Case. HS2 Ltd's Rolling Stock and Depots Strategy will consider a number of potential approaches to how rolling stock could be specified, financed, procured and operated, considering the approach to be adopted across the entire project.

Securing Value for Money

- 3.14 The achievement of best whole life value will require the application of collaborative principles across the different HS2 categories of spend and robust risk management processes. HS2 Ltd will seek opportunities for efficiency and economies of scale by collaborative working between itself, contractors, and their supply chains. It will also be supported by adoption of related Government policies, where appropriate.
- 3.15 The achievement of best whole life value will be facilitated by developing procedures and assessment tools to ensure the delivery of best whole life value, adopting a risk based approach to procurement activity, ensuring fair allocation of risk to parties best able to manage the risk, managing external risks and ensuring that insurance aligns rather than divides behaviours.
- 3.16 An HS2 Ltd scorecard will be used to ensure that all relevant factors (objectives, strategic themes etc.) are considered in reaching value for money contract awards, and embedded within the approach on Phase Two. This approach builds on the work that HS2 Ltd is doing with regard to the whole life cost model for infrastructure investment.
- 3.17 HS2 Ltd has produced a supplier guide⁴, to provide advice to prospective suppliers about how HS2 Ltd undertakes procurement and what it will be looking for from the supply chain. This includes further information about how suppliers are assessed using a balanced scorecard which reflects HS2 Ltd's Strategic Goals. These cover:
- Catalyst for Economic Growth
 - Capacity and Connectivity
 - Environment and local communities
 - World-class health, safety and security
 - Opportunities for skills and employment
 - Passenger Experience
 - Value to the taxpayer and to passengers
- 3.18 The scorecard also reflects ways that we expect to work with the supply chain on issues including Equality, Diversity and Inclusion (EDI) and Building Information Modelling (BIM).
- 3.19 See paragraphs 6.11 to 6.14 in the Management Case for more information on the strategic goals and objectives and their alignment with benefits management.

⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/522038/CS508A_Supplier_Guide_Update_V5_WEB.pdf

Packaging Strategy

3.20 The key requirements for the packaging strategy which will secure the works for Phase 2b include:

- Scope is packaged in a way that the market can efficiently deliver
- Packages can be effectively and efficiently managed by the client
- Risks can be clearly identified and managed as appropriate
- Supply chain is able to bid for the delivery of the package scope

3.21 An outline Packaging and Contracting Strategy will be assumed for the purposes of the market engagement exercise that is under preparation and is expected to take place during early 2016. The proposed approach will be developed and refined using the industry feedback attained.

Contracting Strategy

3.22 HS2 Ltd does not propose to develop the design for the Phase 2b route beyond the preliminary design stage before deposit of the hybrid Bill. This is in line with the principles adopted for Phase One. Following the production of the preliminary design, performance specifications will be developed and it is intended that the design for each work package will be developed and detailed by the appointed contractor and designer team under an Early Contractor Involvement (ECI) contract. This is consistent with the approach adopted for Phase One.

3.23 In order to achieve the preliminary design, the contracts that are anticipated to be entered into following the route announcement for the Professional Services Contractors will enable work to deliver a preliminary design.

Proposed Contract Lengths

3.24 It is envisaged that all contracts, with the exception of rolling stock and maintenance contracts which are not applicable for the route works, will be entered into for the duration of the respective work packages.

3.25 A number of PSC contracts have been entered into for the duration of project development, so that the appropriate resource and expertise can be drawn upon throughout the development of a hybrid Bill, to securing Royal Assent.

3.26 Phase 2b includes an infrastructure maintenance depot at Staveley, which is expected to be owned by the eventual Infrastructure Manager (IM) of the HS2 network. It is expected that the depot will not be financed, so HS2 Ltd is expected to retain ownership and lease the depot to the IM.

3.27 There are two proposed Rolling Stock Depots on the Phase 2b route, at Crewe North and at New Crofton. It is to be determined whether HS2 Ltd will commission the construction of these facilities as part of the construction, rolling stock or other procurement activity. Following the start of operations, we expect that these would be operated by the rolling stock operator/proxy operator.

Proposed Payment Mechanisms

- 3.28 Payment terms and mechanisms will be determined in accordance with the eventual contract developed for suppliers. Through the lessons that we have learnt on Phase One of the programme, we intend to ensure that the contractors are sufficiently incentivised to deliver works. Accordingly, payment terms and provisions under the contracts are expected to reflect this. HS2 Ltd's Commercial Strategy sets out its policy for ensuring fair and transparent payments terms are embedded throughout the supply chain.
- 3.29 We expect HS2 Ltd to develop agreements with Network Rail and other third party network and asset owners, particularly where the HS2 network requires the diversion or protection of other networks or is intended to connect with the classic rail network. Interfaces with the classic rail network are complex, particularly in respect of how each of the relevant parties are regulated. Work is ongoing between DfT, HS2 Ltd and Network Rail to consider the opportunities that exist for collaboration and incentivisation to deliver to programme and budget.

Risk Allocation and Transfer

- 3.30 HS2 is publically funded and delivery will be rooted within the public sector through HS2 Ltd. As a result the public sector is the ultimate holder of risk on the programme and is therefore best placed to manage and absorb the risk.
- 3.31 To reduce the Government's exposure to risk, every endeavour will be made to ensure that the appropriate level of risk is passed to the appropriate body responsible for delivery under the contracting strategy. We will also ensure that we continuously review the balance of risk.
- 3.32 The size and nature of the project means that large contract packages will be necessary to avoid creating an unmanageable number of contractual interfaces and increasing commercial risk.
- 3.33 For works affecting the classic rail network, particularly with regards to the infrastructure and systems integration, it is anticipated that Network Rail will be contracted to deliver these. HS2 Ltd anticipate this being done through commercial agreements, rather than the regulatory framework for which the Office of Rail Regulation is responsible. We are currently investigating a model where the parties work closely together to ensure that the project requirements are delivered, and anticipate finalising arrangements during the pre-delivery stage of the project when outputs are more clearly defined.

Maximising Commercial Benefits

- 3.34 Once HS2 is operational, other commercial contracts will need to be in place to ensure that HS2 services are run efficiently and effectively and to ensure the right balance of risk between the public and private sectors.
- 3.35 We currently anticipate services being operated under a railway Franchise Agreement, with infrastructure management being let as a concession in a manner akin to the High Speed 1 concession model. HS2 Ltd will manage this process to secure the best value.

- 3.36 DfT is currently developing plans for how best to align HS2 services with the wider rail network. HS2 is intended to open up new markets through either releasing suppressed opportunities or opening up consequential markets for passengers, allowing a level of 'released capacity'. Therefore we will need to consider ongoing work with other industry partners like Network Rail on their Capacity Plus review/report. We expect 60 per cent of contract awards to be made to small and medium-sized enterprises.
- 3.37 A further and more detailed view will be provided at each gateway through the business case approvals process, but prior to the expected Royal Assent date.
- 3.38 The HS2 Growth Taskforce set out that it believed HS2 will improve the competitiveness of all our major cities⁵, particularly in the North and the Midlands, enabling them to punch their weight with cities around the world. To help deliver this, we are encouraging local partners to identify how they can maximise the impact of HS2 as a significant opportunity to secure private sector investment, including from overseas, into regeneration and growth projects across the country. The development of these Growth Strategies for HS2 places is supported by a total of £7.5m Government funding.

⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/294851/hs2-get-ready.pdf