



Major Projects Authority Project Assessment Review (PAR)

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Organisation:	DfT
Senior Responsible Owner (SRO)	Steve Gooding
Programme/Project Director (or equivalent)	Martin Capstick
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Review dates:	18 June 2012 to 22 June 2012
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Previous review:	MPA PAR Nov 2011 DCA: Amber/Red

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About this Report

This report is a snapshot review of a programme or project, reflecting the conclusions of an independent Assurance Review Team. It is based on information from project documents reviewed and from interviews carried out within a short timeframe (normally over 3 to 5 days) and is delivered to the Senior Responsible Owner for the programme or project at the conclusion of the review.

This Project Assessment Review was arranged and managed by:

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More information about the Major Projects Authority, and guidance for central government bodies on the requirements for integrated assurance and approvals from April 2011, is available from:

<http://www.cabinetoffice.gov.uk/content/major-projects-authority>

1. Executive Summary

Delivery Confidence Assessment (DCA)

The delivery confidence of the programme/project at this point is: **Amber/Red**.

For a project of this complexity and magnitude, at this stage of development, the assignment of a meaningful DCA is difficult. The assigned DCA reflects the challenges of the ambitious target to achieve Royal Assent, but also the significant risks that are outwith the direct control of the Project Team. The review team believe that if the external risks that cannot be fully mitigated by the project team were excluded, the underlying DCA would be Amber.

The key risks to success are considered to be :-

- A coordinated campaign by concerned stakeholders that prevents access for essential survey activities leading to either delay of submission of the Hybrid Bill or significant information gaps that delay the passage to Royal Assent.
- Establishing an appropriate level of understanding of the resolution of the affordability challenge between DfT and HMT.
- Transitioning the project from the Development phase to the Pre-delivery and Delivery phases with effective DfT governance of Delivery and an empowered HS2 Ltd.

The review team recognise the substantial progress that has been made since the last review. In particular, many key roles have been filled and a significant mobilisation of HS2 Ltd has occurred in a short period. All of the personnel interviewed by the review team demonstrated impressive commitment to the project and motivation to tackle the challenges ahead.

Short term target outcomes are clear and are being actively managed. The Review Team believe that further consideration and communication of desired overall outcomes, both tangible and intangible, could help to quantify the broader strategic aspirations, whilst maintaining an appropriate set of specific delivery targets for HS2 Ltd.

Areas of concern

- HMT/DfT interface
 - It is essential that a common perception of the nature and status of both the Economic case and the process for resolution of the affordability challenge is established. Also, a common understanding of the nature and purpose of contingency and optimism bias allowances, along with visibility of the commitment to an optimised cost outcome should help to build confidence that the programme offers significant benefits to the nation and is under strong governance.
 - Differing perceptions of the principles underlying the project budget. The Project Team should recognise that a perception that delivery of the project within the overall contingency and optimism bias allowances may not be perceived as success by all stakeholders. The Review Team believe that this is in part a communication issue and establishing a clear incentive framework for HS2 Ltd could help to resolve this.
- Governance and delegation
 - DfT and HS2 Ltd are actively engaged in developing the detail of delegation. There is a risk that insufficient delegations to HS2 Ltd may lead to micromanagement, additional costs and delay. In addition, lack of clarity of reserved matters for DfT risk unsatisfactory outcomes for the Client. The review team note the active engagement on this issue but recognise the risk that unless clarity is achieved and embedded in the behaviours of both Sponsor and

HS2 Ltd teams the risk of delay and conflict remains. The Review Team believe that the arrangements for principles of delegation should be established, clarifying the intention to maximise the ability of HS2 Ltd to deliver the Sponsor requirements, with specific reserved matters for DfT.

- Ability of Project and DfT to control external risks to a successful outcome
 - Land access for environmental survey poses a major risk to the quality and timing of the Hybrid bill. The Project Team are fully aware of the nature of this risk and are making significant efforts to mitigate. Currently about 50% of affected landowners have failed to respond to requests for access.
 - A campaign of resistance from stakeholders is likely. Comprehensive stakeholder management activities are apparent, but ultimately this risk cannot be fully mitigated by the project team.
 - Delays in achieving external approvals outside DfT, including key enabling procurements and staff appointments have generated additional risks to the project. Visibility and agreement of future external approvals required is essential to avoid further delays.
- Lack of a clear picture of the overall costs of Phase 1
 - A perception exists that the overall cost of Phase 1 is within £16.28bn, including contingency and optimism bias. However, this excludes some known additional costs.
 - The lifecycle cost of Phase 1 is not yet visible and will need to be taken into account in assessing affordability.

Areas that are working well

Overall, the review team have been impressed by the significant progress made in key areas of the project

- Mobilisation and quality of team
 - DfT have recognised the need to prioritise the HS2 project and assign key resources (noting the short term challenge in releasing key staff from existing priorities).
 - HS2 Ltd has delivered an impressive mobilisation, with key leadership roles either filled or close to resolution. The engagement and mobilisation of the Development Partner is clearly having a positive impact on the project.
 - Stakeholder management appears comprehensive and actively managed with clear plans based on recent experience from major public infrastructure programmes.
 - Well motivated and competent staff are in place.
- Progress has been made on the Governance structure.
- Demonstrable collaborative and effective behaviours and relationships between the DfT and HS2 Ltd teams in resolving emerging issues such as Old Oak Common is a positive sign for the future.
- The Project Team have a clear understanding of challenge to successful delivery of the hybrid bill and have adopted a realistic and pragmatic approach. Risk mitigations are well thought through but timescales are tight and some key issues are outside the control of the Project.

2. Additional comments from the SRO

The external challenge and thorough review process that the MPA provides continues to be of great value, and we continue to enjoy an open and constructive relationship with the review team. The conversations we held during the course of the review were themselves a useful opportunity to test and refine our thinking, not least in the way that we express what success will ultimately look like for this project.

I am particularly grateful to the review team for the way that they have contextualised the DCA, recognising that we are in the early stages of development work and that many of the challenges that we face are inherent in a project of this size, scope and public interest.

3. Scope of the Review

Review Terms of Reference (concentrating on Phase 1: London-West Midlands)

Business Case

- Is the Strategic Outline Business Case meeting the 5 case requirements?
- Are the updated Economic Case and assumptions analysis completed and available?
- Commercial/delivery
- Are plans to develop the Business Case in order to complete the Outline Business Case by the next key decision point ahead of introduction of the Hybrid Bill progressing?

Cost Mobilisation

- With the cost baseline exercise process, including costs and schedule completed and key finding available – does the cost baseline level feels right?
- What progress is made on costs other than construction costs?
- Is there a clear understand what the contingency and optimism bias allowance covers?
- What is the Departments proposal for contingency and optimism bias allowance drawdown?
- What plans are in place to capture IUK cost study identified savings?
- What is the approach to cost estimates on phase 2?

Project governance

- Is the project's governance structure appropriate?
- Is the governance documentation of acceptable quality?

OTHER SCOPE ITEMS;

Assurance

- Is the Integrated Assurance and Approvals Plan agreed and of appropriate quality?

Risk

- Are risk management processes (monitoring, escalation and mitigation) embedded and effective?

Procurement

- How is procurement of the Environment and other packages progressing?
- How is cost efficiency embedded and incentivised?

Resources

- Are the appropriate skills, expertise and resources in place on the sponsor team?
- Are the appropriate skills, expertise and resources in place on the HS2 Ltd team?
- Is the Development Partner properly integrated and incentivised by HS2 Ltd's senior team?
- How is the rapid resource expansion being managed?

Communications and stakeholder management

- Is the communications strategy embedded and effective?
- Has the communication and stakeholder engagement been effective in promoting HS2?
- Is Media interest handled effectively?

Programme Plans and Deliverability

- Are programme plans leading to the introduction of the Bill realistic and deliverable?
- Are high level longer term programme plans realistic?

4. Summary of Recommendations

Ref	Recommendation	Report Section/s (where more detail can be found)	Criticality Urgent/High/Medium/Low
01	DfT and HS2 need to agree appropriate delegation and decision making protocols ensuring these are clearly embedded at all levels below the HSR board in DfT and HS2. DfT should also clearly articulate and set out the key areas of focus where it expects maximum transparency in its role as sponsor.	7.1	High
02	DfT should continue to seek active engagement with HM Treasury, providing transparency around development of the business case, BCR, cost estimates and contingencies and controlling of costs to help build a common understanding and shared confidence in these areas.	7.2	Medium
03	DfT should review where the programme may be susceptible to resource vulnerability and develop appropriate contingency plans.	7.3	Medium
04	Further consideration and communication of desired overall outcomes, both tangible and intangible, is needed to help to quantify the broader strategic aspirations, whilst maintaining an appropriate set of specific delivery targets for HS2 Ltd.	7.6	Medium
05	DfT consider the governance and resourcing of the cost challenge and consider, with their stakeholders, a strategy to ensure the cost challenge is shared across wider Government.	7.7	High
06	A comprehensive budget for phase 1 of the project be drawn up, including all items currently excluded.	7.8	High
07	HM Treasury and the Department agree a timeline and strategy for taking forward the affordability issue, planning, as a minimum, for a statement that can be made to Parliament for the passage of the Bill.	7.9	Medium
08	DfT should provide senior level resource to consider the best way to take forward rolling stock options, and the optimum split of responsibilities between DfT and HS2 .	7.10	Medium

5. Summary of the Programme or Project

Background and context

The aims and objectives of the programme (based on public documents)

High Speed Two is a programme to build a Y-shaped high-speed rail network linking London to Birmingham, Manchester and Leeds, and allowing through-running trains to reach other cities through links onto the West Coast and East Coast Main Lines. The proposed network would also include stops in the East Midlands and South Yorkshire, as well as direct links to the HS1 line and to Heathrow Airport. In addition to enhancing capacity and connectivity between many of the UK's largest cities and major international gateways, this could form the foundation for a broader national network, in line with the statement in the Coalition's Programme for Government:

"We will establish a high speed rail network as part of our programme of measures to fulfil our joint ambitions for creating a low carbon economy. Our vision is of a truly national high-speed rail network for the whole of Britain. Given financial constraints, we will have to achieve this in phases."

The line would be capable of allowing speeds up to 250mph. The Government is committed to providing a strong basis for long-term and sustainable economic growth by creating the right environment for private enterprise to flourish and by re-balancing the UK economy. High Speed Rail aspires to play a key strategic role in delivering these objectives. It could deliver a huge increase in rail capacity to meet the rising demand for long-distance rail travel and ease overcrowding on existing railways. High speed rail could also have the potential to play a central role in promoting long-term and sustainable economic growth. The programme is being led by a combination of teams within the Department for Transport, and HS2 Ltd, a Non-Departmental Public Body.

It is proposed that the high-speed rail network would be delivered in two stages:

- **Stage 1:** London to West Midlands, including links to Crossrail and HS1, and connecting back to the West Coast Main Line (operational 2026). This is sometimes referred to as LWM.
- **Stage 2:** Birmingham to Manchester and Leeds; and Heathrow link (operational 2032). This is sometimes referred to as LMH, with the completed network referred to as "the Y" due to the shape of the line.

For the purposes of the consultation the completed network was estimated to cost £32bn to construct. The initial section from London to West Midlands was estimated at £16.28 bn. Both these figures remain largely unchanged today.

In addition, the National Infrastructure Plan commits the Government to explore with the Scottish Government the options to "continue development of the high-speed rail network and rail connections between the North and South of the country to further reduce journey times to Glasgow and Edinburgh".

In the Development phase HS2 Ltd would be taking forward the development of phase 1 and embarking on consultation for Stage 2.

Current position regarding MPA Reviews:

An initial Project assessment Report was made on 17 June 2011 giving a delivery confidence rating to the project of amber. A follow-up AAP review took place 6 weeks later giving a delivery confidence rating of amber red. The PAR review of December 2012 gave a delivery confidence rating of amber red. The progress on the actions from the last review are shown in **Appendix A**. The project is now expected to come to MPRG in July 2012.

6. Key Milestones

What	When
Pre-Development phase. The consultation and preliminary work to identify a line of route and assess its feasibility	<i>Completed in January 2012 with the Secretary of State's decision to proceed</i>
Development phase. The further development of the line of route and costs and to make substantial progress on the hybrid bill by the end of this parliament	<i>Presentation of a hybrid bill to Parliament (October - December 2013) Bill Royal Assent- Spring 2015.</i>
Pre-delivery phase. Focuses on preparations for the delivery phase	<i>(2015-2017)</i>
Delivery phase. Construction of the necessary infrastructure to deliver HS2 into operation	<i>(from mid 2017 to 2026)</i>
Operational phase.	<i>The line is expected to be operational from 2026 (to Birmingham Stage 1) and from 2032/33 (to Leeds/Manchester Stage 2)</i>

7. Detailed Review Team Findings

7.1 Governance

In the preceding review in November 2011, the review team made a number of recommendations about the need to develop and set out governance arrangements for the programme as it moved into the next phase of delivery.

This review team found that good progress has been made in this regard, with a significant amount of work having gone into developing and mobilising these arrangements. A project development agreement document and framework document are now in place and a structure below the HSR board, including a project development group for the first phase of the programme, is in operation.

Whilst the structure is complex, the general consensus is that it could be made to work. Notwithstanding these complexities review participants provided evidence that effective resolution of issues is occurring, giving a recent example of an issue regarding Old Oak common. The review team also found that risks are being effectively reviewed and managed within the structure, with all participants having a common and shared understanding of the key risks. The structure should however be kept under review to ensure that it does not unduly impact on the effective and timely delivery of the programme.

It was not however entirely clear what the role of the HS2 Ltd board is within the structure. Further probing on this evidenced that while appointment of a robust HS2 board was nearing completion, the overall authority and delegations, including budgetary approvals, are yet to be finalised.

At this stage it is critical that delegations and decision making protocols are agreed and implemented as soon as possible. While the absence of this has not hindered progress to date, given that HS2 are now fully mobilised to progress their work, a lack of clear delegations between HS2 Ltd and DfT going forward has the potential to hinder successful delivery of the programme.

The review team has noted that active engagement between DfT and HS2 is underway at present and both parties are seeking to reach agreement by the end of June. Nevertheless it is important that the focus is not just on finalising the delegations but ensuring they are balanced and appropriate to enable sufficient visibility and transparency to DfT, whilst not stifling HS2's ability to effectively deliver the DfT's sponsor requirements.

Finalising appropriate delegations will in part help to drive and embed the right behaviours between DfT as sponsor and HS2 as delivery lead, building mutual trust and confidence. If this issue is not sufficiently addressed now, there is a risk that it manifests itself in micromanagement by DfT which could lead to further delays to delivery. It is important however, that transparency is given to DfT by HS2 Ltd on its key areas of concern.

Recommendation: DfT and HS2 need to agree appropriate delegation and decision making protocols ensuring these are clearly embedded at all levels below the HSR board in DfT and HS2. DfT should also clearly articulate and set out the key areas of focus where it expects maximum transparency in its role as sponsor.

7.2 Relationships/Stakeholders

The programme continues to have a high quality plan and approach to managing external public facing stakeholders. The programme has also developed close working relationships with other government/internal stakeholders key to delivery. IUK are heavily involved within the programme and the review team noted the positive engagement and involvement between HS2 and Network Rail as operators of the existing 'classic' network, who now have a project team within HS2 and are included within the governance structure.

DfT are also working closely with HM Treasury colleagues but the review team felt that further effort is needed by both parties to ensure that there is sufficient shared confidence and understanding around

the stability of the business case and BCR, the project estimate and contingencies, controlling of costs and a joint understanding as to affordability and how this may be managed. The review team believes this will help to ensure progress of the programme is maintained particularly around the Hybrid Bill.

Recommendation: DfT should continue to seek active engagement with HM Treasury, providing transparency around development of the business case, BCR, cost estimates and contingencies and controlling of costs to help build a common understanding and shared confidence in these areas.

7.3 Resources

The review team has been impressed with the capability and commitment of the programme team members it has interviewed over the course of this review. It also noted the significant mobilisation that has occurred over the last 6 months in DfT and HS2, despite delays caused by Cabinet Office approvals, specifically in regard to appointment of the HS2 Board and ICT procurement. HS2 now have a development partner on board, CH2M Hill, and design, environmental and land contractors, which has seen HS2 resource levels rise from around 200 to well over 750.

The review team noted that in some areas, particularly within the DfT Sponsor team, there is some vulnerability around dependency on key members of staff. While the review team understand pressure on resource, if there is not sufficient thought and planning given to this now this could risk efficient and effective oversight of delivery of the sponsor requirements as the programme progresses.

Recommendation: DfT should review where the programme may be susceptible to resource vulnerability and develop appropriate contingency plans.

7.4 Timetable

It is clear that the project is schedule driven, with the major focus on the near term milestone of submitting a Hybrid Bill to Parliament. The Project Team recognise the challenge of submitting a Hybrid bill of sufficient quality by the target date. It is encouraging to note that a realistic view has been taken of the risk, which is reflected in the expectation of submission between the internal target of Oct 2013 and the publicly declared target of December 2013, with 'substantial progress achieved by May 2015'. This is understood to mean that the Bill has passed the second reading and is into Select Committee phase.

Main delay factors to date have been caused by factors outside the control of the team. We note that delay in getting Cabinet Office approval for a new ICT system, Executive pay scales and appointment of Non Executives to the HS2 Ltd Board has caused problems. Management of Cabinet Office interactions should be a key factor in the future.

Time, cost, quality trade offs exist for all projects of this type. Experience shows that the better the quality of submission at presentation of the bill, the quicker and smoother its progress through Parliament.

The overall target of 18months for completion of the Parliamentary process is very ambitious (HS1 took 2 years and Crossrail 3.5 years) especially in the light of an intervening election. We believe the likelihood of achieving this target is low.

It is difficult at this stage to assess the probability of completion of Phase 1 by Q4 2026 and we note that the project intends to conduct schedule risk assessment during the current stage.

7.5 Business Case development

A key focus has been on the development of the Economic case. A key aim has been to resolve previous difficulties and to establish an appropriate level of stability. In January the Benefit Cost Ratios (BCR) for Phase 1 stood at 1.7, including wider economic benefits (1.4 excluding) with the expectation that incorporation of updated economic data and the correction of known errors would lead to a further degradation of BCR. It is not clear to the review team that the underlying reasons for the fluctuations are clearly understood by all key stakeholders.

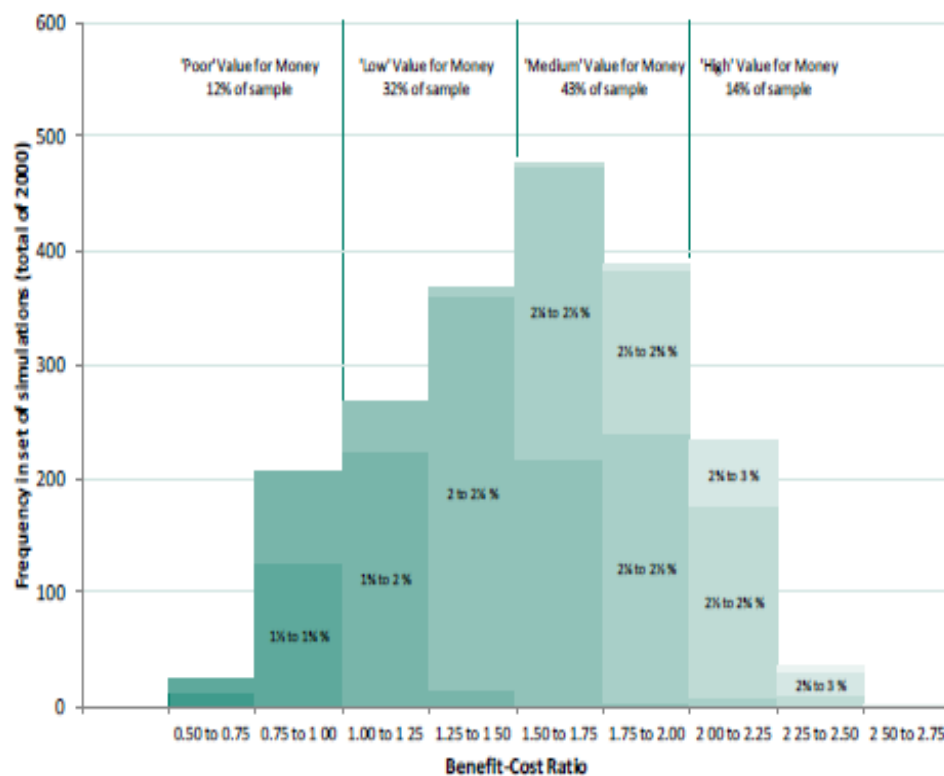
The current Phase 1 project BCR after the latest update stands at 1.7 again including wider economic benefits (1.4 excluded) and therefore medium Value for Money. More refined modelling of passenger behaviour and choices and a delay to the point in time at which the demand cap is met have counteracted the downward pressure of new economic data and rectification of the error.

This work stream appears to be under control with an Analytics programme for future development, including increased quality assurance and model validation. Significant attention and resource is being applied to this work. The next material update is planned for Spring 2013.

The Review Team believe that developing a better understanding with HMT of any remaining concerns or issues would benefit the project.

The Review team note that the BCR ratio remains sensitive to changes in assumptions and can be best represented by a spread of outcomes, as shown below, rather than a single number.

Chart 1 – Distribution of Benefit Cost Ratios split by long-term average GDP growth rate



Source: Economic case for HS2: Value for Money Statement January 2012

The Strategic Case is appropriate at this stage of the project and presents an overall vision for the project. However the wider aspects of the programme are not reflected in the Commercial and Financial cases and we believe that these need significant development for the next stage of the project in order that all the wider benefits of the broader vision can be captured. We believe that some senior and experienced resource needs to be applied if these opportunities are to be materialised.

The financial case has been developed on the assumption that the project will be entirely public funded. It is clear that a range of Commercial opportunities may be explored to establish if alternative financing and regulatory models could be applied that could assist in the resolution of the affordability challenge. Nevertheless, it is appropriate now that thinking be taken forward on different financing options to support the development of wider commercial opportunities and to help resolve the affordability challenge and to help 'Future Proof' the Bill.

In respect of the Management Case, see section 7.1 on governance.

7.6 Success Criteria

The review team believe that there would be benefit in clearly defining the success criteria for both the Hybrid Bill stage and to capture the wider range of programme outcomes. For example, the Q4 2026 target for start of train operations has been developed in the absence of a resolution of the affordability issue, which has the potential to impact on funding profiles and hence schedule. The review team are not aware of all of the constraints and commitments around this issue, but believe that this is a key area to ensure that a strategic benefits realisation perspective is maintained that compliments the more specific railway related targets.

Recommendation: Further consideration and communication of desired overall outcomes, both tangible and intangible, is needed to help to quantify the broader strategic aspirations, whilst maintaining an appropriate set of specific delivery targets for HS2 Ltd.

7.7 Budgets and Costs for Phase 1

At the time of the Secretary of State's announcement in 10 January 2012 the estimate of capital costs for phase 1 was £16,280 million (in Q2 2011 prices), comprising:

- a point estimate of costs of £9,674 million and
- a combined contingency and optimism bias of £6,606 million (or 64%) and
- within this was an assumption that costs would be brought in at £500 million less than benchmark industry norms (i.e. there was a half billion cost saving challenge).

At that time the confidence level that the project would be brought in within that overall cost envelope (and assuming the £500 million cost saving was realised) was P50 (i.e. 50%). Since then HS2 have taken on their development partner CH2M Hill who have undertaken a high level (still desk top) baselining exercise. The result of this was to increase the point estimate of costs by £315 million to £9,989 million (50% of which is attributable to the need for a more appropriate rate for station inflation and the rest to revisions to pricing of roads, property, and the relocation of a station). In addition, as a result of work done by IUK and others the baselining exercise identified that within the £9,989m HS2 Ltd had assumed efficiencies savings of approximately £1.5bn (15%) over UK norms, in line with Government targets.

HS2 cost challenge has been increased from £500 million to £1.5bn (assuming that costs can be brought in 15% under industry norms).

HS2's revised estimate has kept the overall envelope at £16.28 billion. As a result of the increase in the point estimate the amount of contingency in the overall £16.28bn estimate has reduced from £6,606m (68%) to £6.289m (63%). The DfT guidance relating to contingency and optimism bias suggests that to

have P80 confidence in an estimate, for a project at this stage of development, a contingency of 57% is required. Therefore, although the contingency has reduced it remains above the P80 level. It should be understood that if the assumption that efficiency savings are achieved is removed then the confidence level in the estimate reduces to circa P50.

It should be noted that the estimates in January and today are still only high level (as is expected at this stage of the programme) based on a concept design and benchmark costs.

Further we are not convinced that there is a clear understanding as between HS2/DfT on the one hand and HMT on the other as to the interpretation of these figures and confidence levels in them.

Recommendation; See recommendation 2

We have seen every indication that HS2 are committed to achieving these cost savings. They have set up a committee to take forward 6 work streams designed to drive out these efficiencies. The details of the savings are not yet developed and they represent a significant challenge for the project. Since achievement of these savings will require some real movement to current market norms, it will be necessary for other parts of Government and Industry to throw their weight behind this initiative for it to succeed. HS2/DfT do not believe they can achieve it on their own.

Recommendation: DfT consider the governance and resourcing of their cost challenge and consider, with their stakeholders, a strategy to ensure the cost challenge is shared across wider Government.

Overall we conclude that HS2 have conducted a reasonable costing exercise for a project at this stage in its development. The unusual feature of these figures however is the £1.5 billion cost challenge and when this is factored into account the confidence levels of staying within the overall cost envelope are significantly reduced. Obviously further more detailed work will be done as the design and solution are further developed and this will need ongoing scrutiny.

7.8 Programme Estimate

Our greater concern lies in what has been left out of the above estimate. The £16,280 million figure is in danger of being mistaken for the expected cost of Phase 1 – whereas it is only a partial estimate made in 2011 prices with significant exclusions. Excluded from this figure are a number of items including:

- Escalation/inflation costs (figures are at Q2 2011 prices)
- Rolling stock costs (estimated at approximately £3 billion for phase 1 –and a further 5 for phase 2)
- DfT sponsor costs (and their advisers)
- TOC operator costs
- VAT
- Stamp duty on land purchase
- Exceptional hardship scheme (blight) costs
- Costs of over-site development
- Project costs accrued prior to 10 January 2012.

Effectively, the £16.28 billion figure appears to be the estimated costs prepared by HS2 for their part of the project. Grafted onto this needs to come the other costs, prepared by DfT, for the project as a whole, in order to give a complete picture. A detailed “whole of project” cash budget needs to be in circulation, which can then serve as the basis on which affordability discussions can take place. Without it there is a risk that the affordability risk, and the issue of where responsibility for this lies, is not properly addressed.

There is also a risk that public perception of the project will be that it will cost less than is actually expected - which may cause handling issues later in the project life. Parliament will also wish to know if it is affordable.

We understand that in the preparation of the Business Case and calculation of the BCR some of the excluded costs above (such as rolling stock) have been estimated and included, but there appears to be no overall current estimate in circulation.

As for capital costs for the whole Y network (phase 1 and 2), we believe that further significant work on this has not been done since last time and the estimated capital cost of this is largely unchanged at £32,670 million (at Q2 2011 prices) including a 66% optimism bias.

Recommendation: that a comprehensive budget for phase 1 of the project be drawn up, including all items currently excluded.

7.9 Budget and Costs for this spending review

There is an overall budget for this project for this spending review of £931,686,000 (RDEL and CDEL for DfT and HS2). This appears to be adequate with no overspends expected. There has been an underspend of £70 million last year on the HS2 budget. The main area of underspend was consultant/contractor spending – and this may be evidence of some slippage in the mobilisation phase of the project. It is not clear if this may put pressure on the budget in future years but this has not been flagged as an expected problem.

7.10 Affordability

Without a comprehensive budget in circulation it is difficult to have fully meaningful discussions on affordability. The Department believes however that the costs of this project are so large, and over such a long period, that it will not be able to afford it alongside all its other likely spending commitments. Accordingly we understand that, prior to the Secretary of State's announcement in January, high level political commitment was obtained to take the project forward. Quite what this will mean, in terms of any governmental funding/support for the project outside the Department's own budget and over future periods, is unclear. Engagement on this between the Department and HM Treasury is not easy, and there is some thought that the next spending round may provide the forum for making progress on this. The timing of this is not yet announced –but may be next year. This may not be complete by the time the Bill is presented to Parliament.

There is an assumption that the whole project will be public sector funded (though this is not to rule out possible private sector funding of some aspects in the future – e.g. around station development and, possibly, rolling stock).

The Bill is scheduled to be laid before Parliament in October 2013, and we suggest that some position/understanding and some public statement will be needed for this time – dealing with affordability and how it will be paid for. It is acknowledged however that for a project of this scale and complexity it will not be feasible to have bottomed out this issue at this time, but we believe that by the time of second reading of the hybrid bill it is important that some conclusion has been reached as to the affordability of the project and this will require some level of understanding as to who will pay. We believe however that it is important that some plan or approach is needed for this; without this, this may become a risk without an owner, and it may not be properly managed.

Recommendation : HM Treasury and the Department agree a timeline and strategy for taking forward the affordability issue, planning, as a minimum, for a statement that can be made to Parliament for the passage of the Bill.

7.11 Rolling Stock

DfT has retained responsibility for rolling stock and its procurement and not delegated this down to HS2. Accordingly the focus of HS2's work is on infrastructure not rolling stock (though it is actively managing the technical challenge of ensuring integration of design with infrastructure and has recently recruited a rolling stock expert).

We understand also that for the purposes of steering a hybrid bill through Parliament the principal focus of work at present is on the infrastructure, so it may be considered "early days for rolling stock". The integration of rolling stock and infrastructure is always a difficult issue on railway projects. It is accordingly important that this risk is clearly placed in the structure and steps taken to reduce the risk of mismatch so far as possible (recognising that it can never be eradicated since there will always be an independent rolling stock manufacturer - yet to be appointed – required to supply the stock).

We believe that it is now appropriate for DfT to focus some resource to rolling stock issues and to ensure that there is a clear understanding, reflected in the sponsor requirements, as to who is doing what, and as to what HS2 needs from DfT to ensure that the track and infrastructure which it is tasked to build will be compatible with the rolling stock which the DfT will procure. Although we understand that DfT have, to date, considered it best for rolling stock issues to be managed within DfT (along with financing and procurement responsibility) we suggest that consideration be given as to how responsibilities for rolling stock are best divided between DfT and HS2.

In addition, options for Rolling stock could form an important part of a broader Commercial Business Case.

Recommendation : that DfT should provide senior level resource to consider the best way to take forward rolling stock options, and the optimum split of responsibilities between DfT and HS2 .

7.12 Assurance Plan and Documentary control

These are dealt with in Annex A: Progress against previous MPRG Report Recommendations.

8. Suggested lines of enquiry for the MPRG Panel

- Cost estimate:
 - Visibility of comprehensive cost estimate for Phase 1
 - Nature and suitability of Contingencies
 - Development of Phase 2 cost estimate
 - Strategy for efficiency savings
- Governance
 - Progress in developing appropriate scheme of delegations to HS2 Ltd.
- Timetable
 - Progress and confidence in Hybrid bill submission programme
- Affordability
 - Progress in developing resolution strategy

- Economic business case
 - Status and level of stability

- Decision making
 - External and internal decision making processes

ANNEX A – Progress against previous review recommendations**PAR Review November 2011**

Key recommendations	Summary of progress
<p>The team should focus on completing the strategic and economic cases to enable the SoS to make an informed decision on the merits of the proposal and ensure that the remaining cases demonstrate sufficient maturity to give confidence that the next stage can commence and clear plans exist for how they will be completed.</p>	<p>The Strategic case presents a vision for the programme, though further work could be done on ensuring all programme benefits are captured. Extensive work has been done on the Economic case. The commercial and financial cases have lagged behind and now need attention as specified in this report. Development of the Management case has progressed.</p>
<p>The team should complete the stakeholder analysis, identify the critical stakeholders, agree and document a management plan.</p>	<p>Good progress has been made with Network Rail and other stakeholders. More attention could be given to getting closer engagement with HMT.</p>
<p>HS2 Ltd and DfT need to ensure that they have a comprehensive document control procedure which is consistently applied and which would stand up to the scrutiny of any judicial review challenge.</p>	<p>A document control procedure has been set up and is starting to be used – however it does not seem to be consistently applied across the board. Initial signs are that the documentary processes are standing up to the pressure of judicial reviews.</p>
<p>DfT and HS2 Ltd need to complete and agree a project development agreement that sets out clearly the respective roles and responsibilities of each party and what rights and powers each holds. The agreement should set out clearly the matters for which HS2 needs approval from the department and how these will be obtained.</p>	<p>Accomplished. The important issue now is to ensure that behaviours match responsibilities in practice.</p>
<p>DfT needs to develop and implement revised programme governance arrangements setting out clearly which bodies need to approve which matters and how such decisions will be taken. Revised terms of reference for the relevant DfT approval bodies, including the HSR Programme Board, should make clear what matters they need to consider and what needs to be escalated and who is required to attend for such decisions to be taken.</p>	<p>Good progress has been made – but how this works in practice should be kept under review. Since the last review, and in accordance with its recommendations, the DfT have put in place an Integrated Assurance and Approvals Plan.</p>

As part of the proposed project development agreement, DfT needs to develop a clear financial control framework for the programme, consistent with the governance arrangements, that allocates budgetary responsibility to relevant parties, including ownership of any contingency elements. This needs to cover decisions that affect both direct spend within the SR period but also decisions that impact the overall programme outturn cost, including the role of the cost challenge working group and the role of IUK.	Not yet accomplished (see body of report) – though progress is being made.
DfT needs to agree, as part of the Corporate Planning process, a detailed year by year budget for the Development Phase of the programme reflecting both DfT and HS2 costs that is consistent with the project development agreement and revised timetable.	Not complete. See body of report.
DfT and Treasury should continue to monitor the ultimate affordability of the project through the development phase.	Not accomplished. See body of report.
Additional review points, to consider specifically the timetable, should be added in the programme for June 2012 and Summer 2013.	Done
The Department should ensure that the SOBC covers the key principles of the Management Case and sets out how and when the detail will be fully developed.	Progress has been made on Management arrangements – see body of report

ANNEX B – Conduct of the Review

The review team thank DfT and HS2 Ltd for their constructive engagement in this review.

ANNEXC- Programme/Project documents reviewed

The following documents were reviewed by members of the Review Team and informed the findings and recommendations in this report:

Document Name	Summary	Status	Location
High Speed Rail: Investing in Britain's Future – the Government's Decisions	January Decision Documents and Maps	Final	DVD
	Outline Business Case Version 1	Current	Document Pack
120430 P HS2 Communications strategy - DM final	Communications Strategy	Current	Document Pack
	Update to the Economic Case	Draft	Email

120111 L Remit letter 11 January 2012	Remit Letter – SoS to HS2 Ltd Chair	Final	Document Pack
120308 P Project Development Agreement	Project Development Agreement	Draft	Document Pack
HS2B(337)12 2 120509 HS2 Framework Document draft for HS2 Ltd Board	Framework Document	Draft	Document Pack
	DfT Sponsor's Requirements	Draft	Email
120523 D HS2 governance 2012 v2	Governance diagram	Final	Document Pack
120308 P HSR Board ToR	High Speed Rail (HSR) Board Terms of Reference	Final	Document Pack
120330 R HSR Board Minutes 27 March	HSR Board Minutes	Final	Document Pack
120425 R HSR Board Minutes 24 April	HSR Board Minutes	Final	Document Pack
120523 R HSR Board Minutes 22 May	HSR Board Minutes	Draft	Document Pack
120509 R LWM report to HSR board - May 2012	LWM report to HSR Board	Final	Document Pack
120509 R Programme report to HSR board - May 2012	Programme report to HSR Board	Final	Document Pack
120514 R LMH report to HSR board - May 2012	LMH report to HSR Board	Final	Document Pack
120308 P PDG ToR	LWM Project Delivery Group (PDG) Terms of Reference	Draft	Document Pack
120504 R LWM PDG 3 May 2012 Meeting Output	PDG actions	Final	Document Pack
120511 R LWM PDG 10 May 2012 Meeting Output	PDG actions	Final	Document Pack
120517 R LWM PDG 17 May 2012 Meeting Output	PDG actions	Final	Document Pack
HS2B(325)12 1 Board Minutes - 21 March 2012 DRAFT	HS2 Ltd Board minutes	Draft	Document Pack
HS2B(336)12 1. Board Minutes - 19 April 2012 DRAFT	HS2 Ltd Board minutes	Draft	Document Pack

120426 - April 2012 Monthly Report to DfT (v0.2)	Monthly report from HS2 Ltd to DfT	Final	Document Pack
LWM Monthly Report April 2012	LWM Monthly Report	Draft	Document Pack
120528 OrganisationChart[1]	HS2 Ltd org chart	Current	Document Pack
120423 D High Speed Rail organisation chart	DfT HSR team org chart	Current	Document Pack
R Triennial Review Report	DfT Triennial Review of HS2 Ltd	Final	Document Pack
120525 Ss High Speed Rail Business Plan	HSR Business Plan Report	Draft	Document Pack
120510 - HS2 Ltd Corporate Plan 2012 v0 6	HS2 Ltd Corporate Plan 2012-15 and Business Plan 2012/13	Draft	Document Pack
120321 Ss 2012-15 HSR Corporate Planning - Programme spend - Revised	Spending Review period budgets for HS2 Ltd and DfT HSR	Final	Document Pack
120402 Ss HS2 costs	Future costs of HS2	Current	Document Pack
HS2-HS2-PC-REP-000- 000002-P00-Master baseline cost - programme review	HS2 Ltd draft cost baselining output	Draft	Document Pack
HS2-HS2-PC-SCH-000- 000001-01-Master Project Schedule (Summary) 15052012	HS2 Ltd draft schedule baselining output	Draft	Document Pack
	Joint DfT HS2 Ltd Critical Path	Draft	Email
120523 Ss early 2012 plan v21	DfT detailed short term plan	Current	Document Pack
120528 Ss High Level Plan v15	High Level Bill phase plan and LMH plan	Current	Document Pack
120511 Ss HSR Programme risk register v11	DfT HSR Risk Register	Current	Document Pack
HS2B(344)12 4. 120509 HS2 Ltd Corporate Risk Register v 01	HS2 Ltd corporate risk register	Current	Document Pack
HS2B(344)12 5. 120511 - HS2 LMH Risk Register for HS2v 01	HS2 Ltd LMH risk register	Current	Document Pack

120528 P Risk-Policy-and-Guidance	DfT risk management policy	Final	Document Pack
HS2E(06)12 2. 120106 Overview of Risk Management in HS2 Ltd	HS2 Ltd risk management	Final	Document Pack
HS2E(06)12 3. 120109 - HS2 Ltd Risk Management Strategy (v2 0)	HS2 Ltd risk management	Final	Document Pack
C200-CH2-PC-PLN-000-000002-P003-Plan for risk analysis and management	HS2 Ltd Risk Analysis	Final	Document Pack
120514 P Integrated Assurance and Approvals Strategy v0.5	HSR Integrated Assurance and Approvals Plan	Draft	Document Pack
120509 D IAAP Annex A v0.2	Assurance and Approvals diagram	Current	Document Pack
	DfT Document Control	Draft	Email
Commercial and Procurement Strategy_0.3	HS2 Ltd procurement strategy	To be revised	Document Pack

ANNEX D: List of Interviewees

Name	Role/title	Organisation
Martin Capstick	Programme Director	DfT
Michael Hurn	Project Sponsor, LWM (DfT)	DfT, LWM
Steve Gooding	SRO, Director General, Domestic	DfT
Doug Oakervee	Chair	HS2 Ltd
Alison Munro	Chief Executive)	HS2 Ltd
Roy Hill	LWM Project Director	HS2 Ltd
Jill Adam	Deputy Director, HSR Strategy and Finance	DfT
Hussein Kaya	Lead Lawyer (DfT)	DfT
Dave BATTERY	Deputy Director HSR Bill (DfT)	DfT
Valerie Vaughan Dick	Director, Finance (DfT)	DfT
Stephen Dance	HSR Board member	Infrastructure UK
Kate Cohen	Project Delivery Group, HS2	Infrastructure UK
Kate Mingay	Director, Commercial & Technical Services	DfT
Dan Micklethwaite	Deputy Director, Transport and Regulation	HMT
	Rail Policy	HMT
	Rail Policy Advisor	HMT
Rupert Walker	High Speed Rail Development	Network Rail
David Goldstone	Non-Executive Director	HS2 Ltd
Clinton Leeks	Public & Parliamentary Affairs Director	HS2 Ltd
Gavin Gaunt	Head of Strategy & Analysis	HS2 Ltd
Joe Grice	Chief Economist	DfT
Andrew McNaughton	Technical Director	HS2 Ltd
Mark Bayley	Commercial Director	HS2 Ltd