



nichols

Department for Transport

Western Rail Link to Heathrow Market Sounding

Findings Report - November 2018



agilia



# Contents

1. Executive summary 1
2. Market sounding process 14
3. Appetite for proposed option 17
4. Project scope/packaging 20
5. Risk allocation for Package A 24
6. Financing – Scale of project and market capacity 28
7. Bonding and security package 38
8. Other market factors 40
9. Demand risk 42
10. Maintenance and operations 43
11. Procuring authority 46
12. Planning powers and DCO 48
13. Procurement timetable 50
14. Alignment between bidder and public sector 53
15. Annex 1 – Interviewees 55
16. Annex 2 – Interviewers 56
17. Annex 3 – Project Briefing Document 57
18. Annex 4 – Questions 83
19. Abbreviations and glossary 94



# 1. Executive summary

## 1.1. Background

- 1.1.1. The purpose of the market sounding was to assess market appetite in respect of third party investment and contracting participation in the Western Rail Link to Heathrow (WRLtH) project.
- 1.1.2. The Shaw Report and the Hansford Review have made recommendations to Government and Network Rail to harness third party funding and financing of railway enhancements in order to broaden sources of investment and support innovation and growth. Government and Network Rail, through its 'Open for Business' work, have signalled a strong desire to bring a pipeline of projects to market to commence this process of third party involvement where appropriate. The market has indicated at various times that it has significant capacity available to support suitable projects.
- 1.1.3. WRLtH is one of the first such potential opportunities to be offered to the market for consideration. As well as contributing to delivering WRLtH, the involvement of the private sector could free up resources and capacity for other network enhancements, which may otherwise be capital constrained or developed on a slower timeline.
- 1.1.4. In preparation for the market sounding, a Proposed Option was outlined that comprised a series of assumptions in respect of how private sector participation could be structured, including potential commercial arrangements and risk transfer. This was designed to provide value for money for Government and to support an 'off balance sheet' outcome for the privately financed Package A (known in this document as the Proposed Option). It was intended that the market sounding feedback in respect of the Proposed Option and the working assumptions that were developed to underpin it, would assist the Department for Transport (DfT) and Network Rail to determine if a PPP approach in respect of Package A of WRLtH is a viable option that can deliver value for money and be delivered within the proposed timescales. The results of the market sounding process are intended to be used by DfT to inform the Outline Business Case (OBC) process which is underway in respect of WRLtH, and ultimately to facilitate a decision as to whether the project can be progressed with private finance participation.
- 1.1.5. The market sounding exercise was undertaken between 4 June and 2 August 2018, and involved 35 organisations representing a mixture of contractors, financiers and other project stakeholders.



- 1.1.6. This document sets out the findings from the process based on the meetings held up to and including 2 August 2018 but pre-dates the Chancellor's announcement in the budget on 29 October 2018 concerning the cessation of the use of PF2. Although PF2 was discussed at the sounding meetings, references to PPP have been retained as feedback from sounding meetings remain relevant to PPP structures.

## 1.2. Key findings

There is currently sufficient market appetite and financing capacity for the proposed privately-financed element of the WRLtH project (Package A, the tunnel and associated works, and the interface to Heathrow). Equity providers, debt providers and European (non-UK) contractors all indicated significant interest in the project as an availability-based PPP project. UK contractors, for the most part, were interested in the project from a contracting viewpoint but were less enthusiastic in their support for the proposed PPP option in light of the risks which might be expected to pass to them as part of a bidding consortium.

- 1.2.1. Equity and debt providers have significant capital available for deployment and perceive a lack of suitable projects in recent years, leading to a strong appetite for this opportunity.
- 1.2.2. The project represents an opportunity for these providers to participate in rail sector investment and could be an important step in opening up rail infrastructure opportunities to the private finance market.
- 1.2.3. The long-term government-backed availability payment is seen as an attractive proposition.
- 1.2.4. Parties are keen to be kept informed as the project progresses through the OBC process and in particular would like to understand the emerging direction of travel and whether the project will progress in due course to a procurement as a PPP style project.
- 1.2.5. Parties' bidding and partnering strategies will differ significantly depending on whether the project is to be procured as a PPP project or by conventional procurement means.
- 1.2.6. Parties identified the risk of the project being cancelled during procurement as a result of a change in government policy and/or the prospect of delays arising during the Development Consent Order (DCO) process as being a concern. Consequently, the potential for bid cost reimbursement is a live issue for the market in respect of this project.

The proposed approach of splitting the project into two packages was felt to be a sensible option, with Package B (interface to Great Western Main Line) being delivered by Network Rail and Package A (tunnel and associated works, and interface to Heathrow) by the successful bidder via a Special Purpose Vehicle (SPV).



- 1.2.7. Package A is amenable to delivery via a PPP approach and would attract significant market interest. Parties are confident that an appropriate consortium could be established to finance and deliver Package A.
- 1.2.8. The view of Package B is that it is best developed by Network Rail, on a conventional procurement and financing basis, due to the complexities of the interface with the Great Western Main Line (GWML).
- 1.2.9. Contractors would also have a significant interest in tendering for Package B, albeit on a fundamentally different risk transfer and pricing basis.
- 1.2.10. Interface risks with both the Network Rail Package B and with Heathrow Airport Limited (HAL) can be managed through the project via appropriate mechanisms and provisions in the project agreements. Parties indicated that they would expect and require significant detail in relation to the interface arrangements to be provided as part of the procurement process, as with any infrastructure project of this nature.
- 1.2.11. Parties are conscious of the potential programming impact of delays that might arise in respect of Package B and the consequent impact on the successful bidder's ability to deliver Package A. However, it is expected that this would be dealt with through co-ordinated programming of construction plans with suitable mitigation provisions in the project agreements.
- 1.2.12. Parties have, or expect to have available within their consortium, experience of operating with Network Rail. In general parties have less experience of operating with HAL and are therefore more cautious of interface risk with HAL.
- 1.2.13. Signalling infrastructure was the area which attracted most discussion in respect of possible alternative procurement options. Parties are conscious that signalling is a system-wide matter, is a common element to all bids and that requirements are likely to change over the life of the project. A number of respondents therefore questioned whether signalling infrastructure should be included within the PPP package rather than being procured as part of the wider system.

**Participants agreed with proposals in respect of demand risk, maintenance, handover requirements and train operations.**

- 1.2.14. There is agreement from participants that the exclusion of demand risk is a sensible approach in terms of securing value for money bids on a greenfield project.



- 1.2.15. There is consensus that the inclusion of maintenance and operations requirements within the PPP-style proposal is sensible as a means of ensuring a focus on the full life cost of the assets. A number of participants indicated that they would consider sub-contracting the maintenance requirements to Network Rail in order to maximise efficiency of operations.
- 1.2.16. There is recognition of the need for renewal of life-expired assets in advance of handover and the interaction of this principle with the full life cost principle which underpins the maintenance proposal. The manner in which handover requirements might be specified during the procurement phase is critical, particularly in light of the potential for technical advances over the life of the project.
- 1.2.17. There is agreement that the exclusion of train operations is a sensible approach in respect of a PPP project for a discrete piece of infrastructure. Participants confirmed that train operations should form part of an existing operating franchise or other arrangement, and that they felt rolling stock should be outside the scope of the project.

**The proposed risk allocation, which was based around PPP guidance, is well understood by the market and is a sound basis for structuring a private finance model.**

- 1.2.18. Debt and equity providers, and non-UK contractors, indicated that the proposed risk allocation at its broadest level would be acceptable to their organisation, albeit with some significant points of detail and clarification required in relation to specific risks.
- 1.2.19. As noted above, UK contractors, for the most part, were more cautious in respect of the proposed risk transfer associated with a PPP-style project and, while interested in the project from a contracting viewpoint, were less enthusiastic in their support for the proposed PPP option in light of the level of risk transfer it entails for the bidding consortium.
- 1.2.20. Specific risk areas which attracted detailed commentary with a number of parties were Ground Conditions, Protestor Action, DCO and Utility Diversions. Feedback suggested that bespoke arrangements for these issues would be required and would in turn facilitate bidders in submitting bids that offered improved value for money.
- 1.2.21. Parties were particularly sensitive to tunnelling issues associated with ground condition risk and archaeological risk, and the survey work that would be undertaken by Network Rail to allow the bidders to provide improved value for money through an informed bid. Parties indicated a desire for Network Rail to provide extensive high-quality surveys on a reliance basis to bidders and to engage with them early on the range of surveys to be undertaken.



- 1.2.22. Parties recognised that constraints exist on risk allocation in the context of a PPP project, but indicated a desire to see the public sector engaging in a mature and sensible conversation with bidders around risk mitigation, where such a mitigation can be provided or facilitated.

**There was a clear consensus that there is sufficient capacity in the markets to finance the project. Debt finance is likely to be sourced from short to medium term loans from commercial banks and longer-term debt from institutional lenders. There is significant equity available in the market.**

- 1.2.23. The debt finance market for infrastructure has evolved over recent years from one based primarily on bank debt to one that now comprises a mixture of bank debt and institutional lenders.
- 1.2.24. There are several reasons for the evolution of the market, some are demand led and some supply led.
- 1.2.25. In relation to the demand led factors, given historically low base rates which have existed for a period, capital is seeking opportunities for stable higher yield deployment. Investment in infrastructure is attractive in this context.
- 1.2.26. In relation to the supply side factors, there has been an on-going tightening of the regulatory regime for lenders following the financial crisis which has resulted in banks being required to reserve more of their capital in relation to loans that are disbursed. The consequence for long term lending has been severe, resulting in a significant contraction in the number of banks that are willing to lend long term (i.e. beyond 10-15 years). However, institutional lenders have now become increasingly confident in their ability to identify and appropriately mitigate project finance risks, resulting in them being actively engaged in the market.

- 1.2.27. [REDACTED]

**The feedback on the merits of debt funding competitions was mixed.**

- 1.2.28. Most participants were agnostic as to whether a debt funding competition should be run or not.
- 1.2.29. It was recognised that a debt funding competition allowed financiers to engage much later in the procurement process without the need to engage in a lengthy due diligence process on behalf of a bid that may ultimately prove unsuccessful.



- 1.2.30. On the other hand, it was recognised that the absence of a debt funding competition would require bidders to bid on a committed funding basis, which was considered to be helpful in terms of price certainty when applying evaluation criteria.
- 1.2.31. It was noted that participants with smaller lending teams might struggle to support multiple trees where funding was committed prior to the preferred bidder stage (several participants stated that they would struggle to support more than 3 separate trees). In the event that lenders were not in a position to support multiple bidders, this might limit the amount of debt that each bidder can raise or the competitive tension that they can create among lenders in respect of price and other terms. With the quantum of debt required for this project, the market did not consider this to be a significant issue, however, the issue should be reviewed closer in light of debt market conditions closer to the time of procurement.
- 1.2.32. Several participants noted that where a committed funding approach was to be implemented a prohibition would need to be put in place on exclusivity arrangements between bidders and lenders to maximise competition.

**Equity funding competitions were seen as unattractive.**

- 1.2.33. Equity provider participants noted that they were most often the party to drive the submission of a bid and to pay for as well as take risk on the cost of the bid.
- 1.2.34. Those participants selected their consortium partners carefully in order to establish their long-term suitability as partners over the life of the project.
- 1.2.35. In those circumstances they indicated a strong reluctance to have an equity partner, who had not been involved in the process of compiling a consortium or the bid and had not taken risk at that stage, forced upon them by virtue of a competition designed to generate a lowest cost outcome.
- 1.2.36. Most participants stated they preferred to engage with development of a project from an early stage and with a settled consortium of their own choosing.

**Bonding and security packages have come more sharply into focus in recent times and there is now a concerted effort by debt providers to ensure an adequate package of liquid (or almost liquid) security is available.**

- 1.2.37. Security package requirements are now being carefully calibrated by debt providers to ensure their adequacy in multiple scenarios and with a focus on liquidity measures.





1.2.38. Performance bonds (or letters of credit) are seen as the key element of the security package that debt providers would wish to see. Parent company guarantees do still have a role to play in security packages in some cases, but the lack of liquidity inherent in such a parent company guarantee is a significant disadvantage.

1.2.39. While security packages would be a key area of focus, the feedback indicated confidence that it would be possible to structure a package that was acceptable to both contractors and financiers based on a PPP type risk allocation on this project.

**A potential change in government or a change in government policy is seen as a threat to the attractiveness of the project.**

1.2.40. The concern about a change in government policy arises from a fear that the project could be cancelled or significantly restructured (i.e. away from a private finance model) in the event of a change in government.

1.2.41. Parties raised the potential for bid cost reimbursement under certain circumstances as a means to mitigate this risk.

1.2.42. Certain participants indicated that reassurance may be required if the procurement process overlapped a general election.

**The credit standing of UK construction contractors was mentioned by the majority of participants as a cause for concern.**

1.2.43. Many participants expressed the view that overseas contractors would likely be required to be part of a bidding consortium to provide the requisite balance sheet strength.

**There was a variety of feedback from participants in respect of the identity of the procuring authority, with a majority of participants indicating their belief that Network Rail should be the procuring authority. The issue of greater concern to participants is the resourcing and capability of the procuring authority.**

1.2.44. The clear feedback among participants, and on which they were consistent irrespective of their preference for procuring authority, was that the procuring authority should be well-resourced with a dedicated team of experienced PPP procurement specialists, suitably empowered and supported at a senior level to make decisions.



- 1.2.45. The issue of procurement process efficiency and the impact on bidders from a time and cost perspective was expressed by multiple participants. Parties referenced a number of previous procurements which had taken significantly longer and had been more costly for bidders than needed. Some compared this to shorter, more standardised processes used in other countries.
- 1.2.46. A number of participants referred to the need for capability, stability and continuity among the procurement team.
- 1.2.47. Participants also raised a potential concern in respect of the ongoing reorganisation of Network Rail and expressed a desire that support for the project and its delivery model, and governance of the procurement process not be adversely impacted by that reorganisation.
- 1.2.48. Some participants raised a potential concern around decision-making and the governance process outside of the procurement process itself. The concern related to wider approval processes within either Network Rail or DfT at relevant points in the procurement process. They accepted the need for such approvals but were concerned that such approvals would be delayed or adversely impact the procurement timeline, with consequent impact on bidder time and costs.
- 1.2.49. A number of participants raised a concern as to whether Network Rail, at all levels of the organisation, was committed to development of the project as a PPP. Those participants recognised, though, the top-level commitment from the Secretary of State, DfT and senior levels of Network Rail to third party involvement in rail enhancements. They indicated that it would be important throughout any procurement process for that commitment to be reflected at all levels of the project team in the context of delivering a successful PPP-type outcome for WRLtH.

**There is a consensus that Network Rail is best placed to advance the planning and submit the DCO application.**

- 1.2.50. Participants acknowledged that the DCO process would set red-line boundaries and limits of deviation which will apply.
- 1.2.51. Participants advocated that Network Rail should seek to retain/preserve maximum flexibility within its DCO submission and avoid over-specifying details where at all possible.
- 1.2.52. A number of participants highlighted the need for a 'progressive assurance' approach to the DCO process, with shortlisted bidders being provided with regular face-to-face updates in respect of the progress of the DCO discussions and potentially being given an opportunity to input on the reference design that is included in the DCO application.
- 1.2.53. No participants raised concern about the DCO process in general and the majority of participants were familiar with it.



**The proposed procurement timetable is considered acceptable.**

- 1.2.54. All participants are focussed on the need for the procurement to adhere to the publicised timetable.
- 1.2.55. Participants recognise and agree with the interaction and coordination between the DCO timeline and the procurement timeline, which provided for a period of time after DCO approval for final bids to be amended and submitted.

**There was a mixed response among participants to the question of whether or not a minority shareholding interest for the public sector (currently proposed at 10%) would be beneficial for the project.**

- 1.2.56. No participant indicated that the inclusion of such a minority interest shareholding would impact on their appetite to be involved in the project.
- 1.2.57. A significant number of participants indicated that such a shareholding would not necessarily serve to create alignment between the parties and that there were other methods to create such alignment and cooperation (such as the creation of an open collaborative project culture and the use of alliancing mechanisms) that would be as if not more effective.
- 1.2.58. Some participants did see a benefit from a transparency perspective of such a shareholding.

### **1.3. Recommended next steps**

- 1.3.1. As noted in section 1.2 above, there is currently sufficient market appetite and financing capacity for the proposed privately-financed element of the WRLtH project. The proposed approach of splitting the project into two packages was felt to be a sensible option, and the proposed risk allocation is a sound basis for structuring a private finance model. The recommendations below are therefore based on further developing and/or amending the Proposed Option to maximise value for money from the project in light of the market feedback to date.
- 1.3.2. The recommended actions identified in the remainder of the report are listed below:



### **Appetite for proposed option**

1. Develop a programme by which the market will be kept informed of progress with the project and with the likely future direction of the procurement process.
2. Ensure the timetable includes sufficient time for bidders to develop their partnering arrangements for the project once the direction of the procurement process emerges. This will be a particular relevant consideration in relation to the delivery of the Proposed Option in light of the fixed windows for commissioning and 'Entry into Service'.
3. The project team should consider the merits of different types of bid cost reimbursement schemes, including consideration of any precedents and make recommendations to DfT. This consideration should include the level of any potential reimbursement and the circumstances in which it might apply.

### **Project scope and packaging**

4. Provide visibility to bidders during any future tendering process of the anticipated programming interaction of Package B with Package A and consider details of how the consequences of delay to asset availability under Package A arising from any delays in Package B can be mitigated.
5. Consider (i) the appropriate point at which, and the manner in which, Heathrow Airport Limited is to be included in the project discussions with participants, and (ii) how to provide participants and bidders with visibility on the operating and project objectives of Heathrow Airport Limited in respect of WRLtH.
6. Provide for the establishment of an oversight body in respect of the project, with membership drawn from all key stakeholders (DfT, Network Rail, HAL, successful bidder), with the appropriate level of senior engagement from relevant organisations, suitably empowered to make decisions and resolve potential interface issues at an early stage.
7. Consider, as part of the OBC development process, the approach to system integration and who is responsible for discharging the role.
8. (a) Reconsider whether the inclusion of signalling in Package A would result in best value for money; (b) where signalling is considered necessary to be included in Package A, give further consideration to how best to structure that requirement in order to address feedback from participants.



### **Risk allocation for Package A**

9. A position on ground condition and other key surveys should be developed as part of the preparation for any future procurement including the scope of those surveys, and providing for engagement with potential bidders. Such surveys should be prepared on the clear basis that bidders may place reliance on them, and appropriate contractual mechanisms (for example, collateral warranties) should be provided for at the outset.
10. Consider the treatment of the risk of protestor action and who should bear such risk.
11. Consider, as part of the DCO development process, what additional planning approvals or consents might be expected to be required by the successful bidder, the level of risk they would entail and whether transferring risk on to them would provide value for money. When they become clear, providing insight and information to bidders as part of the procurement process will be important in getting them comfortable with the risk.

An overview of the DCO process itself and what it provides for and the nature of the planning conditions that will require to be discharged (and the approvals thereof) may also be a useful investment to assist bidders' knowledge and awareness in this area.

12. Consider, in advance of any future procurement, what utility diversions might be required and whether a programme of advance enabling works would represent value for money in terms of either cost or time.
13. Consider the factors that will allow (including compliance with procurement regulations), and will need to be put in place for, the public sector to engage in meaningful discussions with potential bidders, in advance of procurement, in relation to risk issues arising. In particular consider potential for such discussions in circumstances where mitigation of those risk issues does not adversely impact the risk transfer allocation and will allow bidders to provide bids that offer greater levels of value for money.

### **Financing – scale of project and market capacity**

14. Continue to monitor finance capacity via general market intelligence, Infrastructure and Projects Authority (IPA) and DfT colleagues and further market engagement, if appropriate, to fully inform the development of the delivery structure.
15. Consider the opportunity cost of increased reserving, equity commitments, cover ratios and other requirements necessary to achieve a [REDACTED] rating and the notional savings in cost of debt that could be achieved by obtaining that rating. Consider further with market participants and the project's financial advisers whether an external rating would assist the procurement process and/or attract more finance.



16. Consider how the procurement process may be effected efficiently particularly through: (a) sufficient time in preparation of the relevant documentation and supporting information (including surveys); (b) the capability of the procurement team to effectively run the process (for example, effectively evaluate) and negotiate/dialogue key issues; and (c) the responsiveness of overall project governance, which will all be relevant factors that go into the effectiveness or otherwise of the process.
17. More detailed consideration of the effectiveness of post-preferred-bidder debt funding competitions in creating value should be undertaken, including consideration of the time period and cost of running a debt funding competition.
18. The majority of participants do not welcome the prospect of additional equity investors resulting from an equity competition and prefer to work alongside a settled and established consortium. DfT should consider other projects that have undertaken equity competitions to assess whether they add sufficient value to offset the downsides stated by participants.

#### **Other market factors**

19. Continue to monitor the situation in respect of any proposed tariff changes arising from Brexit and how this could impact the affordability of the project.
20. DfT should consider the terms and requirements of the Selection Questionnaire that will form part of the procurement process to ensure that issues of capacity and credit standing of contractors are appropriately addressed at that stage of the project.

#### **Demand risk**

21. Continue to exclude demand risk from the Proposed Option.

#### **Maintenance & Operations**

22. Confirm what commercial arrangements may be possible for participants that would seek to use Network Rail as a maintenance sub-contractor, [REDACTED]. Then consider how the potential for this could be best incorporated into the procurement process.
23. Prepare detailed outputs in respect of commissioning strategy and handover requirements in advance of the launch of a procurement process. These outputs should cater for potential advances in technology over the life of the project.
24. Consider the early introduction of operator involvement in the planning and construction phases to facilitate commissioning and entry into service and reduce project risk.



### **Procuring authority**

25. The procuring authority should be well-resourced with a dedicated team of experienced PPP procurement specialists, suitably empowered and supported at a senior level to make decisions in respect of the project.

### **Planning powers and DCO**

26. Consider whether it is possible to facilitate structured engagement between Network Rail and potential bidders in advance of the submission of DCO, whether through an industry workshop or some other mechanism, to facilitate industry input into the DCO submission on likely areas of critical importance to bidders.
27. Provide for open dialogue with any short-listed bidders during the DCO process to facilitate 'progressive assurance' and promote a 'no surprises' outcome at the grant of DCO.

### **Procurement timetable**

28. The procurement process should set a realistic timetable from the outset which should be adhered to, particularly in relation to DCO completion times and procurement governance processes.
29. Consider the merits and downside implications of possible early procurement of the tunnel boring machine (TBM), in tandem with development of a detailed timeline and submission of the DCO.

### **Alignment between bidder and public sector**

30. Consider, in advance of procurement, whether a public sector minority interest shareholding in line with government policy will be required and what the benefits thereof are expected to be.
31. Options to create alignment between the successful bidder and the public sector to be further considered and the best means to effect this, including how behaviour assessments may feature in the evaluation criteria and be embedded in the project culture as it transitions from development to delivery phases.



## 2. Market sounding process

### 2.1. Introduction

- 2.1.1. The market sounding sessions were undertaken in accordance with the Western Rail Link to Heathrow Market Engagement Strategy and Plan that was agreed in advance with DfT.
- 2.1.2. All interviews were conducted between 4 June and 2 August 2018.
- 2.1.3. The interviews were all scheduled to last for 90 minutes and followed the standard format and process set out below to comply with the Public Contracts Regulations. The processes applied the principles of equal treatment, transparency, and non-discrimination in relation to all interaction with interested party respondents to the market sounding.

### 2.2. Attendees

- 2.2.1. The market sounding meetings were conducted with the participants listed in Annex 1. Two organisations which initially expressed an interest in scheduling an interview subsequently cancelled the interview.
- 2.2.2. The category of market participants interviewed were as follows:
  - Bank
  - Institutional Lender
  - Contractor
  - Equity provider
  - Others (including Chamber of Commerce and a competing scheme promoter)
- 2.2.3. The interview team for each meeting was drawn from a panel of three Agilia/Nichols personnel. DfT and/or Network Rail representatives attended some meetings on a sample basis.





## **2.3. Briefing document and questions**

- 2.3.1. Prior to the interviews all parties were sent the Project Briefing Document (See Annex 3) and the standard questions listed in Annex 4.
- 2.3.2. The questions put to participants were framed to elicit responses on the appetite of the market for the Proposed Option in respect of third party investment and contracting participation in the WRLtH project.
- 2.3.3. In particular, given the stage of development of the overall project, there was a focus on understanding the market view of potential commercial arrangements and risk transfer with the Proposed Option. There was a recognition by respondents that the market sounding will be a key determinant in the future direction of the WRLtH project and will help inform how it is funded and delivered as it progresses through the Rail Network Enhancements Pipeline.
- 2.3.4. The list of detailed questions was circulated with the market sounding Briefing Document prior to all meetings. Participants were not required to provide written responses to the questions. Their answers were provided verbally at the meetings and recorded in the notes.
- 2.3.5. A small number of parties did provide written responses to some or all of the questions, either at the meetings or by follow-up thereafter, although it was noted that these were not required.

## **2.4. Minutes**

- 2.4.1. To realise the objectives of the exercise it was important that the participants in the market sounding exercise felt free to share their opinions freely. Therefore, open disclosure was promoted by assuring participants that the views expressed in the meeting would not be specifically attributed to them outside that forum.

## **2.5. Legal constraints**

- 2.5.1. The Public Contract Regulations set out key principles which must be considered whenever a procuring authority has contact with potential bidders for a procurement within the scope of those regulations. While there is as yet no procurement underway, and no procurement in respect of the Proposed Option may arise, the market sounding has nevertheless taken due cognisance of the key principles and the sounding was conducted in accordance with those principles.



2.5.2. To ensure equality of treatment:

1. all participants were given the same market sounding Briefing Document together with the standardised questions to be asked in each meeting.
2. the Market Sounding Briefing Document will be put in the public domain through publication on the internet.
3. notes were taken at all meetings by Agilia/Nichols and the notes used to inform the drafting of this report.

2.5.3. To mitigate the risk that any party not involved in this phase of the market sounding claims they were excluded, it is suggested that a Prior Information Notice be issued prior to any procurement that may arise in the future in respect of the project.

## 3. Appetite for proposed option

### 3.1. Introduction

- 3.1.1. This section summarises participants' responses to the questions relating to appetite for a project based on the Proposed Option in the Briefing Document.

### 3.2. Market appetite for participation

#### General

- 3.2.1. There was a clear consensus from the participants that there is sufficient market appetite and financing capacity for the project. Participants supported the development of the overall WRLtH project, with one exception.
- 3.2.2. Equity providers, debt providers and European (non-UK) contractors all indicated significant interest in the Proposed Option as an availability-based PPP project.
- 3.2.3. While interested in the project from a contracting viewpoint, UK contractors were more cautious in respect of the proposed level of risk transfer associated with a PPP-style project.
- 3.2.4. Appetite for the project is underpinned by a number of factors. Equity and debt providers have significant capital available for deployment and perceive a lack of suitable projects in recent years, leading to a strong appetite for an opportunity such as the Proposed Option. There was recognition among participants that this project represents an opportunity to participate in rail sector investment and an important potential step in opening up of rail opportunities to the private finance market. The long-term government-backed availability payment associated with the Proposed Option is seen as an attractive proposition.
- 3.2.5. There was recognition and acceptance among participants that the overall WRLtH project is at Outline Business Case preparation phase and that the outcome of the market sounding will help inform how the project is funded and delivered as it progresses through the Rail Network Enhancements Pipeline. Participants expressed appreciation for the early engagement in respect of the project and are keen to be kept informed as the project progresses through the OBC process.



In particular participants would like to understand the emerging direction of travel in respect of the OBC and whether the Proposed Option will progress in due course to a procurement.

**Recommendation 1: Develop a programme by which the market will be kept informed of progress with the project and with the likely future direction of the procurement process.**

- 3.2.6. There was positive commentary from market participants around the emergence of a pipeline of transport projects and the various dedicated market sounding and market engagement exercises which have been (or are being) undertaken in respect of those projects. The respective market sounding processes provide interested potential participants with insights into the likely future pipeline of projects and the timing and issues concerned with those projects. This enables forward planning for resource purposes and formation and mobilisation of bidding teams.
- 3.2.7. Participants had a variety of approaches to partnering on projects. Some participants had established working relationships with other organisations including having already put in place arrangements for their bidding strategy in respect of the Proposed Option, although such arrangements may vary depending on the public sector requirements if or when the project ultimately comes to procurement. Other participants have not yet put such arrangements in place and, while they are very interested in the project, will only begin to firm up strategies and partners once procurement is imminent and the shape of a project and the public sector's requirements become more evident. In particular it was noted by participants that their bidding and partnering strategies would differ significantly depending whether the project was to be procured as a PPP project or by conventional procurement means.
- 3.2.8. There was consistent feedback from participants around the significant time it takes to establish such partnerships and bidding relationships, and the level of resources and commitment required. With a pipeline of potentially competing projects, it was noted by participants that there are multiple opportunities on which they may spend their time and expend resources.
- 3.2.9. The majority of participants indicated that they would not compete for every opportunity but rather would select those opportunities where they felt they had the best chance of reaping a reward for their efforts.

**Recommendation 2: Ensure the timetable includes sufficient time for bidders to develop their partnering arrangements for the project once the direction of the procurement process emerges. This will be a particular relevant consideration in relation to the delivery of the Proposed Option in light of the fixed windows for commissioning and 'Entry into Service'.**



3.2.10. A number of participants raised the prospect of bid cost reimbursement during the sounding meetings. Some of those participants were concerned at the possibility of the project being cancelled during procurement as a result of a change in government or in government policy. Other participants were concerned at the prospect of delays arising during the Development Consent Order (DCO) process and/or multiple design changes arising from the DCO. The participants noted that there was established market precedent in other jurisdictions around partial reimbursement of bid costs, including the possibility of those bid costs being refunded by the winning bidder at financial close. The participants acknowledged that there was not an established UK precedent for reimbursing an element of bid costs, but indicated that it would clearly raise their appetite to bid by mitigating the concerns around possible delays or cancellation.

**Recommendation 3: The project team should consider the merits of different types of bid cost reimbursement schemes, including consideration of any precedents and make recommendations to DfT. This consideration should include the level of any potential reimbursement and the circumstances in which it might apply.**



## 4. Project scope/packaging

### 4.1. Introduction

- 4.1.1. This section summarises participants' responses to the questions relating to Project Scope and Packaging in respect of private sector involvement in WRLTH.

### 4.2. Packages A and B

- 4.2.1. There was a clear consensus from participants that the proposed approach of splitting the project into two packages is a sensible option, with Package B (interface to Great Western Main Line) being delivered by Network Rail and Package A (tunnel and associated works, and interface to Heathrow) by the successful bidder via an SPV.
- 4.2.2. Participants viewed Package A as amenable to delivery via a PPP approach and that it would attract significant market interest. Participants were confident that a number of appropriate consortia could be established to provide sufficient competition for the financing and delivery of Package A.
- 4.2.3. Participants' view of Package B was that it was best developed by Network Rail, on a conventional procurement and financing basis, due to the complexities of the interface with the Great Western Main Line (GWML).
- 4.2.4. Most contracting participants indicated that they would also have a significant interest in tendering for Package B, albeit on a fundamentally different risk transfer and pricing basis than a PPP structure.



### 4.3. Interface risk

- 4.3.1. The majority of participants were confident that interface risks with both the Network Rail Package B and with [REDACTED] could be managed through the project.
- 4.3.2. There was a clear consensus that those interfaces would need to be clearly defined in the project agreements and appropriate mechanisms established to manage and mitigate those risks, but participants indicated interface risks were faced by all such projects and they did not envisage any unique issues with this project.
- 4.3.3. Many of the contracting participants had pre-existing relationships with Network Rail and experience of working with them, including their processes and requirements. Those participants that did not have such experience with Network Rail (including equity providers, debt providers and non-UK contractors) anticipated that their bidding consortium would have such experience within it.
- 4.3.4. Participants were conscious of, and did express varying levels of concern surrounding, the potential programming impact of delays that might arise in respect of Package B and the consequent impact on the successful bidder's ability to deliver Package A. Participants noted their expectation that this would be dealt with through co-ordinated programming of construction plans and that the successful bidder would be appropriately protected against the potential impact in the project agreements.

**Recommendation 4: Provide visibility to bidders during any future tendering process of the anticipated programming interaction of Package B with Package A, and consider details of how the consequences of delay to asset availability under Package A arising from any delays in Package B can be mitigated.**

- 4.3.5. Participants in general had less experience of operating with HAL and in a number of cases expressed an increased level of caution in respect of interface risk with it than with Network Rail. Those participants did confirm that their caution in respect of HAL arose from lack of experience of HAL rather than any specific concern regarding HAL.
- 4.3.6. There was feedback that interaction with HAL should be available at an appropriately early stage of any procurement process, so that clarity could be obtained on interface issues and objectives directly with them as well as through HAL's interaction with Network Rail and DfT.
- 4.3.7. Participants in general had less visibility on HAL's operating requirements from a project perspective than they had with Network Rail's requirements. This included matters such as health and safety, technical program requirements, project governance and sign-off requirements.



**Recommendation 5: Consider (i) the appropriate point at which, and the manner in which, Heathrow Airport Limited is to be included in the project discussions with participants, and (ii) how to provide participants/bidders with visibility on the operating and project requirements of Heathrow Airport Limited in respect of WRLtH.**

- 4.3.8. There was a clear expectation on the part of participants that there would be direct access to all relevant stakeholders (DfT, Network Rail, HAL) during the construction and operating phases of the project, such that interface issues including programming issues, could be planned for, addressed and resolved at an early stage of the process.

**Recommendation 6: Provide for the establishment of an oversight body in respect of the project, with membership drawn from all key stakeholders (DfT, Network Rail, HAL, successful bidder), with the appropriate level of senior engagement from relevant organisations, suitably empowered to make decisions and resolve potential interface issues at an early stage.**

- 4.3.9. A number of participants raised the issue of system integration and its key role in the commissioning and entry into service phases. Participants with significant direct experience of the issue noted that system integration is often seen as secondary to other major work elements, for example, civil works and tunnelling. The participants emphasised that system integration needs to be thoroughly considered before committing to any work and requires comprehensive definition of the scope and a clear road map for how it will be delivered successfully in order for interface issues to be managed effectively.

**Recommendation 7: Consider, as part of the OBC development process, the approach to system integration and who is responsible for discharging the role.**





## 4.4. Scope Alternatives

4.4.1. Signalling was the area which attracted most discussion in respect of possible alternative procurement options. A number of reasons were suggested for why it may not best be delivered as part of a PPP package:

- Those participants with specific rail sector knowledge and experience were most conscious that signalling is a system-wide matter. This means there would be likely limited scope for innovation for a bidder given the detail of the specification that would be required to allow the signalling to fit in with the wider system.
- The capital value of the signalling is likely to be relatively small given the length of Package A, and therefore there would be limited economies of scale both in construction and maintenance.
- Given the role of Network Rail in specifying and operating signalling, there would be a heavy reliance on Network Rail.
- Signalling requirements are likely to change over the life of the project, which would have to be provided for through the project agreements.

4.4.2. [REDACTED]

[REDACTED] Participants did also indicate that signalling could be delivered as part of Package A if required as part of the procurement.

**Recommendation 8: (a) Reconsider whether the inclusion of signalling in Package A would result in best value for money; (b) where signalling is considered necessary to be included in Package A, give further consideration to how best to structure that requirement in order to address feedback from participants.**

4.4.3. One participant indicated a desire to have Package B included with Package A as part of the Proposed Option i.e. a PPP approach in respect of the entire WRLtH project, but expected that others in the project structure would carry the risk associated with the interface with the operational GWML.

## 5. Risk allocation for Package A

### 5.1. Introduction

- 5.1.1. This section summarises participants' responses to the questions relating to the proposed risk allocation in respect of Package A of WRLtH.

### 5.2. Acceptability of risk allocation profile

- 5.2.1. Participants had considered the proposed risk allocation profile in detail (as set out on pages 17 to 21 of the Market Sounding Briefing Document) and recognised that it is based around a PPP risk allocation. This risk allocation and the rationale behind it is well understood by the market.
- 5.2.2. The majority of participants indicated that the risk allocation could broadly be accepted by their organisation, albeit with some significant points of detail and clarification required in relation to specific risks.
- 5.2.3. As noted in section 3.2.2 above, UK contractors, for the most part, were more cautious in respect of the proposed risk transfer associated with a PPP-style project and, while interested in the project from a contracting viewpoint, were less enthusiastic in their support for the Proposed Option due to the strong risk transfer it entails.

#### **Ground risk/surveys**

- 5.2.4. Participants were particularly sensitive to tunnelling issues associated with ground condition risk and archaeological risk, and a key area of focus was the nature of the survey work that would be undertaken by Network Rail in these areas.
- 5.2.5. Participants indicated a desire for Network Rail to provide extensive high-quality surveys on a reliance basis to bidders. Reliance on the surveys (whether through Network Rail or the survey providers) was identified as a significant issue in terms of bidders' ability to price the risk on a value-for-money basis. A number of participants suggested that involving bidders in a discussion about the scope of the surveys has proven highly effective in other projects. Participants were confident on their ability to agree a common joint scope, notwithstanding that organisations might be expected to have different standards or requirements.



- 5.2.6. A number of participants drew attention to examples of projects where the need for high quality surveys and bidder involvement in setting the scope of surveys was not initially accepted. This position was perceived to have contributed to significant delays in the bid process.
- 5.2.7. Some participants also drew attention to a project where the bidders combined to agree the scope of, and funding for, common surveys with the cost of the surveys being repaid to the bidders by the winning bidder at financial close.

**Recommendation 9: A position on ground condition and other key surveys should be developed as part of the preparation for any future procurement including the scope of those surveys, and providing for engagement with potential bidders. Such surveys should be prepared on the clear basis that bidders may place reliance on them, and appropriate contractual mechanisms (e.g. collateral warranties) should be provided for at the outset.**

#### **Risk of protestor action**

- 5.2.8. A number of participants raised concerns in respect of the risk of protestor action. [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] The participants who raised this concern felt there would need to be a level of protection for them in respect of this risk.

**Recommendation 10: Consider the treatment of the risk of protestor action and who should bear such risk.**

#### **Planning approval/DCO**

- 5.2.9. A number of participants raised a concern around planning approval and the DCO process, and the potential impact on risk transfer. The participants recognised the principle that Network Rail would deliver the DCO and that the SPV/successful bidder would be responsible for delivering the project in line with that DCO approval. However, in light of the early stage of the project the participants were as yet unclear as to what additional planning approvals might be required by the SPV beyond those given in the DCO. Participants felt that a review of those additional approvals would be required once they became clear in order to understand the level of risk they entailed, and therefore whether it would be good value to transfer the risk associated with them.



**Recommendation 11:** Consider, as part of the DCO development process, what additional planning approvals or consents might be expected to be required by the successful bidder, the level of risk they would entail and whether transferring risk on to them would provide value for money. When they become clear, providing insight/information to bidders as part of the procurement process will be important in getting them comfortable with the risk. An overview of the DCO process itself and what it provides for and the nature of the planning conditions that will require to be discharged (and the approvals thereof) may also be a useful investment to assist bidders' knowledge and awareness in this area.

### **Construction programme/utility diversions**

- 5.2.10. Several participants raised a concern in respect of the potential risks associated with, and timing impact of, utility diversions on the construction programme. Those participants indicated their belief that significant utility assets are or may be within the tunnelling area, and expressed a view that the risk associated with such diversions is best retained by Network Rail in particular in light of the potential impact on programme timing. The participants suggested a programme of early utility diversion be considered by Network Rail, perhaps as part of an enabling works package in advance of financial close.

**Recommendation 12:** Consider, in advance of any future procurement, what utility diversions might be required and whether a programme of advance enabling works would represent value for money in terms of either cost or time.

## **5.3. Risk mitigation measures**

- 5.3.1. Participants recognised that constraints exist on risk allocation in the context of a PPP project. They indicated a desire to see the public sector engaging in a mature and sensible conversation with bidders around risk mitigation, where such a mitigation can be provided or facilitated. Suggestions on surveys and utility diversions (as detailed in section 5.2 above) provide examples of the sorts of measures that could be undertaken and would help the value for money of the project. Participants referenced other projects in particular where the public sector did not engage with bidders, despite bidder desire to do so, with consequent delays in the bid process.



**Recommendation 13:** Consider the factors that will allow (including compliance with procurement regulations), and will need to be put in place for, the public sector to engage in meaningful discussions with potential bidders, in advance of procurement, in relation to risk issues arising. In particular consider potential for such discussions in circumstances where mitigation of those risk issues does not adversely impact the risk transfer allocation and will allow bidders to provide bids that offer greater levels of value for money.

## 6. Financing – Scale of project and market capacity

### 6.1. Introduction

6.1.1. This section summarises participants' responses to the questions relating to Financing.

### 6.2. Anticipated structure of proposed option

6.2.1. Participants agreed that the anticipated SPV structure outlined in the Proposed Option accorded with their expectations as to how a PPP style project such as this would be structured. A number of participants had not reached a conclusion in respect of where within their project structure the O&M requirement might reside, but they viewed that as a point of detail and accepted that it would be within their overall SPV structure in some manner.

### 6.3. Institutions appetite for funding

#### General

6.3.1. There was a clear consensus from the participants that there is sufficient capacity in the markets to finance the project under current market conditions.

6.3.2. Participants stressed that their view of the capacity of the market was based on market conditions now and that it was possible, if not likely, that such conditions would change before the project comes to market. However, no participants expressed a view that their long-term outlook of the infrastructure market was negative. While the macro economic climate of the UK could change to adversely impact the procurement process, there was no expectation of this at this stage.

6.3.3. Some participants commented that their views were informed by the volume of capital available in the European investment/lending markets and the low deal flow in the UK/European PPP arena. There was considered to be high demand for availability-based projects with stable revenue streams.



- 6.3.4. A number of participants commented that the European Investment Bank (EIB) would not be involved in financing the project in light of Brexit. Participants did not view the absence of EIB as a cause for concern in terms of other market capacity available to finance the project.
- 6.3.5. The scale of the financing requirement, in light of the capital cost of £700-£900 million, was considered by participants to be attractive to the market. Several participants noted that if the scale of the financing requirement was to exceed £1.5 billion, then it might require additional measures. However, that is not expected in light of the current capital estimates.

**Recommendation 14: Continue to monitor finance capacity via general market intelligence, IPA/DfT colleagues and further market engagement, if appropriate, to fully inform the development of the delivery structure.**

- 6.3.6. Participants who responded on the financing questions commented that the nature of project finance has changed over recent years. Participants commented that they would expect the project to be financed with a mixture of bank debt and private placement bonds taken by institutional lenders. Participants also stated that they expected more financing, particularly of a long-term nature, to come from the institutional lenders than the banks.

#### **Bank debt**

- 6.3.7. The decline in the banking market's involvement in financing infrastructure projects was primarily attributed to the inability of the banking market to lend substantial amounts for long term (i.e. 25- and 30-year tenors) typical in project finance transactions. Banks retain a strong interest in lending to projects for shorter periods (for example, seven to ten years).
- 6.3.8. Participants acknowledged that liquidity requirements had limited banking appetite for lending over long tenors. Some participants also commented that there had been a decline in the long-term swap market which made hedging interest rate positions for floating rate long-term debt challenging.
- 6.3.9. No participants expected banks to provide all the financing required for the project based on current market and regulatory conditions.
- 6.3.10. There was uncertainty about the scale of the long-tenor bank market as most participants commented that the appetite of any individual bank for lending long term would, in part, be determined by project specific factors.



- 6.3.11. Participants stated that there remains a large quantum of short-term bank finance available (probably up to a maximum of a 10-year tenor) for projects. They expected this form of debt to make up part of the financing requirement for the projects. Certain participants from institutional lenders stated that the inclusion of short to medium term bank debt would be welcome as banks bring a high level of rigour and diligence to their investments.
- 6.3.12. Other participants stated that use of a portion of short-term bank debt in the financing structure would create a refinancing risk within the project. However, each of those participants stated this was a risk that should be held and managed by investors and should not be mitigated by Network Rail.
- 6.3.13. Participants from banks suggested that individual tickets for recent greenfield projects written by the banking sector were generally sized between [REDACTED]. In terms of the number of banks in the market, participants did not foresee any difficulties with capacity.

**Institutional lenders**

- 6.3.14. Those participants who responded on the financing questions agreed that a significant amount of the debt finance for the project would be likely to come from institutional lenders. They stated that institutional lenders are now looking to invest in infrastructure projects on similar terms to those previously available from the banking market. Participants stated that the current market of institutional lenders had significant and adequate capacity to support the project alongside other projects which might be in the market within a similar procurement timeframe.
- 6.3.15. [REDACTED]  
[REDACTED]  
[REDACTED] Participants from institutional lenders indicated that they were willing to invest tickets of between [REDACTED] [REDACTED] and all such participants indicated that they expected their ticket size to rise over the forthcoming years.
- 6.3.16. Institutional lenders indicated an ability to lend long-term, with tenors of 25-30 years possible and with a tail of [REDACTED] months on that lending (i.e. length of concession minus [REDACTED] months).





## **Equity**

- 6.3.17. Participants indicated there was significant equity capacity available from equity providers in support of suitably structured projects. This abundance of capital reflects the scarcity of projects and investment opportunities. The Proposed Option was viewed as an attractive equity investment opportunity by participants from equity providers based on the availability-based payment and the established PPP-type contract.
- 6.3.18. Participants from equity providers indicated that the most significant challenge for them would be to identify and team up with a consortium, in light of the competition for suitable projects in the market and the volume of capital available.
- 6.3.19. Equity providers were seen by participants as bringing financial and project discipline and significant investment experience to the table, in addition to the capital they could provide. It was noted that equity providers are often the party to drive the bidding process and coral the other elements of the consortium (including debt, contractors and advisers).
- 6.3.20. The level of equity to be provided by contractors/sponsors varied by institution in accordance with their individual investment ethos. Some contractors/sponsors viewed equity primarily as a means to securing/obtaining the construction contract, while other contractors indicated a long-term appetite for project equity.
- 6.3.21. The likely hold period for equity varied by individual institution in accordance with their investment ethos and their rationale for investing in the project. In some cases it was intended to be a long-term hold for the duration of the project, while in other cases it was expected to be subject to an onward sale a number of years after successful commissioning.



## 6.4. Anticipated terms

6.4.1. The feedback from the market showed a high degree of consensus around the likely terms, these are summarised in the table below.

[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

Table 1: Anticipated terms

6.4.2. These terms reflect current market conditions and are subject to change based on the market conditions at the time of any procurement and the specifics of the project.

## 6.5. Requirement for investment grade rating

6.5.1. Participants' responses were mixed in relation to the question of whether or not there was a requirement for the project to be of investment grade.

6.5.2. Participants from institutional lenders stated that their investment would be conditional on the projects achieving an investment grade credit rating (BBB- or higher by Standard & Poor's and/or Baa3 or higher by Moody's). While the minimum investment grade rating would be sufficient to attract investment from institutional lenders in today's market, participants commented that there could be significant savings on the cost of debt and higher capacities if a higher rating (BBB) was achieved.



6.5.3. Participants from institutional lenders stated that for "vanilla PPP projects"<sup>1</sup> such as this an internal rating would be sufficient to attract investment, although some participants stated that an external rating may help to attract finance, particularly from the US markets (which was considered by most participants not to be required at the capacity anticipated for WRLtH).

6.5.4. An external rating would be required to attract financing for a public bond issuance. Again, participants stated this was unlikely to be necessary in the current market given the scale of financing required for the Proposed Option and the volume of alternative capital available.

**Recommendation 15: Consider the opportunity cost of increased reserving, equity commitments, cover ratios and other requirements necessary to achieve a BBB rating and the notional savings in cost of debt that could be achieved by obtaining that rating. Consider further with market participants and the project's financial advisers whether an external rating would assist the procurement process and/or attract more finance.**

6.5.5. A number of participants indicated their belief that a project which adopted a PPP-style risk allocation and commercial arrangements, such as that envisaged by the Proposed Option, would be capable of achieving investment grade rating, albeit acknowledging that institutional lenders would still wish to test that contractual provision via an internal rating process.

---

<sup>1</sup> This was the phrasing of a single participant though other participants echoed this sentiment.



## 6.6. Challenges affecting market appetite

### Timing

- 6.6.1. No participants indicated a concern that the proposed timing of the project would prevent them bidding for the project.
- 6.6.2. Several participants, mainly institutional lenders, stated that they preferred speedy procurement processes which did not tie-up their internal resources over a lengthy period of time. They stated that they would be deterred by a lengthy and resource heavy procurement process. Those same participants flagged that a funding competition may allow them to participate in the project without engaging in a lengthy and protracted process.

**Recommendation 16: Consider how the procurement process may be effected efficiently particularly through: (a) sufficient time in preparation of the relevant documentation and supporting information (including surveys); (b) the capability of the procurement team to effectively run the process (e.g. effectively evaluate) and negotiate/dialogue key issues; and (c) the responsiveness of overall project governance, which will all be relevant factors that go into the effectiveness or otherwise of the process.**

### Contractor market supply

- 6.6.3. Certain contractors flagged that there are a few constraints around construction expertise in respect of the timing of the projects. They stated that significant tunnelling expertise would be required in respect of HS2, Tideway, LTC, A303 and Crossrail 2 at or around the same time as the construction period for this project. While this was not considered to be fatal, participants did flag this as an issue to be aware of and stated that DfT would be well advised to make the project attractive to the construction industry amidst competition.



## 6.7. Debt and equity funding competitions

### Debt funding competition

- 6.7.1. Mixed responses were received as to whether it would be appropriate or helpful to run a debt funding competition during the procurement process at the post preferred bidder stage. Most participants were agnostic as to whether a debt funding competition should be run or not and no participant stated the approach taken would determine their participation in the process.
- 6.7.2. Several participants commented that without a debt competition, bidders would be required to bid on a committed basis. This was considered to be helpful in terms of price certainty when applying the evaluation criteria but participants noted it may create constraints for certain lenders with smaller teams who were unable to support multiple trees/debt packages at one time for multiple bidders.
- 6.7.3. It was recognised by participants that a debt funding competition allowed financiers to engage much later in the procurement process without the need to engage in a lengthy due diligence process on behalf of a bid that may ultimately prove unsuccessful.
- 6.7.4. It was noted that participants with smaller lending teams might struggle to support multiple trees where funding was committed prior to the preferred bidder stage (several participants stated that they would struggle to support more than 3 separate trees). In the event that lenders were not in a position to support multiple bidders, this might limit the amount of debt that each bidder can raise or the competitive tension that they can create among lenders in respect of price and other terms. With the quantum of debt required for this project, the market did not consider this to be a significant issue, but the issue should be reviewed closer in light of debt market conditions closer to the time of procurement.
- 6.7.5. Those participants who opposed a debt funding competition tended to be the larger financing entities capable of committing debt to multiple trees and carrying out lengthy due diligence processes. These entities stated that use of a debt funding competition slowed the procurement process and meant banks and institutions would be reluctant to commit to the process until the later stages.
- 6.7.6. Participants were sceptical as to whether a debt funding competition created substantial additional value for the procuring authority. All participants agreed that in weighing the potential benefits of a debt funding competition the cost of the additional time required (following the appointment of a preferred bidder) to hold a debt funding competition should be considered. Some participants considered this additional cost could neutralise any benefits or value created by holding the debt funding competition in the first place.



- 6.7.7. Several participants noted that where a committed funding approach was to be implemented a prohibition would need to be put in place on exclusivity arrangements between bidders and lenders to maximise competition.

**Recommendation 17: More detailed consideration of the effectiveness of post-preferred-bidder debt funding competitions in creating value should be undertaken, including consideration of the time period and cost of running a debt funding competition.**

### **Equity competition**

- 6.7.8. The opinion as to the utility of an equity competition was more clear-cut than in respect of a debt competition. Those participants who expressed a view considered its effect would be negative.
- 6.7.9. Of the participants who considered that an equity competition would not be helpful, participants stressed the additional time that such a competition would take and the loss of value to bidders who had taken the time and effort to diligence the project. Several participants also stated that adding in additional equity beyond that provided by the bidding Joint Venture (JV) and Her Majesty's Government (HMG) may unsettle a JV and its internal arrangements. It could also prevent structuring within the equity to maximise value. This perspective was particularly prevalent among participants engaged in the construction industry.
- 6.7.10. Several participants emphasised that adding an equity funding competition was not necessary in this instance to attract the equity capital required for the project.
- 6.7.11. Equity provider participants noted that they were most often the party to drive the submission of a bid and to pay for and take risk on the cost of the bid. Those participants selected their consortium partners carefully in order to establish their long-term suitability as partners over the life of the project. In those circumstances they indicated a strong reluctance to have an equity partner, who had not been involved in the process of compiling a consortium or the bid and had not taken risk at that stage, forced upon them by virtue of a competition designed to generate a lowest cost outcome. Most participants stated they preferred to engage with a project early and with a settled JV.

**Recommendation 18: There is a weight of evidence that the majority of the market do not consider equity competitions add value. The majority of participants do not welcome the prospect of additional equity investors resulting from an equity competition and prefer to work alongside a settled and established consortium. DfT should consider other projects that have undertaken equity competitions to assess whether they add sufficient value to offset the downsides stated by participants.**



## **6.8. Competing financing opportunities**

- 6.8.1. Very few participants expressed a view that they were unlikely to bid for the project due to interest in other projects/opportunities. Indeed, market participants stated that there was a limited amount of availability based greenfield projects in the market at present.
- 6.8.2. Participants noted that LTC, A303, Crossrail 2, HS2, A465 and energy projects including nuclear were coming to the market in a similar timescale. However they viewed this as a positive development from the point of view of creating a pipeline of opportunities and did not see it as constraining appetite for this project.

## 7. Bonding and security package

### 7.1. Introduction

- 7.1.1. This section summarises participants' responses on the potentially required levels of bonding and security package that would be required from contractors.

### 7.2. Security package requirements

- 7.2.1. Feedback in respect of this question was principally received from lenders and institutional lenders. Some contractors offered a view based on their current and recent experiences, but noted that the requirements would be driven by the debt providers.
- 7.2.2. The feedback was that the security package would be determined by several factors, including the balance sheet/covenant strength of the contractor(s), the level of cross security (whether there were several contractors joint and severally liable for each other) and the level of security required to obtain an investment grade credit rating.
- 7.2.3. Participants noted that security packages had come more sharply into focus in recent times and there was now a concerted effort by debt providers to ensure an adequate package of liquid (or almost liquid) security was available. Security package requirements were now being carefully calibrated by debt providers to ensure their adequacy in multiple scenarios and with a focus on liquidity measures.
- 7.2.4. Participants indicated that, despite the changed market circumstances, determining and delivering an appropriate security package including performance bonds and/or letters of credit was not anticipated to be problematic for this project. It is seen as a necessary feature, but one that can be readily achieved by putting in place the necessary bonding with the cost thereof becoming an increased cost of the project.





### 7.3. Performance bonds

- 7.3.1. Of the measures discussed, performance bonds (or letters of credit) were seen as the key element of the security package that debt providers would wish to see. Several participants emphasised the need for a bond sized to cover off the worst-case scenario where the construction contractor had to be replaced due to insolvency. Estimates of what that meant varied from [REDACTED]
- 7.3.2. Participants acknowledged that parent company guarantees did still have a role to play in security packages in some cases, but the lack of liquidity inherent in such a parent company guarantee was a significant disadvantage which is leading a further move towards a focus on liquid performance bonds or letters of credit.
- 7.3.3. It was acknowledged that, to achieve a higher-grade credit rating, more bonding would be required but that this would have cost consequences. Contractors generally indicated a lower level of performance bonding as 'on market'.

### 7.4. Liability caps

- 7.4.1. With respect to contractor liability caps, a range of values was suggested, ranging from [REDACTED] of the contract price (the lower end of this scale was generally offered by contractors).
- 7.4.2. It was acknowledged that there would generally be a parent company guarantee of these obligations.

## 8. Other market factors

### 8.1. Introduction

- 8.1.1. This section summarises participants' responses to the questions relating to other market factors which would or could cause concern in supporting the project.

### 8.2. Other market factors which could cause concern

#### **Brexit**

- 8.2.1. It should be noted that the significant majority of sounding meetings were held in advance of the Chequers cabinet meeting of 6 July and the subsequent uncertainty in relation to the likely form of Brexit agreement and negotiating position.
- 8.2.2. The uncertainties relating to Brexit were mentioned as a potential risk for the project. However, all participants stated that at the time of the market soundings they did not currently see Brexit as a major cause for concern which would impact on their appetite for the project. A number of participants flagged that Brexit was likely to be a greater risk for contractors than for funders.
- 8.2.3. From a financing perspective, the fundamental need to find sterling denominated investments to match the sterling liabilities was not affected by Brexit. Certain participants stated they had continued to close transactions post and during the Brexit referendum.
- 8.2.4. Contractor participants were more focussed on the potential impact of Brexit on their ability to deliver the project. The potential impacts of Brexit identified by participants include labour costs, the availability of skilled personnel including Tunnel Boring Machine (TBM) drivers, the impact of tariff changes on imported materials and the potential change in foreign exchange rates. Contractor participants were also conscious that Brexit might limit the ability to provide an EU solution to shortages of skilled labour, in particular with a strong pipeline of tunnelling projects upcoming in the UK. The indication from contractor participants was that these represented issues that could be reflected in the pricing of bids but did not undermine the ability to carry out the works or bid on the project.



**Recommendation 19: Continue to monitor the situation in respect of any proposed tariff changes arising from Brexit and how this could impact the affordability of the project.**

**Potential change in government policy**

- 8.2.5. Some participants expressed concern about political risk, in light of a speech given by the Shadow Chancellor of the Exchequer, in which he stated he would, “bring existing PFI contracts back in-house”.
- 8.2.6. Certain participants indicated that reassurance may be required if the procurement process overlapped a general election. Those participants stated that this risk could be mitigated to some extent by payment of bid costs to certain pre-qualified bidders and/or use of funding and equity competitions to enable certain investors to enter the process at a later and more certain stage, thereby limiting their exposure to the procurement process being cancelled following a change in government or government policy.

**Contractors**

- 8.2.7. The credit standing of UK construction contractors was mentioned by the majority of participants as a cause for concern. Many participants expressed the view that overseas contractors would be required to be part of the bidding consortium to provide the requisite balance sheet strength.

**Recommendation 20: DfT should consider the terms and requirements of the Selection Questionnaire that will form part of the procurement process to ensure that issues of capacity and credit standing of contractors are appropriately addressed at that stage of the project.**

## 9. Demand risk

### 9.1. Introduction

- 9.1.1. This section summarises participants' responses to the questions relating to treatment of demand risk in respect of the project.

### 9.2. Exclusion of demand risk

- 9.2.1. There was clear agreement from participants that the exclusion of demand risk from the Proposed Option is a sensible approach in terms of securing value for money bids on a greenfield project.
- 9.2.2. Participants pointed to the difficulty of quantifying demand levels on a piece of greenfield infrastructure designed to facilitate modal shift in an integrated system. Participants were conscious that the project links with other elements of the transport network which would be outside the control and influence of the successful bidder, minimising ability to impact/manage demand levels in a meaningful way.
- 9.2.3. In such circumstances, participants indicated that pricing of demand risk was likely to adversely impact value for money of their bids if required to accept demand risk.
- 9.2.4. Some participants, principally those with operational interests elsewhere in their businesses, did indicate that if there was a need to accept demand risk, then they could look at doing so but within a very different commercial and contractual structure.
- 9.2.5. One participant indicated a desire to have demand risk included as part of the Proposed Option. This was a bank whose desire was to create a project of maximum scale to increase the amount of debt that could be provided to the project. The participant expected that others in the project structure would carry the demand risk and that debt would be entirely protected from such risk in the course of the project.

**Recommendation 21: Continue to exclude demand risk from the Proposed Option.**

# 10. Maintenance and operations

## 10.1. Introduction

- 10.1.1. This section summarises participants' responses to the questions relating to maintenance and operations.

## 10.2. Maintenance

- 10.2.1. There was a consensus among participants that the inclusion of maintenance and operations requirements within the Proposed Option was sensible as a means of ensuring a focus on the full life cost of the assets. Participants indicated that this approach would ensure bidders were conscious of the interplay between capital expenditure, specification of assets and an ongoing maintenance programme that would optimise the value achieved by the public sector.
- 10.2.2. Participants did not express particular concerns at either the length of the maintenance requirement or in relation to the ability to meet that maintenance requirement.
- 10.2.3. There was a consensus among participants that the establishment of a dedicated maintenance business in respect of this project was unlikely given the size of the asset. There was an expectation that an arrangement would be established with a maintenance provider who had geographically proximate assets, to optimise the costs involved.
- 10.2.4. Some participants indicated that this might be Network Rail while others had an open mind as to the manner of discharging the maintenance obligation. A number of those participants who suggested Network Rail as the potential maintenance provider raised a query as to whether this would be permissible within the contract structure. This query included a concern on the part of the participants as to the ability to pass non-availability risk to the maintenance provider if the maintenance provider is Network Rail.

**Recommendation 22: Confirm what commercial arrangements may be possible for participants that would seek to use Network Rail as a maintenance sub-contractor, [REDACTED]. Then consider the potential for how this could be best incorporated into the procurement process.**



- 10.2.5. Participants who responded on the question did not expect that the SPV would assume responsibility for maintenance of Package B in addition to Package A. While the benefits of an increased size of maintenance operation were understood, participants were cautious of a requirement to assume maintenance obligations in respect of an asset they had not built. Additionally participants were conscious of and cautious of the potential risk penalty for non-availability due to poor maintenance in proximity to the GWML.
- 10.2.6. Participants did not express particularly strong views in relation to the interface arrangements between Package A and Package B maintenance, other than the issues noted above in respect of potential sub-contracting arrangements with parties maintaining geographically proximate assets and the possibility of Network Rail as a maintenance sub-contractor.

### **10.3. Handover requirements**

- 10.3.1. Participants indicated an understanding of and an acceptance of the principles behind the handover requirements as outlined in the Briefing Document.
- 10.3.2. Participants recognised the need for renewal of life-expired assets in advance of handover and the interaction of this principle with the full life cost principle which underpins the maintenance proposal.
- 10.3.3. Some participants, with more detailed knowledge of rail infrastructure and operations, made observations in respect of potential technical advances over the life of the project and the manner in which handover requirements might be specified during procurement phase in light of the potential for such technical advances. Signalling was the most frequently mentioned item in such discussions although it was acknowledged by participants that the principle applies equally to all infrastructure.

**Recommendation 23: Prepare detailed outputs in respect of commissioning strategy and handover requirements in advance of the launch of a procurement process. These outputs should cater for potential advances in technology over the life of the project.**



## 10.4. Train operations

- 10.4.1. There was clear agreement from participants that the exclusion of train operations from the Proposed Option is a sensible approach in respect of a PPP project for a discrete piece of infrastructure.
- 10.4.2. Participants indicated that train operations should form part of an existing operating franchise or other arrangement, and that rolling stock should be outside the scope of the project.
- 10.4.3. A number of participants did comment on the requirement for compatibility of the project infrastructure with the ultimate train operator including during the commissioning and entry into service phases. These participants advocated having clarity on the ultimate operator at an early stage in the procurement process.
- 10.4.4. One participant, with particular experience of introducing new infrastructure and operations, strongly advocated the early introduction of operator involvement during the planning and construction phases of the project. It was suggested that this could be on a shadow-operator basis or a short-term operator basis, if a longer-term decision in respect of ultimate operator was not available at an early stage in the procurement phase.

**Recommendation 24: Consider the early introduction of operator involvement in the planning and construction phases, to facilitate commissioning/entry into service and reduce project risk.**

# 11. Procuring authority

## 11.1. Introduction

- 11.1.1. This section summarises participants' responses to the questions relating to the identity of the procuring authority.

## 11.2. Procuring authority

- 11.2.1. There was a variety of feedback from participants in respect of the identity of the procuring authority. A majority of participants indicated their belief that Network Rail should be the procuring authority. A small minority of participants indicated that it should be DfT, or an entity other than Network Rail. Some participants indicated that it should not be DfT, on the basis that DfT is policy maker and does not have direct experience of PPP procurement. There was no suggestion among participants of the possibility of establishing a new procurement body for a single piece of infrastructure. A small minority of participants queried whether another body with experience of PPP procurement could be utilised to avail of best practice experience.
- 11.2.2. Participants did not indicate that the identity of the procuring authority would impact on their participation in the procurement.
- 11.2.3. The clear feedback among participants, and on which they were consistent irrespective of their preference for procuring authority, was that the procuring authority should be well-resourced with a dedicated team of experienced PPP procurement specialists, suitably empowered and supported at a senior level to make decisions. The issue of procurement process efficiency and the impact on bidders from a time and cost perspective was expressed by multiple participants.
- 11.2.4. A significant number of participants noted that Network Rail did not have organisational experience of procuring a PPP contract, albeit acknowledging that the organisation had in relatively recent times begun to recruit a number of individuals with specialist PPP experience.





- 11.2.5. A number of participants referred to the need for stability and continuity among the procurement team. They referenced other instances, both within Network Rail and in other procuring organisations, where changes of procurement team during a procurement process significantly impacted on the time and cost of procurement, including decision-making in respect of key issues on the respective projects.
- 11.2.6. A number of participants raised a potential concern in respect of the ongoing reorganisation of Network Rail and the governance of the procurement process in the context of that reorganisation. These participants did not, for the most part, advocate that the procuring authority should be someone other than Network Rail.
- 11.2.7. Some participants raised a potential concern around decision-making and the governance process outside of the procurement process itself. The concern related to wider approval processes within either Network Rail or DfT at relevant points in the procurement process. They accepted the need for such approvals but were concerned that such approvals would be delayed or adversely impact the procurement timeline, with consequent impact on bidder time and costs.
- 11.2.8. A number of participants raised a concern as to whether Network Rail, at all levels of the organisation, was committed to development of the project as a PPP. Those participants recognised the top-level commitment from the Secretary of State, DfT and senior levels of Network Rail to third party involvement in rail enhancements. They indicated that it would be important throughout any procurement process for that commitment to be reflected at all levels of the project team in the context of delivering a successful PPP-type outcome for WRLtH.

**Recommendation 25: The procuring authority should be well-resourced with a dedicated team of experienced PPP procurement specialists, suitably empowered and supported at a senior level to make decisions in respect of the project.**



## 12. Planning powers and DCO

### 12.1. Introduction

- 12.1.1. This section summarises participants' responses to the questions relating to the planning process and Development Consent Order (DCO).

### 12.2. DCO process

- 12.2.1. There was a consensus among participants that the DCO would, as set out in the Briefing Document, be undertaken by Network Rail. Participants agreed that Network Rail was best placed to advance the planning and submit one DCO application for both packages.
- 12.2.2. Participants recognised and agreed with the basic interaction and coordination between the DCO timeline and the procurement timeline as set out in the Briefing Document, with the procurement process commencing after DCO submission and submission of final tenders occurring after DCO approval is granted.
- 12.2.3. Participants acknowledged that the DCO process would set red-line boundaries and limits of deviation which will apply to Package A. A number of participants queried whether it might be possible to engage with Network Rail in advance of DCO submission to discuss the draft submission. One participant suggested that they could review the Network Rail draft submission and provide feedback within a matter of days on areas that might be of significant importance to bidders. The participants did, though, acknowledge that this advance interaction might be difficult to facilitate within a procurement process.
- 12.2.4. Participants advocated that Network Rail should seek to retain/preserve maximum flexibility within its DCO submission and avoid over-specifying details where at all possible.

**Recommendation 26: Consider whether it is possible to facilitate structured engagement between Network Rail and potential bidders in advance of the submission of DCO, whether through an industry workshop or some other mechanism, to facilitate industry input into the DCO submission on likely areas of critical importance to bidders.**



- 12.2.5. A number of participants highlighted the need for a 'progressive assurance' approach to the DCO process, with shortlisted bidders being provided with regular face-to-face updates in respect of the progress of the DCO discussions. This would be structured to ensure that emerging amendments to the DCO design could be factored into their tenders by bidders on a timely basis. Participants were conscious on the other hand of the number of iterations to design that might occur during the DCO process, and the cost implications for bidders of multiple design changes over time.

**Recommendation 27: Provide for open dialogue with any short-listed bidders during the DCO process to facilitate 'progressive assurance' and promote a 'no surprises' outcome at the grant of DCO.**

- 12.2.6. A number of participants raised a concern regarding the potential for significant time delays, with associated cost implications for bidders, if significant issues were to emerge during the DCO process and/or the anticipated DCO timeline was not adhered to. Participants suggested that if there was to be a significant delay arising in the DCO process, consideration should be given to putting the procurement on hold for a defined period. Participants indicated that while this would be expensive and potentially difficult to achieve, it would be preferable to persisting with an elongated procurement process where bidding teams remain mobilised and incurring significant additional cost with little substantive progress.

## 13. Procurement timetable

### 13.1. Introduction

- 13.1.1. This section summarises participants' responses to the indicative procurement timetable set out in the Briefing Document.

### 13.2. Overall deliverability

- 13.2.1. All participants considered the project was deliverable within the proposed timeline.
- 13.2.2. All participants were focussed on the need for the procurement to adhere to the publicised timetable. There was significant consciousness among participants of the cost and squandered resource impacts of unnecessary slippage in public procurement timetables.

**Recommendation 28: The procurement process should set a realistic timetable from the outset which should be adhered to, particularly in relation to DCO completion times and procurement governance processes.**

- 13.2.3. Two participants noted that, while the project was deliverable within the proposed timeline, the procurement of the TBM would be a lengthy process (of perhaps 18-24 months) which could only commence following selection of preferred bidder or perhaps financial close. Those participants therefore identified that there was not a significant buffer for slippage built into the timetable (however in this regard see possible mitigation set out in section 13.5 below).
- 13.2.4. A number of participants observed that the time between commencement of procurement and submission of final tenders was longer than they might have expected or experienced on other procurement processes, although they understood the interaction between the DCO process and the procurement timeline. If the process was to be shortened, that would be achieved by a later commencement of procurement (in light of the constraints of the DCO timeline). Those participants expressed a desire that in any event the procurement be managed as efficiently as possible within the planned time window, to avoid a situation where bidders had bid teams active but not making significant progress.



### **13.3. Relationship between DCO and financial close**

- 13.3.1. Nearly all participants flagged that the DCO was critical for timetable purposes and would be subject to significant technical diligence.
- 13.3.2. Most participants noted the buffer in the projected timetable between grant of DCO approval and financial close and considered this sensible given the requirement to pass through obligations from the DCO.
- 13.3.3. No participants raised concern about the DCO process in general and the majority of participants were familiar with it.

### **13.4. Streamlining the procurement process**

- 13.4.1. Most participants who expressed a view on best practice mentioned the importance of having a realistic timetable and then sticking to it. Changes to the timetable are very difficult to manage efficiently and therefore are a major driver of additional bid costs, especially for contractors.
- 13.4.2. Some participants cited the Dutch approach as an exemplar as timetables are tight but also generally maintained which creates efficiency and confidence.
- 13.4.3. A number of participants made suggestions regarding the optimal number of bidders that should be taken through the prequalification stage. Most suggested that no more than three bidders should be shortlisted and some participants indicated that they were unlikely to compete in the procurement process if more than three parties would be shortlisted.



### 13.5. Tunnel Boring Machine

- 13.5.1. As noted in section 13.2 above two participants noted that, while the project was deliverable within the proposed timeline, the procurement of the TBM would be a lengthy process (of perhaps 18-24 months) which could only commence following selection of preferred bidder or perhaps financial close.
- 13.5.2. Those participants suggested that Network Rail consider procuring the TBM in parallel with the procurement process. An alternative possibility identified was for procurement of the TBM to be accelerated post selection of preferred bidder and in anticipation of financial close.

**Recommendation 29: Consider the merits and downside implications of possible early procurement of the TBM, in tandem with development of a detailed timeline and submission of the DCO.**

# 14. Alignment between bidder and public sector

## 14.1. Introduction

- 14.1.1. This section summarises participants' responses to the questions relating to alignment between the successful bidder and the public sector/stakeholders.

## 14.2. Public sector minority interest shareholding

- 14.2.1. There was a mixed response among participants to the question of whether or not a minority shareholding interest for the public sector (currently proposed at 10%) would be beneficial for the project. No participant indicated that the inclusion of such a minority interest shareholding would impact on their appetite to be involved in the project.
- 14.2.2. A significant number of participants indicated that in their opinion such a shareholding would not necessarily serve to create alignment between the parties and that there were other methods to create such alignment and cooperation.
- 14.2.3. Some participants did see a benefit from a transparency perspective of such a shareholding. Other participants indicated a belief that in the right circumstances such a shareholding could create alignment.
- 14.2.4. A number of participants perceived a conflict with having an arm of the public sector alongside other shareholders in the event of a dispute arising between the SPV and the procuring authority. Notwithstanding the public sector's shareholding, there was a perception or expectation that the public sector would align with the procuring authority.
- 14.2.5. A number of participants expressed a desire that, if such a shareholding was to be introduced, the public sector representative would be suitably experienced and capable of both adding value and influencing the public sector for the benefit of the project.



**Recommendation 30: Consider, in advance of procurement, whether a public sector minority interest shareholding in line with government policy will be required and what the benefits thereof are expected to be.**

### **14.3. Alignment**

- 14.3.1. Participants had a variety of perspectives on the topic of other ways of creating alignment between the successful bidder and the public sector.
- 14.3.2. There was a consensus among participants that alignment was heavily influenced by individuals and behaviours. There was a common theme among participants of the need to create a collective project identity, where the collective spirit of those involved in the project aligns around an objective of delivering the project, with the separate corporate identities being partially dissolved in favour of the common project objective.
- 14.3.3. Positive examples put forward by participants included the delivery of Crossrail and the Thames Tideway Tunnel.

**Recommendation 31: Options to create alignment between the successful bidder and the public sector to be further considered and the best means to effect this, including how behaviour assessments may feature in the evaluation criteria and be embedded in the project culture as it transitions from development to delivery phases.**



## 15. Annex 1 – Interviewees

15.1.1. With thanks to those who contributed to the market sounding:

Aberdeen Standard Investments	KBR
Aecom	Legal & General
Amber Infrastructure Group	Lloyds Bank
Amey Investments	Macquarie
Atkins	Morgan Sindall
Aviva Investors	MTR
Balfour Beatty	Murphy
BAM Nuttall	National Grid
Bayern LB	Nord LB
Bechtel	Ramboll
Bouygues	Salini Impregilo
Costain	Santander
Credit Agricole	Skanska/PORR/Mott MacDonald
Dalmore Capital	Taylor Woodrow/Vinci
DIF	Thames Valley Chamber of Commerce
Dragados/Iridium	UK Power Networks
Equitix	Windsor Link Railway
Hochtief	

Table 2: Interviewees



## 16. Annex 2 – Interviewers

16.1.1. The table below lists the individuals from Agilia/Nichols who conducted the market sounding meetings. The table also outlines the DfT and Network Rail individuals who attended a sample of the meetings.

Nichols/Agilia	DfT	Network Rail
Amar Qureshi (Agilia)	Henry Sutcliffe	Marco Buffoni
Eoin O'Lideadha (Agilia)	Peter Brown	
Wilson Manson (Nichols)	Andrew Bennett	
	Natalie Smart	
	Ian Duveen	

Table 3: Interviewers



# 17. Annex 3 – Project Briefing Document



# Western Rail Link to Heathrow (WRLtH) - Market Sounding Briefing Document

Summer 2018

The Shaw Report and the Hansford Review have made recommendations to Government and Network Rail to harness third party funding and financing of railway enhancements in order to broaden sources of investment and support innovation and growth. Government, and Network Rail through its 'Open for Business' work, have signalled a strong desire to bring a pipeline of projects to market to commence this process of third party involvement where practical. The market has indicated at various times that it has significant capacity available to support suitable projects.

The Western Rail Link to Heathrow (WRLtH) is the first such potential opportunity to be offered to the market for consideration. Involvement of the private sector could free up resources and capacity for other network enhancements, which may otherwise be capital constrained or developed on a slower timeline. Delivering a customer-focused railway and securing value for money remains at the heart of this Market Sounding.

The Department for Transport (DfT), together with its advisers Nichols/Agilia, with the support of the Infrastructure and Projects Authority and Network Rail, are holding a series of Market Sounding sessions with financial and industry participants to assess market appetite in respect of third party investment and contracting participation in the WRLtH project. This Market Sounding will be a key determinant in the future direction of the WRLtH project and will help inform how it is funded and delivered as it progresses through the Rail Network Enhancements Pipeline.

# Contents

Foreword	60
Executive summary	61
WRLtH Proposed Option outline	61
Roles and responsibilities of the parties involved	61
Commercial and financial elements of the WRLtH project (Package A)	62
Indicative Timetable	63
1. WRLtH project outline	64
Description of WRLtH project	64
Map of WRLtH	65
Benefits of the WRLtH project	66
2. Roles and responsibilities of the parties involved	67
DfT	67
Network Rail	67
Heathrow Airport Limited	68
SPV / Successful bidder	68
Rail Regulator	69
3. Commercial and financial elements of the WRLtH project (Package A)	70
Contractual structure and arrangements	70
Funds Flow	71
Key commercial features	72
Risk Allocation	74
4. Indicative Timetable for Project DCO and Package A procurement	79
Annex A: Further detail on key stakeholder interfaces for SPV / Successful bidder	80
Annex B: Further detail on Construction activities and responsibilities of SPV / Successful bidder	81
Annex C: Glossary	82

# Foreword

## Summary

- Acting on recommendations from the Shaw Report and Hansford Review to broaden sources of investment in the railway and support innovation and growth.
- WRLtH is the first such project to be offered for consideration.
- Market Sounding sessions will be undertaken to assess market appetite for a Proposed Option and to inform consideration of viability and value for money.
- Feedback and results will inform the Outline Business Case (OBC) and future direction of the project.
- Government has a strong desire to facilitate private sector participation in WRLtH, provided objectives on risk transfer and timing of infrastructure delivery can be achieved.

## Detail

This document describes the proposed WRLtH project and sets out a Proposed Option, comprising a series of assumptions for consideration by the market in respect of private sector participation, commercial arrangements and risk transfer that have been designed to provide value for money for Government and to support an 'off balance sheet' outcome for the privately financed Package A (known in this document as the Proposed Option). DfT is keen to obtain feedback from participants in respect of this Proposed Option and the working assumptions that have been developed to underpin it. This will allow DfT to determine if a PPP/PF2 approach in respect of Package A of WRLtH is a viable option that can deliver value for money and be delivered within the proposed timescales. In developing the Proposed Option we have used the risk allocation as set out in the currently published PF2 guidance. We recognise that this is under review; while we would not expect significant changes to basic conclusions on viability from this review, we recognise that certain elements may need to be re-tested once revised PF2 guidance is published.

The Market Sounding sessions will be conducted around a series of structured questions in respect of the Proposed Option. Respondents are encouraged to provide clear feedback to the questions, supported by evidence where possible. The feedback from the sessions will be confidential and is of significant importance. The results of the Market Sounding process will be used by DfT to inform the OBC process which is underway in respect of WRLtH, and ultimately to facilitate a decision as to whether the project can be progressed with private sector participation. Please also note that a summary of the output from the Market Sounding process will be made publicly available on a non-attributable basis in late Summer/early Autumn 2018.

# Executive summary

## WRLtH Proposed Option outline

- WRLtH is a proposed new rail link between the Great Western Main Line (GWML) in the Langley area and Heathrow Airport Terminal 5 (T5).
- Package A (the proposed PPP/PF2 element) is an approximately 5km rail link, comprising twin-bored tunnel and connection into T5.
- Package B (the proposed conventional procurement by Network Rail) links Package A to the GWML at Langley.
- Benefits of the project include improved Heathrow rail connections and journey times, modal shift from car to public transport, and economic growth across the Thames Valley region.

We are seeking to elicit responses from participants on the proposed terms relating to Package A, which represents an estimated capital value of £700-900 million. The Proposed Option has been developed to provide:

- a long-term contract (circa 25-30 years);
- availability based payments (with capped deductions);
- a counterparty with a strong credit standing (assumed to be Network Rail);
- a strong benefits case, which is independent of any decision concerning the proposed third runway.

## Roles and responsibilities of the parties involved

- **DfT:** sponsor of WRLtH and provision of funding through Network Rail.
- **Network Rail:** delivery partner responsible for Development Consent Order (DCO) submission, procurement and management of the PPP Contract (in respect of Package A), delivery of Package B and payment of periodic availability payment to the Special Purpose Vehicle (SPV).
- **Heathrow Airport Limited:** infrastructure owner of existing airport rail links and stations, responsible for Heathrow station and movement/security of passengers, and providing contribution to funding of WRLtH.
- **SPV / Successful bidder:**
  - Detailed design, construction, financing and maintenance of Package A;
  - Commissioning of Package A;

- Ownership and stewardship for the life of the Contract;
  - Ensuring availability of assets (note, SPV will not be taking demand risk);
  - Obligation to handover the asset to Network Rail at expiry of Contract;
  - Undertaking the role of the Infrastructure Manager (IM) for Package A infrastructure, except in relation to charging or operational matters;
  - Additional detail below.
- **Rail Regulator (ORR):** independent safety and economic regulator responsible for provision of operational licences, approving body granting authorisations for bringing infrastructure into passenger service, Health and Safety enforcement, approval of terms of access agreement governing use of tunnel section.
  - More detailed roles and responsibilities are set out in Section 2.

## Commercial and financial elements of the WRLtH project (Package A)

- The proposed contractual structure is set out in Section 3 with underlying assumptions which will be tested during the Market Sounding process.
- Basic principles of the structure accord with current PF2 guidance.
- The SPV is to be established by the successful bidder to deliver the project, which will be responsible for raising finance and for letting contracts for design, construction and maintenance.
- A 25-30 year contract between Network Rail and SPV, with Network Rail making periodic availability payments to the SPV.
- No transfer of demand risk to the SPV, as it is unlikely to either be conducive to meeting key strategic objectives of the project (no fare premium, encouraging modal shift) or be attractive to private sector finance providers.
- Availability payment to be fixed for duration of contract period, subject to indexation, a compensation event regime and a small number of specific contractual provisions (such as change in law). Payment to be linked to a performance regime with capped contractual deductions.
- Public sector to own 10% of shares in SPV.
- Network Rail to obtain DCO, the means of obtaining permission for the development, and to be responsible for associated land purchases.
- Handover provisions at the end of the Contract to include requirement for renewal of life-expired assets before expiry of the Contract.
- Detailed proposed risk allocation position set out in Section 3, which is designed to provide a value for money outcome for Government; feedback is welcome on the proposed allocations at the Market Sounding sessions.



## Indicative Timetable

- Package A procurement expected to commence July 2019.
- Financial close expected November/December 2021.
- Construction anticipated to be complete by 2027.
- Indicative timetable for Project DCO and Package A procurement is set out in Section 4.

# 1. WRLtH project outline

## Description of WRLtH project

The Western Rail Link to Heathrow (WRLtH) project is a proposed new rail link between the Great Western Main Line (GWML) in the Langley area and Heathrow Airport Terminal 5 (T5). It is comprised of two parts:

**Package A** – an approximately 5km rail link, with rail systems fit out, which comprises a new twin-bored tunnel and cut-and-cover element, to connect into existing tunnels at T5.

**Package B** – works to connect the new tunnel to the GWML at a new Langley Junction, including grade separation to connect the tunnel to the GWML via a Rail Intersection Bridge.

In relation to Package A, private sector involvement in detailed design, financing, construction and maintenance is being considered to determine if it is a viable option that can meet value for money, risk allocation and timescale requirements.

Package B is assumed to be conventionally funded and delivered by Network Rail, due to the complexities of the interfaces and the constraints in connecting to the operational GWML at Langley.

WRLtH continues to be developed by Network Rail and is a scheme within the "Develop" stage of the Rail Network Enhancements Pipeline<sup>1</sup>. An indicative timetable would see construction commence during Network Rail's Control Period 6 (the funding period 2019-2024) and would be expected to be complete by 2027. Construction would take place at the same time as the proposed north-west runway at Heathrow, although WRLtH is not contingent on the delivery of a new runway.

On 25 October 2016, the Government announced that a north-west runway at Heathrow, combined with a significant package of supporting measures, was its preferred scheme to deliver additional airport capacity in the south-east of England. A draft Airports National Policy Statement (NPS) and supporting Appraisal of Sustainability was published for consultation on 2 February 2017. The Government expects to lay any final NPS in Parliament in the first half of 2018, for a vote in the House of Commons. An application for Development Consent for expansion of Heathrow Airport to incorporate a third runway, if one arises following the NPS, would be expected to be submitted by the airport promoter in 2020.

---

<sup>1</sup> A copy of the document can be found here - <https://www.gov.uk/government/publications/rail-network-enhancements-pipeline>

# Map of WRLtH

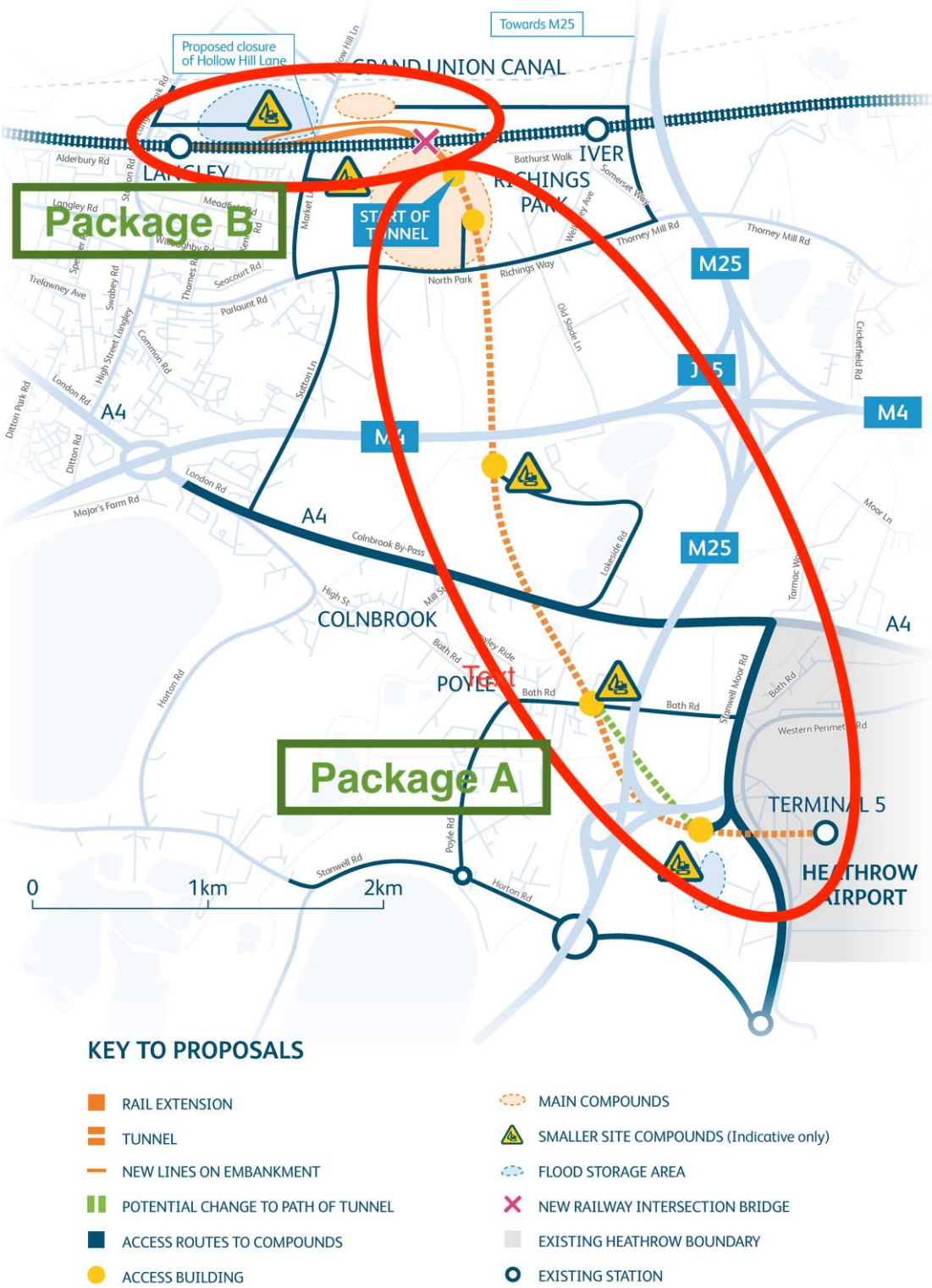


Figure 1: Outline of the WRLtH project

## Benefits of the WRLtH project

The 2016 passenger public transport mode share at Heathrow was 39%, while passenger private transport (car/taxi) was 61%. Heathrow is well connected by rail to central London to the east, but poorly connected by rail in other directions. Currently, 97% of Heathrow passengers originating from the key areas to the west of the airport use the road to access the airport.

The proposed WRLtH project would:

- Deliver a new, faster, frequent, more reliable direct train service to Heathrow from the west with four trains per hour in each direction. All trains would call at Reading and Slough and alternate trains at Twyford and Maidenhead. Journey times could be as short as 26 minutes from Reading and 6 to 7 minutes from Slough;
- Significantly improve rail connectivity to Heathrow from the Thames Valley, South Coast, South West, South Wales and West Midlands;
- Provide an alternative form of transport for passengers and the airport workforce currently travelling by road;
- Ease congestion on roads, including the M4, M3 and M25 resulting in lower CO2 emissions equivalent to approximately 30 million road miles per year;
- Generate economic growth and new jobs across the Thames Valley and surrounding areas;
- Reduce passenger congestion at London Paddington.

## 2. Roles and responsibilities of the parties involved

### DfT

The Department for Transport (DfT) works with agencies and partners to support the transport network that helps the UK's businesses and gets people and goods travelling around the country. The DfT's Rail Group is responsible for taking Britain's railway into the future - delivering a sustainable and customer-focused railway, which puts passengers at the heart of every journey. Its role within this project is:

- Sponsor of WRLtH;
- Provision of funding to Network Rail;
- Approval of the terms of the Master Services Agreement (MSA or the Contract).

### Network Rail

Network Rail owns, operates and develops Britain's railway - track, bridges, tunnels and viaducts, signals, level crossings and stations. Network Rail's role is to deliver a safe and reliable railway every day for the four and half million people and businesses that rely upon it. Network Rail is a public company, answerable to Government via the DfT, that runs the day-to-day railway through nine devolved, geographically based businesses, called routes. Its role within this project is currently assumed to be:

- Promoter of the Development Consent Order (DCO), including acquiring any necessary land;
- Procurement and management of the Contract, based on PF2 principles, with the Special Purpose Vehicle (SPV);
- Delivery of any enabling works and Package B (GWML interface works);
- Payment of periodic availability payment to SPV;
- Access planning and timetabling across WRLtH;
- Infrastructure operational control of power and signalling across WRLtH;
- Acceptance of the project infrastructure;
- Substantial environmental mitigations for whole scheme, e.g. flood.

## Heathrow Airport Limited

Heathrow Airport Limited (HAL) owns the railway related assets in T5 and also the existing connecting tunnels from Airport Junction to the T5 station. HAL undertook its initial statutory consultation on its plans for airport expansion between January and March 2018. Its role within this project is expected to be:

- Entering into asset protection agreements;
- Responsibility for the Heathrow station including any changes to its assets, and managing the interfaces with Package A;
- Passenger flow in and around the Heathrow station, and between it and the airport terminals;
- Sponsor and funding contributions to be determined. Discussions concerning the level of HAL's contribution to the overall scheme are on-going. For the purposes of this Market Sounding, it should be assumed that those discussions will not have a bearing on the overall estimated capital requirement for Package A.

## SPV / Successful bidder

The SPV will, following a procurement process, be contracted for a defined term under the Contract developed on standard and accepted PF2 provisions, but amended specifically for the rail sector and the package. The terms of the Contract will detail the specific duties, rights and obligations of the SPV in relation to infrastructure and maintenance responsibilities for the Package A assets.

An outline of the SPV's likely responsibilities is set out below. For the Package A assets, this may involve:

- Detailed design, construction, financing and maintenance, together with all relevant approvals;
- Commissioning of the project infrastructure;
- Ownership and stewardship for the life of the Contract;
- Ensuring availability of assets (note, the SPV is not proposed to be taking any demand risk);
- Obligation to handover the asset to Network Rail in accordance with the defined handover criteria set out in the Contract;
- Undertaking the role of the Infrastructure Manager (IM), as defined in The Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016, for the Package A infrastructure, except in relation to charging or operational matters;
- Interoperability and compatibility with relevant rolling stock requirements;
- TSI and other relevant standards compliance;

- Engage, and potentially enter into agreements with, key stakeholders at interfaces. This includes, but is not limited to:
  - Network Rail;
  - Freight operating companies;
  - HAL;
  - Office of Rail and Road (ORR);
  - Further detail on these key stakeholder interfaces is set out in Annex A.

Further detail on likely construction activity and responsibilities is set out in Annex B.

## Rail Regulator

The ORR is the independent safety and economic regulator for Britain's railways. It has two main functions: a) ensuring the safe operation of the railway system, protecting both those working on the system and members of the public from health and safety risks; and b) regulating Network Rail, licensing operators of railway assets, and approving the terms of access to those assets. It is ORR's responsibility to ensure that those responsible make Britain's railways safe for passengers and provide a safe place for staff to work. Their likely role in this project is:

- Provision of operational licences;
- Approving body granting authorisations for bringing infrastructure into passenger service;
- Exercising of Health and Safety enforcement powers, as required;
- Provision of assistance and advice in developing projects to be safe, compliant to relevant standards and legislation, and accessible to train operators;
- Approval of the terms of the access agreement governing the use of the tunnel section;
- Overseeing the requirements of the Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016 including rules on charging.



### 3. Commercial and financial elements of the WRLtH project (Package A)

#### Contractual structure and arrangements

The contractual structure being put forward for this Market Sounding comprises a series of assumptions in respect of third party participation, commercial arrangements and risk transfer. These have been designed to provide value for money for Government and to support an assumed affordability position for Package A. The basic principles of the structure are based on and will accord with PF2 guidance (and any further revisions thereof):

- An SPV will be established by the successful bidder to deliver and maintain the Package A assets. The SPV will be responsible for raising finance (equity and debt) and for the detailed design, construction and maintenance of the Package A assets under the Contract.
- The Contract will be for a 25-30 year contract period, to incentivise the successful bidder to optimise whole life costs (not simply lowest upfront construction cost).
- The Contract will be agreed between Network Rail and the SPV and will set out the successful bidder's duties, rights and obligations in relation to works and services. This contract will include the structure and payment terms of the periodic availability payment that will be paid to the SPV by Network Rail.
- It has been assumed, for the purposes of the Proposed Option, that the transfer of demand risk to the SPV is unlikely to be attractive to private sector finance providers. The Proposed Option has therefore been structured on an availability basis. This proposed position, and the potential willingness of the private sector to accept transfer of demand risk, will be further considered and explored in our Market Sounding sessions.
- Under the Proposed Option, the SPV will receive availability payments from Network Rail that will follow standard payment mechanism principles as set out in accordance with general PPP/PF2 guidelines. Consequently, there will be a single Unitary Charge in respect of the project services.
- The availability payments will be fixed for the duration of the service period, with an element of the payments being subject to indexation. Payments will be linked to a performance and availability regime with capped contractual deductions (i.e. not Schedule 8 deductions) to be applied based on the severity of the performance failure.
- A compensation event provision will be included, triggered by a small number of prescribed and specific events (e.g. related to ground conditions).



- In accordance with PF2 guidance, it is proposed that the public sector will own 10% of the shares in the SPV.

## Funds Flow

The procuring Authority will be Network Rail, who will have a contractual commitment to make the periodic availability payment in respect of the Package A assets to the SPV. Network Rail will receive funding to make these availability payments from the DfT.

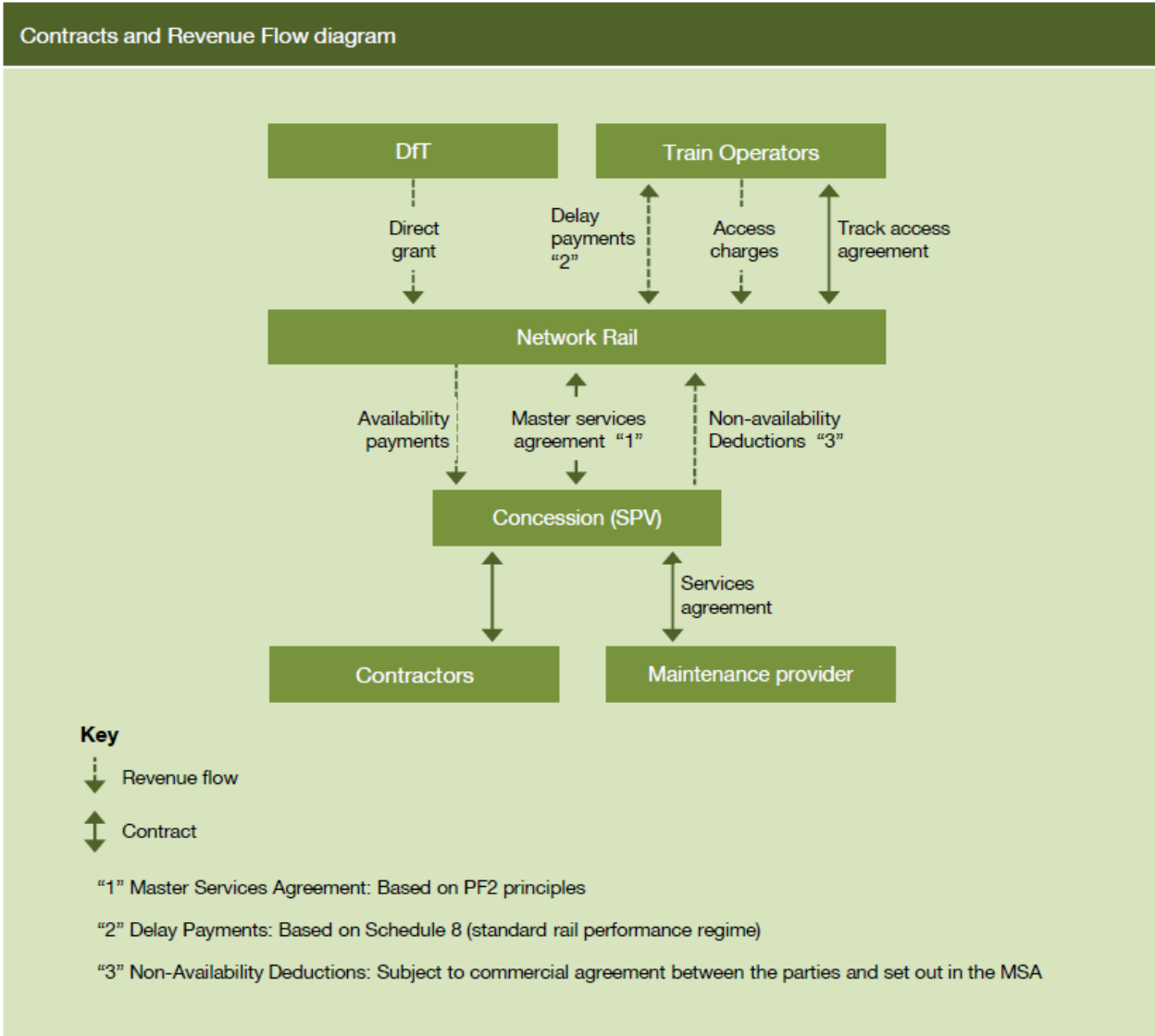


Figure 2: Contracts and Revenue Flow diagram

The Proposed Option assumes a contractually based availability payment. Payments will be sized to cover maintenance expenditures, taxes, and remuneration and return of invested/deployed capital. Capped deductions will be made for underperformance and unavailability (calibrated in accordance with contractual provisions) and based on an agreed list of KPIs. This structure is in line with a standard PPP/PF2 payment mechanism and based on bankable PF market precedents both in the UK and internationally.

Other payment mechanisms have also been considered, including addition to the Regulated Asset Base (RAB) of an existing business or the creation of a new regulated business dedicated to the implementation of the WRLtH project. DfT's initial analysis suggests that these other payment mechanisms would not offer the same potential value for money as the proposed approach.

## Key commercial features

### Capital value of privately financed element

Package A's capital value is estimated to be approximately in the range £700 - £900 million for design, construction and putting into operational service. It should be assumed that discussions concerning the level of HAL's contribution to the overall scheme (which has an overall value greater than Package A) will not have a bearing on the overall estimated financing requirement for Package A.

### Consents

Network Rail will obtain the DCO and specified key consents. The SPV will be obliged to comply with those consents and will be responsible for obtaining any other permits/consents/authorisations required to deliver the Package A assets and services.

### Land

Network Rail (as the Procuring Authority and as applicant in respect of the DCO) will identify the parcels of land required to construct the assets, by reference to the preliminary design, and will acquire the necessary land for the WRLtH project. This will include land required for access to and egress from the Tunnel, in addition to spoil removal, and provision of the compound for Tunnel Boring Machine (TBM) launch and material storage.

### Design

Network Rail will carry out preliminary design and secure the DCO for the entire WRLtH project to include both Package A and Package B. The SPV will assume the design set out in the DCO with no recourse to the public sector in respect of matters detailed in that DCO. Network Rail, in consultation with DfT and other stakeholders, will prepare the output specification. The SPV will be responsible for carrying out detailed design and then implementing that design to meet the output specification.

### Construction risk

The Contract will provide for the SPV to carry out the construction, and the SPV will be on-risk for changes in construction costs and/or timings. The detail of the construction contract is a matter between the SPV and its construction contractor, but is likely to be on the basis of a fixed price contract between those parties.

There may be a limited set of risks where Network Rail would consider giving some protection to the SPV (through an increase in the availability payment from Network Rail). Any such protection would have to be shown to provide value for money and would only apply in very limited circumstances, for specific and identified risks that were not foreseeable or estimatable (which for the avoidance of doubt will exclude general cost inflation or price changes that may arise from delays to construction).

The SPV will be responsible for managing all aspects of construction and will report regularly to Network Rail on the status of the works.

### **Farebox and other revenue**

Availability payments to the SPV, from Network Rail, will commence following Acceptance.

Revenue risks (e.g. farebox, delay payments, track access charges) will remain with Network Rail, DfT and the Train Operating Companies (TOCs).

### **Acceptance**

Clear acceptance criteria will be developed including to satisfy the ORR of the safety elements of the assets prior to introduction into service.

### **Maintenance**

The SPV will be responsible for the maintenance of the Package A assets during the Contract term. Deductions from the availability payments will occur for unavailability and poor maintenance/underperformance, if not remedied within agreed contractual timelines.

### **Handover**

With a contract period of 25-30 years, the Contract will clearly set-out the handover condition and provide for a robust process and criteria, with a high degree of certainty, for determining compliance with the handover conditions. This clarity on handover provisions is required both to provide clear instructions to the SPV concerning its obligations and to ensure continued operations for the remainder of the asset's life.

The Contract is expected to provide a requirement for renewal of any life-expired assets by the expiry of the Contract period, which may (depending on factors such as design life, expected usage) include:

- Overhead Line Electrical (OLE) systems;
- Heating Ventilation and Air Conditioning (HVAC);
- Signalling systems (though note this may become rolling-stock based);
- Track systems, (e.g. balises, circuitry, points operating equipment);
- Emergency equipment and safety related systems (e.g. emergency communications, fire detection, etc.);
- Potentially track (depending upon factors e.g. usage, number of tight bends etc.).

## Risk Allocation

The Contract relating to Package A will adopt generally accepted PF2 risk positions in relation to the following areas, which are not considered to have unusual project specific features:

- Subcontractor performance and credit risk of counterparties;
- Compliance with legislation;
- Health and Safety (with the SPV as part of undertaking the IM role to be responsible for overall tunnel safety);
- Asset condition/defects/residual asset condition;
- Change in Control of SPV / Network Rail;
- Financing risk, refinancing and reference rates;
- Insurance;
- Inflation;
- Force Majeure;
- Compensation Events and Relief Events (process, not definitions);
- Termination and relevant compensation provisions.

In relation to project specific risk transfer considerations, the following initial allocation of risk has been developed by DfT and its advisers for Package A of WRLtH to deliver a value for money outcome. This should be considered indicative to provide a basis for the Market Sounding sessions and will remain subject to further development.

Area	Risk	Party primarily at risk		Proposed treatment
		Public	Private	
Land Availability and Acquisition	Delays in works/completion and increased costs in land acquisition process	x		Network Rail (NR) will identify and acquire land requirement and make it available to the SPV. SPV will be responsible for undertaking assurance that land requirements are adequate to deliver the project. If additional land is required, this is an SPV risk.
Site availability and access	Delays in works/completion and increased costs.	x (pre-FC)	x (post-FC)	NR will ensure that the SPV is granted access to the sites. SPV will be responsible for satisfying itself that access granted is sufficient. SPV assumes risk post Financial

Area	Risk	Party primarily at risk		Proposed treatment
				Close (FC) including risk of security and protestor action.
Farebox / demand risk	Risk of revenues derived from Farebox Risk of usage of tunnel and demand for services	X		This will be retained by the public sector.
Availability of assets	Risk of assets being unavailable for use		X	SPV will assume risk of unavailability of the assets. Payments to SPV will be made on the basis of availability of the project infrastructure, with capped contractual deductions for unavailability and poor performance. Performance regime and deductions will be set out in the Contract, and will not be Schedule 8 (standard rail performance regime) deductions.
Ground risk	Impact on route selection, construction planning, delay in works/completion and increased costs.		X	The SPV will assume ground condition risk (including utility interfaces) and, to support this, NR will undertake surveys that will allow the SPV to provide VfM bid responses. Any exclusions (compensation or relief events) must be limited to events that are not foreseeable or estimable.
Contaminated soil/pollution/hazardous materials in ground	Delay in works/completion and increased costs	X (pre-FC)	X (post-FC)	NR will assume risk associated with contamination, pollution or hazardous materials prior to FC and will undertake surveys or undertake enabling works that allow SPV to provide VfM bid responses. Post FC, the SPV will assume contamination risk. Any exclusions (compensation or relief events) must be limited to

Area	Risk	Party primarily at risk		Proposed treatment
				scenarios that are not foreseeable and estimable.
Archaeological risk	Delay in works/completion and increased costs.		X	The SPV will assume archaeology risk and, to support this, NR will undertake surveys that will allow the SPV to provide VfM bid responses. Any exclusions (compensation or relief events) must be limited to scenarios that are not foreseeable or estimable.
Adverse Weather	Delay in works as a result of adverse weather		X	SPV assumes the risk of adverse weather.
Planning approval	Delay in works/completion and increased costs.	X (pre-FC)	X (post-FC) (relating to compliance and any new approvals)	Planning approval to be obtained by NR as part of DCO process. Legal challenge to planning approvals obtained by NR is NR risk. Legal challenge to additional planning approvals obtained by the SPV is an SPV risk. Compliance with planning approval conditions or modification of planning approvals required by SPV is an SPV risk.
Licences & Approvals from Statutory Undertakers / HAL	Delay in works/completion and increased costs		X	NR to grant required licences to SPV for key rail interfaces (ORR & NR). SPV to undertake assurance over the sufficiency of licences. SPV to obtain all licences/approvals with Statutory Undertakers and HAL (in its capacity as land owner and IM for Heathrow CTA associated with the works).
Third Party Agreements/Consents (other than licences)	Delay in works/completion and increased costs		X	SPV assumes responsibility for entering into/discharging obligations relating to the Third Party Agreements (e.g. asset protection

Area	Risk	Party primarily at risk		Proposed treatment
Environmental and social	Delay in works/completion and increased costs.	x (pre-FC)	x (post-FC)	agreements). NR will assume risk of environmental requirements defined as part of the DCO process prior to FC. SPV will take risk for delivering outputs in line with the DCO and complying with required conditions, post FC.
Output specification	Compliance		x	SPV to assume risk of compliance with the output specification. SPV takes full design risk post FC.
Relevant consents / permits / authorisations	Delays in permits/authorisations will hinder the Project.		x	SPV to assume responsibility for obtaining all relevant permits / authorisations for the construction works.
Construction completion	Delay in overall Project completion and increased costs.		x	The SPV assumes all construction related obligations under the Contract. It will not receive payments for the period of any delay in completion.
Interface risk	Delays in Project works/completion, loss of revenues and increased costs.	x	x	NR will retain the risks of interfaces within its control. SPV to assume the risks of interfaces within its control.
Project completion / acceptance / commissioning	Delays in Project completion and increased costs.		x	SPV risk unless caused by NR or NR related companies. Commencement of availability payments will be linked to acceptance of the project assets by NR. Completion to be certified through appointment and use of Independent certifier.
Management, Maintenance and Renewals	Unavailability/ poor maintenance performance by SPV will lead to deductions and ultimately termination.		x	The SPV is responsible for the maintenance of the tunnel. Availability payment deductions will occur for underperformance where it impacts on availability.
Traction	Loss of traction		x	Loss of traction electrification

Area	Risk	Party primarily at risk		Proposed treatment
Electrification	electrification will make the service unavailable.			is an NR risk unless caused by actions or omissions of the SPV.
Utility costs		x	x	Increase in utility prices during operations are a pass-through cost. Increase in energy consumption in so far as relates to SPV assets (required to make the tunnel available) is an SPV risk.
Forex	Changes in forex		x	SPV risk if changes in forex occur post FC.



## 4. Indicative Timetable for Project DCO and Package A procurement

An indicative timetable in respect of the WRLtH project DCO, and Package A procurement, is set out below. This timetable is provided for discussion purposes in advance of the Market Sounding to provide a timing context to respondents. The timetable at this point remains draft and subject to revision as matters arise in the normal course.

Indicative Timetable	
Market Sounding to commence	May 2018
DCO Statutory Consultation commences (Network Rail)	May 2018
Airports NPS final draft laid before Parliament	First half of 2018
Summary output of Market Sounding process	Late Summer / early Autumn 2018
DCO Submission to planning inspectorate (Network Rail)	June 2019
Package A procurement to commence (Network Rail)	July 2019
Package A Invitations to Tender issued	February 2020
DCO Submission to planning inspectorate for airport expansion (by airport promoter)	Early 2020
DCO Decision (in respect of WRLtH)	November 2020
Package A close of competitive dialogue	February 2021
Package A appointment of preferred bidder	May 2021
Package A Financial Close	November/ December 2021
Package A infrastructure completed	2027

## Annex A: Further detail on key stakeholder interfaces for SPV / Successful bidder

The SPV's roles include contact and engagement with, and potentially entering into agreements with, key stakeholders at interfaces. This includes, but is not limited to:

- Network Rail:
  - Interface arrangements into GWML at Langley Junction;
  - Access to Langley freight sidings to facilitate removal of spoil and arisings;
  - Arrange train paths for removal of spoil and arisings;
- Freight Operating Companies:
  - Removal of spoil and arisings from Langley sidings;
- HAL:
  - Connections into existing tunnels and systems at T5;
- Office of Rail and Road:
  - Consultation on matters of safety and approval for new infrastructure to be 'brought into service' safely.

## Annex B: Further detail on Construction activities and responsibilities of SPV / Successful bidder

Construction activity and responsibilities in further detail includes<sup>2</sup>:

- All Health and Safety requirements and responsibilities;
- Dilapidations survey and remediation works;
- Tunnelling including:
  - Procurement of TBM(s);
  - Transition box to launch the TBM(s);
  - Tunnel portal and building, twin bore tunnel and four shafts – all shafts are access shafts, two are also vent shafts;
  - Rail crossover box;
  - Spray concrete lined section (approx. 200m) to connect to existing HAL tunnels;
  - Existing twin bore tunnels into platforms 3 and 4 at T5;
  - Arrangements for, and removal of, all spoil and arisings;
- Rail systems:
  - Track for tunnel section with interface to Package B and T5;
  - Overhead Line Power system for tunnel section with interfaces to GWML and T5;
  - Signalling for tunnel section with interfaces to GWML and T5;
- Tunnel and shaft electrical and mechanical systems, including HVAC;
- Interfaces to operational control for power and signalling provided by Network Rail;
- Interfaces to HAL operational control for tunnel, shaft and T5 system.

---

<sup>2</sup> Network Rail is currently undertaking a public consultation on the Western Rail Link to Heathrow which runs from 11 May to 22 June 2018. Two design options are being consulted upon. For the avoidance of doubt, the Market Sounding has used Option A as the baseline for this engagement. Further detail can be found at: [www.networkrail.co.uk/heathrow](http://www.networkrail.co.uk/heathrow)

## Annex C: Glossary

Contract	the contract or MSA to be agreed between Network Rail and the SPV for delivery of Package A
DCO	Development Consent Order
DfT	The Department for Transport
FC	Financial Close
GWML	Great Western Main Line
HAL	Heathrow Airport Limited
HVAC	Heating, Ventilation and Air Conditioning
IM	Infrastructure Manager
OBC	Outline Business Case
OLE systems	Overhead Line Electrical systems
ORR	Office of Rail and Road
MSA	the Master Services Agreement, or the Contract
NR	Network Rail
NPS	Airports National Policy Statement of the UK Government
Package A	the proposed PPP/PF2 element of WRLtH
Package B	the proposed conventionally procured element of WRLtH
The Project	WRLtH
Proposed Option	the series of assumptions in respect of third party participation, commercial arrangements and risk transfer that have been designed to provide value for money for Government and to support an 'off balance sheet' outcome for the privately financed Package A
RAB	Regulated Asset Base
SPV	Special Purpose Vehicle, to be established by the successful bidder to deliver Package A
T5	Heathrow Airport Terminal 5
TBM	Tunnel Boring Machine
TOCs	Train Operating Companies
WRLtH	Western Rail Link to Heathrow



# 18. Annex 4 – Questions



Department  
for Transport



# Western Rail Link to Heathrow (WRLtH) Market Sounding Questions

Department for Transport

Summer 2018



## Purpose of this document

The Department for Transport (DfT), together with its advisers Nichols/Agilia, with the support of the Infrastructure and Projects Authority and Network Rail, are holding Market Sounding sessions with financial and industry participants to assess market appetite in respect of third party investment and contracting participation in the Western Rail Link to Heathrow (WRLtH) project. In particular we would like to obtain feedback on a number of assumptions made in a 'Proposed Option' described in a Market Sounding Briefing Document (the 'Briefing Document') that accompanies this set of questions.

The Proposed Option contains a series of assumptions in respect of third party participation, commercial arrangements and risk transfer that have been designed to provide value for money for government and to support an 'off balance sheet' outcome for the privately financed Package A. DfT is keen to obtain feedback from market participants in respect of this Proposed Option and the working assumptions that have been developed to underpin it. This will allow DfT to determine if a PPP/PF2 approach in respect of Package A of the WRLtH is a viable option that can deliver value for money and be delivered within the proposed timescales.

The purpose of this document is to set out the topics that we would like to cover in our meeting with you and we hope you will have time to consider these beforehand. .

## Approach to the meeting

Each topic has a series of questions to provide structure to the discussion. The meetings will be confidential and responses / views provided by you will not be used for any purpose other than the Market Sounding. Your responses will be assimilated by us into a summary report for DfT, which we plan to publish; however this will not attribute views to any specific respondents. We trust this means you will express your views openly.

Our structured questions refer to assumptions which underpin the Proposed Option in the Briefing Document that we are looking to test. We are also seeking your views on potential alternative assumptions that could potentially improve the feasibility of the project and increase the likely level of interest from the market in supporting the project.



## Topics

We would like to cover the topics set out in the table below. For ease of respondent consideration, the table highlights whether topics are likely to be of particular relevance to respondents with an interest in a financing capacity, a contractor capacity, or both. We recognise that some respondents may have views to express in respect of all topics and respondents are welcome to respond to all questions if they so wish. The topics are:

Topic	Particular Relevance to Respondent	
	<i>Financing</i>	<i>Contractor</i>
A. Your appetite for the Proposed Option	Y	Y
B. Project scope / packaging	Y	Y
C. Risk allocation for Package A	Y	Y
D. Financing – Scale of the project and market capacity	Y	-
E. Bonding/Security Package	Y	-
F. Other market factors	Y	Y
G. Demand Risk	Y	Y
H. Maintenance and operations	-	Y
I. Procuring Authority	Y	Y
J. Planning Powers - Development Consent Order (DCO)	-	Y
K. Procurement Timetable	Y	Y
L. Alignment between bidder and public sector / stakeholders	Y	Y
M. Other thoughts / considerations not covered above	Y	Y





## A. Your appetite for the Proposed Option

We are asking for comments about your interest in a project based on the Proposed Option in the Briefing Document, in order to understand what has attracted your organisation's interest in the WRLtH project and to test your organisation's general appetite for the Proposed Option.

1. In light of what you know about the project from the Briefing Document, is it a project in which, subject to detailed discussions below, you have an overall interest? In what capacity are you interested in the project (e.g. from a financing, construction or maintenance perspective)?

## B. Project scope / packaging

In considering the overall WRLtH project and the proposed scope of private sector involvement in the project, the project has been split into Package A and Package B as more fully described in the Briefing Document (pages 7 and 8). We are asking for your feedback in respect of the proposed project scope. We are also interested in feedback in respect of the proposed overall split of the WRLtH into two packages and whether you agree with that or have additional insights or views on the scope/packaging.

1. The Proposed Option (page 7<sup>1</sup>) assumes Package B (interface to Great Western Main Line) would be developed on a conventional financing and procurement basis by Network Rail, due to the complexities of the interface and the constraints in connecting to a live operating line. Do you agree with this approach of Package B being developed by Network Rail? Do you have any views on whether Package B could be contested in a different way to achieve increased value of money for public funding?
2. The Proposed Option (page 7) assumes that the privately financed element is Package A, including interfaces to the existing infrastructure at Terminal 5, owned by Heathrow Airport Limited (HAL). Do you agree broadly with the overall scope of Package A as set out in the Briefing Document?
3. Do you foresee any difficulties in the acceptance by your organisation of interface risk (page 7 and Annex B) with either Package B and/or with HAL? How would you propose any issues are mitigated?
4. Does your organisation consider that the WRLtH project could be packaged or procured differently to the assumptions which underpin the Proposed Option (e.g. 3 packages; or a different geographical split; or a technical split by function)?
  - a. If so, what are those packages and the related assumptions?

---

<sup>1</sup> All page number references are to pages in the accompanying Market Sounding Briefing Document.



- b. How does that benefit Government in terms of the objectives of delivering value for money and delivering the project within the proposed timescale?

### **C. Risk allocation for Package A**

The proposed split of the overall WRLtH project into Package A and Package B is underpinned by commercial arrangements (pages 13 to 16) and risk allocation (pages 17 to 21) that have been designed to provide value for money for Government and to support an 'off balance sheet' outcome for the privately financed Package A.

1. What is your view on the acceptability to your organisation of the risk allocation profile (pages 17 to 21) described in the Proposed Option associated with design, construction, commissioning and maintenance of Package A?
2. Recognising that the broad risk allocation is set in accordance with PF2 principles/provisions, are there particular and defined risks in relation to Package A that you feel would represent better value for money if they were shared with or borne by the public sector?
3. Are there any risk mitigation measures that you believe are necessary from Government to increase your appetite for the project and promote value for money pricing?

### **D. Financing – Scale of the project and market capacity**

We are seeking comments on your organisation's proposed financing structure for the project, together with an indication of likely appetite and costs. We are keen to understand what evidence there is of recent / previous financing to support these statements (institutional or market)? These responses will help inform DfT's preparation of the Outline Business Case (OBC) for advancement of the project. The Proposed Option envisages a traditional PPP/PF2 financing structure (pages 13 and 14), with an SPV entering into the project agreement with Network Rail, drawing down financing, and being responsible for construction and maintenance contracts.

1. Does that anticipated structure match your expectations? If not, what financing structure could/might you envisage for the project?
2. What are your views on likely:
  - a. Sources / mix of finance (equity, bank debt, institutional debt, bonds)?



- b. Margins / returns?
  - c. Gearing?
  - d. Tenor?
  - e. Debt Service Coverage Ratio / other key ratio requirements?
  - f. Arrangement fees, commitment fees, other fees?
3. Do you believe the project needs to be investment grade? If so, why? Does the (periodic) availability payment from Network Rail impact on your view of that issue (i.e. do you consider the credit standing of Network Rail sufficient to support investment rating)?
  4. What is your individual organisation's likely ticket size at financial close? What is your likely hold position?
  5.
    - a. What challenges do you perceive in respect of raising financing, on a value for money basis, for the project?
    - b. Do you believe that there is sufficient capacity currently in the financing market for the project considering the overall size of the financing requirement?
    - c. Do you believe that there is sufficient capacity currently in the contractor supply market for this project?
    - d. Other?
  6. The Proposed Option envisages holding Debt and Equity funding competitions for this project in line with PF2 guidance. Do you have a view on the attractiveness or otherwise of holding such a competition? What, if any, impact does your response have on the ability to achieve a VFM result?
  7. Are there any challenges that would make you less likely to bid or support a bid for the project (e.g. sector/country exposure, resource constraints)?
  8. What comparable financing opportunities/projects might impact on your appetite for bidding or supporting a bid for the WRLtH?



## E. Bonding/Security Package

1. What levels of support/security package would you expect to see from contractors e.g. parent company guarantees / letters of credit?

## F. Other market factors

1. What other market factors would cause you concern in supporting the project?
  - a. Anticipated impact of Brexit?
  - b. Credit standing of construction contractors?
  - c. Other?

## G. Demand Risk

One of the key objectives in developing the WRLtH is to promote modal share change in terms of passenger services in the Heathrow area (page 9). The Proposed Option assumes (pages 13 and 16) that the market would not be willing to accept demand risk in terms of usage of the tunnel (project infrastructure), either related to train volumes or passenger numbers availing of services through the tunnel. We are asking for comments on that issue. Responses to these questions will support development of the OBC.

1. The availability payment structure proposed means that demand risk (either on usage of tunnel or on passenger numbers) is not transferred to the SPV / successful bidder and instead rests with Network Rail / the public sector and/or the Train Operating Companies (TOCs) (pages 13 and 16).
  - a. Do you agree with this proposal?
2. Are there circumstances under which you would accept such demand risk and, if so, what are they?



## H. Maintenance and operations

The Proposed Option assumes that the SPV is the Infrastructure Manager for the Package A assets (page 11) and would be accountable for maintenance and availability of the tunnel, and associated rail systems in Package A for an assumed contract period of 25 to 30 years (pages 11, 13 and 16). This is to ensure a focus on full life cost of the assets, and to facilitate handover in a manner that ensures ongoing future operability of the assets beyond the end of the contract period.

1. Do you have any views or concerns about these assumptions? (Including the length of the contract period).
2. How would you anticipate meeting the maintenance requirement (page 16)? Are there sufficient companies in the supply chain that can provide these maintenance services?
3. Do you have a view on whether the SPV should be responsible for maintenance of the Package A assets only, or responsible for maintenance of the full line (i.e. Package A and Package B)?
4. Do you have a view on potential interface arrangements between Package A and Package B maintenance?
5. Do you have any comments on the level of handover requirements (page 16) that should be set to deliver value for money?
6. The Proposed Option assumes that Train operations would form part of an existing operating franchise or other arrangement, and are therefore outside the scope of this project. It also assumes that rolling stock, and the associated stabling and maintenance thereof, is outside the scope of this project. Do you have any views or concerns about these assumptions? Do you agree with this approach?

## I. Procuring Authority

The Procuring Authority for the project is assumed to be Network Rail (pages 10, 13 and 14). There has been precedent in other sectors where a new organisation has been established (for example the ODA, CRTL and more recently East West Rail Company) by the public sector for delivery of a project. We are keen to understand the views of the market in relation to the appropriate procuring authority for the privately financed elements of the WRLtH project.

1. Do you foresee any issues arising from the assumption that Network Rail is the procuring authority that might impact your participation in the procurement?



2. DfT has also been considered as an alternative to be the procuring authority. Would that impact on your participation in the procurement?
3. If you do not agree with Network Rail as the procuring authority, what would you consider to be the optimal means to structure the Procuring Authority?

## J. Planning Powers – Development Consent Order (DCO)

The Briefing Document sets out how the DCO process (pages 10, 15, 19 and 22) is assumed to be undertaken by Network Rail, in light of the urgency of progressing the project. Network Rail would be the DCO applicant and the DCO powers once approved would then be transferred to the SPV of the successful bidder to enable the project to be built – i.e. the SPV would be the nominated undertaker.

1. Do you perceive any issues with this approach to submitting one DCO for both Packages? The DCO decision will set red-line boundaries and limits of deviation which will apply to Package A. How could these issues be mitigated and how would you propose to manage changes?
2. Do you have a view as to what could be submitted with the DCO application to facilitate the transfer of powers and undertakings to the SPV for Package A?
3. Recognising that Network Rail are progressing the DCO, if you had the opportunity would there be particular aspects of the scheme that you would want to input into at the DCO stage? If so, what?

## K. Procurement timetable

The Briefing Document contains an indicative procurement timetable for Package A (page 22). DfT wishes to understand clearly from market respondents that they can deliver to the proposed timeline, in light of the desire to have the WRLtH in operation within the expected timescale.

1. Do you perceive any issues with the proposed procurement timetable with regards to:
  - a. Deliverability? Please comment on the durations of specific activities.
  - b. Setting the specification for the project assets?
  - c. Relationship between DCO and financial close?



d. Other?

2. Do you have any specific proposals which would be conducive to an overall time and cost-efficient procurement process?

#### **L. Alignment between bidder and public sector / stakeholders**

The Proposed Option includes provision for the public sector to own a minority shareholding interest (currently proposed at 10%) of the shares in the SPV, in accordance with standard PF2 guidance (page 14).

1. Do you think this is beneficial for the Project? How would it impact on your appetite to be involved?
2. More broadly, given the number of stakeholder parties involved, do you consider that other mechanisms (such as for example other parties taking an equity stake, or some form of contractual alliancing structure) will assist the parties? If so, have you seen examples of structures that you consider work well?

#### **M. Other thoughts / considerations not covered above**

1. Given your experience of other projects, are there any particular lessons learnt or examples of best practice that you would like to highlight from what has worked well on other projects?

## 19. Abbreviations and glossary

Abbreviation/Term	Explanation
Contract	The contract or MSA to be agreed between Network Rail and the SPV for delivery of Package A
DCO	Development Consent Order
DfT	Department for Transport
FC	Financial Close
GWML	Great Western Main Line
HAL	Heathrow Airport Limited
HMG	Her Majesty's Government
HVAC	Heating, Ventilation and Air Conditioning
IM	Infrastructure Manager
IPA	Infrastructure and Projects Authority
JV	Joint Venture
OBC	Outline Business Case
OLE systems	Overhead Line Electrical systems
ORR	The Office of Rail and Road
MSA	The Master Services Agreement, or the Contract
NR	Network Rail
NPS	Airports National Policy Statement of the UK Government
Package A	The proposed PPP element of WRLtH
Package B	The proposed conventionally procured element of WRLtH
The Project	WRLtH





Proposed Option	The series of assumptions in respect of third party participation, commercial arrangements and risk transfer that have been designed to provide value for money for Government and to support an 'off balance sheet' outcome for the privately financed Package A
RAB	Regulated Asset Base
SPV	Special Purpose Vehicle, to be established by the successful bidder to deliver Package A
T5	Heathrow Airport Terminal 5
TBM	Tunnel Boring Machine
TOCs	Train Operating Companies
WRLtH	Western Rail Link to Heathrow

