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Dear Nicola

## **Changing Rail – a Nichols perspective in response to the Nicola Shaw Review**

We are pleased to provide our response to your consultation “The future shape and financing of Network Rail”. We have submitted our responses to those questions where we have meaningful insights and experience, and have set out below a summary of our views.

### **Context**

The UK population is growing and giving the rail industry huge challenges as demand for additional capacity and reliable train journeys continues to increase. Improvements to transport links are crucial as an aid to economic growth in areas such as the ‘Northern Powerhouse, which are not yet meeting their full potential for wealth creation and general prosperity. As public finance is not available in unlimited quantities to provide investment, the available government funding must be targeted to hit the most beneficial objectives.

The demand for rail investment and the limited available funding is set against a backdrop of rising costs and delays to Network Rail’s CP5 programme. Positive industry change is clearly needed. Our work in supporting the Hendy Review of the CP5 programme has provided Nichols with a unique insight into both positive and negative aspects of Network Rail’s planning and delivery capabilities.

## **UK rail Industry is a System**

The rail industry is a complex system of roles, relationships, rules and regulation, where passenger and staff safety must remain at the heart of any new arrangements. It is not possible to make changes to Network Rail's roles and responsibilities without making changes to the whole of the rail industry system. The objective of the change must be clear and in making such changes we must beware of unintended consequences that might degrade key objectives of safety or reliability, even in the short term. For example, in the digital era signalling is likely to be increasingly delivered on-board trains rather than on the track. The best way to make change is through a considered and well-planned change programme, where steps are taken towards a longer-term vision of a more radical future for transport as a whole system.

## **Key Issues**

In designing the long-term goal and the change programme to achieve it, there are some important points to bear in mind. Change for change's sake will not deliver predictable results; the change programme must be developed to address a fully articulated set of requirements designed to repair those parts of the industry that are not working as required. The key issues Nichols has identified include:

- Regional devolution of transport planning and funding to better enable economic growth;
- Long-term planning and delivery of complex enhancements, which need more than one Control Period to complete;
- Improvements to sponsorship and governance of enhancements and clarity of leadership and accountability for outcomes;
- Exploiting the opportunities created by the 'Digital Railway';
- The introduction of integrated planning to maximise the overall value created by rail investment;
- System integration, particularly associated with complex-route wide enhancement programmes, especially track/train interfaces and multi-modal transport planning and;
- Despite their poor overall performance in planning and estimating the CP5 programme, Network Rail has significant strengths particularly in asset knowledge, operations and maintenance and delivery of non-complex renewals and enhancements. It is highly desirable to retain these capabilities within any new structure albeit under different overall arrangements.

## **Industry Change Programme**

A single migration to a new industry end-state is not practical because of the complexity of the industry and the risk that unintended consequences will arise from making such a big change. Nichols recommends designing a change programme that takes incremental steps towards the desired end-state, which can be tested and refined before the next step in the change programme is implemented.

## **Northern Powerhouse Test-bed**

Any significant change programme will require political backing at least until new legislation and funding mechanisms are in place. The Northern Powerhouse with its strong political support, together with the embryonic Transport for the North (TfN) organisation, offers an ideal opportunity to design a regionally accountable transport planning and sponsorship organisation. TfN would set regional priorities for enhancements, design integrated transport solutions, facilitate local planning and direct the enhancement development work currently carried out by Network Rail, including facilitating third party involvement, where required. Supported by DfT, TfN could take the lead on planning and sponsoring locally important projects such as HS3 and the development of complementary road and interchange projects. TfN would work with DfT and procure delivery expertise in a more contestable way.

This is a long-term vision and there are clearly short-term issues that must be considered. Not least of which is that TfN is not yet fully formed, it does not yet have the necessary expertise and may not yet enjoy unity of vision between the many political entities within the region. It may eventually become an Infrastructure Manager for key routes within its area and procure the TOCs who use those routes with track access charges flowing to it. It can also explore other sources of finance and funding.

Both Transport Scotland and Transport for London (TfL) provide useful precedents in this regard. TfL's East London Line is an example of a different IM model, operating through-services between its own and Network Rail's assets in a successful and popular train service. Should TfN grow into an equally successful organisation, this devolved model could be more widely adopted across the UK.

## **Funding and Private Finance Considerations**

### **Funding**

The reality of the rail industry is that it requires long-term public subsidy and is so complex that no single entity can efficiently bear all risks. This implies that government is always the ultimate funder and bearer of risk. We agree with the Shaw Scoping Report that funding should follow structure and therefore DfT, similarly to Transport Scotland, should directly fund TfN. The routing of central government funding to TfN and an ability to extract additional

business rates for enhancements within the Northern Powerhouse are obvious sources of local funding. Nichols experience on Crossrail is that if local authorities take a level of financial risk there is a powerful incentive to facilitating the project's construction at borough-level. Prudential borrowing powers and securing third party private funding sources (such as from developers and airport owners) are further ways in which such a body could help to finance and fund its programme of works and relieve the burden on taxpayers.

### Private Finance

Successful private finance transactions require absolute clarity on scope, roles & responsibilities, and risk allocation. Uncertainty regarding asset condition is a key issue in developing any private finance involvement. Lengthy due diligence will be required to establish legal parameters for responsibilities and financial risk to be taken by any project vehicle. For example, the current Track Access Agreement Schedule 4 and Schedule 8 payments are major costs and a significant risk to any enhancement; this regime is well overdue for a review. The role of government in providing support, possibly through taking certain exceptional risks (as with Thames Tideway Tunnel), would be required in order to make the transaction bankable and achieve Value for Money (VFM).

### Financing and Contracting Models

A spectrum of financing and delivery models may be considered, including concessions. In our experience these models can be very complex and may provide a slow road to success: they are unlikely to be useful where speed of delivery is a key requirement. Design Build Finance and Maintain (DBFM) or Design Build Finance and Operate (DBFO) models (similar to the M25 DBFO widening and digital controls transaction) do, however, incentivise a whole-life approach to design and delivery as the project vehicle will benefit hugely from an initial delivery of high quality assets during the operation and maintenance phase. This could be explored at a further stage in the industry change programme. In addition, the benefits of rigour and scrutiny which private finance brings to a project are disciplines the industry should look to embrace.

### Summary

Overall, our opinion is that making progressive moves towards the vision of a new regionally accountable rail industry will deliver more predictable results than a 'big bang' revolution. Such an approach should retain all the elements that work well and focus on what needs to be improved as part of an overall industry change programme.



As you may recall, Simon Webb attended the consultation session on Friday 18th December 2015 to outline some of our views on the future of the industry. Simon, I and other colleagues would be delighted to discuss our response with you directly. If this is of interest, please do not hesitate to contact me.

Yours sincerely

Kathryn Nichols  
Chief Executive Officer  
The Nichols Group



# Annex A: Shaw Review list of questions

## Network Rail's structure

### 1. What are your views on the scope of Network Rail's functions?

Please refer to our Executive Summary covering letter.

### 2. Have we failed to mention any specific and important factors?

Network Rail's ability to effectively deliver its "OMRE" responsibilities is conditioned by a range of issues. Possibly the most important is Network Rail's ability to act as a system-wide authority to optimise the performance of the whole network. At the core of this is the need to act as an 'intelligent client'. This implies having the necessary technical, commercial and programme management expertise to effectively commission and deliver a wide range of operational, maintenance and enhancement activities.

The Review rightly focuses on a range of issues which merit assessment across the whole industry. From our experience, this should include: integration, network safety; asset stewardship; stakeholder management; the impact of standards on network costs; delivery capability; culture; delivery performance (network availability and reliability) and; embracing technology.

Additionally, Network Rail's current capital structure, being 100% debt financed, is often cited as a reason that it cannot take material risks associated with enhancements, which are key to delivering growth to the UK network. An enhancement funding regime which reflects this issue is essential to consider.

Furthermore, many enhancements cannot be delivered without significant railway disruption. Railway access is a critical resource, and therefore a planning and delivery regime which recognises this, has a degree of flexibility and seeks eliminate scope creep once into delivery will provide a huge delivery benefit.



### **3. What are your views on these accountability arrangements and their effectiveness?**

Please refer to our Executive Summary covering letter.

### **4. Have we correctly identified and defined Network Rail's customers?**

The Review Team notes that both funders (DfT, Transport Scotland, Welsh Government and other devolved authorities) and train and freight operators who buy access to the railway are Network Rail's primary customers.

We would add a number of other customers also exist, which Network Rail also provides services. For example, providing maintenance services to HS1 and development services to HS2 Ltd. Network Rail provides certain services to TfL, for example, operating signalling and maintaining LOROL. Third party developers and funders are also customers of Network Rail on certain specific schemes.

### **5. How effectively are customer needs and expectations met by Network Rail at present?**

Customer needs relate to both supporting operators on a day-to-day basis, and in facilitating certain projects and enhancements. We have seen evidence where Network Rail does meet their customer needs and expectations, and conversely examples where they do not.

Network Rail's approach is variable across the UK. For example, in Scotland we have seen evidence of Network Rail accommodating its funder's requirements to incorporate the needs of a private developer into the delivery of a major enhancement. There are examples of uncooperative behaviours with TfL on certain schemes, in part driven by one-sided and risk-averse Asset Protection Agreements. These agreements can act as a barrier to facilitating third party works on or near the railway.

The key to Network Rail's future success is addressing its culture towards stakeholder relationships. Focusing on its core activities, and being incentivised to do them well, rather than being distracted with non-core activities will assist in effectively meeting its customer needs. A structure more focused on devolved regions should ensure that customer expectations are more likely to be met through greater regional accountability. Please refer to our Executive Summary covering letter.

### **6. Should direct customer pressure on Network Rail be strengthened? If so, how might this be achieved?**

Direct customer pressure on Network Rail should be strengthened and achieved through greater devolution providing stronger alignment and accountability between Network Rail routes and regions, its funders (including devolved authorities, such as Transport for the North) and its TOC and FOC customers.



Stronger alignment of Network Rail's incentives with its customers' objectives could be achieved with a greater emphasis on outcomes, which benefit representative parties. For example, delivering a station enhancement which provides both increased capacity as well as an enhanced customer environment and retail commercial opportunities. Reading Station Redevelopment provides a powerful example of successful delivery, which emanated from proficient scheme development, early scope freeze, a capable delivery team, and critically, an alignment of stakeholders outcomes.

Future funding flows to Network Rail are now likely to flow primarily through TOCs and FOCs via Track Access Charges. Part of this charge could link directly to meeting customer's reasonable requirements or objectives. For example, joint sharing of risk and rewards in delivering a franchisee's obligations, regarding passenger satisfaction or supporting the delivery of other specific franchise obligations, such as local line speed improvements.

**7. Are there more positive incentives for delivery, which would be useful? Are any of these incentives more effective than others?**

The UK rail industry relies on a series of parties to deliver services to passengers and other customers including freight, and interventions to ensure growth, for example, through capacity schemes, franchising and rolling stock investment. Therefore, there is a strong case to link Network Rail's incentives more towards outcomes, for example, capacity increases; journey time improvements; passenger satisfaction survey improvements and; building industry talent.

For these incentives to be effective, they need to relate to interventions, which Network Rail and its supply chain can directly control, or influence through its own activities and facilitate through improved third party relationships. In this regard, incentives, or KPIs linked to those incentives, could be cascaded throughout its structure and into its wider relationships with other parties.

Our work on the Thameslink franchise competition provides an example of how Network Rail, the franchisee and train service provider can be incentivised to work together to deliver specific network outcomes such as the delivery of time-based railway outcomes.

Alliancing provides a further means of encouraging parties to work together in a virtual vertical integrated manner with shared incentives at the core of such relationships. Network Rail has entered into a number of alliances with TOCs including Wessex; and ScotRail. A transparent sharing of lessons would benefit informing the debate regarding incentives and to ensure they are deliverable.



**8. Is there a case for changing the route structure and what are the advantages and disadvantages of different approaches to disaggregating the network, for example on the basis of:**

**- physical, political or economic geographies?**

**- service type, e.g. commuter services, inter-city services and regional services?**

The case for change needs to be made which links back to the problems the Review Team is trying to solve. Part of this is likely to relate directly to political devolution and the very real need to enable regional economic growth to balance the economy. Please refer to our Executive Summary.

Greater devolution and alignment to devolved and regional authorities will be fundamental to driving stronger regional growth, improving regional performance and accountabilities. For example, the 'Northern Powerhouse' will be made possible through the creation of a regional body to gather, co-ordinate and prioritise the needs of the region. Transport for the North (TfN) should fulfill this role and Network Rail's structure devolved further so that regional and commuter networks within the area are closely aligned to this bodies' remit.

As TfN's capabilities are developed, working initially with DfT, TfN can migrate to become a body with the requisite powers and funding to specify required network outputs and procure franchises, much like Transport Scotland. This arrangement could be further migrated towards other models, where possibly, it fulfils the role of Infrastructure Manager on certain areas of the network, much like TfL does on the East London Line, which could support greater contestability.

This structure should support a more transparent and cost reflective approach to setting future access charges to regions and routes. This transparency of charging at route level will support benchmarking between routes, and drive performance improvements and efficiencies.

In this devolved model, DfT would have responsibility for sponsoring and funding national schemes, including complex enhancements which span several regions and routes.

We have set out *some* of the advantages and disadvantages of different approaches to network disaggregation configurations, as follows:

**Physical, political or economic geographic alignment**

**Advantages:** Alignment to devolved authorities to ensure closer alignment to local priorities.

Geographically discrete future rail areas (eg Valley Lines; Merseyside) may support bringing in contestability through different IM arrangements and the ability to concession-out.



**Disadvantages:** Difficulty of ensuring that all customer's are adequately represented and served by Network Rail.

Franchise boundaries may not align, requiring possible re-mapping.

#### **Service-based alignment**

**Advantages:** Strong alignment to customers (TOCs/FOCs) in delivering passenger and franchise needs.

Supports driving efficiency and performance through fostering strong TOC/FOC customer relations and shared incentives, and benchmarking between routes.

**Disadvantages:** Difficulty of configuring to different service types as many routes contain different service-types (i.e Anglia has commuter, regional, and freight).

Configuration to service types may not align with devolved authorities regional needs in driving regional economic growth.

#### **Hybrid of above**

**Advantages:** Seeks to balance the need to align closely with devolved authorities, and serve TOC/FOC customers requirements.

This model could adopt geographic alignment to devolved authorities such as TfN and Welsh Government, with high speed and intercity routes carved-out and specified & funded by DfT.

**Disadvantages:** Potential complexity in attempting to align to both devolved authorities and TOCs/FOCs needs.

### **9. Does the current balance of responsibilities between the routes and the centre seem at the right level? Are there any further responsibilities that should be devolved or centralised?**

Please refer to our Executive Summary covering letter.



**10. Can you point to any specific economies of scale that should be protected at national rather than route level?**

Economies of scale should be exploited at both national level and at route level to drive efficiency and value.

From our experience, specific economies of scale should be protected at national level include: buying efficiencies; protocols for dealing with and negotiating with certain monopoly or national suppliers to Network Rail, such as National Grid; critical plant and critical resource allocation; national access planning; the development and use of technology; leveraging research and development and; ensuring that best practice is disseminated including innovation opportunities.

**11. What processes and capabilities need to be in place (at both the centre and route level) to support Network Rail's current devolved structure?**

An over emphasis on process should be avoided and instead a focus on capability and behaviour supported by a positive culture should be sought.

The success of a devolved structure will be conditioned by: clarity of roles and responsibilities; clear governance and oversight at the centre; sharing of learning and innovation; the ability to share talent and effectively allocate critical resources and; excellence in stakeholder management and collaboration.

Devolution should ensure a closer alignment and focus on Network Rail's customer and funder needs, and as such strengthening its sponsorship (or clienting skills) is a core requirement. Stronger portfolio management and programme management skills are required at both route and the centre, coupled with a strong commercial focus. The ability to effectively share data (for example, performance and cost data to assist in driving efficiencies and supporting negotiations), and learning between routes will be important, including the centre's role in ensuring this.

**12. Drawing on your previous experiences where relevant, what would be the potential impact on your organisation of further structural change within Network Rail?**

As a specialist SME consultancy which provides consulting services to Network Rail and other key industry parties (including Network Rail's funders, its regulator, and TOC customers), we have been part of previous industry changes. In this context, the impact on our organisation of further structural change is something we are very comfortable with, and we would be keen to support Network Rail and the industry in managing change, and working with other parties to drive improvements.



### **13. What are the strengths and weaknesses of Network Rail's current approach to planning enhancements?**

It is important to understand that an enhancement may involve a single, often large, project, or a portfolio of projects, or a programme. The planning process must therefore recognise these different enhancement configurations.

#### **Strengths:**

The GRIP process provides a disciplined and structured approach to planning enhancements at a project level. It is less well suited to the planning of programmes, particularly those involving complex timetable change and including wider industry changes such as franchising and rolling stock. There has been an improvement in the engagement of operators. Network Rail's asset knowledge is improving and this knowledge must be further strengthened and preserved going forward especially if private funding is ever to be encouraged to invest in rail enhancements.

#### **Weaknesses:**

Network Rail's planning and development processes are often seen as slow. The weaknesses in the planning process in part stems from an approach focused on the project, rather than at portfolio or programme level. A lack of clarity of responsibilities between DfT and Network Rail, for example, in establishing a clear output statement for an enhancement, particularly where this involves a more significant route upgrade, as noted in the Bowe Review, is a further weakness.

Network Rail currently lacks sufficient sponsorship and commercial skills to effectively plan and deliver enhancements. Access planning and the strategic planning of enhancements is poor. Early stage estimating capability is also lacking, as evidenced through significant cost escalation on a number of major CP5 enhancements. These are issues recognised in Network Rail's Enhancement Improvement Plan (EIP).

Our work on ORR mandate CN31, which reviewed route-wide programmes delivering major complex timetable changes, made specific recommendations around improvements. These recommendations largely appear in Network Rail's EIP, and include implementing a programme management process for industry-wide route upgrades. Our recommendations reflect the need to spend sufficient time in the upfront programme definition and solutions phase. Often these early programme initiation phases are poorly executed and lead to performance issues downstream.



#### **14. What are the strengths and weaknesses of Network Rail's current approach to delivering enhancements?**

##### **Strengths:**

Network Rail has shown that it is capable of delivering large enhancement projects, such as Reading Station development. Project management has improved as has aspects of ensuring effective operator engagement. This is not universally true however and Network Rail must learn to share best practice across its organisation.

##### **Weaknesses:**

Network Rail's approach to delivering portfolios of projects and programmes, for example route-wide complex programmes is weak. Notwithstanding poor processes, there is a general lack of experienced leadership within Network Rail regarding development and delivery of major enhancements. Supply chain management is currently weak in Network Rail.

We have seen how the CP5 enhancement programme has been characterised by cost escalation and delays, through a number of reasons including:

- a. Construction proceeding prior to adequate design and survey availability (not enough optioneering and pre-planning);
- b. Poor contracting strategies, including limited incentivisation of suppliers to deliver;
- c. Limited critical resources, resulting in delays to certain key aspects such as signalling;
- d. Railway access constraints;
- e. Over-reliance on certain technology or high-output plant;
- f. Unexpected complexity, and unanticipated interfaces;
- g. Poor governance and controls (i.e no baseline, for example, integrated scope, cost and schedule against which to control delivery) and;
- h. Scope creep.



The impact of these types of failure is a planned programme that is not affordable or deliverable within the proposed timescale. This is similar to the failure of the Highways Agency's programme that Nichols investigated and helped turn around several years ago.

**15. How well do the current delivery and planning processes work for projects of different sizes?**

As noted to our answer to Question No. 13, the GRIP process is structured and disciplined stage gate type of process which applies well to projects but is deficient when applied to either portfolios of projects or programmes. It can also be overly complicated when applied to small projects.

Current processes do not recognise the nature or complexity of programmes or portfolios, nor provide adequate control in ensuring cost, schedule and output certainty. This has been evidenced through significant cost escalation and schedule delays across a series of major programmes, including those currently in development and also in delivery.

Our work on ORR mandate CN31 (Assurance for major programmes delivering complex timetable changes) highlighted the need for enhanced programme management processes to apply to the planning and delivery of complex programmes. Our work proposed a process for a stage gate type programme process, which would drive programme maturity. These recommendations form the basis of part of Network Rail's EIP.

**16. Are there any useful models or precedents from other sectors or countries for long term infrastructure planning and delivery processes that we should consider, including in relation to management of and engagement with suppliers during the planning process?**

The IUK Project Initiation RouteMap Procurement Module gives clear direction as to the considerations for Market and Supplier engagement prior to any acquisition activities commencing. The Highways Agency has traditionally used 'Early Contractor Involvement' in its project development and delivery. This provides useful buildability input at an early stage but risks compromising the client's commercial leverage if undertaken too early or in way which locks in the contractor.

A significant amount of intellectual property (or value) is resident within Tier 2 and Tier 3 suppliers. Thus, a model that provides a client with access to this talent will yield value. TfL are developing models which seek to gain direct access to Tier 2/3 suppliers.

We believe that promoters and sponsors should consider the markets that can be utilised to deliver the benefits in terms of outcomes and the leverage the programme may be able to generate through supplier appetite to bring capacity and capability to bear. High level assessment of the various markets required to be engaged with has been developed and evolved on numerous programmes over the last decade,



whereby supply chain analytics has allowed a view to be taken as to prospective supplier benefits, such as increased shareholder value and reputational enhancement.

### **17. What would be the most important structural features of any future infrastructure provider?**

The structural features of any future infrastructure provider will need to include the scope of its activities; how it is funded; organised; governed; regulated, and what risks it is expected to bear.

These elements are inter-related and therefore need to be considered when devising and assessing options:

**Scope of activities** – it will be important to decide whether any future infrastructure provider should be responsible for only OMR (Operations Maintenance and Renewals), or whether it should also be involved in enhancements, and indeed any other non-core activities. A focus on core OMR is fundamental to ensure performance with a capability to plan and deliver enhancements, rather than any wider distractions. Safety will remain a key accountability of the provider.

**Capabilities and Knowledge** – any future infrastructure provider should have a detailed knowledge of its asset base in order to effectively plan and deliver its core activities. Depending on its scope of responsibilities, it may need access to a range of key capabilities including sponsorship and clienting; project programme and portfolio management; commercial, and operational skills.

**The organisational structure** – stronger alignment to the entity's funders and customers (TOCs and FOCs) provides a sensible structure. The entity's relationship with its supply chain and particularly critical resources is a further consideration, which may influence structural options.

**Efficiency** – any future infrastructure provider must be incentivised and have the capability to deliver efficiently. This issue partly links to regulation and contestability. Furthermore, the organisation structure and culture should enable economies of scale to be delivered, for example, national buying efficiencies; sharing innovation benefits and; embracing technology.

**Incentives** – the future provider needs to be appropriately incentivised to drive the right behaviours and performance through both regulation and its relationships with funders and customers. These should relate to achieving required network outcomes and delivering efficiently. The extent to which these incentives cascade through the provider organisation through director and staff incentive schemes should be actively considered (for example, the John Lewis model); in driving alignment, collaboration and performance.

**Financial Capacity** - any future provider should be adequately funded and have the financial capacity to operate, maintain and renew the network, and bear associated risk. The ability to fully assume



enhancement risk is unrealistic; however, if the provider is to be responsible for delivering enhancements, it must be structured to take some risk to incentivise financial discipline and performance.

**Risk** - the ability of the provider to manage and bear risk relates to its capability, corporate knowledge and how it is funded and incentivised. A thorough knowledge of asset condition is fundamental to the provider's ability to maintain and operate an effective network.

**18. Are there any other processes which we have not highlighted, either within Network Rail or the wider industry, which could be improved?**

An industry-level, systems-wide view is critical as delivering effective network outcomes relies upon a range of parties, including DfT, Transport Scotland, Network Rail, TOCs, FOCs, ROSCOs and other suppliers.

We would highlight the importance of clienting, sponsorship, and portfolio and programme management processes. Strong and transparent governance is vital as is an improvement in the way systems integration is delivered across the industry.

Processes for facilitating third party investment and works in the network need to be improved. Network Rail's Asset Protection Agreements (APAs) are typically viewed as one-sided and onerous, acting as a barrier to third party enhancement involvement.

**19. Do you have any views on how the relationship between the periodic review process and other processes with which you are involved could be improved?**

Our view is that the relationship between the periodic review process and the planning and development of major enhancement programmes could be improved. Looking at the experience from CP5, several major enhancement programmes were not sufficiently developed at the time of the Final Determination for the periodic review. It is also worth noting that major enhancements can also span across several Control Periods.

From our experience CP5, this relationship could be improved if enhancements schemes were more developed/mature and aligned with the periodic review cycle. An improvement to consider here is closer alignment between the Initial Industry Plan (IIP) and the High Level Output Statement (HLOS) development to avoid surprises. This is important because the IIP process determines provides direction to which schemes are developed prior to submission of the Strategic Business Plan. Early stage estimating for enhancements will need to be improved to ensure that robust estimating is included at the time of price setting.



**20. What criteria should be used to assess structural options under consideration? How, if at all, should these criteria be prioritised?**

The criteria for assessing structural options need to reflect the challenge which is being solved. The criteria, however, are likely to include considerations including safety, organisational alignment, efficiency, risk, complexity, deliverability and affordability.

Depending on the challenge being addressed or the intended objective behind the option, other criteria may apply, for example the impact of an option on Classification. Where the objective relates more towards seeing the railway as an enabler of economic and social change, the criteria will need to reflect these objectives.

Whilst it generally is appropriate to apply consistent criteria to assessing different options, it may be that in assessing certain options that certain criteria should carry more weight. For example, a more regionally structured entity to align with regional and devolved funders would assess an option's organisational alignment and ability to enable economic growth across a region, rather than seeking to address any impact on classification.

## **Financing and funding of the company**

**21. Do you have any views on whether the RAB remains a relevant concept in the Railway, and, if not, what should replace it?**

The concept of the Regulated Asset Base (RAB) model was originally to attract private sector investment into a utility, at low cost and over the long-term. This was achieved with Network Rail's RAB, coupled with the Government guarantee allowing Network Rail to raise finance in the capital markets.

For Network Rail, the RAB model provided a basis for determining its revenue requirements for a Control Period and importantly provided a mechanism for financing capital investments over the long-term, thereby providing affordability benefits to funders.

The relevance of the RAB will depend on whether or not the future infrastructure provider is required to attract private finance and how this might sustainably and efficiently be achieved.

Arguably the RAB or even a virtual RAB could still fulfil the role of providing transparency over the size of the asset base and activities of the business going forward. A RAB or virtual RAB may still support objectively determining the future funding (revenue) requirements of the business through applying the regulatory 'building block' process.



## **22. How should financial risk be managed in Britain's rail infrastructure in the future?**

The issue of financial risk and who is best placed to manage it is an important consideration in the determining the future shape and financing of Network Rail, including addressing any Government balance sheet treatment objectives.

Network Rail is currently 100% debt financed and as such, has limited ability to bear risk, in particular enhancement risk. Previously the RAB financed many cost overruns (subject to costs being incurred efficiently), and provided within set debt and RAB ratio limits. Network Rail had the freedom to borrow to finance overruns. With reclassification and other associated controls over Network Rail's financial position, this flexibility no longer exists.

In the context of what type of business Network Rail will be in future (i.e OMR or OMRE?), how much risk it bears and how it is funded to take such risks is important. However, the reality of the industry is that it is so complex and with many unknown risks that no one entity can efficiently bear all such risks. This implies that government is always the ultimate bearer of risk. The extent and frequency to which Government support is triggered will be conditioned by how the future infrastructure provider is funded and what risks it expected to bear, particularly for enhancements.

Recognising this, the future infrastructure provider through incentives and other provisions (i.e taking some degree of risk and having strong governance) should have enough financial discipline, incentives and scrutiny over it to effectively manage risk without regular recourse to the Government as the 'funder of last resort'.

The Industry Risk Fund that Network Rail manages and levies on stakeholders through Asset Protection Agreements is not necessarily seen externally as value for money as it is fabled never to pay out. With Network Rail's risk aversion, this fund should be managed differently, perhaps under the control of the ORR.

## **23. Do you have any views on how Britain's railway infrastructure should be funded in the future, regardless of corporate structure?**

Noting the Review Team's definition of 'funding', there are only a limited number of sources of long term funding sources for the UK railway infrastructure. These are primarily:

- Government grants derived from taxation and;
- Track and station access charges from TOCs and FOCs which are ultimately derived from a mix of Government subsidy and passenger revenue (mainly farebox).



In addition, some limited revenue is generated from Network Rail owned property and other one-off funding sources may be generated through asset disposals and property air-rights sales.

In the case of enhancement funding, third party developer contributions could be secured on the basis that they benefit from the investment, as with Crossrail and TfL's Northern Line extension funding models where private developer contributions have featured. Securing third party funding can be done with a strong commercial focus of the public sector sponsor.

Depending on the nature and geographical extent of an enhancement, there may be the case for these to be funded from a mix of local and central government funding sources.

In the context of stronger regional devolution similar to Transport Scotland, more funding is likely to flow from regional devolved authorities, such as TfN, and the Welsh Government, to Network Rail.

**24. What positive case studies are there (e.g. international examples in the railway sector, other sectors internationally/in the UK), where more affordable and sustainable funding and financing structures have been implemented, with or without private sector capital input? And how do you think the lessons learnt could be applicable to Britain's railway infrastructure?**

The water sector has achieved significant efficiencies, partly through effective regulation. Thames Tideway Tunnel Infrastructure Provider is a recent example of a full lifecycle (construction into operations) infrastructure investment where private finance has effectively and efficiently been introduced. This model was based upon Government taking specific exceptional risks through guarantees and effectively setting up the Infrastructure Provider as a regulated utility to attract private finance.

The aviation sector has also driven efficiency effectively and successfully attracted private capital, through privatisation and strong regulation with the attraction of long-term stable cash flows.

The lessons to be learned for the UK rail industry is that Government must always have a key role, and that if long-term certainty and stability can be created, then private capital can be attracted for the purposes of financing.

**25. What are your views on the enabling factors facilitating a sustainable and affordable capital structure for Britain's railway infrastructure? What factors would be required specifically for private sector capital introduction?**

[Not answered]



**26. What are the types of investors that may be interested in investing in Network Rail, any of its functions, or in select parts of it? And for these types of investors, can you indicate:**

- **key attractions;**
- **risk appetite;**
- **required enabling factors.**

[Not answered]

**27. What characteristics do you think enhancement projects would need to have to attract private sector investment and to what extent and in what form would public sector support would be needed? What types of financing structure could be brought to bear?**

#### **Characteristics**

To attract private sector investment to enhancement projects, much will depend on the nature of the enhancement, its complexity, who the counterparty is, the allocation of risk, clarity on railway access and its interfaces with operations.

Successful private finance transactions require absolute clarity on scope, roles and responsibilities, risk allocation and asset condition. A realistic transfer of risk is required to ensure that the transaction is bankable and stable. In this regard, the capping of certain risks may be required to ensure Value for Money (for example Schedule 8 and 4 risk). Clarity on railway access and a realistic treatment of asset condition risk will be required. Such transactions are conditioned by rigour and scrutiny through detailed due diligence and a robust assessment of deliverability. These disciplines should form part of any enhancement planning and delivery process.

There have been some past successes and failures. The Evergreen 2 design, build, finance, transfer (DBFT) project is generally considered to be a success as was the Piccadilly Line Extension to Heathrow, Terminal 5 which was funded by BAA plc and structured as a DBFT transaction. There are many failures: The East London Line was structured as a £1.2 billion DBFT, but did not go to market; it was delivered as a publicly funded project by Transport for London. This was partly because the Strategic Rail Authority was dissolved and because Transport for London took a different view on the procurement strategy and did not consider the DBFT structure to offer Value for Money. Other authorities (e.g LUL) have used similar PPP type models with varying degrees of success. All of these transactions should be reviewed properly to learn lessons.

## **Public Sector Support**

Public sector support should take the form of guaranteeing exceptional risks, which the private sector cannot bear (much like the Thames Tideway Tunnel transaction described in Question 24) and subject to State Aid rules, potentially providing low-cost finance or equity (as per the PF2 model).

## **Different Types of Contracting and Financing Structures**

Different types of structures could be contemplated, although it should be noted that they are typically complex, time consuming to procure and may lead to further fragmentation of the industry. The different types of structures could include:

- Design Build Finance and Transfer (DBFT), for example Evergreen 2;
- Design Build Finance and Maintenance (DBFM), for example, with new electrification assets like London Underground's Power PFI;
- Design Build Finance Operate and Maintain (DBFOM), for example, on depots;
- Joint Ventures and alliances;
- Sale and leaseback transactions, for example, on property or plant;
- Sale of completed assets, for example, telecoms, and
- System-wide infrastructure concession, for example, applied to discrete parts of the network such as Welsh Valley Lines; Merseyside and C2C.

## **28. What incentive mechanics or control structures on Network Rail would facilitate third party involvement in the financing of enhancement projects?**

Network Rail's current approach to Asset Protection Agreements acts as a barrier to facilitating third party involvement in enhancements, as risk allocation and other provisions are generally seen as one-sided. Developing an equitable framework to facilitate third party involvement in enhancements on the network would assist. This could include clarity on roles and responsibilities, process, risk allocation, incentives and other provisions such as step-in rights and asset protection.

Closer alignment between devolved authorities, Network Rail and TOCs and FOCs should engender improved relationships and a greater willingness by Network Rail to facilitate third party involvement in enhancements. The present Schedule 4 and Schedule 8 regime, in certain cases, provides a perverse incentive for TOCs in that they benefit significantly from disruption.



An alignment of incentives on parties would assist in facilitating third party involvement in enhancements. For example, incentives for Network Rail to facilitate such participation may include Network Rail jointly benefiting from an investment, such as a station development or a TOC-led line speed improvement initiative, either through income generation or, for example, reduced OMR costs.

Furthermore, “alliancing” provides a number of lessons around aligning Network and TOC incentives to facilitate enhancements and share in risk and reward.

## Risks and implementation

### **29. Do these feel like the right concerns? Has anything been missed that it is vital to consider at this stage?**

The Review Team highlights a range of key concerns, which we agree with. An industry wide and whole systems perspective is recognised and concern over uncertainty is highlighted. The risk of talent leaving the industry is a very real risk in our view.

Building on these points and as key themes in our response, the Review Team should ensure that robust root cause analysis is undertaken to determine the issues that need to be addressed from any proposed restructuring.

Furthermore, the Review Team should be mindful of further change leading to increased industry complexity and fragmentation, and change fatigue. Further change within the industry should be set-up as an industry change programme which is properly sponsored, resourced and planned.