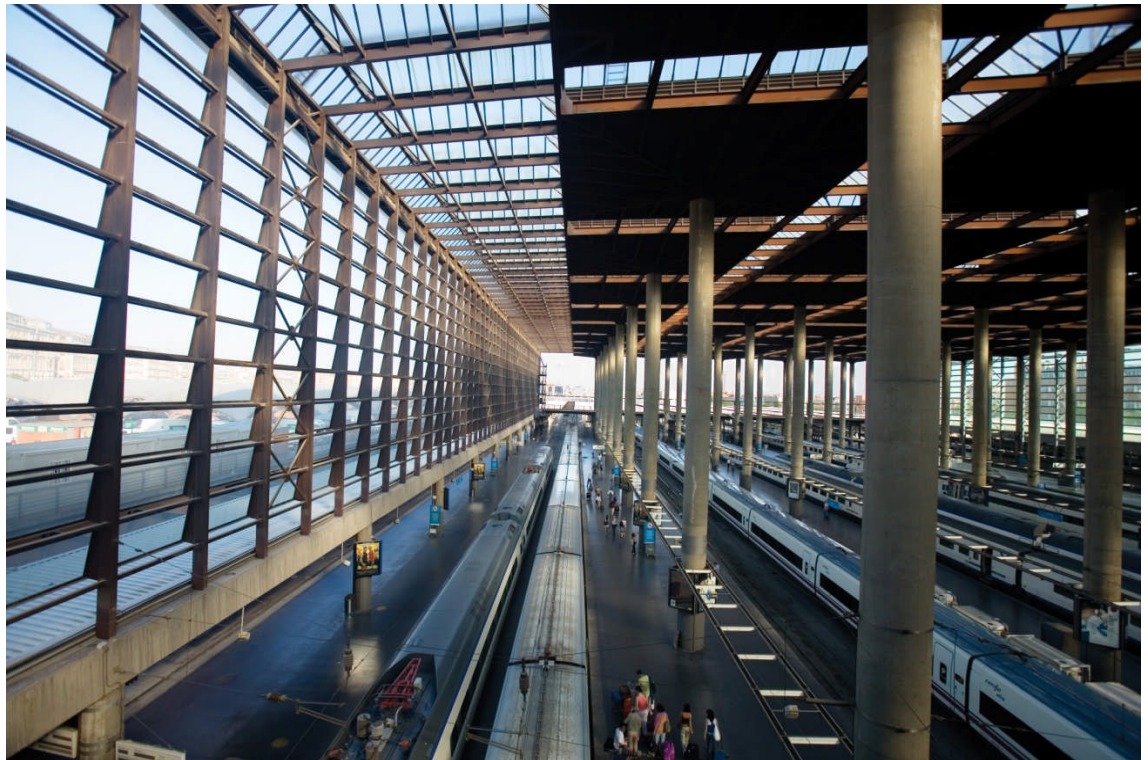


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# *Appendix 4*

Outline risk allocation matrix for  
non-integral infrastructure

Report Phase 2  
February 2011



## Introduction

This Appendix builds on a discussion paper PwC prepared some years ago on how investment in the UK's rail sector might be enabled. It looks specifically at the allocation of the major risks that can arise when delivering new infrastructure and assumes that whoever builds the infrastructure is responsible, for some time, for its maintenance. The allocation is between:

- The public sector
- The infrastructure contractor i.e. the party who is contracted to deliver the infrastructure works and who would be responsible for its maintenance. This does not rule out Norwegian National Rail Administration ("NRA") contracting to undertake the work but it is likely that this is how NRA would allocate the risk to its sub contractors.
- NRA as operator and maintainer of the existing infrastructure

In the original discussion paper two scenarios were looked at:

- New infrastructure is separate from the existing infrastructure and only connected at certain points
- New infrastructure is closely integrated with the existing rail infrastructure

A similar situation exists in Norway and is reflected in the definition of the Scenarios. This appendix just looks at the separate infrastructure on the basis that integrated infrastructure is likely to require the close involvement of NRA and the final approach is likely to be tailored to individual circumstances.

<b>RISKS PRIOR TO SIGNATURE OF CONTRACT WITH INFRASTRUCTURE PROVIDER</b>					
<b>Risk</b>	<b>Explanation</b>	<b>Comments</b>	<b>Allocation of risk</b>		
			<b>Public sector</b>	<b>Infra Contractor</b>	<b>NRA</b>
1. Price of delivering infrastructure		Price determined by competitive tender	X		
2. Change in output requirements		Competitive tendering should be delayed until outputs agreed with all key stakeholders	X		
3. Cost of running competitive tender	The cost of preparing for, running and responding to a competitive tender can be significant	Each party should bear their own costs for participating. Where input required from NRA and NSB need to consider how to incentivise them to support process fully	X	X	X
4. Affordability and cost : benefit ratio of infrastructure projects	Tenders are not affordable or do not deliver expected benefits	Public sector can cancel project, pay higher cost or require new tenders with different output requirements BUT repeated re-tendering will put bidders off	X		
5. Political risk	Pubic sector decides not to proceed with project for reasons other than technical, value for money or affordability	As above – if other parts of the project are to continue some form of protection may need to be offered to bidders	X		
6. Cost of finance and interest rate risk	Prices tendered will include amounts relating to cost of finance and exchange rate assumptions	Bidders cannot hedge interest rate and exchange rate risk until the amount and timing of finance is confirmed, i.e. at financial close. To avoid the requirement for major contingencies the public sector should underpin such risks until financial close of the contracts	X		
7. Safety Case and other Approvals effect on costs	Bids must include method statements and outline safety cases – meeting safety case requirements has cost implications	Preferred Bidder needs to prepare and gain acceptance of Safety Case and other Approvals as part of the ‘acceptance’ of the infrastructure. Relevant costs and contingencies should be reflected in the bidder’s project price	X		
8. Costs of connecting to existing infrastructure	NRA should have significant information to enable requirements to be defined	Either infra contractor or NRA should do this work. NRA could be allowed to tender for this work to add to competition	X		
9. Access over the existing infrastructure to undertake works	Bids must include a detailed possession plan as part of the method statement.	The potential impact of this on passengers, NSB and NRA can be incorporated into the bid evaluation	X		

RISKS ONCE THE CONTRACT WITH INFRASTRUCTURE PROVIDER IS IN PLACE					
Risk	Explanation	Comments	Allocation of risk		
			Public sector	Infra Contractor	JBV
1. Industry Risks	Legislative change	General		X	
		Discriminatory	X		
	Change of railway operating structure		X		
	Force majeure	In relation to construction and operation, e.g. fire, flood	X		
2. Planning risks	Availability of land	Due diligence should mitigate this	X		
	Outline planning permission	High risk planning aspects should be agreed in principle prior to financial close	X		
	Detailed planning permission	The contractor should have experience of applications for consents	X	X	
	Consents from NRA	Contractor cannot control the willingness of third parties to give consents. NRA will have to commit to a timetable for giving its consents and accept financial penalties if it fails to do so otherwise risk to contractor is too great		X	X
3. Design risks	Asset condition	May be some exceptions where NRA or the public sector must retain risk e.g. latent defects		X	
	Changes in output specification		X		
	Failure to meet output specification due to poor cost estimation			X	
	Cost control / overruns			X	
4. Construction risks	Heritage structures or archaeological finds	Due diligence and outline planning consents should mitigate this risk		X	
	Contamination/ground condition	SPV risk if due diligence can be performed		X	
	Meeting existing health & safety legislation			X	
	Maintaining a safe working interface with live railways	Safety Authorities regulate the interface. Risk may need to be shared if their interpretation differs from that set out in the safety case	X	X	
	Adverse environmental effect			X	
	Access	Delivery of project within agreed allowance and known possessions regime		X	
	Access	Provision of agreed access/ possessions by NRA (May need a compensation regime for failure to give access)		X	X

RISKS ONCE THE CONTRACT WITH INFRASTRUCTURE PROVIDER IS IN PLACE					
Risk	Explanation	Comments	Allocation of risk		
			Public sector	Infra Contractor	JBV
	Delay to network/station usage e.g. overrun engineering work	Contractor risk, but it may need to cap its liability		X	
	Quality of work	Contractor likely to use turnkey sub-contracts.		X	
	Third party interference	Shared risk (may require bespoke allocation)	X	X	
5. Facilities and operating risks	Maintenance costs	If contractor responsible, maintenance costs should be at its risk. If NRA responsible then it will want protection from contractor of the Government	X	X	X
	Latent defects	Contractor would need to supervise construction of sub-contractors and may require extended warranties		X	
	Contractor operating costs/labour shortages & disputes			X	
	Performance quality of contractor's services			X	
6. Usage charge risk	Number of services	Contractor unlikely to take demand or passenger related risks	X		
	Setting of usage charges	This would either be contracted up front or the subject of some form of regulatory review. Risk is that Regulator could revise charges up or down	X	X	
	Performance risk	Would expect this charge to vary with performance e.g. around availability/ reliability of the infrastructure		X	
	Creditor risk	e.g. unpaid invoices if TOC goes insolvent (i.e. short term)		X	
7. Asset transfer (at end of maintenance term)	Residual value	Any terminal payment (or at least the mechanism by which it is determined) would be agreed before contract letting.	X	X	
8. Financing risks	Inflation	Effect of inflation on usage charge would be reflected in regulatory review	X		
	Interest rate	Can be hedged by contractor, if required, post financial close		X	
	Sufficiency of funding			X	
	Exchange rates	Can be hedged by contractor, if required, post financial close		X	
	Tax rates	Contractor risk		X	