1 Introduction

Summary

1.1 This consultation paper has been produced by Network Rail Infrastructure Limited (“Network Rail”) in consultation with Réseau Ferré de France (“RFF”), Infrabel, Eurotunnel Group (“Eurotunnel”) and HS1 Limited and is therefore not intended to present the specific views of any one organisation. It concerns the potential development of a European freight corridor for rail between the UK and other EU Member States in line with European Union (“EU”) Regulation 913/2010 (“the Regulation”) concerning a European rail network for competitive freight and is intended to assist the UK and associated Member States’ transport ministries to make a decision around whether or not to support the establishment of a corridor.

1.2 This paper sets out what is expected of Member States in determining the establishment of a freight corridor, analyses the potential market for cross-Channel rail freight and the implications of this on the geographic scope of a proposed rail freight corridor. It further details the socio-economic costs and benefits of the European freight corridor.

1.3 For the purposes of UK consultation, it is felt necessary to include a chapter detailing the impact on the existing regulatory and contractual regimes within which Network Rail operates and is something which HS1 Limited and other Member States may wish to consider at a later stage.

Structure of this document

1.4 This chapter sets out the structure of the document and explains how to respond.

1.5 Chapter 2 sets out the requirements to establish a freight corridor.

1.6 Chapter 3 sets out the background to the European Freight Network and the UK Strategic Freight Network which a corridor would link.

1.7 Chapter 4 sets out analysis of the rail freight market between the UK and continental Europe that could potentially be supported by a corridor.

1.8 Chapter 5 considers potential route considerations of a cross-Channel freight corridor.

1.9 Chapter 6 sets out details of an initial cost-benefit analysis using a high level approach.

1.10 Chapter 7 (UK only) considers the potential impact of the corridor on existing regulatory and contractual regimes within which Network Rail operate.

Responses

1.11 Please send your comments on any aspect of this consultation in electronic format to kara.johnson@networkrail.co.uk as soon as possible and no later than Monday 22 October 2012. If electronic format is not possible then please send them in hard copy format to:

Kara Johnson
Network Rail Infrastructure Limited
The Quadrant
Milton Keynes
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Publication of Responses

1.12 This document will be available on Network Rail’s website at www.networkrail.co.uk

1.13 Respondents should indicate clearly if they wish all or part of their response to remain confidential and, if so, clearly state to which organisations they wish the information to remain confidential. Otherwise, it is expected that the information will be published on the above
mentioned website and may be quoted in future. Where a response is made in confidence, it should be accompanied by a copy excluding the confidential information that can be treated as above. We may also publish the names of respondents in future documents or on the website, unless a respondent indicates that it wishes its name to be withheld.

Next Steps

1.14 The comments received will be considered as part of a final recommendation to the UK’s Department for Transport (“DfT”) and for DfT to discuss with associated Member States’ transport ministries.

1.15 In accordance with EU legislation, the Member States need to jointly submit a letter to the European Commission (“the Commission”) confirming an intention to create a corridor, together with a proposal for the corridor by 10 November 2012.

1.16 The Commission must examine any such proposal and make a decision on compliance with the proposal within 9 months of submission.

1.17 The Member States must then establish the corridor within 2 years of the Commission’s decision.

1.18 Alternatively, Member States will need to notify the Commission by 10 November 2012, if they intend to derogate from participation.

Question
Please advise whether or not you would support the establishment of an international freight corridor. Please give reasons.
2 Requirements of Regulation EU 913/2010 (A European Rail Network for Competitive Freight).

2.1 “In order to be competitive with other modes of transport, international and national rail freight services, which have been opened up to competition since 1 January 2007, must be able to benefit from a good quality and sufficiently financed railway infrastructure, namely, one which allows freight transport services to be provided under good conditions in terms of commercial speed and journey times and to be reliable, namely that the service it provides actually corresponds to the contractual agreements entered into with the railway undertakings”.

2.2 In October 2010, the Commission adopted the Regulation that set out proposals for developing a European rail network for competitive freight.

2.3 The Regulation requires those Member States with railways connected to the European railway network but without corridors already identified in the annex to the Regulation (effectively the UK) to nominate a proposed EU freight corridor by 10 November 2012 or apply for a derogation based on a negative socio-economic business case.

2.4 The corridor selection takes account of criteria including:

- The crossing of the territory of at least three Member States, or of two Member States if the distance between the start and end points served by the corridor is greater than 500km;
- Consistency with the Trans-European Transport Network (TEN-T), the ERTMS corridors and/or the corridors defined by RNE;
- Socio-economic costs and benefits of the freight corridor;
- The development of rail freight traffic, major trade flows and goods traffic;
- The interest of freight operators; and
- Connections with other modes.

2.5 The Regulation sets out rules concerning the selection, organisation, management and indicative investment planning for freight corridors and also details the management and use of the railway infrastructure included in the freight corridor. A corridor is governed by two main entities; a corridor Executive Board, made up of representatives of participating Member States’ authorities and a corridor Management Board made up of representatives of participating Member States’ Infrastructure Managers.

2.6 The Regulation sets out an obligation for all Member States that share a rail border with another Member State to participate in the establishment of at least one freight corridor, unless they are included in one of the nine corridors under development. Member States with existing freight corridors must, upon the request of another Member State, participate in the establishment of a corridor or extend an existing corridor in order to allow a neighbouring Member State to fulfil its obligation.

2.7 Alternatively a Member State could determine not to participate in a corridor if it is considered, after socio-economic analysis, that the establishment of a freight corridor:

- would not be in the interests of those likely to use the corridor; or
- would not bring significant socio-economic benefits; or
- would cause a disproportionate burden.

Question
Please advise whether or not you believe the establishment of a freight corridor would promote good connections with rail freight networks and with other modes of transport, in particular due to an adequate network of terminals?
Do you believe that the establishment of a freight corridor will be in the interests of applicants in the corridor?

1 Paragraph 3 Regulation EC 913/2010
3 **Background**

3.1 The European freight network, established by the Regulation aims to meet a range of challenges concerning:
- the European integration of rail infrastructures by strengthening co-operation between IMs on investment and traffic management;
- a balance between freight and passenger traffic along the rail freight corridors, giving adequate capacity and priority for freight in line with market needs and ensuring that common punctuality targets for freight trains are met;
- the intermodality between rail and other transport modes by integrating terminals into the corridor management and development.

3.2 Across the continent of Europe, the Regulation has already established in its annex the first wave of international freight corridors (Figure 3.1)

![Figure 3.1 Indicative map of corridors as defined by EU 913/2010 Regulation (EC DG MOVE staff working document)](image)

3.3 The objectives of the European corridors are to:
- Support progression towards sustainable mobility across the EU;
- Increase the competitiveness of rail against other modes of transport and increase the competitiveness of national and international rail freight services, as required across the EU since January 2007;
- Ensure that there is a good quality and sufficiently financed railway;
- Develop good conditions of carriage in terms of commercial speed, journey times and reliability;
- Strengthen co-operation on allocation of international train paths for freight between infrastructure managers in order to improve the facilitation, organisation and regulation around securing rail freight traffic;
- Improve freedom of movement between national networks and ensure improvements in use of the infrastructure; and
- Establish freight corridors that meet the specific needs in one or more identified sectors of the freight market.
3.4 The goals of the EU freight corridor and the pre-selected routes are in large part a reflection of the existing ERTMS corridors and the corridors established by RailNetEurope (“RNE”).

3.5 RNE is an association set up by the majority of European rail IMs and allocation bodies to improve access to Europe’s rail network and customer service, particularly for international freight.

3.6 RNE’s members are harmonising conditions and processes including in areas such as network statements, timetabling, IT train information systems, cross-border communications.

3.7 Since 2010, RNE has also focused on support for corridor organisations required under the EU freight corridor regulation. RFF, Infrabel and Network Rail are active members and all participate in the working groups established by RNE to harmonise a range of operation, IT, and commercial processes. An EU funded project at RNE is now specifically designed to deliver many of the requirements of the Regulation. RFF and Infrabel are also part of several ERTMS corridors.

3.8 The RNE corridors allow node to node booking of international freight paths, reducing the need to construct multiple, parallel, long-distance, international paths.

Figure 3.2 Rail Net Europe Network Rail

3.9 RNE activities to adapt current systems which support the Regulation include:
- Pathfinder becoming PCS – Path Coordination system. Purpose = train planning tool
- Europtirails becoming TIS – Train Information System. Purpose = Train running performance
- EICIS becoming CIS – Charging Information System. Purpose = Indication of price.

3.10 There are also a range of RNE work streams on a variety of issues to support the introduction of a corridor:
3.11 Network Rail, RFF and Infrabel are represented at many of these groups. As Eurotunnel is not currently a member of RNE, it is not represented.

3.12 It will be for any corridor management group (consisting of the participating IM’s) to decide which systems to use, in order to meet the requirements of the Regulation, based on the views of the members, the costs, and the needs of the market. Currently, three of the potential IMs whose network is discussed in this document use PCS, only two use TIS.

Existing obligations

3.13 Further to the arrangements agreed during the establishment of the Treaty of Canterbury and the Channel Tunnel Concession Agreement (1987) a minimum of 35 specified paths per day in each direction between the Channel Tunnel and Wembley Freight Operating Centre were provided by British Railways Board (“BRB”). These paths were required to meet BRB’s obligations to provide capacity for at least 8.1 million tonnes of freight to pass through the Channel Tunnel as set out in the Rail Usage Contract 1987 (“Rail Usage Contract”), that it entered into with La Société Nationale Des Chemins De Fer Français (SNCF) and the predecessors of Eurotunnel. Upon rail privatisation in the UK during the 1990’s, the obligations of BRB to provide this capacity were passed to Railtrack (now Network Rail) under the 1994 “Back to Back” Agreement which was entered into by BRB, the Secretary of State for Transport, Railtrack (now Network Rail), Eurostar UK Ltd (“Eurostar”) and EWS International Ltd (“EWSI”).

3.14 To meet the obligations set out in the “Back to Back” Agreement, these paths have been protected within various track access contracts between EWSI (now DB Schenker Rail (UK) Limited (“DBS”)) and Railtrack (now Network Rail). However, more recently the DfT has moved towards making these paths more readily accessible for ‘open access’ operation and has agreed with DBS that a minimum of 18 paths in each direction shall be surrendered to Network Rail for holding in the strategic capacity pool.

GB Strategic Freight Network

3.15 The concept for the Strategic Freight Network (“SFN”) in England and Wales was established in 2007 as part of the government’s high level strategy to address the growing demands on the network for moving passengers and freight.

3.16 Using funding committed in Control Period 4 (2009-2014), Network Rail has coordinated the development of the SFN on behalf of the industry and the DfT. The SFN can be viewed as a network of core trunk routes with sufficient capacity and appropriate gauge to carry the expected major flows of freight.

3.17 The development of these plans has been overseen by meetings of a SFN Steering Group consisting of the DfT, the Welsh Assembly Government, DBS, Freightliner Limited, GB Railfreight Limited, Direct Rail Services Limited, The Rail Freight Group, The Freight Transport Association, Transport for London, Passenger Transport Executive Group and Association of Train Operating Companies. The Office of Rail Regulation (“ORR”) has attended these meetings as observer and Transport Scotland has also opted to attend.
3.18 The resulting SFN forms an extensive network. It is also consistent with recommended long
term investment options, aspirations for W12 gauge network and a network of diversionary

3.19 The SFN is intended to provide sufficient flexibility to enable increased availability of the
network for freight against the background of growth in both the passenger and freight markets.
With appropriate investment to increase capacity and gauge, it should be able to accommodate
growth (mostly anticipated from the main ports and domestic containers), enable routeing of
more freight traffic away from London and reduce conflicts with passenger services, where
possible. It should also enable the development along a number of major internal axis of freight
market flows. Further SFN work will now be taken forward for Control Period 5 (2014-2019)
following DfT’s publication of the High Level Output Specification in July 2012.

3.20 There is already a degree of cooperation between different Member States’ IMs, particularly for
timetabling and significant engineering possessions around existing services using the Channel
Tunnel. This involves all IMs engaged in the production of this consultation and the
establishment of a corridor could offer opportunities to strengthen this.

Figure 3.4 Indicative European and GB Strategic Freight Networks
Alignment with TEN-T corridors

3.21 There are two existing TEN-T rail corridors connecting the UK and continental Europe. Priority Project No.2 contains elements from London to Lille and beyond to Germany and the Netherlands through Belgium, and to Paris. A number of these elements are considered later in chapter 5.

3.22 Priority Project No.26 reflects the fact that much of the trade conducted between the UK and continental Europe is undertaken via short-haul sea routes directly into ports, including those in the North of England.

Figure 3.5 TEN-T Priority Projects

Question

Does this chapter adequately explain the background to the suggested corridor?
4 Market Analysis

Introduction

4.1 This chapter considers the size of the market for freight between continental Europe and the UK that could potentially be targeted by “through-rail” services using the Channel Tunnel. It therefore addresses one of the criteria for the establishment of a further freight corridor: “the development of rail freight traffic and major trade flows and goods traffic along the freight corridor”\(^2\).

4.2 While the establishment of the corridor is one factor which could facilitate the growth of these “through-rail” services, many other factors are involved in their development. These factors include, but are not limited to, operational performance, information, reducing border constraints and price. These factors are also referred to later in this chapter.

4.3 The chapter starts by assessing the potential scale of the “through-rail” freight market between continental Europe and the UK. Next it addresses measures which would facilitate growth into this market. Finally the chapter addresses the destination (within the UK) of international freight, to help inform the potential route of the corridor.

The potential scale of the “through-rail” freight market between continental Europe and the UK

4.4 The context for this analysis is the current market for “through-rail” freight using the Channel Tunnel. Eurotunnel data shows that in 2011, 1.3 million tonnes of freight were imported or exported on these services. This tonnage was carried by about 2,400 trains in total (i.e. an average of between 7 to 10 per day). Eurotunnel’s 2011 annual review indicates that the main types of freight carried include intermodal and steel.

4.5 For the purpose of this analysis countries in Europe have been grouped into regions:

- **UK**: (the start or end point for all freight in scope for the Corridor)
- **Channel region**: This is the group of countries with a coastline on the south/east of the English Channel, namely Belgium, France and the Netherlands. The distance between these countries and the UK is broadly similar by road/ship and by rail (via the Channel Tunnel).
- **Intermediate neighbours**: This is the group of countries that immediately neighbour the Channel region. The most direct route to/from UK depends on the point of origin/destination in these countries. From some parts the most direct route is via the Channel region countries.
- **Other**: This is the group of countries that are further away from the UK than the immediate neighbour market. The direct route to/from the UK could occasionally be via the Channel region countries.

4.6 This segmentation is illustrated below in Figure 4.1.

4.7 Table 4.1 shows the total current market for maritime freight (short-sea traffic only) between the UK and the Channel region and Intermediate neighbours.

4.8 The figures split the total market by commodity type, namely:

- **dry bulk**, e.g. coal
- **liquid bulk**, e.g. oil
- **Roll-on Roll-off or “Ro-Ro” traffic**, this includes unitised goods that are driven on and off a ship by lorry.
- **Load-on Load-off or “Lo-Lo” unitised traffic** that is lifted onto and off a ship by crane.

4.9 Lo-Lo traffic between the UK and the Channel region and Intermediate neighbours and part of the Ro-Ro traffic between these countries (i.e. that which is currently containerised or which could be containerised in future) represents one indicator of the potential scale of the Europe-UK “through-rail” market. This potential market is in the range of 12 million tonnes (see Lo-Lo total in Table 4.1) and 71 million tonnes (Lo-Lo plus Ro-Ro totals in the table), although even the 12 million tonnes figure is

\(^2\) See Regulation Article 4(f).
probably not a realistic assessment of the potential “through-freight” market. This analysis reflects the assumption that containerised traffic is most easily “addressable” by rail, although some bulk sub-sectors also provide good prospects for rail. These issues are discussed further in “Freight Modal Choice Study: Addressable Markets”, University of Westminster, published by DfT in 2010.

Table 4.1: Freight at UK major ports by country of loading/unloading and commodity in 2010 (DfT maritime statistics)

<table>
<thead>
<tr>
<th></th>
<th>Liquid bulks</th>
<th>Dry bulks</th>
<th>Ro-Ro traffic</th>
<th>Lo-Lo traffic</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>5.9</td>
<td>1.5</td>
<td>13.4</td>
<td>2.2</td>
<td>0.7</td>
<td>23.7</td>
</tr>
<tr>
<td>France</td>
<td>9.2</td>
<td>2.8</td>
<td>27.0</td>
<td>0.9</td>
<td>0.4</td>
<td>40.2</td>
</tr>
<tr>
<td>Netherlands</td>
<td>29.6</td>
<td>5.5</td>
<td>14.8</td>
<td>5.1</td>
<td>1.3</td>
<td>56.2</td>
</tr>
<tr>
<td>Total Channel region</td>
<td>44.7</td>
<td>9.7</td>
<td>55.2</td>
<td>8.1</td>
<td>2.4</td>
<td>120.2</td>
</tr>
<tr>
<td>Total Intermediate neighbours</td>
<td>14.3</td>
<td>9.6</td>
<td>4.2</td>
<td>3.9</td>
<td>2.7</td>
<td>34.8</td>
</tr>
<tr>
<td>Total Channel region &amp; Intermediate neighbours</td>
<td>59.0</td>
<td>19.3</td>
<td>59.4</td>
<td>12.1</td>
<td>5.1</td>
<td>154.9</td>
</tr>
</tbody>
</table>

3 Some of these figures appear to be rounded.
4.10 Over recent years total trade volumes between the Channel region and the UK have ranged between 112 (2009/10) and 133 million tonnes (2007/08), compared with the 120 million figure shown in Table 4.1.

4.11 A second indicator of the potential scale of the UK - Europe “through-rail” freight market is its scale in previous years. In 1998, for example, the market was 3.1 million tonnes, compared with the current figure of 1.3 million tonnes.

4.12 A third indicator of the potential scale of this market is the UK rail industry’s SFN forecasts. These forecasts, which were developed in 2009, predicted “through-rail” Channel Tunnel traffic of about 10 million tonnes by 2030, about 90% of which was expected to be intermodal traffic. This partly reflected high forecast growth in intermodal traffic in general. Table 4.2 shows forecast growth of 6% per annum to 2030 for “ports intermodal” traffic in general, which includes Channel Tunnel intermodal traffic. The factors behind these high growth projections were increasing UK consumer demand for goods which are suitable for transportation in intermodal units, and UK government policies supporting rail freight. These factors are likely to apply to the Channel Tunnel intermodal market.

Table 4.2 Forecast UK rail freight growth in tonne kms by commodity (Strategic Rail Freight Interchange Policy Guidance, DfT, 2011, based on SFN forecasts)

<table>
<thead>
<tr>
<th>Freight moved (tonne km, bn)</th>
<th>2006</th>
<th>2019</th>
<th>2030</th>
<th>Average annual growth 2006 to 2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid fuels</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>-2%</td>
</tr>
<tr>
<td>Construction</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>1%</td>
</tr>
<tr>
<td>Metals and ore</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>0%</td>
</tr>
<tr>
<td>Ports intermodal</td>
<td>4</td>
<td>10</td>
<td>17</td>
<td>6%</td>
</tr>
<tr>
<td>Domestic intermodal</td>
<td>1</td>
<td>6</td>
<td>12</td>
<td>11%</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>32</td>
<td>45</td>
<td>3%</td>
</tr>
</tbody>
</table>
Market opportunities

4.13 A final indicator of the potential scale of the UK - Europe “through-rail” freight market is Eurotunnel’s market research. These suggest a number of market opportunities for international rail through the Channel Tunnel. There could be approximately:

- 3 million tonnes per annum transported between the UK and northern Italy;
- 2 million tonnes per annum transported between the UK and north western Europe;
- 1 million tonnes per annum transported between the UK and Valencia, Spain.

4.14 Other secondary market opportunities exist to south east Germany, Austria, southern France and southern Italy.

4.15 It is therefore considered that there are three principal markets that a corridor could consider linking into when considering proposals for route options.

4.16 Market 1 is the Italian market which could be accessed by a connection at Lille with other EU freight corridors. As with markets 2 and 3, there will be a range of restrictions in this market being accessed by rail such as loading gauges which would need to be taken into account.
4.17 Market 2 is the Northern Europe market which could form a trade triangle between Lille, Antwerp and Duisburg. There is understood to be a strategic aim of increasing freight traffic in the Port of Antwerp from 8% to 20% over the next few years. This development could potentially complement intermodal connections between parts of the UK and the continent.

4.18 Market 3 is the Spanish market which incorporates Valencia and Barcelona. Some routes to this market (e.g. Western France) face issues of different track and loading gauges to those that exist in the UK.

4.19 The French market is a potential fourth market where rail freight had an approximate 20% market share at the end of 2010. However, targeting this market creates challenges because of the diffused nature of the market; steel tends to be transported to the north of the country and water and manufactured goods tend to be transported to the Alps region. RFF undertook a study into extending corridors C and F to Le Havre and Dunkirk to address the connectivity of Northern France rail freight and this is discussed in Chapter 5.

Summary of the potential scale of the “through-rail” freight market between Europe and the UK

4.20 Relative to the current market of just over 1.3 million tonnes per annum, the above analysis provides various indicators of the potential market over the medium to long-term of:

- 3.1 million tonnes, based on recapturing the market held in 1998;
- Over 6 million tonnes based on Eurotunnel’s analysis;
- 10 million tonnes based on the UK rail industry’s forecasts for 2030; and
- Between 12 and 70 million tonnes, based on total current Lo-Lo and Ro-Ro trade between the UK and the Channel region and Intermediate neighbours (although it is recognised that even the 12 million tonne figure is probably not realistic).

4.21 Clearly there are many constraints on the Channel Tunnel rail freight market reaching this potential market; however defined.

Measures required to increase Channel Tunnel “through-rail” freight market

4.22 To increase the Channel Tunnel’s market share the following priorities have been suggested by stakeholders, some of which would be addressed by the corridor:

- Improving operational performance: The impact of a delay to a train can often be amplified when the train moves into successive countries, as it is difficult to incorporate a late train from another jurisdiction into national timetables.

- Improved information en-route: There is currently a lack of information available to customers about the whereabouts and expected arrival time of goods being transported by rail when compared to other modes. Stakeholders have suggested that establishment of a corridor may improve this.

- Reducing border constraints: Currently there is often a requirement to change drivers and/or wagons at the borders between countries, therefore imposing both time and cost into the rail product that is offered to freight customers. Stakeholders have suggested that establishment of a corridor may reduce the need for this.

- Improving price competitiveness: Stakeholders have suggested that establishment of a corridor may better enable the rail industry to address its price competitiveness against other modes through easier understanding of long distance prices.

The destination (within the UK) of international freight traffic

4.23 To inform the potential route of a corridor, consideration has been given to the origin and destination of international freight into and out of the UK, and how this traffic is accommodated by the UK rail infrastructure. Figure 4.3 illustrates the distribution of total Lo-Lo and Ro-Ro freight traffic (not just rail freight traffic) between the UK and the Channel region, by selected UK ports. The selected ports account for about 95% of total UK to Channel region trade in each of these categories and include the ports in south east England most relevant to the corridor, i.e. Southampton and Portsmouth, Dover, Dover, Dover, Dover.

London and Medway, and Haven. The figure shows that for Lo-Lo traffic, the London and Medway ports have the largest trade volumes, followed by the Humberside ports and Forth. For Ro-Ro traffic, which accounts for much greater total traffic than Lo-Lo, Dover has the largest volumes, followed by the Humberside ports and the London and Medway ports.

Figure 4.3: Distribution of total Lo-Lo and Ro-Ro freight traffic between the UK and Channel region by selected UK ports (million tonnes in 2010, short-sea traffic only, DfT maritime statistics).

4.24 Figure 4.4 illustrates the location of the GB intermodal freight terminals, which are the origin/destination for intermodal rail freight. The main centres of population or destination areas are highlighted in the figure: London, the Midlands, the North West, Yorkshire and Scotland. As shown, these areas have a concentration of freight terminals. The potential route of a corridor needs to take these terminal locations and centres of populations/destination areas into account.

* Totals are shown in Table 4.1.
Question

Please provide comments on this analysis of the freight market which includes an assessment of the potential for the development of rail freight traffic on the suggested corridor and your views on the potential final destination of such traffic.
5. **Route Considerations**

5.1 This chapter sets out the possibilities for connecting the European Freight Network and the UK SFN with a European freight corridor and uses the analysis contained in Chapter 4 to explain potential routes.

5.2 In considering potential options, a number of clear principles have been used in the process of identifying any suitable corridor:

- **Market oriented** – a corridor should reflect the needs and expectations of the freight industry and its customers.
- **Additionality** - a corridor should not compete with existing corridors in market flows.
- **No double governance** – a corridor should not produce an overlap of governance with other freight corridor governance organisations.
- **Low cost & low bureaucracy** – a corridor should not create significant economic or administrative burdens for potential customers.
- **Complementary** – a corridor should support the National freight strategies in UK, France and Belgium, and the freight business strategies of HS1 Limited and Eurotunnel.
- **Realistic** – a corridor should, initially at least, be simple and realistic in its aims, while recognising potential to grow in the future.
- **Beneficial** – a corridor should be based on a positive business case for the industry as a whole and be low risk.
- **Length & connectivity** – a corridor should be appropriately connected to both networks and should achieve length requirements.

5.3 In terms of geography, any new corridor linking the European Freight Network and UK SFN would need to integrate with both existing Regulation (including RNE) and national UK freight network structures and with the Regulation defined corridors. It would need to be planned after consideration of the views from the managing bodies of other corridors at the initial stages and on the basis of retaining ongoing links with other corridors to build and manage flows across the corridors’ connections.

5.4 Where freight corridors coincide with European Rail Traffic Management System (“ERTMS”) corridors, the Commission suggested (in accordance with the Regulation) that ERTMS management could also be integrated in the corridor structure, in order to increase coordination and avoid duplication of meetings. There is very limited ERTMS corridor alignment along any of the considered routes and therefore this suggestion is not applicable in this instance.

5.5 The process of connecting a new corridor with those already defined in the Regulation would enable the communication of cross corridor boundary issues (including demand or investment) into other corridor market studies, through identifying strategic issues at or beyond the interfaces with these corridors. In keeping with the principles above, this could be most easily done through the practical selection of a simple route and key nodes at which a new corridor could join the wider freight network. Such relationships would also allow examination of end to end flows for constraints, e.g. UK – Italy train length limits.

5.6 Much of the detail in terms of market analysis and future strategic freight requirements can only be formally addressed following the confirmation between Member States and the Commission of a proposed route and the formal establishment of the corridor Management and Executive Boards.

5.7 The corridor’s Management Board once formally established would publish the detailed information on paths and products in line with the regulatory requirements and would, as far as practicable, coordinate methods, principles and tools.

5.8 All IMs engaged in this consultation recognise that the quality of any paths offered, including alternative path offers and coordination of possessions for engineering work would be key to the corridor’s success.

5.9 An early role of the corridor Management Board would be to determine freight paths currently available on a corridor route in each section, and from end to end. This is likely to vary in each country. At this stage any proposed route options do not commit any IM to making any particular number of paths available to the corridor.
5.10 It is therefore considered that a potential corridor would consist of three principal elements to form the initial core corridor, and a number of optional or supporting components that views are sought on in this consultation. In any event, it is believed that IM’s would work closely to coordinate core and supporting elements. Diversionary routes are not examined at this stage.

5.11 The core components could be:

- The Channel Tunnel
- Channel Tunnel – Lille
- Channel Tunnel – London

5.12 One of the below would be required to form part of the corridor to achieve the qualifying distance/connectivity requirement. The potential components/supporting elements could be considered in the following order:

- Lille – Montzen (connecting Regulation defined corridor 1 (RFC1) to Germany
- Lille – Paris which is currently being studied in the framework of the Traffic Management System (TMS) of RFC2 and is part of RNE Corridor 5.
- Channel Tunnel – London (via High Speed 1 (“HS1”))
- London – North/West

**Corridor element 1: The Channel Tunnel**

5.13 Eurotunnel’s Channel Tunnel infrastructure is, self evidently, an essential component of any corridor linking the European and UK freight networks.

5.14 The previous peak in freight traffic through the Channel Tunnel was 3 million tonnes in 1997, now currently 1.3 million tonnes. There is currently significant capacity for potential freight growth with around 800 paths in total per week through the Channel Tunnel.

**Corridor element 2: Channel Tunnel - Lille**

5.15 The corridor route from the Channel Tunnel could naturally extend to Coquelles and Lille which are the nearest intermodal freight terminals of strategic importance and a gateway to continental Europe.

5.16 RFF has studied the flow of traffic in Northern France, including the market studies and potential extensions of ERTMS Corridors C and F to Le Havre and Dunkirk. This has helped to define the key flows and the routes for the area. Research commenced in May 2011 with a series of meetings with port operators, shipping owners, terminal operators and railway undertakings.

5.17 Research included investigating constraints on the network and whether improvements are required to grow the traffic; an analysis of the freight flows in the region and the rail freight market in particular; an analysis of the technical capacity of the related rail network and its bottlenecks; extension proposals for ERTMS Corridors C and F and an economic assessment of the costs and advantages of the involved investments for each option.

5.18 As a result, ERTMS Corridor C is proposed to be realigned to include the Lille-Metz route providing a natural linkage for key flows from the UK. The map below (figure 5.1) shows the flows studied in the report and the shape of ERTMS Corridor C.
5.19 RFF proposes that the core route for a new corridor in Northern France is from the Channel Tunnel to Lille. At Lille, ERTMS Corridor C/RFC2 provides a link towards the east and provides a direct route for Italian traffic via Southern France or through Switzerland to the North (Antwerp). The route could also provide a gauge-cleared route to Spain by turning westwards beyond Lyon in southern France. To go beyond Lille with a UK oriented corridor would overlay ERTMS Corridor C and breach principles of double governance.

5.20 Key future considerations would concern congestion around the Lille area looking at alternative routes to leave congestion in the longer term.

**Corridor element 3: Channel Tunnel - London**

5.21 International freight capacity is already reserved between the Channel Tunnel (Dollands Moor terminal) to London (Wembley Operating Centre), pursuant to the terms of the Rail Usage Contract meaning that international paths could be released to Network Rail and used for the purposes of the corridor without removing capacity from domestic freight or passenger services. Wembley Operating Centre is shortly transferring to the ownership of Network Rail.

5.22 The limitations contained in the Regulation of only allocating strategically reserved corridor paths to international freight may result in a loss of some flexibility for planning purposes, given the ability in the Regulation for IM's to keep this reserve capacity for up to 60 days before the timetable change date, but they are essentially consistent with the purpose of the current reserve.

5.23 In operational management terms, the impact on flexibility will be determined by the agreed rules of the corridor but could still provide for operational flexibility through the use of unused paths on the day of running the service.
5.24 The current timetable includes one route (and two diversionary routes) that allow W9 gauge\textsuperscript{6} and Class 92 locomotives to move between depots. There are 35 paths per day in each direction and at their current level of usage, there would need to be a significant growth in volume of international freight before the 35 paths were considered to be heavily utilised.

5.25 The considerations (below) and cost benefit analysis consider in further detail where any potential routes in GB could run beyond Wembley Train Operating Centre. Any considerations need to be consistent with the SFN.

**Supporting elements: Lille – Montzen**

5.26 Infrabel’s options of support for a corridor are limited by the principle for ‘no double-governance’. For example, Lille connections to Antwerp and Rotterdam are via ERTMS Corridor C and RFC2. However, a possible route between Lille and the German border (consistent with the market analysis) near Montzen has been identified.

5.27 While running slightly to the south of an existing TEN-T route, this element effectively aligns with the TEN-T priority project 2 and has essentially the same connecting points at the French and German borders.

5.28 The potential route through Belgium to Germany is therefore regarded as a more or less fixed option, as there are already three other corridors over different sections of the network.

5.29 Capacity is likely to be an issue, however it is anticipated that one train per hour less engineering access and peak times may be potentially available. Freight trains on the route are likely to be international.

5.30 The potential route is shown in orange in Figure 5.3 and runs via Charleroi and Liege. Views of terminal operators and Member State Governments on this element are welcome. At the German border, it is envisaged that the route would link to ERTMS Corridor A or RFC1 via Montzen.

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\textsuperscript{6} See link for dimensions - [http://www.networkrail.co.uk/WorkArea/DownloadAsset.aspx?id=30064775686](http://www.networkrail.co.uk/WorkArea/DownloadAsset.aspx?id=30064775686)
Supporting elements: Lille to Paris

5.31 In addition to the ERTMS Corridor C link at Lille taking traffic south through Lyon and Dijon, there is potential to route traffic through Paris. Freight destined for North West Spain traffic could run via Toulouse.

5.32 There is a standard track gauge route through France into Spain, which although gauge constrained, may be consistent with UK routes on long-distance flows and is worth further consideration.

5.33 A Lille-Paris section could be easily identified by requisitioning part of RNE Corridor 5 which has effectively been orphaned by the establishment of the western France Regulation-defined corridor route and the realignment of ERTMS Corridor C. This route would reflect existing routes in TEN-T priority project 2 and is being considered in the TMS.

Supporting elements: Channel Tunnel Rail Link – (HS1) London

5.34 HS1 is the only section of the UK rail network which currently has European gauge for continental gauge vehicles. This route is also aligned with TEN-T priority project 2. One of the technical difficulties is the fact that HS1 is declared as specialised infrastructure with priority for international high speed passenger services.

5.35 European gauge freight traffic could operate on the line. To form part of a corridor there would need to be either a freight terminal at the London end (e.g. Barking) or an onwards link to a suitable terminal. DBS already uses a continental gauge class 92 train from Barking to Poland but this is at night only.

5.36 Clearance to European gauge beyond HS1, as with the bulk of the UK rail network would involve a considerable amount of work and cost, particularly to structures on existing routes. The business case, however, is improved if the clearance work was to be combined with other planned clearance work, such as preparation for future line electrifications.

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7 High speed 1 permits International Union of Railways (UIC) gauge and European high speed loading gauge (GC).
5.37 It is not anticipated that HS1 would be formally incorporated as part of a corridor at the beginning of its operation because length and weight constraints mean that the route would be unable to take a full range of freight services. However, HS1 could be a significant tributary to the main freight flows on the corridor, particularly for East London and potentially in the longer term (subject to investment), East Anglia and Midlands freight flows. HS1 Limited is also keen to develop proposals for “high speed” freight and close cooperation with the corridor should support this goal.

Supporting elements: London – West and North West (the Strategic Freight Network)

5.38 There is a limited amount of (originating in mainland Europe) international rail freight operating on the UK network beyond London. As the market analysis indicates, the primary markets are likely to be the Midlands, the North West and Scotland. Currently, there are regular services to the Midlands, North West and East Anglia.

5.39 The potential benefit of strong synergies between efficient operation and development of the UK SFN and the international corridor are recognised. However, the effects of applying the Regulation to a heavily used, mixed-use line need to be clearly understood. In keeping with the current regulatory and contractual regimes, further consideration is proposed before this additional complexity is incorporated into a corridor.

5.40 The UK rail freight industry has agreed the principles for strategic capacity to be held in reserve for passenger operators and freight operators (both domestic and international). If this was implemented alongside the creation of an international corridor there would be little additional benefit to overlaying a corridor on such network. Should a corridor be created along an additional line such as the West Coast Main Line, it is noted that the reserve held by a OSS (which would act as a central point to deal with capacity allocation requests) could only be allocated under the Regulation to international freight in the period until 60 days before the annual timetable change date in December. Although the effect of this depends on the number of paths involved, this would be likely to introduce a restriction to domestic freight and passenger access proposals which could only be accepted in the period from 60 days to the timetable change date if they use the paths reserved for international freight. Although this would not prevent the use of the paths for relatively short term passenger or freight purposes, this could be potentially costly if more capacity was allocated to international freight services in place of higher value long term passenger or domestic freight services.

5.41 Freight services do not currently run at European gauge on the UK network because the infrastructure and terminal facilities are not sufficient to enable them to do so. Research undertaken on gauge clearing the UK Midland Main Line (for routes to the North) indicated that to undertake a blanket gauge clearing activity on the main internal axes would be prohibitively expensive.

5.42 While gauge could be a consideration in the construction of new alignments, it is unlikely that a major new North/South alignment could be justified on freight alone. Consideration of new alignments for passenger services, however, could release capacity on the existing network and give opportunity for freight growth.
Questions

Please explain whether or not you would support the suggested corridor route(s) and advise if you believe there are any additional route considerations.

Please advise whether you believe that the suggested corridor route is consistent with the TEN-T network, ERTMS corridors, and other freight corridors.
6. Cost Benefit Analysis

6.1 A cost benefit analysis (CBA) is required to inform the decision on whether or not Member States participate in this additional corridor.

6.2 If Member States decide to participate, the proposal needs to take into account various criteria including:

- The balance between the socio-economic costs and benefits stemming from the corridor; and
- The interest of the applicants in the freight corridor8;

6.3 If they decide not to participate they need to provide a socio-economic analysis and need to show that the corridor would:

- not be in the interest of the applicants likely to use it; or
- would not bring significant socio-economic benefits; or
- would cause a disproportionate burden9.

6.4 In either case, a CBA is required to address socio-economic costs and benefits and the related issue of “disproportionate” [cost] burdens. These are the main purposes of the CBA. In addition, the CBA will help inform whether the corridor is in the interests of applicants, although these interests will mainly be based on the views of applicants as expressed in the responses to this consultation paper (see consultation questions).

6.5 This chapter addresses the CBA required to inform the decision on whether or not to participate.

Proposed Approach for Cost Benefit Analysis (“CBA”)

6.6 The CBA in this paper uses a “high-level” or strategic approach. This is because the details of any corridor are unclear at this stage. The details of, for example, how the OSS will be set up, will only be known after a corridor is established and will depend on decisions of the Management Board (and the contents of the Implementation Plan). The approach also reflects the purpose of the analysis, which is to inform the above decision, not to make a specific investment decision.

6.7 An indicative approach is used. Costs and benefits are described as

- Low (L): <£100,000 or Euros per annum
- Medium (M): between low and high
- High (H): >£1 million (or 1 million Euros) per annum

6.8 The costs and benefits assessed mainly refer to annual costs and benefits after the corridor has been fully implemented (although set-up costs are identified where relevant).

6.9 Each of the “measures” which will need to be included in the Implementation Plan is addressed in turn.10 This is then followed by an overall assessment and summary.

6.10 The costs and benefits are assessed with regard to the requirements / principles as set out in the Regulation, and as supplemented by the Handbook. The assessment also takes account of the experience of the IMs with other corridors.

6.11 The costs and benefits are assessed relative to the “Base Case” i.e. the current and future situation without this corridor. The Base Case includes, for example, measures which are already in place for existing corridors (such as the Path Coordination System or PCS), or initiatives which are expected to continue on this proposed corridor irrespective of its formal establishment (such as co-ordination between IMs on engineering access and perturbation management).

6.12 Since a socio-economic analysis is required, the costs and benefits reflect costs and benefits to society in general, including costs and benefits to relevant parts of the transport sector, to rail passengers and to governments. Costs and benefits to society include environmental and social costs and benefits. Relevant parts of the transport sector include rail infrastructure managers, freight and

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8 See Regulation Article 4
9 See Regulation Article 5, Para 3.
10 See Regulation Article 9 and Section 4.5 of Handbook.
passenger train operators, other freight path applicants and terminal operators (including operators of ports which would be affected if traffic is diverted from short-sea routes to the Channel Tunnel).

6.13 Note that potential investment projects which are not covered by the above measures are not included in this CBA. These investment projects, or a “list of projects” for rail infrastructure improvements, are not known at this stage. They will be included in the Investment Plan, which is part of the Implementation Plan, which will only be produced after a decision to participate has been taken.\(^\text{11}\)

Costs and Benefits of Specific Measures

6.14 A draft assessment of the costs and benefits of the measures which will need to be included in the implementation plan is shown in Table 6.1. The measures are those that are listed in the Regulation.

\(^{11}\) See Regulation Article 11.
<table>
<thead>
<tr>
<th>Measure</th>
<th>Costs</th>
<th>Range of costs</th>
<th>Benefits</th>
<th>Range of benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-ordination of infrastructure works and publication of their schedules (Article 12)</td>
<td>If this results in schedules changing to ensure cross-boundary co-ordination, it could result in increased costs e.g. increased labour costs to IMs to reduce possession requirements or increased costs to passenger operators in terms of disruption to their services. Given that co-ordination of engineering access already takes place between IMs and given the experience of IMs on existing corridors, this is classed as low rather than medium or high.</td>
<td>L</td>
<td>If this results in schedules changing to ensure cross-boundary co-ordination, it could result in journey time and reliability benefits to international freight operators (but potential costs to other operators).</td>
<td>L</td>
</tr>
<tr>
<td>Establishment of One Stop Shop (OSS) for applications for infrastructure capacity (Article 13)</td>
<td>Costs depend on how the OSS is set up, which will not be known until after the decision to participate. If it is provided by an IM in a “virtual” form (i.e. operators submit path requests on-line and the IM ensures an IT interface with other IMs) the costs could be limited to IT costs and associated staff and management costs i.e. low to medium. If it is provided by a new dedicated technical body, with its own staff and offices, costs could be higher. These costs would probably be passed on to freight operators and could result in costs associated with reduced freight flows: these costs are the opposite sign of the benefits shown in note 1 (hence high overall).</td>
<td>L to M</td>
<td>This should result in reduced administrative costs to freight operators, since they will only have to deal with one IM. This is classed as a low benefit (admin. cost savings only). If it results in better co-ordination between infrastructure managers, it could result in journey time and reliability benefits to existing freight services (medium benefits). Journey time and reliability benefits could also result in extra freight trains and significant (high) benefits in terms of reduced lorry journeys (see note 1). This is classed as medium since the OSS alone is unlikely to result in significant extra freight flows.</td>
<td>L to M</td>
</tr>
<tr>
<td>Framework for allocation of capacity to freight trains that would otherwise have been allocated to higher value passenger or domestic freight services</td>
<td>If this results in more paths being allocated to international freight trains that would otherwise have been allocated to higher value passenger or domestic freight services</td>
<td>L to H (net costs)</td>
<td>If this results in more capacity being allocated to international freight that would otherwise have been allocated to lower value passenger or domestic freight</td>
<td>Or L to H (net benefits)</td>
</tr>
</tbody>
</table>

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12 See Para 3.
### Table 6.1 Costs and benefits of specific measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Costs</th>
<th>Range of costs</th>
<th>Benefits</th>
<th>Range of benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>freight trains (Article 14)</td>
<td>(under the Base Case), the net costs could be high. Both pre-arranged paths and reserved capacity decisions need to take account of the Transport Market Study (TMS), which will only be produced after the decision is taken to participate. The TMS needs to address freight and passenger traffic levels (including future levels). These decisions also have to “recognise need” for other capacity including for passenger services. Pre-arranged paths only decisions have to “facilitate” journey times, frequencies etc to increase freight use of the corridor. Pre-arranged paths have to be “allocated first to freight trains which cross at least one border”. This suggests that the corridor could result in pre-arranged paths being allocated to international freight trains that would otherwise have been allocated to higher value passenger services, for example; this would apply only on sections of the corridor which are (or will be) capacity-constrained (see note 2). Since capacity is likely to be constrained on (at least) parts of the corridor, and assuming that relevant passenger trains have a higher overall value than freight trains – see note 3 - these costs are classed as potentially high (net) if it does not prove possible to allocate capacity in another way in recognition of a need for capacity for other services. Reserve capacity only: if the initiative results in charges to freight operators to reserve capacity, these costs could result in reductions in freight flows and hence “high” costs (see note 1). Also the capacity has to be reserved until a time limit of at least 60 days before the scheduled time.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>services (under the Base Case), the net benefits could be high. See costs for further discussion. Assuming that freight trains have a higher overall value than the relevant passenger services, for example – see note 3 - these benefits are classed as potentially high (net). (Note: this analysis – costs and benefits – assumes no change in total capacity as a result of switching some capacity from freight to passenger trains or vice-versa. It is recognised, for example, that switching from fast passenger trains to slower freight trains may reduce overall capacity which would need to be taken into account in any decision making.)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13  See Para 4.  
14  See Para 5.
**Table 6.1 Costs and benefits of specific measures**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Costs</th>
<th>Range of costs</th>
<th>Benefits</th>
<th>Range of benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>this could result in costs to IMs in terms of reduced flexibility in the timing of engineering access and costs to domestic freight operators in terms of reduced path availability. This could result in fewer freight trains being run per day (see note 1). These costs could also be “high”.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inclusion of non-railway undertakings (e.g. shippers and freight forwarders) among “Authorised Applicants” as referred to in Article 14</td>
<td>These arrangements are already in place in the UK but may result in some costs to existing railway undertakings as new applicants (e.g. shippers, freight forwarders and combined transport operators) enter the market elsewhere on the corridor. It may also result in some extra costs to IMs in having to deal with both non-railway undertakings and rail undertakings for a single booking.</td>
<td>L to M</td>
<td>This may result in some benefits as new applicants enter the market. These benefits could include commercial benefits and benefits to society from additional freight flows – if the total market increases.</td>
<td>L to M</td>
</tr>
<tr>
<td>Measure</td>
<td>Range of costs</td>
<td>Benefits</td>
<td>Range of benefits</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>----------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
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<td></td>
</tr>
<tr>
<td>Traffic management procedures for corridor, for co-ordinating traffic management (Article 16)</td>
<td>L to M</td>
<td>Changes to traffic management procedures (see costs) could result in benefits to international freight if they improve co-ordination of traffic management on the corridor.</td>
<td>L to M</td>
<td></td>
</tr>
<tr>
<td>Traffic management in the event of disturbance, including “priority rules for management between different types of traffic” (Article 17).</td>
<td>L to M (net costs)</td>
<td>If this results in higher priority being allocated to international freight trains, rather than lower value passenger or domestic freight services, there could be net reliability benefits – see note 4. Benefits are classed as medium rather than high to reflect priority rules – see costs. Benefits may also be partly those associated with OSS – see costs. Note: these points – costs and benefits – apply to international freight traffic with and without pre-arranged paths.)</td>
<td>Or L to M (net benefits)</td>
<td></td>
</tr>
</tbody>
</table>

16  See Section 5.1 of Handbook
17  See Handbook Section 5.1
<table>
<thead>
<tr>
<th>Measure</th>
<th>Costs</th>
<th>Range of costs</th>
<th>Benefits</th>
<th>Range of benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information on the conditions of use of corridor (Article 18).</td>
<td>Limited additional costs relative to OSS and other measures</td>
<td>L</td>
<td>Limited additional benefits relative to OSS and other measures. Benefits could include greater transparency on capacity and capability.</td>
<td>L</td>
</tr>
<tr>
<td>Quality performance measures, including “promote compatibility between performance schemes” along the corridor (Article 19).</td>
<td>If this results in the introduction of additional (international) performance schemes which compete with existing schemes, it would result in higher regulatory costs to IMs. The corridor management board will decide on how this measure is implemented. These costs are classed as medium (i.e. administrative and management costs) on the basis that the management board will not introduce burdensome new measures.</td>
<td>M</td>
<td>Potential benefits to freight operators in terms of improved journey times and reliability.</td>
<td>M</td>
</tr>
</tbody>
</table>
Notes to table:

1. Environmental and social (non user) benefits of additional freight flows

If the corridor results in one additional international freight train per day, the benefits (before corridor costs) could be circa £4 million per annum by 2020 (in 2012 prices). This reflects the benefits if the extra train reduces the number of lorries on the roads (rather than diverting freight from other maritime/rail routes). It includes road de-congestion, noise, air pollution, climate change and safety benefits. The benefits are based on the flow being between the Channel Tunnel and Manchester (for illustration only) and assumes that each extra train removes 40 return lorry journeys from the roads. The valuation is based on the UK DfT’s appraisal methodology (which is subject to review) and does not reflect benefits on the continent as a simplification.

If the corridor results in one less domestic or international freight train per day the costs would be the same as the above benefits, with a negative sign. This might occur if the costs of a dedicated OSS are passed on to international freight operators and this results in less freight traffic (see Article 13). Another example is if reserved (but not used) capacity for international freight results in the loss of domestic freight paths (see Article 14). This could apply particularly on the UK’s West Coast Main Line, where the loss of domestic freight paths could result in fewer domestic freight trains operating. (The value of a domestic freight train per day (e.g. Southampton to Manchester) is estimated to be similar to that of an international freight train per day (see above)).

2. Current position on freight capacity by route

Channel Tunnel (source: Eurotunnel): sufficient capacity for through rail-services. These services currently use about 10% of the paths allocated.

UK (source: Network Rail and HS1Limited):
Conventional (“Classic”) routes between Channel Tunnel and London: sufficient capacity. These services currently use about 20% of paths allocated.
Routes beyond London: limited capacity for additional traffic on West Coast Main Line, for example.
HS1: Capacity available for conventional freight at night-time only (note that HS1 provides greater gauge clearance than the Classic routes, which partly explains why it is used at nights). A framework is currently being developed for capacity for high speed freight during the day however this is subject to the Declaration of Specialised Infrastructure which priorities high speed passenger services.

France (source: RFF):
Non-high speed routes: limited capacity for additional growth, particularly in Lille area at peak times (although these constraints may be addressed through future investment projects irrespective of this corridor).
High speed route: capacity not generally available for freight services.

Belgium (source: Infrabel):
Non-high speed routes: limited capacity for additional traffic during peak times; some capacity available during off-peak (circa 1 train per hour).
High speed route: capacity currently not used for freight services. However, Belgium is involved in the EuroCarex project which is looking into the possibility of high speed freight services.

3. Freight and passenger user and non-user values

An assessment of the impact of the corridor on the capacity for freight and passenger services, and whether it results in a net cost or net benefit to society (as discussed in Table 1 re. Article 14), depends on the relative user and non-user benefits of freight and passenger services. Analysis by ORR (Review of Access Policy, 2010) suggests that user (i.e. value of time) benefits in an appraisal framework are likely to be higher for passenger services, although they vary widely, for example between inter-city and regional passenger services and between intermodal and bulk freight services. However non-user benefits in an appraisal framework are likely to be higher for freight services, although this depends on the assumption that the relevant freight services remove lorry journeys from the roads, rather than replace other rail services. The scale of potential freight non-user benefits are shown in note 1, above.

4. Freight and passenger user values

An assessment of the impact of the corridor on delays experienced by freight and passenger services, and whether it results in a net cost or net benefit to society (as discussed in Table 1 re. Article 17), depends on the relative user benefits of freight and passenger services. The analysis by the ORR suggests that user (value of delay) benefits/costs are likely to be higher for passenger services, although they vary widely, for example between inter-city and regional passenger services and between intermodal and bulk (non-coal) freight services.
Summary

6.15 A full assessment of the costs and benefits is not possible at this stage due to the lack of any precedents and uncertainty about how the corridor would operate. Some details will only become clearer after the decision has been taken (by all members) on whether to participate, for example, if the decision was taken to participate, some details would become clearer when the corridor management board was set up and an Implementation Plan (as defined in the Regulation) was developed.

6.16 This chapter therefore only attempts to carry out a high-level or strategic CBA, based on the limited information available on this corridor (mainly from the Regulation and Handbook) and based on the experience of the IMs with other corridors.

6.17 The high-level CBA suggests that most of the measures required to be implemented will result in "low" or "medium" costs, with benefits of a similar order of magnitude.

6.18 Two measures have "high" potential costs, as follows:

- The establishment of the OSS (Article 13) has high potential costs, particularly if the corridor Management Board decides to set up a dedicated technical body, with a significant dedicated staff and offices etc.

- The framework for the allocation of freight capacity (Article 14) has high potential costs if, for example, it results in more capacity being allocated to international freight and less being allocated to high value passenger or domestic freight services. A concern relates to Article 14(4) which states that pre-arranged paths "shall be allocated first to freight trains which cross at least one border". This is balanced by Article 14(3), which stresses the need to take account of other capacity requirements. (See table 6.1.) It is unclear at this stage how this measure will be implemented, but Article 14(3) comes first and therefore has primacy.

6.19 In summary, the CBA has identified a number of concerns, including those relating to the establishment of the OSS and the allocation of freight capacity. Comments from consultees will help inform an overall judgement on costs and benefits before a decision is taken on whether or not to participate.

Question

Please provide your comments on the balance between the socio-economic costs and benefits which could arise from the establishment of a corridor.
7. Network Rail Regulatory Impact

7.1 This chapter considers the impact that participation in an EU freight corridor could have on the existing regulatory and contractual regimes within which Network Rail currently operate.

7.2 Examination of the Regulation has highlighted a number of important considerations. There is a need to understand the impact nominating a corridor will have on existing regulatory and contractual regimes. However, it will be difficult to draw any definitive conclusions until the corridor is established and operational.

Article 13 of the Regulation – OSS for application for infrastructure capacity

Article 13(1)

7.3 Pursuant to Article 13(1) there is a requirement of the corridor management board of a freight corridor to set up a joint body for capacity allocation requests in respect of services crossing at least one border along the freight corridor.

7.4 It is envisaged that there could be three types of designated joint body to consider capacity allocation requests:
   - A virtual OSS;
   - A OSS within an IM; and
   - A legally independent body.

7.5 A virtual OSS would involve using PCS, an on-line tool for processing path requests and which is currently used in the UK which should mean minimal impact on the existing regimes. An OSS within an IM could include an element of a virtual OSS but with the added benefit of using personnel within IMs to assist in arranging and tailoring paths which are not pre-arranged. Information could be readily available and could enable corridor capacity requests to be dealt with quickly.

Article 13(2)

7.6 Article 13(2) provides that the OSS shall “provide basic information concerning the allocation of infrastructure capacity”.

7.7 Open access freight contracts on the UK national network are typically entered into for a period of 5 years but no longer than 15 years. It is envisaged that the access regime for the corridor could be an evolution of this process.

7.8 Corridor access could be co-ordinated with the existing rights in each of the national track access contracts in order that infrastructure managers could continue using their own access contracts as opposed to a standardised corridor level access contract. This could reduce any risks of appeal or competition law complaints from operators and customers on the national networks.

Article 14 of the Regulation - Allocation of Capacity

Article 14(3)

7.9 Article 14(3) provides that pre-arranged train paths shall be published not later than 3 months before the final date for receipt of requests.

7.10 In accordance with Part D of the UK Network Code, international paths are already included in the UK prior working timetable 48 weeks in advance of the timetable change date (“D-48”). At D-26, all pre-planned paths must be in the timetable.
7.11 The European and UK timetables currently do not correlate which could present a future challenge for timetable planners. In accordance with requirements from Directive 2011/14/EC, there is a 6 week period in the UK timetable where domestic paths must remain provisional until international paths are finalised. This situation is currently managed for London & South Eastern Railway Limited on HS1 where Eurostar’s high speed passenger services take priority. Management of the same issue, while currently workable, could have implications for Network Rail train planners and domestic operators on the remainder of the national network, although the effect would depend upon the amount of international traffic using the corridor.

**Article 14(4)**

7.12 Article 14(4) stipulates that pre-arranged train paths shall be allocated first to freight trains which cross at least one border.

7.13 International traffic having capacity allocation priority on designated infrastructure is not an unprecedented concept in the UK. In addition, the Regulation does require IMs to recognise the need for other types of transport when defining pre-arranged train paths, including passenger and domestic freight services.

7.14 Currently, when Network Rail compiles a new working timetable, it has to use the considerations contained in prescribed decision criteria. Prioritising international freight could increase the importance of certain considerations. Presently it is the case that “as far as possible, International Paths included in the New Working Timetable at D-48 are not subsequently changed”, in accordance with existing European legislation. Therefore further alignment of the Network Code could be required.

7.15 The impact on the national timetable will depend upon how many pre-arranged international freight paths are reserved, particularly because they can only be reserved for one timetable period. Discussion with timetable planners can take place to assess the implications.

**Article 14(5)**

7.16 Article 14(5) of the Regulation provides for IMs to jointly define the reserve capacity for international freight trains (recognising the need for capacity for other types of transport) and to keep this reserved until, at the latest, 60 days before the timetable change date.

7.17 Network Rail’s strategic capacity statement is issued to identify available paths on the network but does not reserve capacity which is a misalignment between the Regulation and the Network Code. Currently, under Part D of the Network Code, where Network Rail is unable to include all requested paths in the new working timetable, these are allocated in priority. Therefore any domestic operators who submit access proposals by the priority date (D-40) are given priority over access proposals after D-40 in the compilation of the new working timetable, with first priority to the firm rights of any timetable participant.

7.18 Domestic operators are also currently able to make timetable variations within the period D-26 and before the timetable change date. Article 14(5) could restrict them from doing this if the capacity request conflicts with the reserve capacity and if the capacity request is made more than 60 days before the timetable change date. This restriction could also present a challenge for timetable planners where there are competing requests for capacity, especially where previous access proposals have been rejected prior to D-40 or between D-40 and D-26.

7.19 The Regulation does provide for recognition of the need for capacity for other types of transport which should reduce the likelihood of access disputes or claims that Network Rail is placing parties at a competitive disadvantage however it is clear there is a need for Network Rail to discuss with industry parties and ORR how best to manage this situation.

7.20 Currently the Network Code provides that where Network Rail is unable to include all requested paths in the new working timetable then any ‘strategic’ paths identified by Network Rail’s strategic capacity statement are considered and allocated last. However the Regulation requires international

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18 Priority rules exist with priority for international high speed passenger services on HS1 where there are multiple interfaces with other networks.

19 Considerations (e), (h) and (k) contained in Condition D.4.6.2 of the Network Code.

20 “Firm” rights or “Level 1” rights are those most likely to result in services that match the quantum, timings and routes which a timetable participant wants to use.
freight paths to be considered first for any ‘reserve capacity’. To rectify this misalignment could require amendment to Part D of the Network Code and/or determination by the ORR and will be discussed further.

**Article 14(7)**

7.21 Article 14(7) states that Infrastructure Managers may include a fee for capacity which is allocated but not used, providing the fee is appropriate dissuasive and effective.

7.22 From a regulatory perspective, to include a capacity reservation charge in the corridor conditions of use is in line with Regulation 15 of the Railways Infrastructure (Access & Management) Regulations 2005 and may encourage the ‘correct behaviour’ on the corridor by deterring an operator from reserving a path which it subsequently does not use or from frustrating competitors’ attempts to reserve capacity on the corridor and could be considered a mechanism to enable optimum utilisation of the corridor.

7.23 The conditions of use would be subject to regulatory scrutiny if a capacity reservation charge was proposed, particularly given that the charge does not apply on the remainder of Network Rail’s network. There are instances where a capacity reservation charge could be deemed an unnecessary cost on operators’ activities and could be deemed unfair treatment. This would particularly be the case if a route using reserved capacity was proposed. An unnecessary financial burden could also apply if it was intended that a reservation charge was applied regardless of whether a service operated. In order to address this risk, proposals could be considered for a capacity reservation charge only in the event that a reserved right is not used, with a rebate mechanism where the reserved right is used by another operator.21

7.24 It is important to note that a capacity reservation charge is only an option. The Regulation states that “Infrastructure Managers may include in their conditions of use a fee.” therefore the option exists not to do so. This is something to be discussed further with the ORR who would need to approve the introduction of such a charge.

**Article 14(8)**

7.25 Article 14(8) provides that unless in the case of force majeure, urgent and unforeseeable, safety critical work, a train path allocated to a freight operation pursuant to this Article may not be cancelled less than 2 months before its scheduled time in the working timetable if the relevant applicant does not approve.

7.26 This should not prevent Network Rail from being able to carry out routine engineering works. The Network Code provides that Network Rail must supply its draft engineering access statement to operators by D-59 and its final engineering access statement by D-44, so works should be known well in advance. This Article also allows for urgent works to be undertaken and there is scope to obtain approval of the relevant operator, although it is acknowledged that, in practice, obtaining approval could prove to be a complex process.

**Article 15 - Authorised Applicants**

7.27 Applicants such as shippers, freight forwarders and combined transport operators can request infrastructure capacity and in order to use train paths on the freight corridor, these applicants must appoint a railway undertaking to conclude an agreement with the Infrastructure Manager.

7.28 It is considered that the regulatory impact of this would be minimal as this arrangement accords with that which already exists on Network Rail’s national network for freight customers seeking to enter into track access contracts.

**Article 16 – Traffic Management**

7.29 Article 16 provides that the corridor management board will put in place procedures for coordinating traffic management along the corridor.

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21 This mechanism is used on HS1.
7.30 This could have an impact on the national regulatory and contractual regimes if, as a consequence of traffic management procedures, Network Rail lost management control over part of its network. However, this should not present a risk as co-ordination is a broad concept which could be applied to national operational measures which are best practice. In addition, Network Rail (alongside the other IMs) would be represented on the corridor Management Board therefore should be involved with decisions taken regarding traffic management procedures.

Article 17 – Traffic Management in the event of disturbance

7.31 Article 17 provides that the management board shall adopt common targets for punctuality and/or guidelines for traffic management in the event of disturbance to train movements on the freight corridor.

7.32 A fuller understanding will be required as to how the Regulation will impact upon the current freight and passenger performance regimes. If the corridor is on a route with sufficient capacity built into it then it allows late presenting trains to be accommodated in available paths and reduces the impact on the remainder of the timetable. However, if the corridor is along a route which is already heavily utilised then if there is late presentation of international services at a number of interfaces along the corridor, the impact on existing levels of performance may be unavoidable and could mean increased compensation payments.

7.33 Network Rail can not deviate from its regulatory targets for punctuality but these could run in parallel with corridor performance targets. This could prove to be an issue if domestic regulatory targets were higher than international ones and could lead to confusion for customers and stakeholders.

7.34 There are several unknown factors relating to performance. Further discussions with the DfT and ORR will be required over the next few years to understand the full effects on the existing national regimes.

Questions

Please advise whether you believe there are any other factors/issues which would cause an impact/undue burden to national regulatory and contractual regimes.

Please provide your comments on the option to introduce a capacity reservation charge as per Article 14(7) of the Regulation.

Please provide your comments on the prioritisation of international freight services on the corridor.
Summary of Consultation Questions

General
1. Please advise whether or not you would support the establishment of an international freight corridor. Please give reasons.

Chapter 2
2. Please advise whether or not you believe the establishment of a freight corridor would promote good connections with rail freight networks and with other modes of transport, in particular due to an adequate network of terminals?

3. Do you believe that the establishment of a freight corridor will be in the interests of applicants in the corridor?

Chapter 3
4. Does this chapter adequately explain the background to the suggested corridor?

Chapter 4
5. Please provide comments on this analysis of the freight market which includes an assessment of the potential for the development of rail freight traffic on the suggested corridor and your views on the potential final destination of such traffic.

Chapter 5
6. Please explain whether or not you would support the suggested corridor route(s) and advise if you believe there are any additional route considerations.

7. Please advise whether you believe that the suggested corridor route is consistent with the TEN-T network, ERTMS corridors, and other freight corridors.

Chapter 6
8. Please provide your comments on the balance between the socio-economic costs and benefits which could arise from the establishment of a corridor.

Chapter 7
9. Please advise whether you believe there are any other factors/issues which would cause an impact/undue burden to national regulatory and contractual regimes.

10. Please provide your comments on the option to introduce a capacity reservation charge as per Article 14(7) of the Regulation.

11. Please provide your comments on the prioritisation of international freight services on the corridor.