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Benchmarking on Corridor Management Models

EXECUTIVE SUMMARY

One of the objectives of the CLYMA project is the design of an intermodal management structure for the Lyon-Madrid axis, as a pilot system extensible to the whole corridor.

This benchmarking analyses the management models in 20 transport corridors throughout the world. The presented corridors include axis of different transport modes providing a wide vision of governance strategies in order to identify best practices and success factors for implementation.

STUDY ELABORATED BY:
Institut Cerdà (2014)

The full document is accessible to the project's Stakeholders Interest Group on the CLYMA website: www.clyma.eu



DEVELOPMENT OF THE
**CONNECTION
LYON-MADRID**
ON THE MEDITERRANEAN
CORRIDOR



Co-financed by the European Union
Trans-European Transport Network (TEN-T)

Foreword

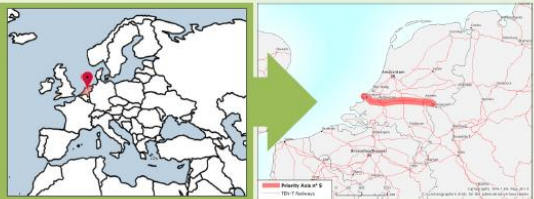
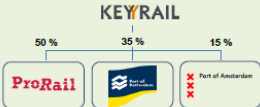
This benchmarking has analysed **20 diverse worldwide transport corridors** as follows:

- **Location:** 11 European corridors, 3 African, 5 American and 1 Asian corridor.
- **Geographical scope:** 14 trans-national corridors and 6 along a single country.
- **Transport modes:** most of the selected corridors foresee intermodal connections on some of their hubs or logistics terminals, although the main transport mode can be railway, road or maritime, or inland navigation waterways.
- **Management bodies of the corridors:** private managerial bodies (private companies), public entities (governmental authorities) and public-private associations or alliances based on different business partnerships are analysed.

On the right side of this page, a summary of one of the corridors analyzed, the Betuwelijn, has been included.

In this executive summary there is a summarised table that shows the main aspects of each corridor and shows the differences among them.

Example of corridor data sheet

Betuwelijn (Betuwe Route)	
Overall map	
General facts	<ul style="list-style-type: none"> • Countries: the Netherlands. • Corridor length: 160 km. • Corridor population: the corridor crosses 28 municipalities. • Main transport mode: Railway. • Other transport modes: Maritime transport through the ports (Rotterdam, Amsterdam, Duisburg) and road transport through sidings located on the A-15 motorway. • Type of traffic: Freight-dedicated.
Description	<p>The Betuweroute is a freight-dedicated railway corridor which crosses the Netherlands from East to West along 160 km. The line connects the Port of Rotterdam (from Maasvlakte 2 terminal) to the Dutch-German border (at Zevenaar-Emmerich), linking several economic centres along its layout and allowing the entrance of maritime freight into Central Europe. There are 10 railway yards along the Betuweroute and several connection points with the Dutch mixed network.</p> <p>The line can be divided into two sections:</p> <ul style="list-style-type: none"> • The <i>Havenspoorlijn</i> or Port Line is the stretch between the Maasvlakte 2 to Kijfhoek. This 40 km long stretch is the result of upgrading the previously existing line (doubling the single track and electrification).
Management model	<p>Because of its different security and electrification systems, as well as of its exclusively freight-oriented vision, the Betuwe line corridor is not part of the common Dutch rail network. Keyrail, owned by the national network operator ProRail (50%), the Port of Rotterdam Authority (35%) and the Port of Amsterdam (15%), is the company designated to carry out the operation for the Betuwe Route. For that purpose, Keyrail and the Dutch Ministry of Infrastructure and the Environment signed a five year operational contract (European Commission, 2010).</p>
	<p>ProRail has authorised Keyrail to manage and allocate capacity as well as to carry out traffic control on the Betuwe line. The division of tasks between Keyrail and ProRail requires a good coordination and communication in order to properly manage interfaces between both organisations (planning instruments, intervention agreements, consultation when preparing decisions with a cross-border effect...) (Keyrail, 2013).</p> <div style="text-align: center;"> <p><small>Keyrail's ownership structure. Source: prepared by the authors.</small></p>  </div>
	<p>The main fields of activity and competences of Keyrail, as the managing body of the Betuwe line, include:</p> <ul style="list-style-type: none"> • Capacity allocation and traffic control on the corridor (Havenspoorlijn and A15 line) as well as all the adjacent railway yards. Keyrail is responsible too for the traffic control on the Zevenaar - Zenevaar border section. • Maintenance of Havenspoorlijn and the A15 line and all the adjacent railway yards. ProRail is responsible for activities concerning renewal works or infrastructure expansion in the corridor, as well as for maintenance of Kijfhoek railway yard, where the common Dutch network and the Betuwe line meet. • Providing a safe and secure infrastructure system to railway operators, implementing contingency management and negotiation and management in case of damage. • Setting user charges and tariffs of Keyrail's products and services (use of railway yards, cancellation of paths, etc). In this regard, in December 2009 Keyrail set up an incentives system, offering price reductions for additional traffic, in order to promote the switch from the mixed national network to the Betuwe line. <p>An innovative aspect is that Keyrail has established itself as the supply chain manager for rail freight on the corridor by signing agreements in order to align rail operators, terminal managers and multimodal operator's rules. There are also agreements on mutual information which enable Keyrail to have an overview of the entire transport process and reduce the risk of disruption of traffic.</p>













Overview of transport corridor analysed

Europe





Legend
Name of the Corridor

Railway Corridors

-  1 Betuwwlijn
-  2 Rhine-Alpine Corridor
-  3 North-Sea Mediterranean Corr.
-  4 Atlantic Corridor
-  5 Orient East - Med Corridor
-  6 Czech-Slovak Corridor
-  12 Trans-Siberian Railway
-  13 Alameda Corridor
-  14 NCCR Corridor
-  15 Heartland Corridor

Inland Waterways

-  7 Rhine Waterway
-  8 Danube Waterway
-  16 The Panama Canal
-  17 The Suez Canal

Maritime Corridors

-  9 HAROPA – Ports de Paris Seine Normandie

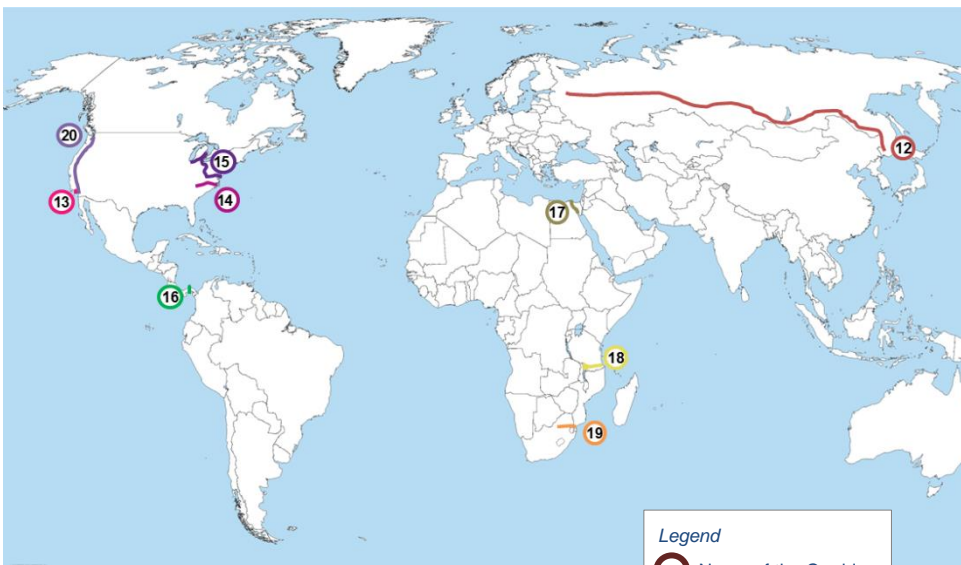
Inland Waterways and Maritime

-  10 Copenhagen Malmö Ports

Road, Rail and Maritime

-  11 East-West Transport Corridor
-  18 Mtwara Development Corridor
-  19 Maputo Development Corridor
-  20 West Coast Corridor

Rest of the world



Legend
Name of the Corridor

Summary of managerial structures identified

CORRIDOR	GEOGRAPHICAL SCOPE	MAIN MODE	INTERMODALITY	MANAGEMENT BODY	FIELDS OF ACTION OF THE ORGANISATION							Governance structure
					Legal framework	Planning & strategy	Financing	Marketing & communication	Charges collection	Capacity allocation	Infrastructure maintenance	
1. Betuwelijn	Netherlands	Rail	✓	KeyRail	✓			✓	✓	✓	✓	Private company with permanent staff
2. Rhine-Alpine Corridor	Trans-national (Europe)	Railway	✓	EEIG RFC1		✓		✓		✓		EEIG group: Executive Board of Ministers + Management Board of National Infrastructure Managers + Advisory Boards + Working Groups. The organisation is supported by the European Commission
3. North-Sea Mediterranean Corridor	Trans-national (Europe)	Railway	✓	EEIG RFC2		✓		✓		✓		EEIG group: Executive Board of Ministers + Management Board of National Infrastructure Managers + Advisory Boards + Working Groups. The organisation is supported by the European Commission
4. Atlantic Corridor	Trans-national (Europe)	Railway	✓	EEIG RFC4		✓		✓		✓		EEIG group: Executive Board of Ministers + Management Board of National Infrastructure Managers + Advisory Boards + Working Groups. The organisation is supported by the European Commission
5. Orient-East Med Corridor	Trans-national (Europe)	Railway	✓	RFC7 Boards		✓		✓		✓		Executive Board (respective transport Ministers) + Management Board (infrastructure managers & allocation bodies) + 6 Working Groups + Secretariat + 2 Advisory Groups
6. Czech-Slovak Corridor	Trans-national (Europe)	Railway	✓	RFC9 Boards	✓	✓		✓		✓		Executive Board of Ministers + Management Board of National Infrastructure Managers + 2 Advisory Groups + 4 Working Groups
7. Rhine Waterway	Trans-national (Europe)	Inland Navigation	✓	Central Commission for the Navigation of the Rhine - CCNR	✓	✓						State Members: 20 Commissioners (4 from each state member) + 10 Deputy Commissioners (2 from each state member)+ 10 Committees + 15 Working Parties
8. Danube Waterway	Trans-national (Europe)	Inland Navigation	✓	Danube Commission	✓	✓						11 Member States+10 Observer States. The board is composed of one president, one vice-president and one secretary. Also includes 11 officers of the Secretariat for each Department.
9. HAROPA - Ports de Paris Seine Normandie	France	Maritime & Inland Navigat.	✓	HAROPA EIG		✓		✓				HAROPA EIG (1 director from each port authority -Le Havre, Rouen, Paris-)+ Department directors and Secretariat interacting in all 3 port authorities
10. Copenhagen - Malmö Port	Trans-national (Europe)	Maritime	✓	Copenhagen Malmö Port - CMP	✓	✓	✓	✓	✓	✓	✓	Local authorities (Copenhagen and Malmö) and private investors



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11. East-West Transport Corridor	Trans-national (Europe)	Rail and maritime	✓	East West Transport Corridor Association - EWTC				✓				Stakeholders member association. The governance structure is not operative yet
12. Trans-Siberian Railway	Trans-national	Railway	✓	Coordinating Council on Trans-Siberian Transportation - CCTT				✓				Chairman of the CCTT (President of the Russian Railways)+Management board (formed of infrastructure managers, association of forwarders, association of rail operators) + Secretariat + Working Groups
13. Alameda Corridor	California	Railway	✓	Alameda Corridor Transportation Authority - ACTA		✓	✓		✓	✓		7 members of the Board (2 from each port authority, 2 from each city council and 1 metropolitan authority)
14. NCRR Corridor	North Carolina (US)	Railway	✓	North Carolina Railroad Company - NCRR	✓	✓	✓				✓	Private company (shared with state). 1 chairman+1 vicechairman+1 secretariat+10 local representatives
15. Heartland Corridor	Trans-national	Railway	✓	Norfolk Southern - NS		✓	✓	✓	✓	✓	✓	Private company with permanent staff
16. Panama Canal	Panama	Maritime		Autoridad del Canal de Panamá – ACP	✓	✓	✓	✓	✓		✓	The Board of Directors (1 general administrator + 11 department members) is designated by the public authorities of the Republic of Panama
17. Suez Canal	Egypt	Maritime		Suez Canal Authority -SCA	✓	✓	✓	✓	✓		✓	Board of Directors (1 chairman+13 department directors) designated by the Egyptian government
18. Mtwara Development Corridor	Trans-national	Road, rail, maritime and lake transport	✓	No active authority								
19. Maputo Development Corridor	Trans-national	Road, rail and maritime	✓	Maputo Corridor Logistic Initiative - MCLI		✓		✓				Multi-stakeholders corporation: 12 Executive Directors (rail operators, infrastructure managers, public transport department, port operator, logistics, border security and cargo handling companies)+ 1 chairman from each country
20. West Coast Corridor	Trans-national	Road, rail, maritime and air	✓	West Coast Corridor Coalition - WCCC		✓		✓				Directors Board (30 members Transportation policy members of Alaska, California, Oregon and Washington)+Executive Committee (Alaska and California Departments of Transportation, and council association of Oregon)

Main findings

The review of the existing governance models worldwide shows **that there is not a single management solution** with regard to transportation corridors. Structures vary widely in terms of legal status, number of members, tasks and skills depending on the different corridor's contexts: different lengths, geographical scope, stages of maturity, main modes, hinterland's activity...

Most common competence and fields of actions

- Activities oriented to the establishment of an **appropriate legal or regulatory framework**, aimed at setting a common framework for the different stakeholders as well as for the various countries involved in the corridor development.
- **Planning and strategic concerns**, in order to ensure a harmonised development of the transport axis between countries and infrastructure managers, and generating knowledge about the economic prospects of the corridor or its implementation plan.
- **Marketing and communication processes**, both external (making the work publicly available and promoting the corridor) and internal (allowing a smooth communication, good practices exchange and identification of common and specific needs of the organisation members)

Investment on infrastructure is rarely assumed by the management body, except for cases in which the manager is also the owner of the infrastructure (this only occurs in one-country corridors).

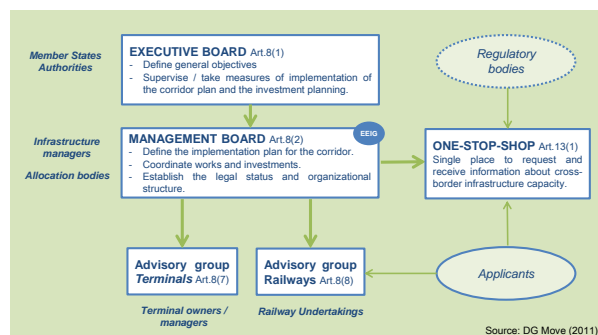
Lessons learnt from the benchmarking

- Setting a management structure can be **challenging when countries involved have very dissimilar situations**.
- **Encouragement of public-private consortia**.
- **Multinational organisations offer better performance**.
- **Strong commitment of all the association members** is a key factor for the structure success.
- **Participation of different stakeholders' members** (administrators, customers, governments, businesses, etc.) is very positive.
- **Transparency, external coordination and fluent communication** among all participants are essential.
- Studies and works developed by **specific working groups** within a governance structure enable the monitoring of the work progress achieved

Although it is advised by the EU to build a corridor management including all modes of transport, the benchmarking results show that **the multi-modal approach of corridor management is significantly less usual than one-mode focused organisations**. In fact, today there is no multimodal management structure for a specific corridor anywhere in the world.

Management structures

Among the analysed legal and institutional options for corridor management, several corridors (most of them railway European corridors) are managed by associations with the same organizational structure (according to Regulation (EU) 913/2010, for Rail Freight Corridors governance). The structure of these management organizations, as well as the main tasks of each of its bodies, is schematized in the following image (DG Move, 2011).





Conclusions for the Lyon-Madrid axis

The Mediterranean Corridor Global project is a multi-modal transport corridor (covering roads, rail lines, ports and airports) which crosses Europe from East (Algeciras) to West (Ukrainian border). It is one of the corridors of the TEN-T Core Network and includes the Rail Freight Corridor 6 (RFC6) and the ERTMS corridor D (Valencia - Lyon - Ljubljana - Budapest), which shall be integrated into the multi-modal TEN-T.

Recommendations to be taken into account in the creation of a management structure for the Mediterranean Corridor are the establishment of a **multi-stakeholder and trans-national association**, as it **broadens the scope of action** of the corridor from a specific part of the infrastructure to other issues such as hinterland connections, cross-border interoperability, harmonised cross-border processes and promotion of the global axis.

There are different options for the legal form of the organization, being associations and EEIGs the most usual in Europe. The choice of one option rather than others depends on the expected level of members' commitment or legislation concerns (for example, an EEIG is subject to European instead of national regulations).

Regardless of these legal implications, a **multi-level governance perspective (with assembly, boards and a secretariat)** is suggested as it ensures the involvement of the managing members **while allowing wide participation of stakeholders** in lower statements of the management structure. Including representatives of the Member States concerned, regional representatives (when approaching a narrow scope of the corridor) and public and private entities is strongly advisable.

The **establishment of working groups** which can focus on particular topics related to the corridor (rail infrastructure, rail capacity and rail slots, road capacity, terminals, ERTMS and interoperability, accompanying measures, cross-financing, rail freight and passenger traffic) have proved to be efficient tools for monitoring the corridor progresses on a stable basis.

Existing management structures for RFC6 and ERTMS corridor D should be considered in order to avoid overlapping of government structures in the same corridor. In that sense, the existing working groups and the new ones can be assembled in order to avoid duplication of works but following up the studies started.



CLYMA project consists of the implementation of the corridor approach to a section of the **Mediterranean corridor**, concretely to the Western part of the corridor and specifically to the Lyon-Madrid Axis.

The project comprises of studies and actions on the organization and optimal implementation of the **TEN-T network**, taking into account long term perspectives, environmental aspects and associated needs, as well as studies that promote environmental sustainability, resource efficiency and low-carbon transport within an integrated transport concept. This should stimulate the deployment of the **Green Corridor concept**. The project also intends to develop a **managerial structure** for the intermodal corridor.



PROJECT OFFICE



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