I CONGRESO INTERNACIONAL SOBRE LA TRAVESIA FERROVIARIA POR EL PIRINEO CENTRAL

Trans-European Transport Network Portuguese HSR Network National Network of Logistics Platforms



Instituto da Mobilidade e dos Transportes Terrestres, I.P.





Portuguese HSR Network Historical Milestones

Madrid o

Historical Milestones







The Project Portuguese HSR Network

Trans-European Transport Network priority axes and projects

- **1.** Main goal of European transport policy
- 2. Improve cohesion, competitiveness and single European market
- 3. Sustainable development
- 4. Relieving of congestion of
 - main European axis
- 5. Successful ongoing

projects



īΠT

Priority axis No 3 - High-speed railway axis of south-west Europe

Three new high-speed lines will link major cities on the Iberian peninsula with the French highspeed network, bringing the Spanish capital to within four hours of the French border. The new lines will slash current journey times by as much as 60 %, providing significant new competition to both air and road transport on key routes.





Priority axis No 8 - Multimodal axis Portugal/Spain – rest of Europe

Major improvements in the road, rail, air and maritime infrastructures in the Iberian peninsula will make passenger and freight journeys within and between Spain and Portugal quicker and more efficient. And it will also improve connections with the rest of the EU, bringing the citizens and firms of these two Member States closer to the heart of Europe.

Priority axis No 16 - Freight railway axis Sines/Algeciras-Madrid-Paris

A high-capacity line, including a new trans-Pyrenean crossing, linking the Sines and Algeciras container terminal ports with the Spanish and French rail networks will significantly increase rail's share of international freight on this crowded route, improving connections between southern and northern Europe.





Priority axis No 19 – High-speed rail interoperability on the Iberian peninsula

New construction and technologies will make it possible to integrate Spain and Portugal into a fully interoperable trans-European high-speed rail network.

Portuguese HSR Network

- Five main axis:
 - Lisbon Madrid (2013)
 - Oporto Vigo (2013)
 - Lisbon Oporto (2015)
 - o Aveiro Salamanca
 - o Évora Faro Huelva
- Part of the TEN-T
- European Parliament and European Council: Project of Community Interest
- Interoperability with the European HSR Network
- Lisbon Madrid Axis:
 - Considered by the European Commission one of the five most important project across Europe
 - Already being built (Spanish territory)



Portuguese HSR Network Main Objectives (1/2)

- 1. Enable a modern, sustainable and efficient transport system
- 2. Reduce the country's peripheral position, by connecting Portugal to Europe
- 3. Contribute to the Atlantic south-west front competitiveness
- Accelerate the country's economical and 4. technological development, also at the regional level
- 5. Contribute to a better modal distribution, both for passenger and freight, changing the actual hegemony of road solutions



īΠT

Portuguese HSR Network Main Objectives (2/2)

- 6. Increase mobility and competitiveness of the port, airport and logistics systems
 - Conventional Railway Network
 - Main Ports
 - Main Airports
 - National Logistics Platforms Network

HSR as the Backbone of the Future Portuguese Transport Network





Portuguese HSR Network Population

- Geographic area between Lisbon, Oporto and Madrid has about 17 millions of inhabitants
- Lisbon, Oporto and Madrid represent around 60% of total (about 10 millions of inhabitants)









Portuguese HSR Network Market Share (Long Distance Traffic)







Priority Links

īΠT



POVOA DE STAJIRIA

Priority Links: LISBON - MADRID - THIRD TAGUS CROSSING (TTC)

HSR + Conventional Railway + Roadway





Project Main Objectives

High Speed Rail Service

- Wholeness of the Lisbon/Madrid HSR axis
- Connection between the axis Lisbon/Porto and Lisbon/Madrid
- 2h45m journey time between the two Iberian Capitals
- Lisbon-Évora-Faro-Huelva Axis: Physical and Operational Feasibility
- Brings Évora closer to Lisbon on a metropolitan scale
- Ensure a quick connection to the new Lisbon Airport Shuttle Service every 15 min.

Conventional Rail Service

- Create a suburban rail link between Lisbon and Barreiro/Pinhal
- Close the railway suburban ring in the Lisbon Metropolitan Area (LMA)
- Improve rail service between Lisbon and Setubal, reducing journey time in about 30 minutes
- Enhance long course North-South service
- Solve existing freight traffic restrictions on bridge 25th of April







Priority axis No 16: Freight railway axis Sines/Algeciras-Madrid-Paris





Priority Links: HSR Lisbon – Madrid & Priority axis No 16

Poceirão

- Connection between the high speed line ulletand the conventional rail network (Linhas do Alentejo e do Sul), for passengers and for freight
- Connection, in european and iberian gauges, to the new Lisbon airport and to the future Logistics Platform of Poceirão, to serve the ports of Setúbal, Lisbon and Sines



īΠT

Priority Links: HSR Lisbon – Madrid & Priority axis No 16 Elvas/Caia

- High speed and conventional railway international station (to define with Spain)
- Connection with the existing conventional railway network in Elvas (Linha do Leste)
- Connection, in european and iberian gauges, to the new Logistics Platform of Elvas
- International connection of the future Évora-Mérida trans border multi purposes rail corridor





Priority Links: HSR Lisbon – Madrid & Priority axis No 16

Track Transversal Profile Double HSL + Conventional Line from Évora to Caia



Linha de Alta Velocidade

Velocidade (mín./máx.)	120/350 km/h
Raio Horizontal Mínimo (m)	9.150/7.250
Penciente Máxima (‰)	12,5/15,0
Carga por Eixo (ton.)	25
Bitola	1.435 mm (UIC)
Electrificação	2x25 kV/50Hz

LAV+LC Évora-Caia



Linha Convencional Velocidade (máx.) 160 km/h Pendente Máxima (‰) 12,5/15,0 Carga por Eixo (ton.) 1.668 mm (Ibérica) Bitola Travessa Polivalente Electrificação 2x25 kV/50Hz

ZZ

25

īΠT

💿 Braga

Priority Links: LISBON - OPORTO





Priority Links: OPORTO - VIGO

Traffic Type	Passengers + Freight	
Journey Time	1h00m (direct)	
Design Speed	250 km/h	
Length (1st & 2nd phases)	55 km + 45 Km	
Investment (1st phase)	845 million €	
Investment (Global)	1,4 billion €	
Stations Oporto	and Braga	
Services Start (1st phase)	2013	





Lisbon Central Station (Oriente)





Oporto Central Station (Campanhã)







Socio-Economic and Environmental Impacts

īΠT

Economic and Budgetary Impact

- Several studies are unanimous regarding the positive economic result of the project
- ✓ Investment foreseen in the HSR, for the Lisbon-Oporto and Lisbon-Madrid axis, generates globally positive effects in all the macroeconomics variables:
 - Creation, in the long term, of 56 thousand new permanent jobs
 - ➤ Increase of the Private Investment in 126 Billion €
 - ➤ Increase of the GDP in 121 Billion €
 - ➤ Cumulative increase of 64 Billion € of tax revenues
- ✓ Positive effect in all Country regions

īΠT

Social Impact – Time Savings

- ✓ Promotes greater social, economic and territorial cohesion, reducing the differences in the mobility of people
- ✓ Integration in **Trans-European Transport Network: Europe will be closer!**







Source: "Acessibility and Economic Development in Europe" ; Vickerman & Spiekermann & Wegener, 1997

Social Impact – Access to HSR Services

- ✓ More than 50% of the population will be connected with the main urban areas with a total time travel of less than 2 hours (door to door time); for 3 hours time will be around 90%
- Consolidation of a stronger and more coherent urban network, by increasing the influence of the middle size urban centres

	Lenght	Journey ti	2013/2015	
Journey	(km)	road	rail	in HSR
Lisbon-Oporto	312	3:24	2:34	1:15
Oporto-Vigo	152	1:38	3:30	1:00
Lisbon-Madrid	628	6:00	9:00	2:45







Business and Procurement Model



Business Model – Strategic Goals



International HSR Projects – Benchmarking Analysis

	France (Decades: 80 and 90)	Spain (Decades: 80 and actual)	United Kingdom (Decade: 90)	Holland (2005)	Perpignan- Figueras (France-Spain, 2005)	Bordeaux- Tours (France, 2007)
Strategic Role Regulation Planning Establishment of Requirements Articulation of the System	State	State	State	State	State	State
Financial Role	State	State	Private (PPP)	State and Private	Private (PPP)	Private (PPP)
Operational Role Design Build Maintain Operate	State	State	Private (PPP)	State and Private	Private (PPP) State and Private	Private (PPP)
	Trend					
	Reduction of State risk exposure					



Business Model Selected: Infrastructure

Capacity Allocation and Railway Traffic Management (State/REFER)						
Signalling / Telecommunications (PPP)						
Substructure / Superstructure (PPP)	Substructure / Superstructure (PPP)	Substructure / Superstructure (PPP)	Substructure / Superstructure (PPP)	Substructure / Superstructure (PPP)		

Reasons for the breakdown of the value chain:



īΩΠ



Procurement Process / Timetable: Infrastructure

PPP Substructure / Superstructure

PPP Signaling / Telecommunication Scope: Design, Built, Finance and Maintain (DBFM) Concession Period: 40 years **Payment Mechanism:** Availability (75%) + Maintenance (25%) + Demand (+-2%)

Scope: Design, Supply, Installation, Finance e Maintain (DBFM) Concession Period: 20 years Payment Mechanism: Availability

1St PPP: Tender Process Timetable



Total » 15,5 months

īΠT

1St PPP: Bidders / Consortiums

- 1. Brisa / Soares da Costa / Iridium / Dragados / Lena / Bento Pedroso / Odebrecht / Edifer / Zagope / BCP Investimento / Caixa Geral de Depósitos
- 2. Eiffage / Forclum / SEOP / Wittfeld / FCC Construccion / Ramalho Rosa Cobetar
- 3. Cintra / Meridiam Infrastruture Finance / H. Hagen / Conduril / Tecnovia / Novopca
- 4. Mota-Engil / Vinci / Somague / Teixeira Duarte / MSF / OPWAY / Banco Espírito Santo / Banco BPI / Banco Invest.

Major Portuguese, Spanish and French construction companies are interested in the Project





Funding the Project

Lisbon-Oporto and Lisbon-Madrid axis Funding

- \checkmark As with other railway projects operating cash flow is not sufficient to cover the amount of investment
- ✓ Public support is required
- ✓ The required State support as percentage of investment would be around 36%. The EU funds would be around 19% of the total investment taking in consideration both Lisbon-Madrid and Lisbon-Porto HSL







Next Steps

Next Steps

	•	Completion of Environmental Impact Assessment Procedures
2008	•	Tender Process for the HSR Infrastructure for the Lisbon-Madrid axis - PPP Poceirão-Caia (already launched on June 2) - PPP Lisbon-Poceirão
2009	•	Tender Process for the HSR Infrastructure for the Lisbon-Oporto and Oporto-Vigo axis: - PPP Pombal-Oporto - PPP Lisbon-Pombal - PPP Braga-Valença
	•	Tender Process for the Signalling and Telecoms and Rolling Stock
	•	Beginning of construction of Lisbon and Oporto Central Stations
2010	•	Beginning of construction of the HSR Infrastructure





Final Statements

Final Statements

- ✓ The HSR Network constitutes an agreement between Portugal and Spain undertaken to the European Union.
- \checkmark Project has the strong support from European Union.
- Project management has been ruled by a great effort of optimizing and rationalizing the technical solutions.
- ✓ Investment has a high social, economic and fiscal return.
- ✓ Business model established by efficiency and quality standards.
- \checkmark Procurement schedule according with the established calendar.





The Project Portugal Logistico National Network of Logistics Platforms

WHAT IS PORTUGAL LOGÍSTICO?

IT'S THE GOVERNMENT'S PLAN TO REARRANGE AND DEVELOP THE PORTUGUESE LOGISTICS SYSTEM

TO TURN	 Portugal into a Atlantic platform for international inbound flows to the Iberian and European market. 		
TO PROMOTE	The logistics potential of Portugal to secure economical growth, increase environmental sustainability and territorial cohesion.		
TO DEVELOP	 An integrated system which includes a planning and regulator body and the execution of a strategic network of platforms articulated with transport infrastructures. 		

OJTENSE	NATIONAL NETWORK OF LOGISTICS PLATFORMS			
Valença Viço Chaves	12 Logistics Platforms supplemented by 2 air freight centers (AFC) in Lisbon and Porto			
AFC Porto Maia/Trofa		Main strategic goals		
Aveiro	National Urban Platforms	 To encourage the country's economical activity To rearrange the logistic system and the transport flows 		
Fig. da Foz	Port Platforms	 To boost port activity and expand ports' hinterland, namely into Spain. To encourage intermodality and use of rail and maritime transport. 		
Bobadela / Castanheira	Cross-border Platforms	 To encourage regional economy. To capture Spanish industrial flows and investment. To expand the hinterland of national ports. 		
Sines HUELA	Regional Platforms	 To ensure network cohesion. To rearrange the logistic system and the transport flows. 		
FARD C		46		



FARO



Thanks for your attention



Instituto da Mobilidade e dos Transportes Terrestres, I.P.