

# MEGAPROJECT Case Study

Case compiled by: João de Abreu e Silva and Marisa Pedro.....

Contact details: : [joao.abreu@civil.ist.utl.pt](mailto:joao.abreu@civil.ist.utl.pt) ; [marisa.pedro@ist.utl.pt](mailto:marisa.pedro@ist.utl.pt) .....

## Basic Project Information

Project Title	The High-Speed Project in Portugal
Location	Portugal
Purpose	<p>Building and operation of the High Speed Rail network for Portugal consist of 5 links:</p> <ul style="list-style-type: none"><li>• <b>Lisbon/Madrid:</b> to strengthen the connection between the two capitals and increase multimodality in the international connections</li><li>• <b>Lisbon/Oporto:</b> to create a new rail connection between the two main cities of Portugal, and serve the intermediate region (+- 70% of GDP and +-61% population)</li><li>• <b>Aveiro/Salamanca:</b> to link Aveiro, Viseu and Mangualde by rail to Guarda and Spain. They are included in Priority Project no.3 (“Southwest European High-speed Railway Line”)</li><li>• <b>Oporto/Vigo:</b> to strengthen the connections and multimodality between Oporto and Galiza (Spanish) Included in Priority Project no.19 (“High-speed Railway Interoperability in the Iberian Peninsula”).</li><li>• <b>Évora/Faro-Huelva:</b> the latter depending on subsequent studies to be carried out</li></ul>
Scope	Integrated with Trans-European Transport Network (TEN-T)

# MEGAPROJECT Case Study

## Basic Project Information

Project Title	The High-Speed Project in Portugal
Total Project Value	About 8.3 billions € (1.4 B€ Oporto/Vigo, 4.5 B€ Lisbon/Oporto, 2.2 B€ Lisbon/Madrid)
Project Status (i.e.. initiation, planning, construction, operation, dismantling)	Project suspended
Contractual Framework (e.g. fixed price, cost-plus etc.)	Public Private Partnership (PPP) <ul style="list-style-type: none"><li>• Designing, construction, financing and maintenance of the rail sub and superstructures (40 years)</li><li>• Designing, installation, financing and maintenance of the signals and telecom. (20 years).</li><li>• Lisbon station to be developed by REFER and Caia International Station to be developed jointly by Portugal and Spain. Other rail stations are developed by PPP.</li></ul> Operation: not yet totally defined <ul style="list-style-type: none"><li>•The strategic role of regulation and network management resides with the State/REFER.</li></ul>
Relevant Physical Dimensions (e.g. height, width, volume, length)	Lisbon/Madrid 640 km (203 km in Portugal), Oporto/Vigo 125 km (100 km in Portugal), Lisbon/Oporto 290 km  Aveiro/Salamanca 170 km in Portugal, Évora/Faro-Huelva 200 km: Under study (probably postponed)

# MEGAPROJECT Case Study

## Basic Project Information

### Socio-Economic Impact

#### High-speed network coverage

56% of municipalities  
81% of the population  
87% of the GDP

#### Development in railway market share

In 2003: 4%  
In 2025: 26%

#### Socio-economic impact during construction

On GDP: 1.7%  
On employment: 1.4% or a maximum of  
92,000 jobs

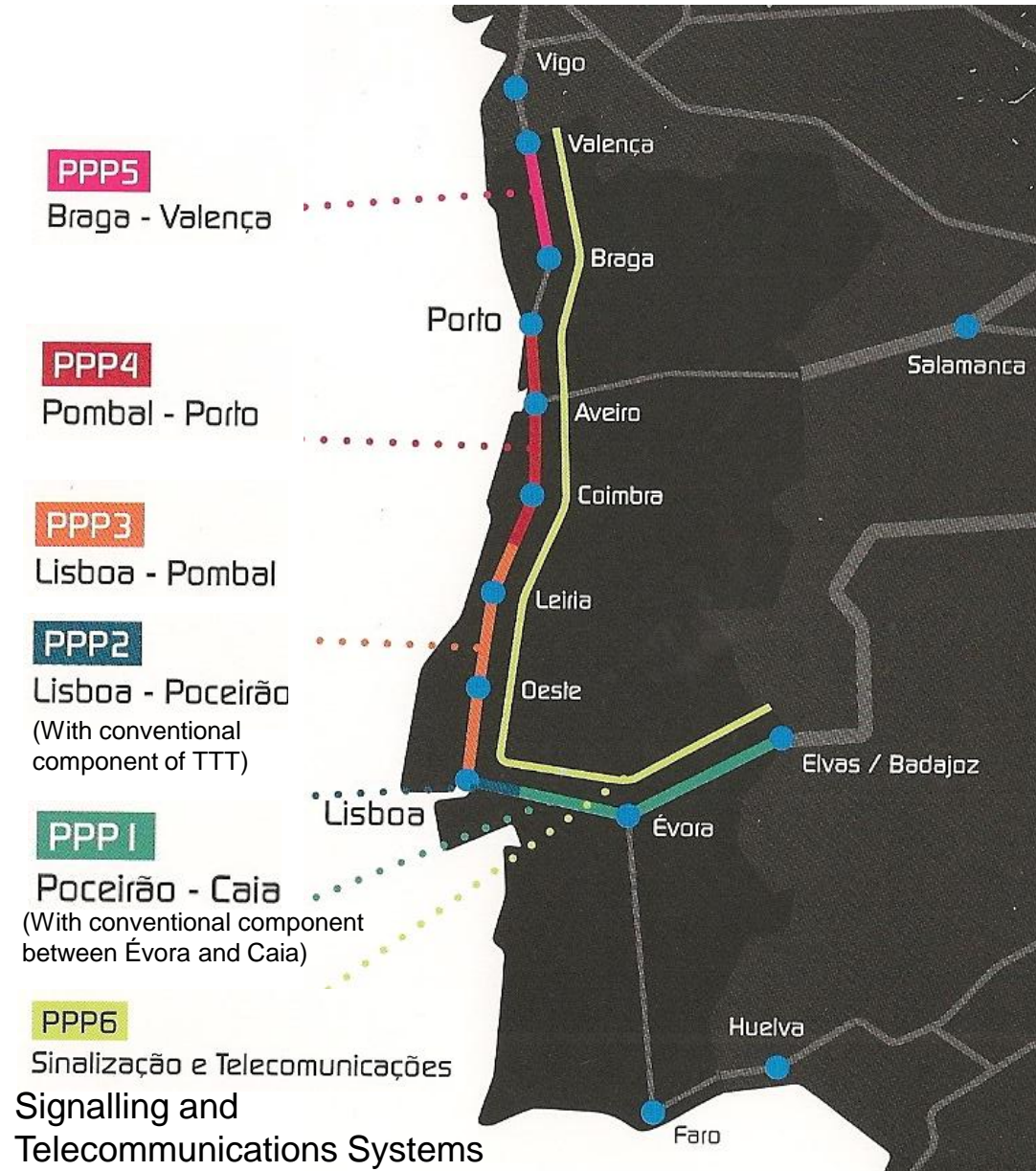
#### Socio-economic impact during operation

On GDP: ~1.025%

#### Annual environmental savings

In 2010: EUR 69 million  
In 2025: EUR 184 million

Source: Annual report and accounts from RAVE (2004)



# MEGAPROJECT Internal Stakeholder Identification

(Stakeholders with a direct legally sanctioned relationship with the project)

		Stakeholder Category	Case-Study	Comments <small>(e.g. maturity, previous experiences of stakeholders, skills, influence on project)</small>	
Internal	Supply-Side	<b>Client</b>	REFER E.P.E (Formerly RAVE a subsidiary of REFER created specifically for the implementation of the HSR project)		
		<b>Financiers</b>	European Union: Structural Funds (Cohesion Fund, Trans-European Transport Networks) and the European Investment Bank (EIB). Private investment and Portuguese State funding. DGTREN (Directorate-General of Transports and Energy). Operational Cash Flow (Total investment: 8.3 Billions €)		
		<b>Sponsors</b>	Portuguese State, EU Grants: TEN, Cohesion Fund (QREN), EU Priority Project nº16 (Sines/Madrid/Paris)		
		<b>Client's Customers</b>	General public (passengers), freight operators		
		<b>Client's Owners</b>	Portuguese State		
		<b>Other internal supply-side categories</b> <small>( please specify)</small>	<b>Category</b>	<b>Case-Study</b>	
	Demand Side)	<b>Principal Contractor</b>	Concessionaire ELOS – Ligações de Alta Velocidade consortium (Caia-Poçoirão; part of the link Lisbon-Madrid)		The project (PPP1) is suspended due to the credit crisis
		<b>First Tier Contractors</b>	LGV-Engenharia e Construção de Linhas de Alta Velocidade, ACE		Contracted by ELOS
		<b>Second Tier Contractors</b>			
		<b>Professional Services Providers</b>	KPMG II – Consultores de Negócios S.A. (financial services) and legal support from several companies, Eypsa, Sener and Ferconsult, IN OUT GLOBAL, Steer Davies Gleave and VTM, Deloitte, CEEETA, EUROESTUDIOS-COBA, TIS.pt, Bidesign, GLOBALVIA, GRID, CONSULGAL, TYPASA, SENNER, MUNICÍPIA, Terraforma, SOCINOVA, CISED, A.T.KEARNEY, CEA/UCP, FERBRITAS, GESTE Engineering, LNEC (National Laboratory of Civil Engineering), ...		Consultants of RAVE / REFER
<b>Other internal supply-side categories</b> <small>( please specify)</small>		<b>Category</b>	<b>Case-Study</b>		

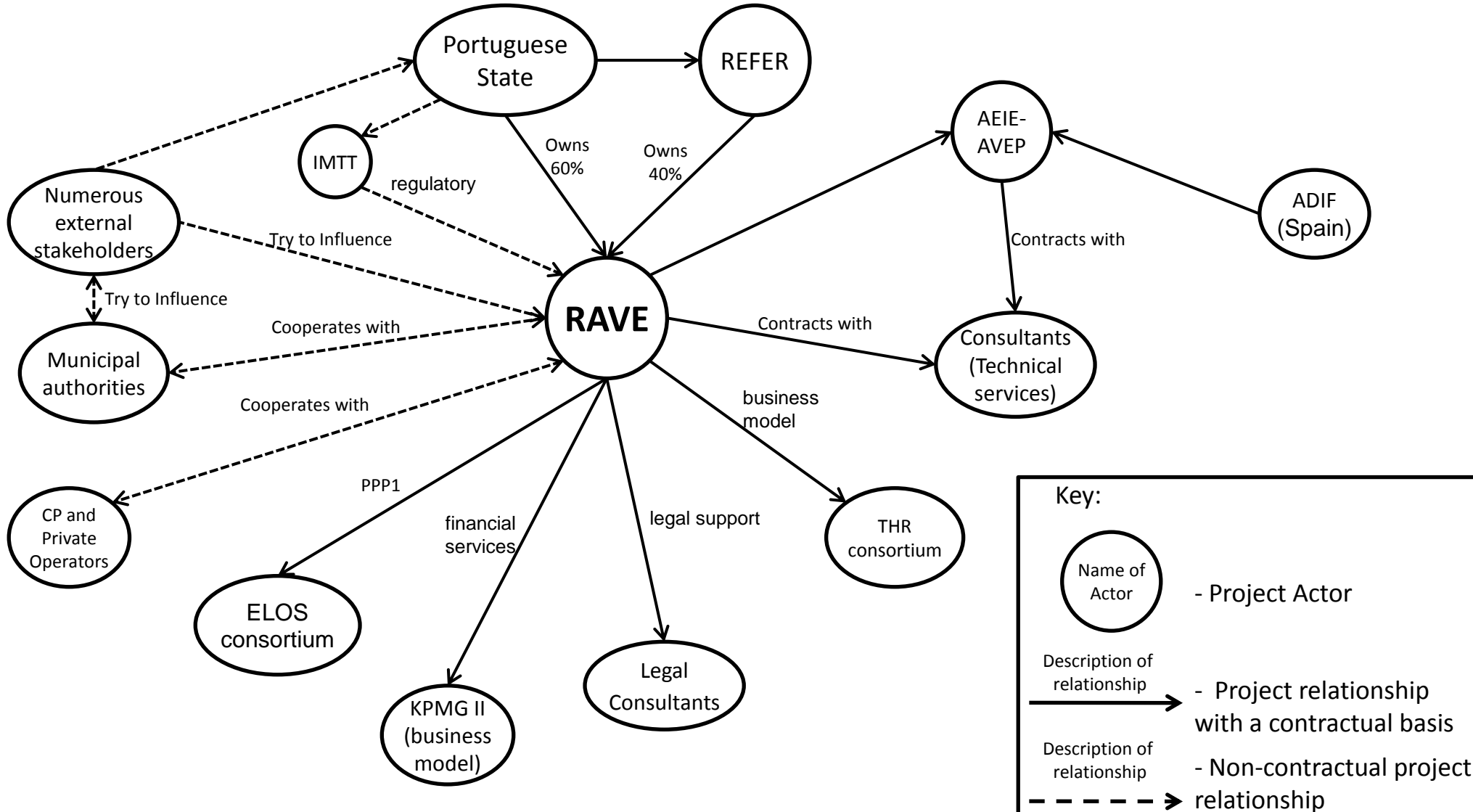
# MEGAPROJECT External Stakeholder Identification

(Stakeholders with a direct interest in the project but with no legal contract)

		Stakeholder Category	Case-Study	Comments (e.g. maturity, previous experiences of stakeholders, skills, influence on project)												
External	Public	Regulatory Agencies	IMTT (institute charged with the regulation and coordination of inland transport)													
		Local Government	Municipal authorities/town councils and the Committees for Coordination and regional Development (CCDR)													
		National Government	MOPTC (Ministry of Transport), MF (Ministry of Finance and the Public Administration) and MA (Ministry for Environment)													
		Other internal supply-side categories ( please specify)	<table border="1"> <thead> <tr> <th>Category</th> <th>Case-study</th> </tr> </thead> <tbody> <tr> <td>APA (Portuguese Environmental Agency), INAG I.P. (Institute of Water), IGESPAR I.P. (The Management Institute of Architectural and Archaeological Heritage)</td> <td></td> </tr> <tr> <td>Estradas de Portugal EP (Portuguese Roads Authority), APL (Lisbon Port Authority), REN S.A. (National Transmission Network), CP E.P.E (Portuguese Railways), IGF (General Inspectorate of Finance), ...</td> <td></td> </tr> </tbody> </table>	Category	Case-study	APA (Portuguese Environmental Agency), INAG I.P. (Institute of Water), IGESPAR I.P. (The Management Institute of Architectural and Archaeological Heritage)		Estradas de Portugal EP (Portuguese Roads Authority), APL (Lisbon Port Authority), REN S.A. (National Transmission Network), CP E.P.E (Portuguese Railways), IGF (General Inspectorate of Finance), ...								
	Category	Case-study														
	APA (Portuguese Environmental Agency), INAG I.P. (Institute of Water), IGESPAR I.P. (The Management Institute of Architectural and Archaeological Heritage)															
	Estradas de Portugal EP (Portuguese Roads Authority), APL (Lisbon Port Authority), REN S.A. (National Transmission Network), CP E.P.E (Portuguese Railways), IGF (General Inspectorate of Finance), ...															
	Private	Local residents	Local Associations, residents associations													
		Local Landowners														
		Environmentalists	non-governmental organizations for environment (ENGOs) like Quercus, LPN and Urbe, etc													
		Conservationists														
		Archaeologists														
		Other External Private stakeholders (please specify)	<table border="1"> <thead> <tr> <th>Category</th> <th>Casestudy</th> </tr> </thead> <tbody> <tr> <td>Universities and Technological Centres</td> <td></td> </tr> <tr> <td>Professional associations : ADFER (Portuguese Association for the Development of Railway Transport), OE (board of engineers), CIP (Confederation of Portuguese Industry), AEP (Portuguese Business Association),</td> <td></td> </tr> <tr> <td>Press &amp; Media</td> <td></td> </tr> <tr> <td>Opinion makers, placement of news and opinion articles by companies interested in the project</td> <td></td> </tr> <tr> <td>Political Opinion</td> <td></td> </tr> </tbody> </table>	Category	Casestudy	Universities and Technological Centres		Professional associations : ADFER (Portuguese Association for the Development of Railway Transport), OE (board of engineers), CIP (Confederation of Portuguese Industry), AEP (Portuguese Business Association),		Press & Media		Opinion makers, placement of news and opinion articles by companies interested in the project		Political Opinion		
			Category	Casestudy												
Universities and Technological Centres																
Professional associations : ADFER (Portuguese Association for the Development of Railway Transport), OE (board of engineers), CIP (Confederation of Portuguese Industry), AEP (Portuguese Business Association),																
Press & Media																
Opinion makers, placement of news and opinion articles by companies interested in the project																
Political Opinion																

# MEGAPROJECT Stakeholder Relationship Maps

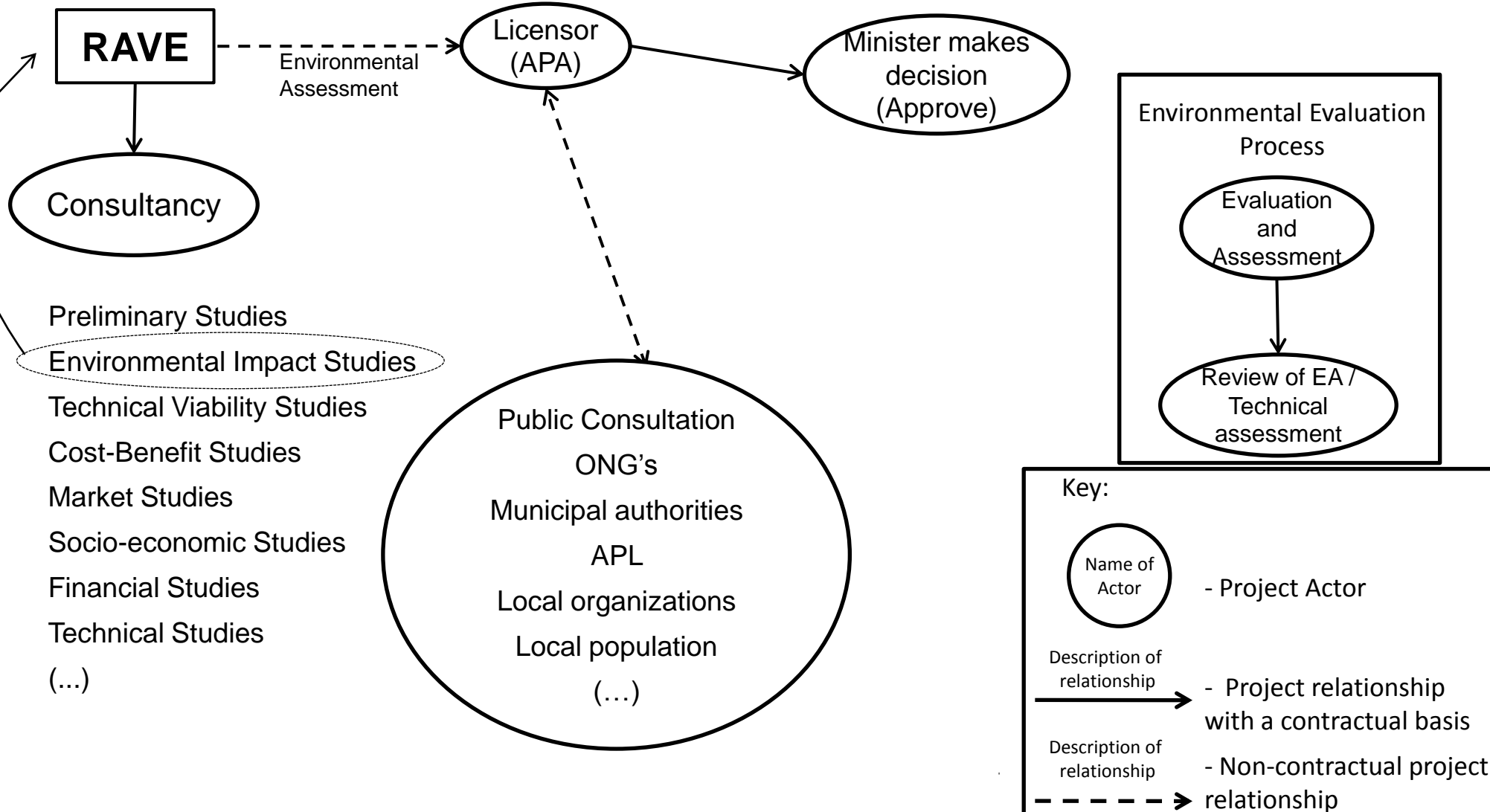
## In General



# MEGAPROJECT Stakeholder Relationship Maps

(2002 – 2008)

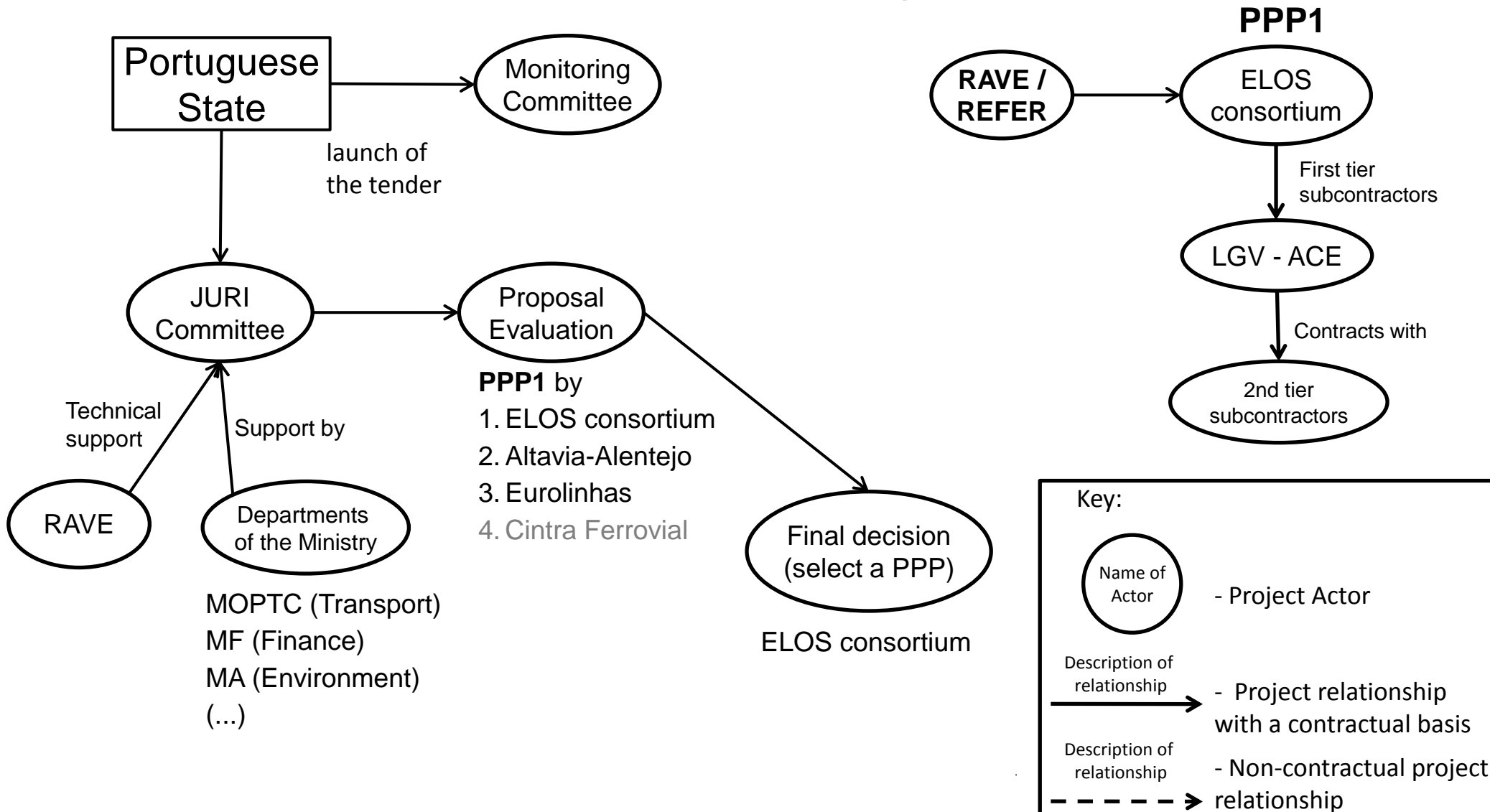
## Step 1 – Studies



# MEGAPROJECT Stakeholder Relationship Maps

(2006 – 2010)

## Step 2 – Tendering

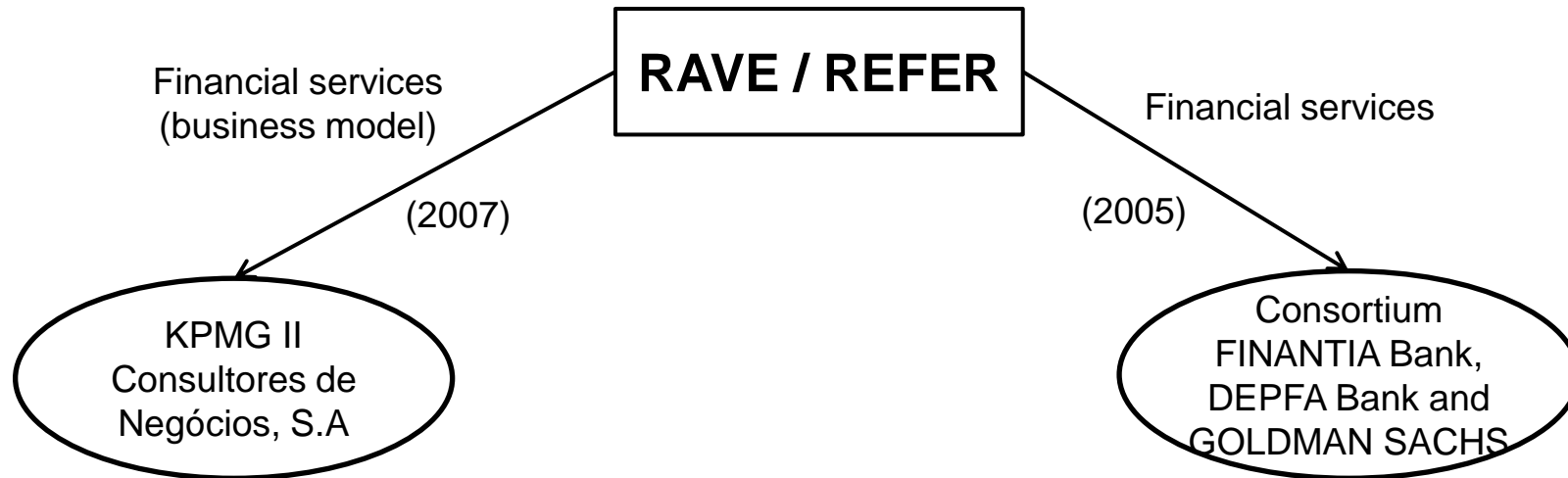




# MEGAPROJECT Stakeholder Relationship Maps

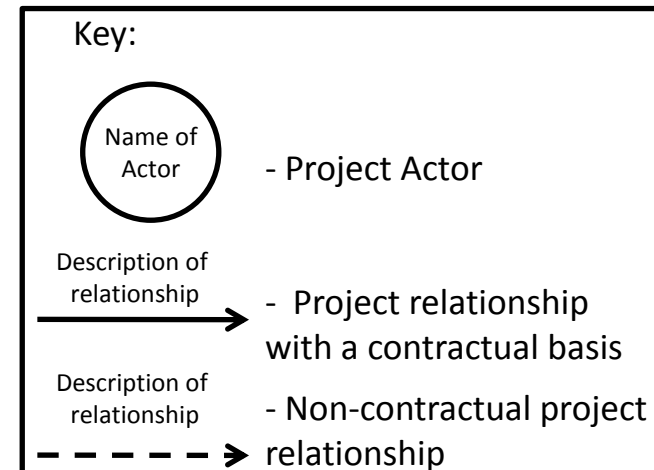
## Step 2 – Tendering (cont.)

### Financial Consultancy



Other submitted bids in the tender procedure:

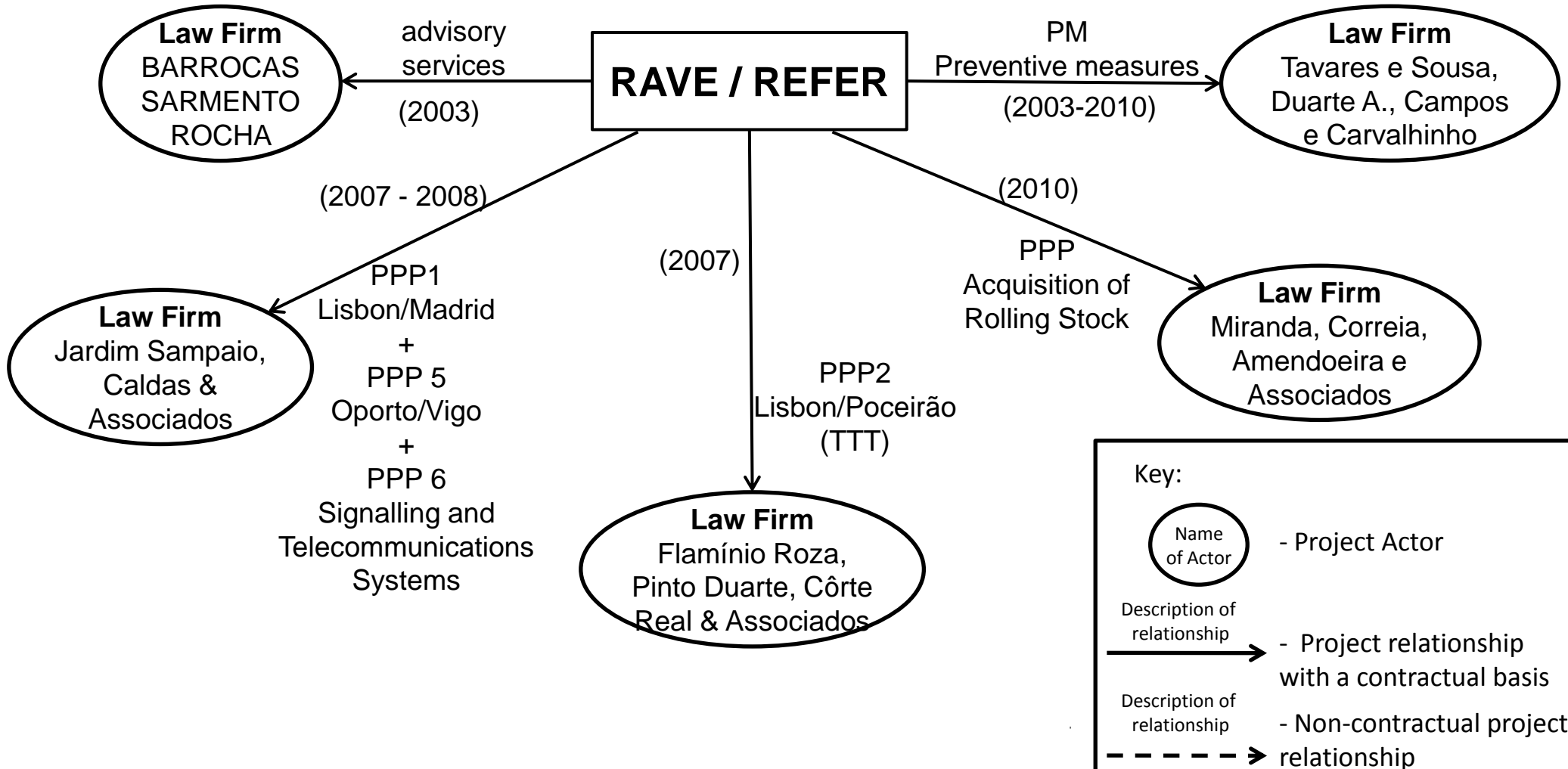
1. Deloitte
2. Efisa Bank



# MEGAPROJECT Stakeholder Relationship Maps

## Step 2 – Tendering (cont.)

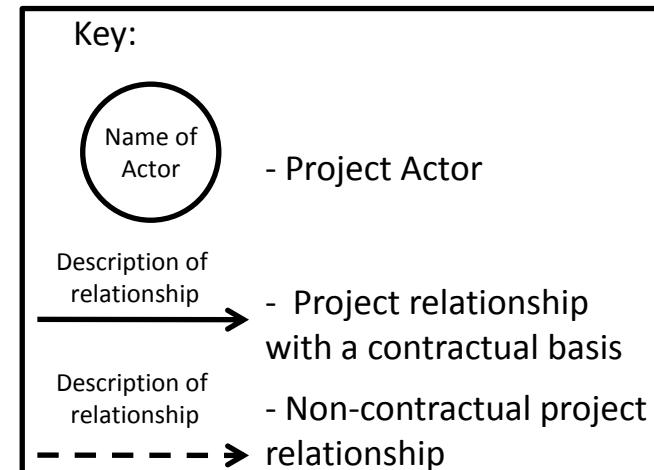
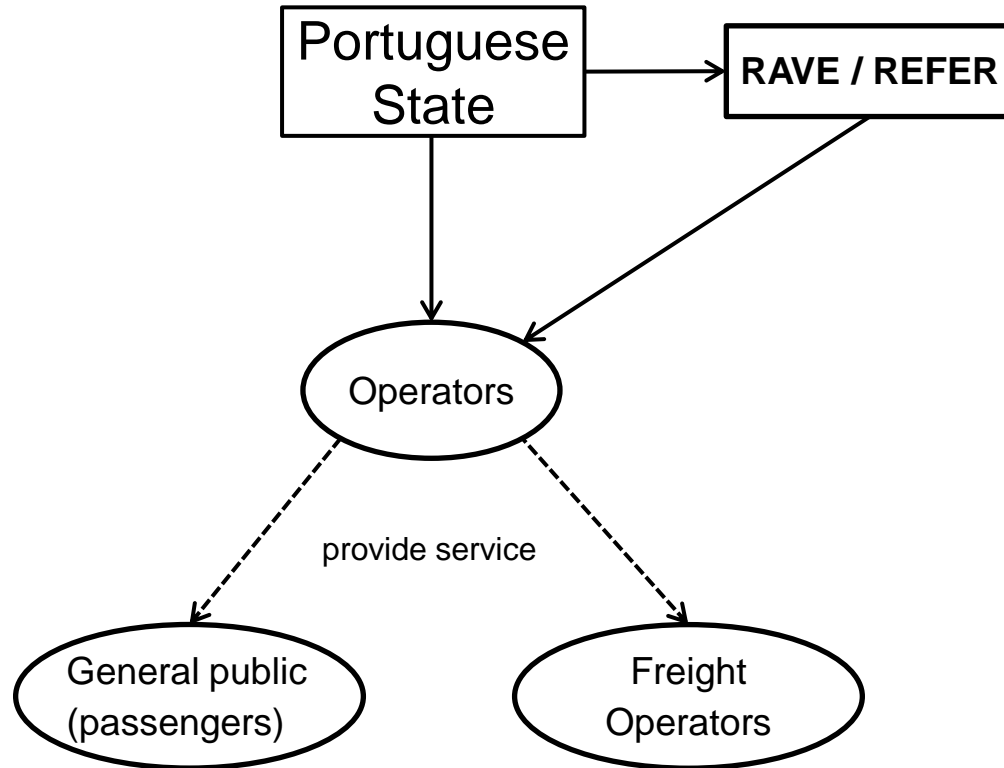
### Legal Consultancy



# MEGAPROJECT Stakeholder Relationship Maps

## Step 3 – Operation

(without timeline)



# MEGAPROJECT External Stakeholder Attitude Analysis

External Stakeholder	External Stakeholder's Attitude to this Project	External Stakeholder's Influence on project	Impact of Project on External Stakeholder	Phase of Project of Greatest Interest
ADFER (Portuguese Association for the Development of Railway Transport)	In general there are positive opinions, even if in some cases the opinions are negative - related with project viability and corridor delimitation	When unfavorably opinion, may cause delays in issuing the studies.		Conception, Planning and design
Environmental organizations (ex. LPN and Quercus)	Highly unfavourable: For example: with the road component, the Tagus river bridge will have more cars entering into the city and it will increase environmental impacts. However, there are a few positive opinions about the project, once it may bring development.	Can limit the development of the process (when presenting successive complaints about negative impacts that the project brings)		Conception, Planning, designing and construction
CIP (Business Confederation)	See this as a commercial opportunity to provide industrial, technical and logistical support. Can provide the grow up of the commercial/economic areas, but on other hand there isn't the same development for the freight. They were important public stakeholders in the decision processes leading to the location for the new airport and TTT bridge.	Has provided support to advocates of different project configurations. They presented an alternative proposal to replace the Iberian gauge by a European gauge on the conventional rail network to provide better interoperability for freight. They had influenced the alternatives of the corridor delimitation.	Slight to moderate. Possible business opportunities for some CIP Members	Conception and Planning
OE (board of engineers),	A little controversy among board members.	It is extremely appropriate to hold a debate on this project.	Slight	All Phases
APA (Portuguese Environmental Agency)	Positive opinion, in general. In some cases the opinion is no-positive (related to corridor delimitation).	Influence of the corridor delimitation and the configuration of the alternative routes.		Conception and Planning
Municipal authorities	Some municipalities: favourable opinion and interested in the project. Others: unfavourable opinion regarding the corridor definition, which can produce physic constrains within the territory	Important to support the development of the process	Moderate. To promote the economic, social and cultural aspects of the cities.	Planning, construction and operation

# MEGAPROJECT Project Management

## Project Organisation (until 2007)

Client Project Team Size & Structure	2004: REFER E.P. (RAVE 10, REFER 22, other 8) + THR (Project Manager 44) Specialists in design companies (300 workers aprox.)
Contractor Project Team Size and Structure	ELOS – Ligações de Alta Velocidade consortium (PPP1, Caia-Poçoirão)
Sub-Contractor Project Team Involvement	LGV-Engenharia e Construção de Linhas de Alta Velocidade, ACE (Project and construction: 1.4 billions €)

## Project Tools and Techniques

Please ✓ if present, x if absent, leave blank if unknown

Life-Cycle Costing Approaches ✓	Project Management Software ✓	Lessons Learned Transfers ✓
Stakeholder Involvement ✓	Relationship Management Tools ✓	Team Building Tools ✓
Building Information Modelling (BIM) ✓	Project Knowledge Management Tools ✓	Competency framework ✓

### Other Tools and Techniques or More Information

Trimble **QUANTM** Alignment Planning Solution simultaneously manages all environmental, cultural and community issues involved in planning the corridors for the high speed rail project.

Relationship Management Tools: Intranet

Management Wage: **GESVEN** software

Several studies incorporated specifically life cycle cost approaches, and they are incorporated in the Business Model.

The project leadership was internalized by RAVE (2007).

The implementation of the **SAP-ERP** business management system, of which a functional analysis of the system already in place at REFER had already been carried out and lead to the decision to roll it out to RAVE, and the implementation of a modern GIS (Geographic Information System) application, which will serve to organise all the project's technical components.

# MEGAPROJECT Project Management

## Project Organisation (after 2007)

Client Project Team Size & Structure	REFER EP.E (RAVE 51, 19 from REFER)
Contractor Project Team Size and Structure	ELOS – Ligações de Alta Velocidade consortium (PPP1, Caia-Poçoirão)
Sub-Contractor Project Team Involvement	LGV-Engenharia e Construção de Linhas de Alta Velocidade, ACE (Project and construction: 1.4 billions €)

## Project Tools and Techniques

Please ✓ if present, x if absent, leave blank if unknown

Life-Cycle Costing Approaches ✓	Project Management Software ✓	Lessons Learned Transfers ✓
Stakeholder Involvement ✓	Relationship Management Tools ✓	Team Building Tools ✓
Building Information Modelling (BIM) ✓	Project Knowledge Management Tools ✓	Competency framework ✓

### Other Tools and Techniques or More Information

Trimble **QUANTM** Alignment Planning Solution simultaneously manages all environmental, cultural and community issues involved in planning the corridors for the high speed rail project.

Relationship Management Tools: Intranet

Management Wage: **GESVEN** software

Several studies incorporated specifically life cycle cost approaches, and they are incorporated in the Business Model.

The project leadership was internalized by RAVE (2007).

The implementation of the **SAP-ERP** business management system, of which a functional analysis of the system already in place at REFER had already been carried out and lead to the decision to roll it out to RAVE, and the implementation of a modern GIS (Geographic Information System) application, which will serve to organise all the project's technical components.

# Project Processes

Risk Management Processes	Present ( <i>describe below</i> ) <input checked="" type="checkbox"/> Not Present <input type="checkbox"/> No Information <input type="checkbox"/> A database to record technical, financial and planning risks at the development, construction and validation phases of the project. It was developed first by THR (TYCO Consortium, currently BRISA / HOLLAND RAILCONSUL) that used TYMS (management software). After 2007 a different risk management business model was defined (PPP) and developed by RAVE/REFER.
HR Management Processes	Present ( <i>describe below</i> ) <input checked="" type="checkbox"/> Not Present <input type="checkbox"/> No Information <input type="checkbox"/> The execution of the project's various specialities has been effected by means of external contracting in each technical area in order to incorporate the latest technologies and benefit from the know-how acquired by contractors on similar projects.
Procurement Management Processes	Present ( <i>describe below</i> ) <input checked="" type="checkbox"/> Not Present <input type="checkbox"/> No Information <input type="checkbox"/> Colaborative Platform to manage procurement processes and tenders. The relation with the consultants was made in a project point of view optic and not in client/supplier perspective
Integration Management Processes	Present ( <i>describe below</i> ) <input checked="" type="checkbox"/> Not Present <input type="checkbox"/> No Information <input type="checkbox"/> "Global Integrated Management". i.e. The global management and co-ordination of the work carried out during all the phases and for all the links, is performed by a permanent team from THR 2004-2007. After 2007 managed internally by RAVE
Scope Management Processes	Present ( <i>describe below</i> ) <input checked="" type="checkbox"/> Not Present <input type="checkbox"/> No Information <input type="checkbox"/> RAVE publishes all relationships with third party organizations (service providers within the scope of the HSN project), in the Company Report and Accounts.
Time Management Processes	Present ( <i>describe below</i> ) <input checked="" type="checkbox"/> Not Present <input type="checkbox"/> No Information <input type="checkbox"/> Planning and Control Department (PCD) which cumulatively monitored project with project managers, and periodically reported to top management. Tasks - critical task identification, analysis of delays and their mitigation, risk assessment
Cost Management Processes	Present ( <i>describe below</i> ) <input checked="" type="checkbox"/> Not Present <input type="checkbox"/> No Information <input type="checkbox"/> Database of unitary prices to allow uniformity of cost estimates. The database was built using benchmarks and incorporating price variation and actualization
Quality management Processes	Present ( <i>describe below</i> ) <input checked="" type="checkbox"/> Not Present <input type="checkbox"/> No Information <input type="checkbox"/> Various activities was developed and implemented by RAVE/REFER with a view to ensuring, continuously, the effective implementation of each supplier's Quality Management System in the preparation of the studies. The criteria used for monitoring and measuring this effectiveness were the requirements contractually defined for the purpose and the applicable standards in force.
Communications Management Processes	Present ( <i>describe below</i> ) <input checked="" type="checkbox"/> Not Present <input type="checkbox"/> No Information <input type="checkbox"/> Various initiatives were undertaken that have already resulted in a significant increase in awareness of environmental. Public presentations of the project by members of the board of directors and senior staff took place throughout the process in different seminars, forums and conferences in City Council and Parish Councils. Therefore, there was a continue engagement with local populations. Relations with the media have also been enhanced, and daily monitoring of media coverage of the high-speed project has been undertaken.

# MEGAPROJECT Project Performance

## Aspects of Performance Concerned with Doing the Project Right

	Original Targets and changes to targets	Actual Achievements Against Targets
Performance relating to <b>time</b>	<p><b>2003:</b> Lisbon/Madrid - design and construction: 2006-2010. Start operations: 2010 Lisbon/Oporto - design and construction: 2006-2013. Start operations: 2014 Oporto/Vigo - design and construction: 2006-2009. Start operations: 2009</p> <p><b>2008:</b> Lisbon/Madrid - design and construction: 2010-2013. Start operations: 2014 Lisbon/Oporto - design and construction: 2012-2015. Start operations: 2015 Oporto/Vigo - design and construction: 2011-2013. Start operations: 2013</p> <p><b>2010/2011:</b> Project being reframed new calendar to be defined</p> <p><b>2012:</b> Project suspended</p>	<p>2008: Tender for PPP1</p> <p>2009: PPP1 Awarded</p> <p>2011: PPP1 Reframed</p> <p>2012: PPP1 Suspended</p>
Performance relating to <b>cost</b>	<p><b>2003:</b> Lisbon/Madrid: 1.6 billions €; Lisbon/Oporto: 3.6 billions €; Oporto/Vigo: 1.3 billions €</p> <p><b>2008:</b> Lisbon/Madrid: 2.6 billions €; Lisbon/Oporto: 4.5 billions €; Oporto/Vigo: 850 millions € (1<sup>st</sup>. step)</p> <p><b>2010:</b> Lisbon/Madrid: 2.3 billions €; Lisbon/Oporto: 4.65 billions €; Oporto/Vigo: 1.3 billions €</p>	<p>2009: PPP1 Awarded price (1,359 millions €)</p>
Performance related to <b>specification</b>	<p><b>Demand estimations</b></p> <p><b>2003:</b> Lisbon/Madrid: 5.3 M passengers ; Lisbon/Oporto: 13.5 M passengers; Oporto/Vigo: 2.1 M passengers (forecasts for 2025)</p> <p><b>2008/2010:</b> Lisbon/Madrid: 9.4 M passengers; Lisbon/Oporto: 12.2 M passengers; Oporto/Vigo: 3.7 M passengers (forecasts for 2030)</p> <p><b>Type of traffic</b></p> <p>Oporto/Vigo (1h) and Lisbon/Madrid (2h45m): Passengers and freight Lisbon/Oporto (1h15m): passengers</p>	

Source: Annual report and accounts from RAVE



## Aspects of Performance Concerned with Doing the Right Project

Stakeholder or Stakeholder Grouping	Original Aims of Project Involvement and Changes to these Aims	Achievement of these Aims
<p><b>Portuguese State</b> (by pressure from public opinion)</p> <p><b>CIP</b> (Business Confederation)</p>	<p>The location of the airport changed from Ota to Alcochete and HS also changed the routes</p>	<p>Find the best way to access High Speed to the new airport of Lisbon, independently of its location</p>
<p><b>ADFER</b> (Association for the Development of Railway Transport)</p>	<p>Change from a rail bridge (TTT) to a road + rail bridge (TTT).</p>	
<p><b>City council of Lisbon</b></p> <p><b>Organizations</b> from the north / Galiza (Atlantic axis)</p> <p><b>APL</b> (Lisbon Port Authority)</p>	<p>Influence of the corridor delimitation and the configuration of the alternative routes</p> <p>Timeline anticipation</p>	
<p><b>APA</b> (Portuguese Environmental Agency)</p>	<p>Influence of the corridor delimitation and the configuration of the alternative routes</p>	

# MEGAPROJECT Project Environment

## Legal and Regulatory Environment

<p>Legal and Regulatory Project Environment (regionally, nationally and Europe wide)</p>	<p><b>2000:</b> RAVE was created  <b>2001:</b> AVEP (Alta Velocidade Espanha-Portugal) is a European Economic Interest Group created by Spain and Portugal to study the “linking of Spain and Portugal by a High-speed Rail Network”. AVEP was owned by RAVE and ADIF.</p>
<p>Specific Legal and Regulatory events impacting on the project</p>	<p><b>Throughout process:</b> Standards and rules from REFER and IMTT  <b>2003 - 2010:</b> Different laws applied to Public Private Partnerships (PPP’s).  <b>2007 - 2010:</b> several pieces of legislation were put forward to implement preventive measures (reservation of corridors from incompatible land uses).  <b>2008:</b> Public Contract Code (Código dos Contratos Públicos - CCP): Decree-Law No. 18/2008 of 29 January</p>

## Political Environment

<p>Political Project Environment</p>	<p>Since <b>2007/ 2008</b> the main opposition party (presently in Government) opposed strongly to the project. The only awarded PPP was reframed (possible reductions in the project configuration, eg. single track, stations postponed, project speed reduction) and now is suspended.</p>
<p>Specific Political Events impacting on the project</p>	<p><b>2003:</b> The Iberian Summit defines the 4 cross-border HSR connections  <b>2004:</b> The links Lisbon/Oporto, Lisbon/Madrid, Aveiro/Salamanca e Oporto/Vigo were included in the 30 priority projects of TEN-T  <b>2006:</b> The Strategic Guidelines for the Railway Sector were presented  <b>2007:</b> change of location for the new Lisbon Airport  <b>2004 and 2009:</b> years of elections  <b>2011:</b> elections change of Government</p>

# MEGAPROJECT Project Environment

## Economic Environment

<p>Economic Project Environment</p>	<p><b>2007:</b> The project final business model is defined</p> <ul style="list-style-type: none"> <li>• 5 PPPs for the design, construction, financing and maintenance of the rail sub and superstructures</li> <li>• a PPP for design, promotion, financing and maintenance of the signaling and telecommunications systems</li> <li>• Lisbon station to be developed directly by REFER and Caia International Station to be developed jointly by Portugal and Spain</li> <li>• Strategic functions concerning capacity allocation and circulation management will be handled by REFER</li> <li>• On an operational level, the Portuguese state will go ahead with the acquisition of the rolling stock</li> </ul> <p><b>2008:</b> Availability of the Portuguese banks and EU Grants</p> <p><b>2009:</b> The TEN-T approved new financial support for TTT Oriente Station (5.4 million €)</p> <p><b>2010/2011:</b> Crisis and Troika</p>
<p>Specific Economic Events impacting on the project</p>	<p><b>2001-2006:</b> European funding associated with the priority projects within the TEN-T (Trans European Networks for Transport) created by the European Commission and co-financed by DG TREN (EC Directorate-General for Energy and Transport) through the MIP (Multi-Annual Indicative Programme)</p> <p><b>2007:</b> a regulation was published regarding the community support to be granted to the TEN-T project (2007-2013 multi-year program), with an overall value of approximately 5.3 billion € .</p> <p>Community financial support: <b>1.338 million €</b> distributed in the following manner:</p> <ul style="list-style-type: none"> <li>• 955 million € from the Portuguese State through the National Strategic Reference Framework (QREN) for the 2007-2013 timeframe (Cohesion Fund)</li> <li>• 383 M€ from the European Commission's support framework for TEN-T project:             <ul style="list-style-type: none"> <li>•191 M€ for the Évora/Mérida cross-border stretch.</li> <li>•141 M€ for the Lima/Vigo Bridge cross-border stretch</li> <li>•51 M€ for the Third Tagus Crossing.</li> </ul> </li> </ul> <p>Sovereign debt credit crisis of <b>2010</b></p>

# MEGAPROJECT Project Key Events and Activities Timeline

TIME →

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Events and activities relating to project stakeholders	Creation of RAVE	Creation of the EEIG-AVEP	Studies (preliminary studies and environmental impact studies, technical viability studies, cost-benefit, market studies and socio-economic, financial, and technical , ... )									
Events and activities relating to project management					Inclusion of HSR axes in the list of the 30 TEN-T Priority Projects		Location of the Porto HS Station (Campanhã)	Location of the Lisbon HS Station (Oriente)				
Events and activities relating to project performance			Start of feasibility studies	Portuguese / Spanish Summit: Cross border HSR axes; Run time objectives		Portuguese / Spanish Summit: Lisbon/Madrid axis - Type of mixed traffic and Completion date (2013)	Portuguese / Spanish Summit: International station on the Elvas/Badajoz border	Granting of 383 million € of community support to the TEN-T HSN Project	Beginning of the Procurement Process (PPP1 Poceirão /Caia)	Portuguese / Spanish Summit: Location of the Elvas/Badajoz Station The TEN-T approved new financial support for TTT-Oriente Station: 5.4 million €	Portugal, Spain and France was signed an agreement to finish the HS Axis in Southwest Europe (P3)  Signing of the contract agreement for the PPP1	Project refurbishment
Events and activities relating to project environment					year of elections			New Lisbon airport change of location	Crisis	year of elections	Sovereign debt credit crisis	year of elections Change of government

# MEGAPROJECT References

## Main references

- ADFER. (2006). *O Projecto de Alta Velocidade Português, 7<sup>th</sup> National Conference* [PowerPoint slides]. Retrieved from: <http://adfer.cp.pt/pages/congresso/Teses/A-2.pdf>
- *Annual report and accounts from RAVE (2004 – 2010)*
- Meetings with RAVE / REFER
- News collected in different newspapers on the Internet
- RAVE / REFER. GONÇALVES, José Carlos and COELHO, Natália. (2006). *Os Sistemas de Informação de Suporte ao Projecto de Alta Velocidade Ferroviária* [PowerPoint slides]. Retrieved from: <http://tercud.ulusofona.pt/GeoForum/Ficheiros/20GeoForum.pdf>
- RAVE / REFER. (2008). *O Projecto de Alta Velocidade Português*, [PowerPoint slides]. Retrieved from: [http://www.aiccopn.pt/upload/PPP\\_17\\_11/Carlos\\_Fernandes\\_Rave.pdf](http://www.aiccopn.pt/upload/PPP_17_11/Carlos_Fernandes_Rave.pdf)
- Studies by ATKEARNEY (2003/2004). [PowerPoint slides]
- <http://www.refer.pt/MenuPrincipal/TransporteFerroviario/AltaVelocidade/Enquadramento.aspx>