ALSTOM Transport
Very High Speed and PPPs: An innovating and efficient financing solution

Christian MESSELYN
VP TGS Strategy & Concessions
July 12th 2012  Session: Economy & Finance 1
PPPs: French experience

- A long record of projects: Eiffel Tower was already a concession

  - Facts and figures
    - France dominated the European PPP market in 2010/2011 with 19 deals closed and 62% of the total amount of all European PPPs
    - Transport sector represents 58% of the European PPPs, with 36 deals closed in 2010/2011, including 2 French deals for rail infrastructure projects for €12b in total
    - Since 1990, only 2% of PPP projects were in default in Europe, mainly buildings

  - Sensitivity to the financial crisis
    - Average duration of financing, from 25 years in 2010 to 20 years in 2011
    - Average spreads of 230 bps during construction and 270 during operation
    - In France, €1b of private equity was mobilized for rail infrastructure projects
High speed line projects specificities

• Outstanding size
  - Project requiring multi-billion of dollars
  - Massive engineering, logistical and construction capabilities
  - Limited worldwide expertise in design and turnkey contracting

• Outstanding complexity
  - Integrated to existing network, key interface management
  - Subject to high level safety and environmental regulations
  - Long distance system with complex civil structures (bridges, tunnels, etc…)

• Specific characteristics
  - State/ federal / regional projects with long term development vision
  - Interoperability with open access to train operating companies
  - Strong economic development tool for regions with qualified jobs

Complex projects but relevant to face plane competition until a 3 to 4h trip time
## History record in High Speed Line PPP

<table>
<thead>
<tr>
<th>PPP Project</th>
<th>Country</th>
<th>Year of Contract</th>
<th>Type of PPP</th>
<th>Length</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS1 (CTRL)</td>
<td>UK</td>
<td>1996</td>
<td>DBFOM</td>
<td>108 km</td>
<td>Civil + System but no Rolling Stock</td>
</tr>
<tr>
<td>North-South HSR</td>
<td>Taiwan</td>
<td>1998</td>
<td>DBFOM</td>
<td>345 km</td>
<td>Civil + System</td>
</tr>
<tr>
<td>HSL Zuid</td>
<td>Netherlands</td>
<td>2001</td>
<td>DBFM</td>
<td>100 km</td>
<td>System but no Rolling Stock</td>
</tr>
<tr>
<td>Perpignan-Figueiras HSL</td>
<td>France</td>
<td>2005</td>
<td>DBFOM</td>
<td>44.4 km</td>
<td>Civil + System but no Rolling Stock</td>
</tr>
<tr>
<td>South Europe Atlantic HSL</td>
<td>France</td>
<td>2010</td>
<td>DBFOM</td>
<td>303 km</td>
<td>Civil + System but no Rolling Stock</td>
</tr>
<tr>
<td>BPL HSL</td>
<td>France</td>
<td>2011</td>
<td>DBFM</td>
<td>182 km</td>
<td>Civil + System but no Rolling Stock</td>
</tr>
<tr>
<td>CNM HSL</td>
<td>France</td>
<td>2012</td>
<td>DBFM</td>
<td>80 km</td>
<td>Civil + System but no Rolling Stock</td>
</tr>
<tr>
<td>Alicante Albacete HSL</td>
<td>Spain</td>
<td>2012</td>
<td>DBFM</td>
<td>165 km</td>
<td>Signalling &amp; Telecom systems</td>
</tr>
</tbody>
</table>

### PPP contracts for HSL: from innovative trend to standards?

Christian MESSELYN  
VP TGS Strategy & Concessions, ALSTOM, France  
2012 July 12th
HSL PPP REX: Public involvement

**High Speed 1**
- Project was originally planned to be privately financed
- Eurostar revenues were found to be overly optimistic
- London Continental Railways (SPC) had insufficient equity capital to absorb the traffic risks
- LCR asked for a further £1,2 b of public loans and the project financing was restructured

**Taiwan HSR**
- The project was initially planned to be entirely privately funded with wide ranging Government support to lenders if THSRC (SPC) could not meet its financial obligations
- THSRC was unable to obtain the debt financing of $10 billion and the Government had to finance $8,6 billion with its owned/controlled banking system
- THSRC was unable to raise the equity because of massive cost overruns due mainly to insufficient number of passengers (-30%) and heavy interest burden on the debt raised

Public involvement is needed to avoid:
- overly optimistic financial projections (traffic)
- unbalanced profit structure and lost of control
HSL PPP REX : Project attractiveness

• Perpignan Figueiras
  - May 2000: start of concession tender process
  - April 2002: Euroferro (Bouygues /Dragados) preferred bidder
  - April 2003: negotiations aborted due to traffic guarantees requested by Euroferro
  - February 2004: contract award to TP Ferro (Eiffage/ACS)

• South Europe Atlantic
  - 26 months from publication to preferred bidder
  - Traffic risk taking into account the existing traffic (quasi brownfield)
  - Right treatment of non transferable public risks
  - Right treatment of the integration in the national railways network

• BPL HSL
  - 22 months from publication to preferred bidder
  - No traffic risk, availability payments made on performance
  - Financial close in less than 4 months

Attractive projects lead to smooth tender process with open competition

Christian MESSELYN
VP TGS Strategy & Concessions , ALSTOM, France
2012 July 12th
HSL PPP REX : Balanced financing

- Poor public financing leads to project failures and subsequent

<table>
<thead>
<tr>
<th>PPP Project</th>
<th>Total Cost</th>
<th>Duration</th>
<th>Private Debt</th>
<th>Private Equity</th>
<th>Public Subsidies</th>
<th>Public share</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS1</td>
<td>£5233 M</td>
<td>90 years</td>
<td>£3121 M</td>
<td>£100 M</td>
<td>£2012 M</td>
<td>38,4%</td>
</tr>
<tr>
<td>North-South HSR</td>
<td>$17300 M</td>
<td>35 years</td>
<td>$10800 M</td>
<td>$3300 M</td>
<td>$3200 M</td>
<td>18,5%</td>
</tr>
<tr>
<td>HSL Zuid</td>
<td>€1139 M</td>
<td>25 years</td>
<td>€619 M</td>
<td>€120 M</td>
<td>€400 M</td>
<td>35,1%</td>
</tr>
<tr>
<td>Perpignan- Figueiras HSL</td>
<td>€1163 M</td>
<td>53 years</td>
<td>€520 M</td>
<td>€103 M</td>
<td>€540 M</td>
<td>46,4%</td>
</tr>
<tr>
<td>South Europe Atlantic HSL</td>
<td>€7840 M</td>
<td>50 years</td>
<td>€3029 M</td>
<td>€772 M</td>
<td>€4039 M</td>
<td>51,5%</td>
</tr>
<tr>
<td>BPL HSL</td>
<td>€3009 M</td>
<td>25 years</td>
<td>€1029 M</td>
<td>€129 M</td>
<td>€1851 M</td>
<td>61,5%</td>
</tr>
</tbody>
</table>

The trend in HSL financing is a balance of:
- Public subsidies over 40%
- Private maintenance of the line from 25 to 50 years

Christian MESSELYN
VP TGS Strategy & Concessions, ALSTOM, France
2012 July 12th
HSL PPP REX: Project organisation

- **HSL Zuid**
  - Project based on 3 different contracts to stimulate separate innovative proposal: Civil in D&B, Systems in PPP, 15 year train operation concession
  - Lack of local civil competition led to higher bids than expected: Dutch Government had to make cutback in the system design & integration, and had to take the risk of late delivery
  - Political decision to extend civil scope (tunnel) led incompatibility with the initial design of INFRASPEED (SPC for Systems) and interface cost overruns
  - Complexity of contracts for the systems made them unintelligible to Government project team
  - The project far exceeded its original budget, costing 55% more than originally projected

- **HS1**
  - Construction based on a D&B basis with 30 to 50% of the design made by an experienced international team Rail link engineering (Bechtel, Arup, Halcrow, Systra)
  - Construction split in multiple contracts can lead to new interface risks

The trends in HSL project organisation is:
- a PPP contract including civil & systems with a strong customer team
- an EPC turnkey contractor with strong system integration skills
Example of the Alicante-Albacete HSL PPP

• Scope of Concession
  - Design & Construction of signaling/telecom systems + corresponding civil works for the Very High Speed Line Corridor between Albacete and Alicante (165 km)
  - Maintenance of the systems during 20 years

• Equity / Shareholders
  - €21.3 M social capital + shareholder’s loan + mezzanine debt
  - Shareholders: Alstom Transport (12%), Comsa, Isolux, ADIF…

• ALSTOM Scope
  €151 M $85 M (40%) of the EPC contract including signaling (ERTMS 2 +IXL) + €66 M maintenance

• Financing Balance
  Private €147 M (63%)
  Public €85 M (37%)
PPPs from our perspective

- **A way to help our customers make their project**
  - PPP projects include through a single contract
    - the **construction** of all or part of a railway transport system
    - the **financing** of all or part of the construction by the private sector
    - the **operation and/or maintenance** of the railway transport system
    - the **revenues**, taking into account performance risks (availability, reliability...) and all or part of the traffic risk (concession)

- **In PPP projects, Alstom...**
  - performs its usual role of **contractor / supplier / maintainer**
  - acts as **shareholder** of a Special Purpose Company (SPV)
  - **mobilizes private funding** (equity, limited recourse financing) to **implement** the Project and **secure** its scope of works
Key recommendations for a successful HSL PPP

• Public involvement
  - Realistic assessment of the project at feasibility stage: investment and operation cost, passenger traffic, revenues, program, risks, etc…
  - Sustained political support with adequate legal concession frame

• Attractive project
  - Selectivity in the choice of project: new, manageable interfaces, include both civil and systems, size consistent with contractor appetite, etc…
  - Well balanced risk sharing with traffic risk on the Public side

• Balanced financing
  - Public financing subsidies should reach at least 40 to 50% of the total cost
  - PPP contract must have a reasonable length from 15 to 50 years
  - PPP based on availability payments

• Right organization
  - Customer team with PPP expert able to evaluate performances
  - System integration, planning and coordination must be secured by expertized international companies for design, construction, financing and operation
PPP is to financing what laser is to surgery, a fantastic tool to be used by experts. You need solid teams on both sides to get the best from it!
...Thank you for your kind attention