1 Spain

1.1 Introduction

This Country Summary for Spain has been produced as part of the Task 5 of the ‘Ex Post Evaluation of Cohesion Policy Interventions 2000-2006 by the Cohesion Fund (including former ISPA)’. The objective of this task is to assess the contribution of the Cohesion Fund and ISPA during the period 2000-2006 to the development of the Trans-European Transport Network (TEN-T) and the pan-European Transport Corridors, in terms of network completion.

The purpose of this summary is to present data on the ISPA/Cohesion Fund projects completed in Spain, in relation to the national sections of the TEN-T network. Whilst there is a brief consideration of the contribution of these projects towards policy objectives, the detailed evaluation of the impact of ISPA/Cohesion Fund interventions within Member States is addressed in the Summary Report produced as part of this task.

1.2 Background Information

This section provides an overview of the transport situation in Spain during the period 2000 to 2006, including data on the existing national networks and the TEN-T.

Pan-European Corridors

There are no pan-European Corridors in Spain.

TEN-T Priority Projects

Of the 30 TEN-T priority projects established during the 2000 – 2006 programming period, four fall within Spain, namely:

3. High speed railway axis of south-west Europe
8. Multimodal axis Portugal/Spain- rest of Europe
16. Freight railway axis Sines/Algeciras-Madrid-Paris
19. High-speed rail interoperability on the Iberian Peninsula

The TEN-T network and priority projects are shown on Figure 1.
Road

Spain possesses a high density road network which is already of high quality due to previous road investment, particularly in motorways\(^1\). The Spanish road network is divided into the State Road Network and the remaining roads which are managed by the various municipalities. As can be seen from Table 1, the TEN-T road network in Spain has increased between 2003 and 2008, although there are some uncertainties regarding the accuracy of the TEN-T values reported in 2003 and 2008.

**Table 1 – Road Network**

<table>
<thead>
<tr>
<th>Road</th>
<th>Unit</th>
<th>2000</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Network Density</td>
<td>m/km(^2)</td>
<td>306.55</td>
<td>300.73</td>
</tr>
<tr>
<td>Length of Road Network</td>
<td>Km</td>
<td>154.508</td>
<td>151,578</td>
</tr>
<tr>
<td>Length of Motorways</td>
<td>Km</td>
<td>9,049</td>
<td>13.515</td>
</tr>
<tr>
<td>Length of TEN-T Network</td>
<td>Km</td>
<td>11,384.84 (2003)*</td>
<td>11,960.86</td>
</tr>
</tbody>
</table>

Source: Eurostat

* 2003 - First available year for complete TEN-T network values

Rail

Three of the four TEN-T priority projects which are in Spain involve railway corridors; two high-speed rail and one freight. The rail axes in Spain play an important role in the movement of passengers and goods between the main population and economic centres such as Madrid, Barcelona and Seville, and also in integrating Spain into the wider European markets. The importance attributed to the rail network in Spain is evidenced by the significant increase in the size of the TEN-T network between 2003 and 2008 as shown in Table 2 (again, there are some uncertainties regarding the accuracy of the TEN-T values reported in 2003 and 2008).

**Table 2 – Rail Network**

<table>
<thead>
<tr>
<th>Rail</th>
<th>Unit</th>
<th>2000</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail Network Density</td>
<td>m/km(^2)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Length of Railway Network</td>
<td>Km</td>
<td>13,868(^\dagger)</td>
<td>15,041(^\dagger)</td>
</tr>
<tr>
<td>Length of TEN-T</td>
<td>Km</td>
<td>8,656.60 (2003)*</td>
<td>12,024.04</td>
</tr>
</tbody>
</table>

Source: Eurostat

\(^\dagger\) DG TREN- Statistical Pocket Book 2007

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1.3 National Strategies

Spain set out its approach to developing the national transport network in the Transport Infrastructure Plan 2000-2007 (*Plan de Infraestructuras de Transporte*, PIT) which was then superseded in 2004 by the Strategic Infrastructures and Transport Plan 2005-2020 (*Plan Estratégico de Infraestructuras de Transporte*, PEIT). The strategic objectives of the PIT (and subsequent PEIT) were to:

- Meet transport demand and increase the quality of transport services;
- Enhance social and territorial cohesion by a) ensuring equitable conditions of accessibility throughout the country and, and b) Identifying the potential beneficiaries of infrastructure and transport policy;
- Contribute to the system’s general sustainability by complying with international commitments in relation to European environmental requirements, in particular in meeting the Greenhouse Gas emissions reduction targets; and
- Promote economic development and competitiveness by a) enhancing the role of Spanish urban and metropolitan areas; b) Reinforcing cross-border links; and c) Cementing R&D programs.

1.4 Projects in Spain

This section presents the data which relates to the TEN-T network in Spain and the projects financed between 2000 and 2006.

Projects Financed

The following tables show the road and rail projects co-financed by the Cohesion Fund/ISPA in Spain and those completed during the period 2000 to 2006.

*Table 3 – Road Projects Financed by Cohesion Fund/ISPA*

<table>
<thead>
<tr>
<th>Road</th>
<th>Unit</th>
<th>Projects Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road</td>
<td>N°</td>
<td>8</td>
</tr>
<tr>
<td>Construction</td>
<td>N°</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Km</td>
<td>131</td>
</tr>
<tr>
<td>Reconstruction/ rehabilitation</td>
<td>N°</td>
<td>-</td>
</tr>
</tbody>
</table>

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Table 3 shows that the eight road construction projects completed between 2000 and 2006 comprised 131 km of new road of which 60 km, or 46%, was on the TEN-T network. There were no reconstruction or rehabilitation projects during the same period.

<table>
<thead>
<tr>
<th>Rail</th>
<th>Unit</th>
<th>Projects Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail</td>
<td>N°</td>
<td>42</td>
</tr>
<tr>
<td>Construction</td>
<td>N°</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Km</td>
<td>1527</td>
</tr>
<tr>
<td>Reconstruction/ rehabilitation</td>
<td>N°</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Km</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 4 highlights the large number of rail construction projects which were completed by 2006, the vast majority of which involved high-speed rail. This reflects the national programme of investment in high speed rail lines and associated infrastructure, with all of the 42 projects being located on the TEN-T network.

Table 4 – Rail Projects Financed by Cohesion Fund/ISPA

As can be seen from Figure 1, all but one of the projects were located in the north-east of the country and all of the projects involved sections of motorway construction.
Figure 2 shows the two main axes for the rail construction projects were Madrid to Barcelona and Madrid to Valladolid. There were also a significant number of rail high-speed rail projects along the east coast and the connection between Madrid and Seville. The spatial pattern of these projects reflects the goals of connecting the major economic centres of Spain via high-speed rail.
Figure 1 - Transport Networks and Cohesion Fund/ISPA Road Projects

Legend
Urban Transport Projects
- Construction - Closed
- Construction - Open
- Airport & Port Projects
- Construction - Closed / Almost closed
- Road Projects
- Construction - Closed / Almost Closed
- Construction - Open
- Reconstruction - Closed / Almost closed
- Rail Projects
- Construction - Closed / Almost closed
- Construction - Open
- Reconstruction - Closed / Almost closed
- TEN-T Road Network
- Road
- Railway
- Inland Waterway
- TEN-T Priority Projects
- Pan-European Corridors

Label Legend
Project No.
- Road Project Number
Rail Project Number
Port / Airport Project Number
Urban Transport Project Number

RGL/AECOM analysis, EUROSTAT GIS data
Figure 2 - Transport Networks and Cohesion Fund/ISPA Rail Projects

Legend
- Urban Transport Projects
  - Construction - Closed
  - Construction - Open
- Airports & Port Projects
  - Airport - Closed / Almost closed
  - Port - Closed / Almost closed
  - Port - Open
- Road Projects
  - Construction - Closed / Almost Closed
  - Construction - Open
  - Reconstruction - Closed / Almost closed
  - Reconstruction - Open
- Rail Projects
  - Construction - Closed / Almost closed
  - Construction - Open
  - Reconstruction - Closed / Almost closed
  - Reconstruction - Open
- TEN-T Road Network
  - Road
  - Railway
  - Inland/Waterway
  - TEN-T Priority Projects
  - Pan-European Corridors

Label Legend
- Project No: Road Project Number
- Project No: Rail Project Number
- Project No: Port / Airport Project Number
- Project No: Urban Transport Project Number

RGL/AECOM analysis, EUROSTAT GIS data
1.5 Contribution towards the TEN-T Cohesion Fund and Wider EU Objectives

This section assesses the contribution of the Cohesion Fund and ISPA financed projects to the development of the TEN-T in Spain, as well as their congruence with EU policy objectives.

To what extent did the projects financed contribute towards completion of the TEN-T network?

Table 5 – Contribution of Completed Projects to the TEN-T Network

<table>
<thead>
<tr>
<th>Road</th>
<th>Unit</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of TEN-T</td>
<td>Km</td>
<td>11,960.86</td>
</tr>
<tr>
<td>Project – Construction</td>
<td>Km</td>
<td>60</td>
</tr>
<tr>
<td>Contribution to TEN-T</td>
<td>%</td>
<td>0.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rail</th>
<th>Unit</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of TEN-T</td>
<td>Km</td>
<td>12,024.04</td>
</tr>
<tr>
<td>Projects – Construction</td>
<td>Km</td>
<td>1527</td>
</tr>
<tr>
<td>Contribution to TEN-T</td>
<td>%</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: AECOM analysis

As can be seen from Table 5, the contribution of the eight road projects towards the TEN-T network was only 0.5% which is reflective of the fact that less than half of the total kilometerage was on the TEN-T. The 42 rail projects, however, contributed a more significant figure of 13% towards the TEN-T rail network, emphasising the priority which has been given to investing in high-speed rail projects in key corridors. This infrastructure directly contributes towards the TEN-T priority project 19 (high-speed rail interoperability on the Iberian Peninsula).

To what extent did the projects financed help meet the priority objectives of ISPA and the Cohesion Fund?

The priority objectives of the Cohesion Fund and ISPA are listed in Table 6, making it possible to compare the projects financed against this policy framework.
**Table 6 – Cohesion Fund and ISPA Priority Objectives**

<table>
<thead>
<tr>
<th>Cohesion Fund Priority Objectives</th>
<th>ISPA Priority Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completing the missing links in the priority corridors</td>
<td>Focus on projects of common interest (such as contributing to TEN-T)</td>
</tr>
<tr>
<td>Promoting rail and combined transport</td>
<td>Promote sustainable mobility</td>
</tr>
<tr>
<td>Developing multi-modal platforms</td>
<td>Address interconnection and interoperability of national networks...together with access to trans-European networks</td>
</tr>
<tr>
<td>Improving traffic management</td>
<td></td>
</tr>
</tbody>
</table>

The prevalence of rail projects financed between 2000 and 2006 results in a close alignment with the priority objectives relating to sustainable travel. These projects contribute directly towards the Cohesion Fund objectives for developing and promoting rail, combined transport and multi-modal platforms. Enhancing the TEN-T rail network also improves connectivity within Spain and also between Spain and neighbouring Portugal and France, along priority rail corridors. Also, by reducing journey times and creating better links between urban areas, the rail projects may encourage people to reduce their reliance on the private car, helping to reduce congestion and the number of accidents, contributing towards the priority objective of improving traffic management.

**To what extent did the projects financed help meet the wider EU Cohesion and the wider EU transport policy objectives?**

Spain has invested significantly in upgrading its rail infrastructure to make it compatible with the expanding European high-speed network. The projects financed in Spain help to contribute towards the completion of the TEN-T rail network, providing economic, social and environmental benefits for the country. Principal amongst these is the better accessibility afforded by a more comprehensive network and the substantial reduction in travel times. High speed rail can also help to bring the peripheral and less developed regions of Spain together, providing them with access to the economic centres of the country such as Madrid, Barcelona and Seville.

The economic benefits of the rail projects financed should directly contribute to raising the GDP of the country and thus the convergence objective of EU policy. A comprehensive and efficient rail network can also have a bearing upon the regional and national competitiveness of Spain. Linking all of the capitals of the 47 provinces by both rail and road will assist in helping the national economy to function smoothly, supporting growth and encouraging territorial
cohesion. In addition, the high speed rail projects co-financed by the Cohesion Fund have had a major positive impact on local employment during their construction.

In terms of the social aspects of EU transport policy, the rail projects in particular make a significant contribution to sustainable mobility which, combined with greater accessibility and reduced journey times, helps foster greater social cohesion. Increased use of the rail network can also lead to a lower level of traffic demand and a reduction in the number of road traffic accidents as well as having wider environmental benefits when compared with road based investment.

The fact that less than half of the road projects financed were on the TEN-T network suggests that the priority road corridors (i.e. the Spanish State Road Network) existed to a suitable standard and did not require significant further investment, unlike the situation in some other member countries.