UIC gauge in the Port of Barcelona

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Countries where there has been an effective liberalization (Germany, United Kingdom, Belgium ...) have significantly increased its rail freight traffic.

In Spain, the liberalization is not yet effective: Although there are 9 operators, they are not really operational and RENFE’s market share remains almost absolute.
Railway traffic in the Port of Barcelona

### 2007 traffic results

<table>
<thead>
<tr>
<th>Category</th>
<th>Traffic 2007</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total traffic</td>
<td>50,04 M tonnes</td>
<td>+7.8%</td>
</tr>
<tr>
<td>Containers</td>
<td>2.6 M TEU</td>
<td>+12%</td>
</tr>
<tr>
<td>Vehicles</td>
<td>801,406</td>
<td>+10.8%</td>
</tr>
<tr>
<td>Cruise passengers</td>
<td>1,8 million passengers</td>
<td></td>
</tr>
</tbody>
</table>

### 2007 Railway traffic

<table>
<thead>
<tr>
<th>Category</th>
<th>Traffic 2007</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total traffic</td>
<td>&gt;1.4 M tonnes</td>
<td>&lt;3%</td>
</tr>
<tr>
<td>Containers</td>
<td>&lt;100,000 TEU</td>
<td>&lt;4%</td>
</tr>
<tr>
<td>Vehicles</td>
<td>&gt;116,000</td>
<td>14%</td>
</tr>
</tbody>
</table>

### Rail market share in major European ports (2007)

- **Hamburg**: 29%
- **Felixstowe**: 21%
- **Rotterdam**: 13%
- **Antwerp**: 8%

Source: Dynamar (2007)

### 2007 Railway traffic increase

<table>
<thead>
<tr>
<th>Year</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010 *</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>12%</td>
<td>25%</td>
<td>13%</td>
<td>46%</td>
</tr>
</tbody>
</table>

* Accumulated up to August 2010
Railway Strategy in the Port of Barcelona

Objectives

√ Improvement of hinterland connections and Port access
  – Lines only for freight
  – Introduction of UIC line to connect with the rest of Europe
  – Trains of 750 meters

√ Development of infrastructures and railway management in the Port
  – Build terminals
  – Railway-Port Authority

√ Railway services promotion
  – Rail services supply for corridors
  – Alliances with operators
Hinterland connections

Long-term Mediterranean corridor

- UIC rail line for goods transport between the port of Barcelona and the French border
- Promotion of the freight rail corridor Rhine – Rhone - Western Mediterranean.

Map showing:
- Double track devoted to Tarragona, Zaragoza and Madrid
- UIC rail line for goods transport between the port of Barcelona and the French border
- IB gauge double track for passengers
- Mixed-gauge double-track for goods
Current rail infrastructure of the Port of Barcelona

Port terminals and access

- Access (Iberian gauge)
  - Calle 4
- Container Terminal
  - Príncipe de España
- Container Terminal
  - Muelle Sur
- Car Terminals
  - Campa 2
  - Dàrsena Sur
- Car / Liquid Bulk Terminal
  - Terminal de Inflamables
- Access (Iberian gauge)
  - Bucle
- Access (Iberian gauge)
  - Contradique
- Bulk Terminal
  - Contradique
  - Contradique Métrico
- Morrot
  (ADIF)
- Can Túnis
  (ADIF)
Current rail infrastructure of the Port of Barcelona

Access to the Port

- Access (Iberian gauge) - Calle 4
- Container Terminal - Príncipe de España
- Car Terminals - Campa Z - Darsena Sur
- Car / Liquid Bulk Terminal - Terminal de Inflamables
- Access (Iberian gauge) - Bucle
- Access (Iberian gauge) - Contradique
- Access (Iberian gauge) - Morrot (ADIF)
- Bulk Terminal - Contradique
- Bulk Terminal - Contradique Métrico

Access (metric gauge) - Calle 4

Can Túnis (ADIF)
Current rail infrastructure of the Port of Barcelona

Access to the Port
Current rail infrastructure of the Port of Barcelona

Access to the Port
Current rail infrastructure of the Port of Barcelona

Access to the Port
Current rail infrastructure of the Port of Barcelona

UIC gauge
UIC railway infrastructure of the Port of Barcelona

UIC infrastructures of immediate execution

- Tender budget: EUR 8.1 million
- Rail track adaptation: 4,550 meters
- Completion date: December 31, 2010 / First quarter 2011
UIC railway infrastructure of the Port of Barcelona

UIC infrastructures of immediate execution

**South Wharf**

- Tender budget: 2.6 million EUR
- Rail track adaptation: 1,800 meters
- Completion date: December 31, 2010
UIC railway infrastructure of the Port of Barcelona

UIC infrastructures of immediate execution

Príncipe de España Wharf

- Tender budget: 5.5 million EUR
- Rail track adaptation: 2,750 meters
- Completion date: First quarter 2011
UIC railway infrastructure of the Port of Barcelona

Short-term UIC Infrastructure (over 2013)

**Start Tercat-Hutchinson Railway Terminal:**
8 tracks of 750 meters in mixed gauge (UIC + IBE)

**South Wharf Terminal Adaptation:**
6 tracks of 750 meters in mixed gauge (UIC + IBE)

TERCAT move to Muelle Prat

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Existing tracks in Iberian gauge

Existing tracks in mixed gauge (UIC + IBE)

Tracks with mixed gauge (UIC + IBE) for immediate implementation
Railway General Plan

Future capacity: 180 trains / day
30 million tonnes / year
(Equivalent to)
20,000 trucks / day
4 million truck trips per year

New railway access direct to port
(IB+UIC)

Can Tunis

Containers
Cars
Liquid bulk
Containers
Morrot
Bulk

Reception / Train Dispatch
Loading / Unloading
External Terminals
The railway network will triple (from 30 to 90 Km).

Three new intermodal terminals and two new reception and dispatch rail stations within the port area.

Decentralized model (creation of electrified ring).

Dual gauge network (UIC + IB)

Total investment: 377 M €
The Railway and Port Authority - formed by ADIF and BPA – will supervise and regulate the internal rail system.

Internal operation in the Port: Railway-Port Operator. Only?

Port Community collaboration to improve management and services.
Thank you