Chances and challenges from innovations and environmental issues from the point of view of Spanish ship operators

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Lübeck, 21 June 2018
Manuel Carlier

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• Member of the Plenary, European Sustainable Shipping Forum
• Assistant Professor of Shipping Economics and Shipping Law, Madrid Polytechnic University
Shortsea Promotion Center - Spain
www.shortsea.es

- **Established in 2002.**
  - 50% of budget covered by the Spanish Government through the public body of State Ports: “Puertos del Estado”.
  - No direct participation of Port Authorities.

- **Restructured in 2009.**
  - Public State ports becomes an ordinary single member.
  - Port Authorities allowed to participate directly.
SPC-Spain today: 28 members

- **PORTS**: State Ports Public Body + 11 Port Authorities
- **SHIPPING COMPANIES**: 3 Spanish, 6 Foreign + National Association (ANAVE)
- **NATIONAL ASSOCIATIONS** of Road Transport (CETM) and Freight Forwarders (FETEIA)
- **OTHER**: port operators, terminals, foundations,...
SPC Spain main services
Freely available in www.shortea.es

- **Observatory of SSS supply and demand in Spain.**
  - Biannual reports. Time series from 2009.
  - Last available report, second half 2017.

- **Multimodal transport chains Simulator.**
  - Comparison of SSS chains with pure road transport.
  - In terms of costs, transit time and CO₂ emissions.
Observatory of SSS supply and demand in Spain

SSS RO-RO CARGO DEMAND. 2009 – 2017 (Million tons)

Strong differences between Atlantic and Mediterranean facades:
• In absolute values
• In trends
Observatory of SSS supply and demand in Spain

• Share of SSS in total trade (road + ro-ro). Containers and car carriers not included: High shares in trades with Italy and UK
## SPC-Spain multimodal Transport Chains Simulator

Madrid - Lübeck via Bilbao - Antwerp

<table>
<thead>
<tr>
<th></th>
<th>Road</th>
<th>SSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance (km)</td>
<td>2,215</td>
<td><strong>2,447</strong> (11%)</td>
</tr>
<tr>
<td>Price (euro)</td>
<td>2,104</td>
<td><strong>1,660</strong> (-21%)</td>
</tr>
<tr>
<td>Transit time (hours)</td>
<td>70</td>
<td><strong>78</strong> (+10%)</td>
</tr>
<tr>
<td>CO₂ emissions</td>
<td>4,904</td>
<td><strong>2,596</strong> (-47%)</td>
</tr>
</tbody>
</table>
### SPC-Spain multimodal Transport Chains Simulator

**Madrid - Rome, via Barcelona - Civitavecchia**

<table>
<thead>
<tr>
<th></th>
<th><strong>Road</strong></th>
<th><strong>SSS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distance (km)</strong></td>
<td>1,952</td>
<td>1,516 (-22%)</td>
</tr>
<tr>
<td><strong>Price (euro)</strong></td>
<td>1,854</td>
<td>1,522 (-18%)</td>
</tr>
<tr>
<td><strong>Transit time (hours)</strong></td>
<td>65</td>
<td>33 (-50%)</td>
</tr>
<tr>
<td><strong>CO₂ emissions</strong></td>
<td>4,321</td>
<td>1,761 (-59%)</td>
</tr>
</tbody>
</table>

![Map showing the route from Madrid to Rome via Barcelona and Civitavecchia](Image)
SSS in Spain. Ro-ro services
Connecting 9 Spanish ports with 30 EU ports
SSS in Spain. Ro-ro services

Motorways of the Sea = 3 or more weekly calls

<table>
<thead>
<tr>
<th>ORIGIN / DESTINATION</th>
<th>COMPANY</th>
<th>SHIP</th>
<th>TRANSIT TIME</th>
<th>CALLS/WEEK</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARCELONA-PORTO TORRES-CIVITAVECCHIA</td>
<td>GRIMALDI</td>
<td>RO-PAX</td>
<td>12/20h</td>
<td>6</td>
</tr>
<tr>
<td>BILBAO-PORTSMOUTH</td>
<td>BRITTANY FERRIES</td>
<td>RO-PAX</td>
<td>22,5h</td>
<td>3</td>
</tr>
<tr>
<td>SANTANDER – PORTSMOUTH</td>
<td>BRITTANY FERRIES</td>
<td>RO-PAX</td>
<td>24h</td>
<td>3</td>
</tr>
<tr>
<td>MOTRIL-TANGER MED</td>
<td>FRS IBERIA</td>
<td>RO-RO</td>
<td>7h</td>
<td>7</td>
</tr>
<tr>
<td>VALENCIA-BARCELONA-LIVORNO-SAVONA</td>
<td>GRIMALDI</td>
<td>RO-RO</td>
<td>36/51-20/35h</td>
<td>6</td>
</tr>
<tr>
<td>VALENCIA-CAGLIARI-SALERNO</td>
<td>GRIMALDI</td>
<td>RO-RO</td>
<td>22/41h</td>
<td>3</td>
</tr>
<tr>
<td>VIGO-ST. NAZAIRE</td>
<td>FLOTA SUARDIAZ</td>
<td>RO-RO</td>
<td>35h</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Lineport. Valenciaport Foundation
Potential synergies in the West Med with north-African countries

• Quick industrial/economic growth of Morocco (+4.8%) and other north-African countries. Good opportunities por SSS.

• Possible synergies (triangles) with lines between Italy, France, Spain.

• Difficulties with customs regulations (“infected ships”).
Main regulatory challenges for SSS, short and medium term

- 0.5% sulphur outside ECAS: 2020
- Water Ballast Convention: Up to 2024
- CO₂ Emissions: Market Measures?
Main regulatory challenges for SSS, short and medium term

0.5% sulphur outside ECAS: 2020

Water Ballast Convention: Up to 2024

CO₂ Emissions: New Measures?
Opportunities?

Enhanced SSS environmental performance

Undisputed advantage vs road transport

Future CO$_2$ Regulations on road transport?
What SSS really needs: special treatment in IMO and EU environmental regulations

- A holistic approach to CO\(_2\) regulation
- Special “friendly” treatment for SSS trades & ships
- EU Support to SSS demand: Ecobonus?
Recent EU initiatives disappointing for SSS

- Legal uncertainty for open loop scrubbers (Water F. Directive)
- MRV Regulation, “per voyage” reporting
- Revision of Port Reception Facilities Directive
- EU Single Window proposal should include customs
Recent EU initiatives disappointing for SSS

- Legal uncertainty for open loop scrubbers (Water F. Directive)
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What SSS may deliver, in addition to sustainable transport: R&D platform for testing new technologies

- LNG bunkering: disseminating best practice
- Batteries, hybrid propulsion
- Future alternative fuels: Biofuels, Ammonia, H₂
- Digitalisation
- Autonomous ships?
What SSS may deliver, in addition to sustainable transport: R&D platform for testing new technologies
Thank you for your attention

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