Promoting Short Sea Shipping & Intermodality

A Knowledge Repository to support flexibility in port operations and improve modal shift

SHORT SEA CONFERENCE 2011 - BILBAO

Ioannis G. Koliousis
PROPS Project Manager

Bilbao, April 13th, 2011
Today’s Agenda

- Background Information
- PROPS Objectives
- Results and Tools Developed
- Next Steps
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A little background information: EU 14 SSS Promotional Actions (FP7)...

<table>
<thead>
<tr>
<th>Operational Actions</th>
<th>Technical Actions</th>
<th>Legislative Actions</th>
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<tbody>
<tr>
<td>One-stop administrative shops</td>
<td>Guide to customs procedures for SSS</td>
<td>Implementation of the IMO-FAL directive on ship reporting</td>
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<tr>
<td>Securing the role of SSS Focal Points</td>
<td>Identification &amp; elimination of obstacles to SSS</td>
<td>Implementation of the Marco Polo programme</td>
</tr>
<tr>
<td>Ensuring smooth functioning of SS Promotion Centres</td>
<td>Computerisation of Community Customs procedures</td>
<td>Standardisation of intermodal loading units</td>
</tr>
<tr>
<td>Promotion of SSS as a successful transport alternative</td>
<td>RTD measures</td>
<td>Motorways of the Sea</td>
</tr>
<tr>
<td>Collection of statistical information</td>
<td></td>
<td>Improving environmental performance of SSS</td>
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</table>

PROPS focuses on Short Sea Shipping promotion
...and the recent e-Maritime initiative which focuses in the elimination of (many) SSS obstacles and bottlenecks.

**Short term actions**

- Simplification of customs formalities
- Guidelines for speeding-up checks relating to animal and plant products
- Simplification and harmonisation of administrative formalities for vessels at EU ports

**Medium term actions**

- Vessels having a call in a third country
- Deployment of e-maritime systems
- Administrative single window
- Intermodal carriage of dangerous goods

**Applications**

- Administration
- Ship operation
- Port/terminal
- Transport logistics
- Improving life and sea and promoting seafaring

Ports are key nodes in the supply chains and as such, operational inefficiencies are more visible there than anywhere else in those chains!
The 2011 White paper puts forward a new Transport Vision, focusing more on infrastructural aspects

- **Infrastructure shapes mobility.** No major change in transport will be possible without the support of an adequate network and more intelligence in using it. Overall, transport infrastructure investments have a positive impact on economic growth, create wealth and jobs, and enhance trade, geographical accessibility and the mobility of people. It has to be planned in a way that maximises positive impact on economic growth and minimises negative impact on the environment.

- **Congestion is a major concern,** but will this offer the opportunity to non-road transportation to flourish?

- **Transport Drivers for the Next Program Period**
  - Screening to identify key innovative technologies,
  - Maximize existing resources,
  - Bring together all relevant actors within the transport system […]
  - Research agendas -> design new standards and build demonstration projects
  - Deployment of clean energy

*Source:* WHITE PAPER: Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system, 28.3.2011

Ports are “obliged” to lead or at least follow closely market trends, unless they plan to lose on competitiveness
EU already put forward innovation in transport operations

- Propose a core network consisting of **nodes** and **links** relying primarily on the efficient use of existing infrastructure via ITS/smart mobility solutions and aiming at bridging missing links, facilitating multimodality and creating links to third countries.

- Establish a firm long-term infrastructure plan for the completion of the core network together with EU Member States detailing the projects to be completed as well as the modalities.

- Support via EU and National financial tools the firms that introduce operational improvements.
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PROPS has five central objectives

1. Develop the PROPS European promotional campaign for SSS and intermodality
2. Develop tools to better locate SPCs (within regional, national, and European business networks)
3. Provide support mechanisms to the SPCs
4. Showcase to industrial and commercial stakeholders SSS added value
5. Innovative to the Short Sea Shipping sector networking approach
So what should we do and how should we promote Short Sea Shipping? Where do ports come in (and how???)

- We have to be **provocative** in order to make EU […] more appealing (Mr. Baroso, President European Commission)

- We can boost productivity only by having a **paradigmatic shift** (J. Shapiro, Harvard Business School and Jonathan Byrnes, Center for Transportation, MIT)

... *but* ...

- The average Supply Chain decision maker needs basic and reliable information fast (the quick and dirty part of our job!)

- Everyday tools that increase efficiency are important too

- Tools that enable “teasing” and “experimenting” might do the trick…

- …but in the mean time, policy restrictions (SECA, Clean Energy,…) , market trends (productivity boost, new container dimension standards, …) reduce the port business scope.

- We have to provide to the average logistics decision maker, all of the info needed!

Contrary to common belief, small changes are the ones that shape business practices, and this knowledge has to be effectively communicated
PROPS identified through a stakeholder survey some key requirements in the short sea shipping business

### Decision-Making
- Choice criteria of freight forwarders/logistics providers include:
  - **Cost**
  - **Reliability**
  - **Transit time**
  - **Safety**
  - **Service level**

- SSS is generally well perceived, but in multimodal set-ups, transhipments issues affect the perceived low reliability, long lead time and higher costs.

### Information Flow in SSS based transport chains
- Lack of cargo tracking & tracing
- Exchanges done via phone, fax, SMS, post service, radio and shipments newsletters;
- Technology is there but usually underused!
- Require to have more info at their desktop (...usually yesterday...)
- Lack of entry level information about supply chain nodes (especially port terminals, lines, etc.)

### Future challenges
- Cost advantage of SSS is at risk
- SSS could fulfill sustainable characteristics in a more credible manner
- Economic context favors bigger vessels
- Problems related to cargo consolidation
- Hinterland connections and infrastructures are not 100% developed
- Remove the burdensome image of SSS
- Wide spread adoption of eMar

Ports are affecting the bottom line. In an extended relationship modus, they can boost SSS service and gain higher market shares.
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PROPS developed a first-step to SSS @ http://www.props-sss.eu/propsknowledge/

Fully customizable Portal
PROPS Knowledge Portal offers a systemized set of SSS and Intermodal related information

Short Sea Shipping developments

SCS221
AUEB

European Short Sea Shipping has been defined as any carriage of goods and passengers between ports within the European Union, and between European Union and nearby countries.

European Geography is highly favourable to Short Sea Shipping, with more than 67,000 km of coastline and very few industrial centres being more than 400 km from the coast. Additionally there are approximately 25,000 km of navigable inland waterways.

Modal shift from road to sea has been a major objective of the EU as well as the USA freight transport policy, in the interest of reducing the load on the environment, freeing up road capacity and supporting sustainable development. Despite this, apart from very specific niches there has been less change in the market share of rail, inland waterways or short sea, than was expected in Europe. Until now, companies have shown to be reluctant to consider major changes in the way they run their transport processes.

Current policies and business strategies for modal shift has turned to the new concepts such as “co-modality” and “business networking” and opens up possibilities to study modal shift at a company, regional, national or continent level. Particularly in Europe key drivers to expand short sea shipping are:

- Improved integration of SSS in multi-modal, logistic transport chains
- Elimination of barriers to the efficient operation of short sea shipping
- Enabling pan-European policy actions

Developments with reference to the Commission’s 14 SSS Promotional Actions in the “Programme for the Promotion of Short Sea Shipping” COM (2003) 155, will be reviewed. Links and information will be provided pertaining to:

1. Actual new or enhanced SSS services
2. Developments of facilities for e-bookings of SSS services
The average stakeholder when building a service needs guidance information, as well as who did what, how and whether he made a profit.

The PROPS platform capitalizes on the realized benefits and/or the pitfalls from various EU supported projects as well as from independent contributors.

Currently (April 2\textsuperscript{nd}) the platform has been populated with as many as 150 different projects. This also serves as a marketing tool: the companies to promote their services for free to some 2,000 specialized email addresses.
PROPS serves as the one stop shop for SSS related info (i.e. a market ERP Dashboard on your desktop)

Bunker Index

Dry Index

Container Index

Liner Shipping Index

Port & Terminal Finder

Register your company @ www.props-sss.eu/register
PROPS has included a database of ports around Europe: Key figures from each port are included...

**Key Data Included**

- Port or Infrastructure Name
- Terminal name & Characteristics
- Terminal characteristics
- Total Size of Terminal (m²)
- Size of Warehouses (m²)
- Size of Open Places (m²)
- Size of Other Uses (m²)
- TEU Capacity
- Type of Cargo(s)
- Services Provided
- Max size (Capacity)
- Connections to
  - Road, Sea, Rail, IWW, Air
- Customs
- Fuel
- Repairs/Drydocks
- Equipment Details
- URL – Contact Details

It was with surprise that PROPS survey showed that many stakeholders were unaware of a nearby port that could serve their needs.
...and associated with the PROPS Decision Support System

Core Functions:
- D2D Unit Cost
- D2D Delivery Times
- Emissions per cargo unit

Primary Outputs:
- Route Comparisons
- Risk Assessments
- Scheduling of services

Secondary Outputs:
- Distributed Marketing
- Pricing & Discounting
- Stakeholder Benefits
PROPS Decision Support System: Sample Report

**Transplan-IT Report**

<table>
<thead>
<tr>
<th>Per Year</th>
<th>Rosslare/Cherbourg</th>
<th>Cherbourg/Rosslar</th>
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</thead>
<tbody>
<tr>
<td>Kg CO2</td>
<td>0.62</td>
<td>0.58</td>
</tr>
<tr>
<td>Tonnes SO2</td>
<td>0.24</td>
<td>0.34</td>
</tr>
<tr>
<td>Tonnes NOX</td>
<td>0.74</td>
<td>0.72</td>
</tr>
<tr>
<td>Tonnes PM</td>
<td>0.85</td>
<td>0.84</td>
</tr>
<tr>
<td>Port To Port Costs</td>
<td>3.56</td>
<td>3.74</td>
</tr>
<tr>
<td>Port To Port Time</td>
<td>8.96</td>
<td>7.54</td>
</tr>
</tbody>
</table>

- **Ship Service Speed:** 23.0
- **Ship Utilisation:** 45%
- **Trips Per Year:** 105/
- **Annual Cargo Flow:** 26,145 Trailers

**Charter Times**

- Red: Loading
- Orange: Tie Up
- Yellow: Estuary
- Green: Steaming
- Gray: Documentation

**Average Ship Emissions**

- CO2
- SO2
- NOX
- PM

Map data ©2010 Europa Technologies, Tele Atlas

University of Piraeus

Transportation Systems Laboratory
### Service Providers & Ports
- Automated pricing, discounting, bookings and support for ship pre-load planning;
- Delineation of hinterlands & forelands around trading ports for marketing purposes;
- **Optimal design and refinement of co-modal networks**;
- Quantification of benefits to co-modal network participants;
- Quantification of risks associated with changes in market circumstances

### Shippers
- Specification of indicative transport solutions, as part of their marketing investigations;
- Determination of benefits of co-modal solutions in terms of annual transport savings vis-à-vis conventional or alternative solutions;
- Intelligent articulation of their transport requirements to service providers;
- **Achieving optimal cooperation from service providers through the use of common computational references**;
- Having available emissions data for D2D transport solutions in their pursuit of ‘green’ trades and services

### Administrations
- Identification of trade gaps between prevailing trades and ‘normalised’ trades with neighbouring states;
- Identification of transport opportunities between regions or states;
- Determination of the value of new services and new trades – essential data for planning infrastructural developments;
- Provision of supports for preparation of transport strategies

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**What a decision maker really needs is fast, reliable and near accurate information about routes and or specific legs**
To this extent, SPCs support the decision makers and act as one stop shops in building SSS services.

<table>
<thead>
<tr>
<th>1. Encourage users and potential users to choose shortsea shipping and intermodality</th>
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<tbody>
<tr>
<td>- Providing information</td>
</tr>
<tr>
<td>- Distribution of promotional materials</td>
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<tr>
<td>- Communication with current users and potential ones</td>
</tr>
<tr>
<td>- Bringing stakeholders together incl. organisation of meetings and events seminars, conferences, etc.</td>
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<table>
<thead>
<tr>
<th>2. Promote knowledge and innovation / improvement within the sector</th>
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<tbody>
<tr>
<td>- Providing information</td>
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<tr>
<td>- Communication with operators</td>
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<tr>
<td>- Encouraging operators to develop new and existing shortsea and intermodal services</td>
</tr>
<tr>
<td>- Drafting market Reports and studies</td>
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<tr>
<td>- Organizing meetings and events</td>
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<thead>
<tr>
<th>3. Influence policy decisions affecting the sector</th>
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</thead>
<tbody>
<tr>
<td>- Providing information</td>
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<tr>
<td>- Lobbying, (at local, national, regional and EU level)</td>
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<tr>
<td>- Organizing meetings</td>
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<tr>
<th>4. Identification of bottlenecks and their solutions</th>
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<tr>
<td>- Communication with transport operators, users and authorities</td>
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<tr>
<td>- Identifying bottlenecks (research) and addressing them</td>
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<tr>
<td>- setting out proper solutions and involvement in consultative processes</td>
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<td>- (national and EU)</td>
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<tr>
<th>5. European Cooperation</th>
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<tr>
<td>- ESN meetings and events</td>
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<td>- Interdisciplinary Meetings (th „focal points“</td>
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<tr>
<td>- Communication with other European stakeholders to resolve national issues</td>
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SPCs cooperate with all stakeholders being more of an info repository, which can help port operators extend their market scoping.
Port Operators and Stakeholders can find info for financial tools from the PROPS platform

- Marco Polo – II
- TEN-T
- INTERREG
- FP7 (various themes)
- National Sources

The idea behind a successful proposal is the actual commercialization of a business idea
**PROPS Consortium: A Pan-European Perspective**

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<tr>
<th>Number</th>
<th>Organization</th>
<th>Country</th>
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<tbody>
<tr>
<td>1</td>
<td>University of Piraeus Research Centre</td>
<td>Greece</td>
</tr>
<tr>
<td>2</td>
<td>Nautical Enterprise Centre Ltd.</td>
<td>Ireland</td>
</tr>
<tr>
<td>3</td>
<td>University of Turku/Turun Yliopisto</td>
<td>Finland</td>
</tr>
<tr>
<td>4</td>
<td>London Metropolitan University (Global Policy Institute)</td>
<td>UK</td>
</tr>
<tr>
<td>5</td>
<td>International Business Group Ltd (Shortsea Promotion Centre Bulgaria)</td>
<td>Bulgaria</td>
</tr>
<tr>
<td>6</td>
<td>Port Authority of Gijon</td>
<td>Spain</td>
</tr>
<tr>
<td>7</td>
<td>INLECOM Systems</td>
<td>UK</td>
</tr>
<tr>
<td>8</td>
<td>NORSK MARINTEKNISK FORSKNINGSFORSKNINGSINSTITUTT AS</td>
<td>Norway</td>
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<td>9</td>
<td>Bell-Pottinger</td>
<td>UK</td>
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<td>Portugal</td>
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<td>12</td>
<td>K-NET S.A.</td>
<td>Greece</td>
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<td>Elsag Datamat S.p.A.</td>
<td>Italy</td>
</tr>
<tr>
<td>14</td>
<td>Senator fur Wirtschaft und Haefen, Bundesland Bremen</td>
<td>Germany</td>
</tr>
<tr>
<td>15</td>
<td>Compania Trasmediterranea S.A.</td>
<td>Spain</td>
</tr>
<tr>
<td>16</td>
<td>Irish Exporters Association</td>
<td>Ireland</td>
</tr>
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</table>
Questions? Comments? Suggestions?

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