PROJECT PRESENTATION AND DISCUSSION

MOS4MOS

Monitoring And Operation Services For Motorways Of The Sea

Project code: 2010-EU-21102-S

TEN-T Motorways of the Sea Call 2010

HELSINGØR, 19th April 2011
1. Conceptual Basis and objective
2. Strategic Planning Process
3. Current Status and SWOT
4. Mission, Vision and Values
5. Strategic Lines and Strategic Map
6. Initiatives
7. Formulation of initiatives
8. The electronic T2L initiative
9. Estimated added value of MOS4MOS
Maritime transport has been a main driver for socio-economic development and prosperity in Europe throughout history. Not only does maritime transport facilitate trade and communication between European countries and regions but its growth has become a pillar for the European environmental policy and therefore for sustainable future development.

Maritime transport is being shaped by e-customs, e-freight and e-maritime policies and initiatives that will make it become part of the digital economy and information society. These European initiatives are emerging in a context where there is still a need to search for new ways to reap the full benefits of information and communication technologies (ICT) to buttress competitive advantages of Europe and increase transport sustainability.

Professor Valente de Oliveira (2009), European Coordinator for MoS, stressed the need to support “actions perfectly connected to the market’s needs and to the stakeholders, in order to be able to play its expected role and help trigger development”.

One of the projects funded by the MoS TEN-T Call for Proposals 2010, managed by the TEN-T Executive Agency, is MOS4MOS “Monitoring and Operation Services for Motorways of the Sea”.

The Monitoring and Operation Services for the Motorways of the Sea (MOS4MOS) global project aims to provide a suitable array of measures in order for ports to become efficient gateways. The ultimate goal is to boost the ability of short sea shipping to compete on more door-to-door corridors and facilitate the development of TEN-T Motorways of the Sea network connecting the regions in the Mediterranean area and revitalizing peripheral regions.

The main objective of MOS4MOS Action is to design, prototype and demonstrate a set of initiatives that will improve the operational coordination of transport flows and facilitate collaboration between the various administrative services and operators at port level.

The MOS4MOS Action is a study which takes the form of a pilot action primarily aimed at preparing the different key stakeholder’s systems (ports and terminals, railways, rail freight stations, maritime carriers, short sea consolidation centres, etc.) to provide integrated and interoperable services for door-to-door MoS supply chains.

The pilot actions foreseen will be applied to existing and consolidated door-to-door routes in the Mediterranean region both for ro-ro and containerised freight, namely in the following corridors: Spain-Italy, Spain-Slovenia, Spain-Greece, Slovenia-Greece and Italy-Greece.
### WORKING PLAN

#### Activity / Sub-activity

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<th>M2</th>
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The Master Plan has followed a strategic planning approach.

A good strategy calls for applying efficiently available resources or taking advantage of existing favourable conditions to reach set objectives, this being the underlying objective of the Master Plan.
**Current Status**

**COM(2009) 8 final: Strategic goals and recommendations EU’s maritime transport policy until 2018:**

- It is expected that European economy will recover from current crisis by 2018.

- Maritime transport in the EU-27 is forecasted to grow from 3.8 billion tonnes in 2006 to some 5.3 billion tonnes in 2018.

- MOS4MOS will prepare the info-structures required in order for the ports, the links to the hinterland and the shipping industry to be able to cope efficiently with this expected growth.

- There are a number of underlying problems affecting efficiency, performance and quality of service related to maritime transport: *administrative procedures, manual processing, fragmentation, lack of interoperability and common standards, new security and safety requirements.*

- European shipping is dependent on providing quality services rather than competing just on cost. Any increase in efficiency must be based on improved cooperation between stakeholders. Improved cooperation is dependent on more efficient information management.

- The integration of logistics and transport services will boost Motorways of the Sea as part of an enhanced European transport system.
MOS4MOS SWOT Analysis

**S** - Strengths

- Mos4Mos is being developed as part of the Trans-European Transport Network (TEN-T)
- The content of the proposal provides a significant value for the transport community and society in general
- Strong motivation to find solutions for real problems affecting project partners and other stakeholders with similar interests

**W** - Weaknesses

- Partial or incompatible solutions for the same problems might be developed
- Concerning the project partners:
  - Lack of coordination might occur
  - Asymmetry in the information exchanges due to vested interests
  - Different levels of technological and organisational evolution in different ports
  - Public Authorities in the project are not empowered to change Customs regulations

**O** - Opportunities

- European policies promote MoS encouraging a shift in modal split
- Greater integration of logistics processes generating economies of scale and reduced costs
- Efficient port management results in benefits for society as a whole (quality and competitiveness)
- Environmental concerns promoting savings in resources
- Stronger commitment
- Mature technologies for electronic information transmission (quicker, more secure, cheaper)
- Harmonisation of regulatory procedures in all EU countries, resulting in standard criteria
- Growing need to develop best alternatives for transport corridors

**T** - Threats

- Future decreasing institutional support
- Introduction of political factors that prevent or distort the optimal development of MoS
- Port privatisation policies might result in an unstable environment
- Disparity in criteria applied in different Member States by Customs
- Emergence of solutions not achieving a good management of MoS
- Lack of harmonisation in existing technological initiatives and solutions
- Current economic crisis makes financial support difficult for European proposals
- Resistance to change the systems and procedures currently in use
MISSION:

Making MoS simpler, safer and more efficient developing true multimodal and environmentally friendly door-to-door solutions by improved use of information, knowledge creation, business facilitation and collaboration, cost reductions, simple regulation compliance and more interoperable solutions.

VISION:

Creating a collaborative environment and a network of coordinated entities that provide innovative monitoring and operation services in the public and private sector for MoS integrated in green door-to-door corridors, enabling them to increase their product and service capabilities and to extend their market reach.
The project seeks common, efficient, safe, secure, sustainable and environmentally friendly processes; based on simple, foreseeable and transparent regulations engendering innovative, reliable and interoperable systems that facilitate knowledge sharing.
MOS4MOS Strategic Lines

- Convert Ports into efficient Gateways
- Increase Short-Sea Capacities
- Foster Intermodal Transport Solutions
- Achieve green freight corridors
MOS4MOS Master Plan - Page 13

MOS4MOS Strategic Map and Objectives

**VISION:** Creating a collaborative environment and a network of coordinated entities that provide innovative monitoring and operation services in the public and private sector for Motorways of the Sea integrated in green door-to-door corridors, enabling them to increase their product and service capabilities and to extend their market reach.

<table>
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<tr>
<th>MOS4MOS Strategic Map and Objectives</th>
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<tr>
<td>Convert ports into efficient gateways</td>
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<td>Increase Short-Sea capacities</td>
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<tr>
<td>Foster intermodal transport solutions</td>
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<tr>
<td>Achieve green freight corridors</td>
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**Financial**
- Improve planning and management of the transport flows (F.1)
- Guarantee simple, sustainable and economical solutions through quality, efficiency and common systems and services (F.2)
- Foster environmental friendly transport making it safer and optimised (F.3)

**Customers**
- Improve electronic data interchange among stakeholders and their cooperation (C.1)
- Develop integration of ports with their hinterland (railway and road transport) (C.2)
- Facilitate relationships between actors along the supply chain fostering competitiveness (C.3)

**Processes**
- Boost the security of vessels through electronic documentary formalities (P.1)
- Manage security in ports in a more efficient and integral way (P.2)
- Adopt new simplified methods concerning Customs formalities (P.3)
- Standardise documentary procedures fostering paperless logistics (P.4)
- Propose traceability systems for freight transport (P.5)

**Resources**
- Encourage the use of key integrated platforms (PCS, SW) (R.1)
- Support intermodal solutions that strengthen and integrate MoS (R.2)
- Stimulate the dissemination of information among core businesses in freight transport (R.3)
- Promote training and communication among stakeholders (R.4)
MOS4MOS Initiatives and their relationships
### Areas of intervention of the initiatives

<table>
<thead>
<tr>
<th>Port Level</th>
<th>Port to Port</th>
<th>Port to Hinterland</th>
<th>Door to door</th>
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<tbody>
<tr>
<td>Electronic Ship Formalities</td>
<td>Electronic Intra-community Freight Formalities</td>
<td>Traceability for automotive logistics</td>
<td>Short Sea Consolidation e-services</td>
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<td>Port Community Collaborative Solutions</td>
<td>RFID Traceability of Ro-ro Units</td>
<td>Railway Transport Management System</td>
<td>Multimodal Paperless Workflows</td>
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<td>Intra-community Customs paperless controls</td>
<td>Port Traceability Initiative</td>
<td>Rail-port Interfaces</td>
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<td>Automated Gate System</td>
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<td>Rail e-ways</td>
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<td>Vessel Geo-referenced alerts</td>
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<td>Corridor Strategic Planning and Management</td>
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**MOS4MOS Master Plan - Page 15**
**Transport Logistics Applications**

- Co-operative transport networks and integration of short-sea-shipping into logistics, i.e. Short Sea Consolidation Centres
- Monitoring and control of service quality
- Managing the environmental footprint of waterborne transportation on key inter-modal corridors

**Ship Operation Applications**

- Improved automation in ship reporting formalities
- Better and proactive planning of operations
- Resource management optimisation

**Port / Terminal Operations Applications**

- Port Community Systems
- Automatic collection, management and reporting of quality statistics
- Resource management, optimised movements of equipment, containers, cargo and passengers
- Integrated port security management

**Administration Applications**

- Support for National Single Windows and one-stop shop developments
- Support for compliance with and enforcement of regulations
- Improved interoperable traceability systems for traffic, ship and cargo
- Integrated systems for monitoring, evaluating and managing situations
FROM INITIATIVES TO PROTOTYPES

- Process reengineering
- Introduction of new information systems
- Introduction of new technologies
- Adapting new technologies
- Adopting new organizational methods and concepts

Initiative

- Required measure to reach the goals and the strategic objectives
- Model of a system to be developed to prove a concept

Prototype

PARTNER

PARTNER

PARTNER
FROM PROTOTYPES TO PILOTS

- Initiative
  - Prototype
  - Prototype
  - Prototype
  - Prototype

PILOT

Demonstration to prove a project approach and a technical concept

• Factors and agreements that will drive the success of an initiative
• Evaluation of the impact of the services being piloted
• Testing of the prototypes in real environment
Required measures to reach the goals and the strategic objectives

The initiatives will compile all the different prototype proposals, actions, projects or activities to achieve the strategic objectives and goals.
Rationality:

This situation is hindering the further development of the Motorways of the Sea as European goods have more difficulties to be transported by sea than by road.

The electronic T2L case presented herein demonstrates a feasible solution for proving the Community status of goods using electronic data transmission systems instead of paper documents.

This customs electronic data transmission system will provide a secure single window environment using digital authentication and signature techniques for submitting data to carry out automatic checks and authenticate electronically the T2L declaration. The prototype will include the submission of scanned copies of original documents.

Non-community goods
Advanced Electronic Procedures
Advanced Risk Analysis Techniques
Paperless environment
Automatic checks

Community goods
T2L Paper Form Documents
Lack of control
Customs’ officers signatures and stamps
Manual checks
THE COMPLEXITY OF CUSTOMS CONTROLS

Source: Valenciaport Foundation
ELECTRONIC T2L. 5W2H METHODOLOGY

- WHY?
- WHAT?
- WHO?
- WHEN?
- WHERE?
- HOW?
- HOW MUCH?
• It is a solution that is demanded by maritime operators that manage maritime shipments of goods with Community status between European Ports

• The European Commission is interested in the promotion of the Motorways of the Sea (DG MOVE)

• Feasibility → TAXUD/1851/2007: “Notifications regarding T2L/T2LF documents authenticated by electronic means”
  – Notification submitted by the DG TAXUD to the Customs of the Member States
  – Experiences that have been developed by the Customs in Belgium and Estonia

• Immediate advantages for departure of goods with Community status at the port of origin through the Motorways of the Sea
  – Recognition by other Member States

• Advantages in the electronic verification of the T2L at the port of destination
  – Automatic accounting of discharged community goods and automatic and paperless release of these goods
  – Other Member States can adopt this initiative

• Possibilities to present this initiative in Brussels taking into account the support from the DG MOVE as well as to other European Customs

• It is a measure for the reduction of administrative burdens that affect citizens and companies that is approved by the Spanish Government
• Electronic declaration of the T2L at the point of origin
• Electronic endorsement of the T2L by the Customs at origin
• Identification of the T2L document (MRN and Control Validation Number)
• Control of the shipment of goods with Community status
  – Paperless release for Export: Traceability of Customs Declaration
  – Notifications to involved parties
  – Reference in the Departure Customs Cargo Manifest: T2L MRN or EXS MRN
• Security amendment:
  – Exit Summary Declaration: Transhipment of Community goods at a non Community port
  – Entry Summary Declaration: Community goods affected by a stopover at a non Community port
• Submission of the eT2L in order to prove the Community status
  – Summary Declaration for Temporary Storage (SDTS)
  – Electronic presentation and Accounting of the Community shipments included in the SDTS
• Verification of the T2L document by the Customs at destination through electronic means
  – Automated Web Service Verification
  – Manual Web Query
  – E-mail
Who?

- **Expeditor**
- **Carrier**
  - Maritime
  - Consolidator

Customs at Origin

- Electronic stamp
- PDF Document

Port Authority at Departure

- Other Operators

Customs at Destination

- T2L Verification Query

Remote printing of electronic T2L

- DUA Form Sheet Nº4
- MRN and Control Validation Nº

Presentation of T2L in the Customs at Destination:
- Electronically
- Physically

Original Documents and archive

- Commercial Invoice
- Transport Document
When?

Phase I
Prototype and pilot demonstration in MOS4MOS

Phase II
Establishment of the eT2L at National Level

Phase III
Communication with other Member States
How?

- Leads to the specifications of what should be made in each prototype development

Outbound Flows

- Declaring party
- Customs
- Port Authority

Inbound Flows

- Sea Carrier
- Customs
- Port Authority

Automatic Gate System
How much?

- Makes possible to know which resources will have to be used by each stakeholder in each phase.
The excellent results obtained, if anything, have been underestimated as:

- The expected positive results of initiatives 11 and 13 have not been available in time to be introduced in this report.
- The traffic on which the results are based is that of 2010 (a year in an economic period of crisis where traffic flows on average are 20% lower than in 2005-2007).
- Intra-Community traffic flows transported by sea have been assumed to grow only at 2% annually.
- No storage costs of all the documents processed in paper annually has been included in the analysis.
- The costs of fraudulent practices that may be occurring with the present procedures have not been incorporated.
The results presented above have been obtained assuming that the initiatives would be implemented only in those corridors or selected locations where they are going to be piloted and demonstrated in the MOS4MOS Action.

For instance, the e-T2L initiative has been assumed to only be implemented at the ports of Valencia, Barcelona and Salerno. However, with certain solutions (such as initiative 2. e-T2L and 4. Intra-Community Customs Paperless Controls), Customs would only implement these new procedures at national level. As the investment included in the calculations for Customs is that necessary to create a new system and put it in practice for the whole country, the results of the NPV of the project once the new procedure is compulsory for all ports would be much larger than the ones shown in this report.
THANK YOU FOR YOUR ATTENTION!