MOSES

MOtorways of the Sea European Style

Funding: European (6th RTD Framework Programme)
Duration: Jun 2007 - May 2010
Status: Complete with results
Total project cost: €14,079,958
EU contribution: €7,998,822

Call for proposal: FP6-2005-TREN-4
CORDIS RCN: 85688

Background & policy context:
Current trends show that freight transport is forecast to increase by 70% and up to 95% by 2020 in the EU-15 and in the new Member States, respectively. Understandably, increases of this magnitude cannot be served by the existing transport infrastructure, and particularly roads, so it is crucial to develop more flexible, alternative transport systems now in order to cope with the future demands for freight. Towards this, the Sea transport of freight appears to be an efficient alternative to Land transport: around the European coasts the sea is a largely underused resource for transporting goods as well as it provides short and quicker routes to Europe's most peripheral regions.

Based on these facts, the European Commission proposed the development of 'motorways of the sea' as a 'real competitive alternative to land transport'. The motorways of the sea concept aims at introducing new intermodal maritime-based logistics chains in Europe that should bring about a structural change in Europe's transport organization for the years to come. These chains will be more sustainable and should be commercially more efficient than road-only based transport.

The central idea is to focus efforts towards full use of not only the maritime transport resources but also of the rail and inland waterways as part of an integrated transport chain: the motorways of the sea have intermodality at its heart.

It is necessary to foster integrated intermodal options, based on short sea shipping, providing frequent, door-to-door, high quality alternatives to road transport. The goal is to develop a network of motorways of the seas between different European regions, each linked to rail lines and inland waterways. By nature, the motorways of the sea should be part of the Trans-European Transport Network (TEN-T). For this, the EU is now supporting the development of motorways of the sea in four key corridors around our coast: Baltic Sea, Western Europe, South-western Europe, and South-eastern Europe.

Objectives:

MOSES' main goal is to develop a blueprint establishing the detailed criteria and conditions for developing an innovative European network of Motorways of the Sea (MoS) as part of the Trans-European Transport Network (TEN-T).

The MOSES four specific objectives are:

- to develop all the research actions necessary for underpinning a marketing strategy to make available MoS the obvious mode for freight transport by user and key decision makers;
- to produce a comprehensive and validated methodology for developing quality MoS services with seamless junctions at modal transfer nodes through integration of technology with organisational, economic and regulatory aspects;
- to assess the impacts of the MOSES innovations and resulting policy recommendations, and of their deployment at European Union-side scale and to develop tools to assess and certify MoS services;
to produce a blueprint for designing and implementing at European Union scale efficient, safe and secure Motorways of the Sea that achieve a massive modal shift from road freight transport, verified and validated through business case demonstrators.

The results and recommendations of the MOSES project are expected to contribute to the achievement of the following aspects of the European intermodal transport network:

- increase the interregional cargo volumes carried by sea by means of specific recommendations;
- address the operational deficiencies of current intra-European LoLo services;
- design RoRo services that will unlock the values that are contained within appropriate combinations of ships, terminals, and infrastructures;
- disaggregate the unnecessary separation of LoLo and RoRo at port terminals;
- incorporate inter-continental LoLo services into European Motorways of the Sea;
- ensure that Motorways of the Sea will be adequately supported by ICT structures and capabilities;
- develop the conditions that are required to establish efficient and sustainable regional hinterland transfers of goods from sea to landside goods destinations;
- set up a marketing strategy for intermodal and sea transport integration into the European sea motorway network(s);
- examine the pricing and financing considerations that will enable public and private institutions to provide the necessary support for market based solutions to the provision of European the sea motorway network(s);
- deliver recommendations on the establi

**Methodology:**

The MOSES has been designed so that the derivation of both the policy recommendations for the Commission and the industrial results for the companies and consultants are taken into account when developing the Work Packages and their integration in and across the Sub-projects, including the testing and validation of the developed concepts.

The project is divided into the following 4 groups of activities:

1. concept development and design;
2. business actions, testing, and demonstration;
3. validation of conceptual design and policy integration;
4. dissemination, community building, and training.

Concept development and design: This group of activities aims at producing a conceptual and innovative design for MoS. This includes all relevant aspects involved to devise mechanisms for removing the economic, organizational, psychological, regulatory, and technological barriers for establishing the European MoS network as a realistic and feasible commercial structure within the TEN-T.

Business actions, testing, and demonstration: This group of activities includes the demonstration activities of the MOSES project. The concepts developed in the first group of activities are tested for their practicability. The demonstration activities cover four thematic approaches:

- shipping lines' development of MoS;
- deep sea, feedering, and hinterland regional business case;
- shipping lines and lead logistics providers case;
- port utilization of ICT for MoS marketing.

Validation of conceptual design and policy integration: This group of activities is responsible, inter alia, for the impact analysis of MoS concepts and their deployment as well as for all project validation activities. It thus provides validation of both the theoretical conceptualization carried out in first group of activities and the practical testing of the concepts carried out in the second group of activities. This group of activities is also responsible for examining the policy implications and requirements to support

the commercial implementation of the MoS networks (including the regulatory and standardization and interoperability issues and requirements), and their assessment.

Dissemination, community building and training: This group of activities provides the dissemination mechanisms for the MOSES project results and findings, as well as enable the efficient management of the internal communications. Moreover, it is responsible of

**Parent Programmes:**
**FP6-SUSTDEV-2 - Sustainable Surface Transport**

**Institute type:** Public institution
**Institute name:** European Commission
**Funding type:** Public (EU)

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Norwegian Marine Technology Research Institute

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**Key Results:**
The project was discontinued.
STRIA Roadmaps: Network and traffic management systems
             Water transport (sea &
Transport mode: inland)
Transport sectors: Freight transport
Transport policies: Societal/Economic issues
Geo-spatial type: Network corridors