Motorways of the Sea 2
1. Background
2. Evolution 2001-2011
3. MOS Programmes
4. MOS Projects
5. MOS & CNC
6. Prospective 2020+
1.1 European Transport Policy

Transport is one of the first Common Policies within the EC, regulated by Title VI, Articles 90 to 100 of European Founding Treaty (Rome 1957)

The Nice summit gave the order to European Commission to start a common transport policy. In 1992 it was launched through the 1st European Transport White Paper.

To understand how is developed the Transport Policy in Europe we need to focus from 4 related perspectives :

1. Policies
2. Services
3. Infrastructures
4. Financing
### 1.2 European Transport Policy 1992 - 2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
<th>Type</th>
</tr>
</thead>
</table>
Ref: COM (1992) 494

Slogan: To define the future path of European transport policy

Main objective: Opening the transport market, except for rail sector.

Instruments:
- 8 Proposals
- To improve modes integration and cooperation
- To define the limits of a sustainable and environmental transport model
- To alleviate congestion in roads and urban areas
- To compensate the over price in transport external costs
- Pilot Action for Combined Transport programme. The PACT programme launched 167 projects between 1992 and 2000
- To develop Multimodal transport and Short Sea Shipping (SSS)
Ref : COM (2001) 370

Slogan: 'European transport policy for 2010: time to decide'

Main Objective:
Rebalancing transport modes to fight capacity constraints

Instruments:
• 60 proposals
• To improve transport modes balance to assure the mobility in an enlarged Europe
• To fight against congestion and negative environmental effects
• To improve quality and safety in transport to the citizens
• Support on MARCO POLO Programmes:
  • MP-1 2002-2006, MP-2: 2007-2013
• To develop Intermodal transport and Motorway of the Sea (MOS)
Page 41
Linking up the modes of transport

The proposal is to launch a large-scale programme (Marco Polo) to support intermodal initiatives and alternatives to road transport in the early stages until they become commercially viable. Intermodality will also require rapid introduction of a series of technical measures, particularly on containers, loading units and the profession of freight integrator.

Page 42
A. Linking up sea, IWW and rail
1. Developing “Motorways of the Sea”

Certain shipping links, particularly those providing a way around the bottlenecks in the Alps and Pyrenees, should be made part of the trans-European network, just like motorways or railways. It combines the capacity of maritime transport with the flexibility of road, a type of “motorways of the sea”.
1.6 Grimaldi MOS pioneer and precursor service

For container traffic, a year ago (2000) an Italian company (Grimaldi) launched a direct fast ferry service to carry whole lorries (trailer plus traction unit) from Genoa to Barcelona in 12 hours. This new service offering speed and punctuality has been a marked success, allowing haulage companies to avoid some of the busiest motorways in Europe at a competitive cost. This example could be followed for other destinations. It combines the capacity of maritime transport with the flexibility of road.

A recent study by Grimaldi (2000) for the European Climate Change Programme, Working Group Transport, Topic Group 3, entitled “Reducing CO2 emissions in Europe through a door-to-door service based on short-sea shipping” demonstrated that on any given link the intermodal option based on short-sea shipping produced 2.5 times less pollution, in the form of CO2 emissions, than the road option.
Ref : COM (2011) 144

Slogan :
Roadmap to a Single European Transport Area

Key Objective :
Towards a competitive and resource efficient transport system

Instruments :
• 40 Proposals
• Key aim is Transport decarbonisation
• To improve performance in energy efficiency of vehicles in each transport mode
• To optimize performance of multimodal logistic chains
• To use more efficiently the transport infrastructure through better management traffic systems
• To implement multimodal transport and corridors
1.8 Transport White Paper 2011 - 2020

<table>
<thead>
<tr>
<th>1- Efficient and integrated mobility system</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Single European transport area</td>
</tr>
<tr>
<td>1.2 Promoting quality jobs and working conditions</td>
</tr>
<tr>
<td>1.3 Secure transport</td>
</tr>
<tr>
<td>1.4 Actions on transport safety</td>
</tr>
<tr>
<td>1.5 Service quality and reliability</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2 - Innovating for the future</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 European transport R&amp;I policy</td>
</tr>
<tr>
<td>2.2 Promoting more sustainable behaviour</td>
</tr>
<tr>
<td>2.3 Integrated urban mobility</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3- Modern infrastructure and smart funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Transport infrastructure : cohesion and growth</td>
</tr>
<tr>
<td>3.2 Coherent funding framework</td>
</tr>
<tr>
<td>3.3 Getting prices right and avoiding distortions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4- External Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Transport in the world</td>
</tr>
</tbody>
</table>
1.9 Short Sea Shipping and Motorways of the Sea

**Short Sea Shipping 1992 – 2001**
During this first phase, SSS was defined as a Maritime transport Service connecting Port-to-Port, without a coordination with the land transport services towards the Ports, creating congestion in many cases. In 1997 Netherlands launched the 1st SSS promotion center.

**Motorways of the Sea 2001 – 2010**
MOS was defined as an Intermodal transport Service connecting Door-to-Door markets in the port’s hinterlands, with a coordination between the rail and road land services and the Maritime link, which could be new or based on “old” SSS service.

**Short Sea Shipping 2001-2010**
SSS redefined itself as a new Intermodal transport Service connecting Door-to-Door markets in the port’s hinterlands, same as MOS, so many times both services are confused with each other. In 2003 the EC published a programme to support SSS. In 2000 was launched the ESN, European promotion center for SSS.
Although it is part of the traditional wealth of maritime language, the concept of SSS has taken on a new meaning in recent years: as well as being a type of non-ocean maritime transport, it is understood to be a link in the intermodal transport chain with the basic purpose of capturing a share of land cargo transport in order to relieve the pressure on the road transport system.

MOS is a notion that has arisen out of the European Union’s transport policy (White Paper on Transport Policy, 2001). These are considered to be part of the Trans-European Network, (TEN-T) and are conceived as being part of door-to-door logistics chains, offering solvent, regular, efficient and highly frequent services that can compete with the road
1.11 Transport Chain and Logistic Chain

Supply Chain

Logistics Chain 1

Extraction → Processing → Fabrication → Assembly

Transport Chain 1

Extraction → Rail → Port → Maritime → Port → Road → Processing

Transport Focus

Product Focus

Assembly

Distribution

Retailing

SSS
# 1.12 Intermodal and Multimodal Transport services

<table>
<thead>
<tr>
<th>TEN-T 15</th>
<th>Priority Projects</th>
<th>TEN-T 25</th>
<th>CORE Network</th>
<th>TEN-T 27</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multimodal</td>
<td>Intermodal</td>
<td>Comodal</td>
<td>Optimodal</td>
<td>Multimodal</td>
</tr>
<tr>
<td>SSS</td>
<td>MOS</td>
<td>Door-to-Door</td>
<td>Green Corridor</td>
<td>Multimodal Corridor</td>
</tr>
</tbody>
</table>

| | Combination of 2 or more transport modes for freight. Also called “Combined Transport” |
| Multimodal (1992) | |
| Intermodal (2001) | Transportation of freight in an intermodal container or vehicle, using multiple modes of transport. |
| Comodal (2008) | Efficient use of different transport modes, to obtain a sustainable and optimum resources allocation |
| Multimodal (2011) | Transport operation for both freight and passengers carried out using different modes of transport |
| Synchronodal (2012) | Multimodal transport based on ICT applications: Internet, GPS, Single Windows, e-maritime, ... to optimize transport services |
1. Background
2. Evolution 2001-2011
3. MOS Programmes
4. MOS Projects
5. MOS & CNC
6. Prospective 2020+
2.1 Short Sea Shipping (1992)

**EU Regulatory definition (1992)**
SSS is a waterborne transport service for both cargo and passengers, between Ports located at EU, or with Ports of non-EU neighbour countries sharing same seas.

**Commercial definition (1992)**
SSS is a maritime transport service for cargo, between European Ports or with Ports with coastline in the seas around Europe. This concept includes national and international traffic from and to Europe, but not the oceanic Deep Sea Shipping.

**Extended definition (2001)**
SSS is an intermodal transport service for both cargo and passengers between Regions located at EU, or with Regions of non-EU neighbour countries.
### 2.2 Short Sea Shipping

#### SSS cargo in EU 2014

<table>
<thead>
<tr>
<th>Cargo</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Vegetables</td>
<td>35.9</td>
</tr>
<tr>
<td>2 Metals</td>
<td>21.8</td>
</tr>
<tr>
<td>3 Chemicals</td>
<td>13.6</td>
</tr>
<tr>
<td>4 Minerals</td>
<td>8.6</td>
</tr>
<tr>
<td>5 Plastics</td>
<td>7.4</td>
</tr>
<tr>
<td>6 Paper</td>
<td>3.4</td>
</tr>
<tr>
<td>7 Electrical machinery</td>
<td>3.0</td>
</tr>
<tr>
<td>8 Industrial foods</td>
<td>1.8</td>
</tr>
<tr>
<td>9 Transport machinery</td>
<td>0.3</td>
</tr>
<tr>
<td>0 Others</td>
<td>4.2</td>
</tr>
</tbody>
</table>

#### Short Sea Shipping by Sea Region

- Atlantic Ocean: 19.5%
- North Sea: 32.4%
- Mediterranean Sea: 27%
- Black Sea: 6%
- Baltic Sea: 20%

#### EU Goods Transport > 500km Road vs Combined Rail / Road

<table>
<thead>
<tr>
<th>Year</th>
<th>Road</th>
<th>Combined Rail / Road</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>378</td>
<td>68</td>
</tr>
<tr>
<td>2010</td>
<td>522</td>
<td>136</td>
</tr>
</tbody>
</table>

Source: Eurostat / IRU
2.3 Motorway of the Sea 2001: Transport & Logistic

The 2nd European Transport White Paper 2001 to 2010 introduced the concept of Motorway of the Sea (MOS - Motorway of the Sea), in a first moment, to reinforce the SSS.

DG-Transport delivered a definition based on transport and logistic concepts: MOS will be existing or new services based on maritime transport but integrated into logistics chains offering door to door transport services and concentrating cargo flows on the SSS link.

In 2004 a technical working group headed by Karel Van Miert ex-Director of Mobility and Environment, delivered a map of the future Motorways of the Sea Network, defining 4 MOS regions, which is the main reference for actual MOS development, as part of the future TEN-T: Trans European Transport Network

- Baltic
- Atlantic
- West Med
- East Med
2.4 Motorway of the Sea 2004: Regional Development

The ERDF – European Regional Development Fund 2000 – 2006 started to receive proposal related to both SSS and MOS as well as SSS very early through the different INTERREG programmes. Projects as:

- **SSS-AA**: Interreg IIIB – Atlantic Arc 2002-2005  
  Short Sea Shipping in the Atlantic Arc
- **PLACA-4S**: Interreg IIIB – Sudoe 2003-2006  
  Sustainable Short Sea Shipping
- **ATMOS**: Interreg IIIB Atlantic Arc 2004-2006  
  Atlantic Arc Motorways of the Sea
- **Port-Net**: Interreg IIIC – Baltic 2005 - 2007  
  Cooperation of Ports and Multimodal Transport
- **PROPOSSE**: Interreg IV C Atlantic Area 2007-2009  
  Cooperation of Ports and SMEs through SSS

INTERREG introduced Motorways of the Sea in their Programmes, with an own definition to receive the requested funding:

MOS, a transport tool aimed to boost regional economy, with positive impacts on social, environmental and territorial developments.
Until 2004, the European Commission connected Transport to Environment in a single General Directorate. From 2005 it changed to Transport and Environment, so they also wanted to contribute with a new approach to MOS, from an environmental perspective.

DG Environment also took a control position on Transport projects asking for EU funding, imposing an EIA – Environmental Impact Assessment – to each transport project, before to be approved or rejected.

Hence, MOS projects started to include new concepts like Green transport corridor, low CO2 emissions, Optimodal transport, biofuels, sustainable design and operation.

The latest contribution was the Directive 2014/94 Clean Power for Transport, which will ban actual coal and diesel engines in transport services in Europe.
2.6 From Maritime to Multimodal services

<table>
<thead>
<tr>
<th>IWW</th>
<th>ROAD</th>
<th>RAIL Liner</th>
<th>RAIL</th>
<th>ROAD</th>
<th>IWW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/month</td>
<td>Port</td>
<td></td>
<td></td>
<td>Port</td>
<td></td>
</tr>
<tr>
<td>1/week</td>
<td>Port</td>
<td></td>
<td></td>
<td>Door</td>
<td></td>
</tr>
<tr>
<td>1/day</td>
<td>Door</td>
<td></td>
<td></td>
<td>Hinterland</td>
<td></td>
</tr>
<tr>
<td>24/365</td>
<td>Hinterland</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Liner: From Port to Port
SSS: From Port to Door
MOS: From Door to Hinterland
MC: 24/365 from Hinterland to Port

From Maritime to Multimodal services

2.6 From Maritime to Multimodal services

<table>
<thead>
<tr>
<th>IWW</th>
<th>ROAD</th>
<th>RAIL Liner</th>
<th>RAIL</th>
<th>ROAD</th>
<th>IWW</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>1/month</td>
<td>Port</td>
<td></td>
<td></td>
<td>Port</td>
<td></td>
</tr>
<tr>
<td>1/week</td>
<td>Port</td>
<td></td>
<td></td>
<td>Door</td>
<td></td>
</tr>
<tr>
<td>1/day</td>
<td>Door</td>
<td></td>
<td></td>
<td>Hinterland</td>
<td></td>
</tr>
<tr>
<td>24/365</td>
<td>Hinterland</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Liner: From Port to Port
SSS: From Port to Door
MOS: From Door to Hinterland
MC: 24/365 from Hinterland to Port

From Maritime to Multimodal services
2.7 Overall scenario in Europe: SSS as part of the transport network

- Port (P)
- Capital City (C)
- Logistic zone (L)

SSS - Short Sea Shipping (P1-P2)

MOS - Motorway of the Sea (C1-C2)

MC - Multimodal Corridor: hinterland - foreland
2.8 SSS and MOS in Europe
Motorways of the sea represent the maritime dimension of the trans-European transport network. They shall consist of short-sea routes, ports, associated maritime infrastructure and equipment, and facilities enabling short-sea shipping [...], including hinterland connections,

Projects of common interest for motorways of the sea in the trans-European transport network shall be the maritime component of a core network corridor, constitute the maritime component between two core network corridors or constitute a maritime link and its hinterland connections within the core network between two or more core network ports

Projects of common interest for motorways of the sea in the trans-European transport network may also include activities that have wider benefits and are not linked to specific ports, such as [...] ICT platforms and information systems, including traffic management and electronic reporting systems.
2.10 Core and Comprehensive networks planned for 2030 - 2050

<table>
<thead>
<tr>
<th></th>
<th>Core</th>
<th>Compr</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cities</td>
<td>89</td>
<td>0</td>
<td>89</td>
</tr>
<tr>
<td>2. Airports</td>
<td>93</td>
<td>255</td>
<td>348</td>
</tr>
<tr>
<td>3. Seaports</td>
<td>103</td>
<td>226</td>
<td>329</td>
</tr>
<tr>
<td>4. Inland ports</td>
<td>81</td>
<td>161</td>
<td>242</td>
</tr>
<tr>
<td>5. RR Terminals</td>
<td>114</td>
<td>98</td>
<td>212</td>
</tr>
<tr>
<td>6. Border cross</td>
<td>47</td>
<td>0</td>
<td>47</td>
</tr>
<tr>
<td><strong>total</strong></td>
<td>527</td>
<td>740</td>
<td>1267</td>
</tr>
</tbody>
</table>

- The core network 9 corridors

<table>
<thead>
<tr>
<th>Year</th>
<th>TENT Plan 2014-2020</th>
<th>CORE Network</th>
<th>Comprehensive Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
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<td></td>
<td></td>
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<td>2020</td>
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<td>2025</td>
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<td>2030</td>
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<td>2035</td>
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<td>2040</td>
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<td>2045</td>
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<tr>
<td>2050</td>
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<td></td>
</tr>
<tr>
<td>2055</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.11 Core Network Corridors and Motorways of the Sea network
2.12 Core Network, Motorways of the Sea and Pan-European Axis
1. Background
2. Evolution 2001-2011
3. MOS Programmes
4. MOS Projects
5. MOS & CNC
6. Prospective 2020+
3.1 Programmes supporting MOS

<table>
<thead>
<tr>
<th>R&amp;D</th>
<th>Implementation</th>
<th>Innovation</th>
<th>Support</th>
<th>State Aids</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>INTERREG V 2014-2020</td>
<td></td>
<td></td>
<td>CEF-T 2014-2020</td>
</tr>
</tbody>
</table>

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R&D Implementation Innovation Support State Aids
## 3.2 Programmes supporting MOS: projects examples

<table>
<thead>
<tr>
<th>R&amp;D</th>
<th>Implementation</th>
<th>Innovation</th>
<th>Support</th>
<th>State Aids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research and development</td>
<td>Market Studies</td>
<td>New MOS services</td>
<td>Studies, Pilots Works</td>
<td>open</td>
</tr>
<tr>
<td>MOSES</td>
<td>ATMOS</td>
<td>ON THE MOS</td>
<td>WEST MOS</td>
<td>GLD A</td>
</tr>
<tr>
<td>Motorways of the Sea European Style</td>
<td>Atlantic Arc Motorway of the Seas</td>
<td>Promoting the use of LNG in MOS services</td>
<td>Western Europe Motorway of the Seas</td>
<td>MOS Gijon Montoir</td>
</tr>
</tbody>
</table>
3.3 Programmes supporting MOS: different objectives

<table>
<thead>
<tr>
<th>MARCO POLO II</th>
<th>TEN-T</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Transport services</td>
<td>• Infrastructure</td>
</tr>
<tr>
<td>• Ancillary infrastructure</td>
<td>• Strategic infrastructure</td>
</tr>
<tr>
<td>• Modal shift objective</td>
<td>• Creation of transport network</td>
</tr>
<tr>
<td>• Private sector driven</td>
<td>• Public sector driven</td>
</tr>
<tr>
<td>• Bottom-up (undertakings)</td>
<td>• Top-down (Member States)</td>
</tr>
<tr>
<td>• Short-term</td>
<td>• Long-term</td>
</tr>
</tbody>
</table>

*Marco Polo programme 2007-2013*
3.4 Marco Polo II 2007-2013: type of projects

Budgets:
- Marco Polo I 2002 – 2006 / € 102 MM / 5 yr
- Marco Polo II 2007 – 2013 / € 450 MM / 5 yr

1. Modal Shift Actions
2. Catalyst Actions
3. Common Learning Actions
4. Motorways of the Sea Actions
5. Traffic Avoidance Actions

Funding conditions for MOS actions:
- subsidy rate up to 35%
- maximum subsidy of 1 € per 500 tkm shifted
- minimum subsidy threshold 2.5 M€
  > at least 1.25 billion tkm to be shifted
- duration up to 60 months
The Connecting Europe Facility (CEF) for Transport is the funding instrument to realize European transport infrastructure policy. It aims at supporting investments in building new transport infrastructure in Europe or rehabilitating and upgrading the existing one. TEN-T policy objectives foresee:

- completion by 2030 of the Core Network, structured around 9 multimodal Core Network Corridors.
- completion by 2050 of the Comprehensive Network in order to facilitate accessibility to all European regions

CEF Transport focuses on cross-border projects and projects aiming at removing bottlenecks or bridging missing links in various sections of the Core Network and on the Comprehensive Network (link), as well as for horizontal priorities such as traffic management systems.

: SESAR, VTMIS, RIS, ATM,..

CEF Transport also supports innovation in the transport system in order to improve the use of infrastructure, reduce the environmental impact of transport, enhance energy efficiency and increase safety.

The total budget for CEF Transport is €24.05 billion for the period 2014-2020. INEA is responsible for implementing €22.4 of the CEF Transport budget in the forms of grants during the same period.
CEF Transport Projects
The Connecting Europe Facility (CEF) instrument contributes to the realization of the Trans-European Transport Network (TEN-T) by financing key projects to upgrade infrastructure and remove existing bottlenecks whilst also promoting sustainable and innovative mobility solutions. TEN-T projects, which are located in every EU Member State, include all modes of transport:

- road
- rail
- maritime
- inland waterways
- air
- logistics
- co-modality
- innovation

9 Core Network Corridors, as well as specific horizontal priorities, have also been established to concentrate on pan-European integration and development. You can navigate this section and see projects displayed in the following sections:
Motorways of the Sea (MOS), a horizontal priority of the Connecting Europe Facility (CEF), aims to promote green, viable, attractive and efficient sea-based transport links integrated in the entire transport chain. Their implementation should help to rebalance the EU transport system.

The MOS concept builds on the EU’s goal of achieving a clean, safe and efficient transport system by transforming shipping into a genuine alternative to overcrowded land transport. MOS aims at introducing new inter-modal maritime-based logistics chains to bring about a structural change to transport organization: door-to-door integrated transport chains. MOS will:

• help implement the policy initiatives on the European maritime space without barriers and the maritime transport strategy for 2018
• will positively contribute to greenhouse gas (CO2) reductions which is of paramount importance in the context of climate change.
The Trans-European Network of Motorways of the Sea (TEN-MOS) is intended to concentrate flows of freight on sea-based logistical routes in such a way as to improve existing maritime links or to establish new viable, regular and frequent maritime links for the transport of goods between Member States, in order to reduce road congestion and/or improve access to peripheral and island regions and States.

CEF funding supports the following MOS-related actions focusing either on establishing maritime-based MOS links or elaborating wider benefit actions:

- Implementation projects (works projects)
- Studies taking the form of pilot actions
- Studies
The project proponents may apply for up to 30% co-financing. The following two types of actions are given priority in the selection process:

- Maritime link based projects
- Projects of wider benefit

The objective of maritime link based projects is to establish or improve MOS services along main freight transport corridors, based on new maritime links or improvement of existing ones. The projects should involve:

- at least two EU ports (two core ones or one core and one comprehensive) from two different Member States
- one maritime operator
- ideally hinterland transport operators.
• high water protection devices (e.g. dikes, breakwaters, locks)
• lights, buoys, beacons; ramps, jetties, signposting
• infrastructure and facilities up to the terminal site (e.g. for temporary storage of loading units, facilities for drivers, facilities for shore side electricity, waste treatment facilities, terminal handling equipment)
• intermodal terminals in ports and hinterland
• land and sea access to port, including dredging for the purpose of MOS, rail, inland navigation and road connecting links to the TEN-T or national land transport networks, connections to intermodal centers
• electronic logistics management systems
• administration and customs facilities (e.g. VTMIS, reporting and information exchange systems, administrative simplification)
• safety and security measures
• waterways and canals to shorten sea routes
• ways of ensuring year-round navigability, such as facilities for dredging or icebreaking
3.11 CEF-Transport 2014-2020 : MOS Study projects

Up to 50% co-financing for studies of wider benefits carried out at a regional or European scale or study parts of infrastructure projects could be eligible. MOS studies should contribute to promotion and development of the concept at a regional or European level. They may also contribute to further policy development in the field. Preference will be given to mature studies, leading to concrete results such as:

- technical design of infrastructure,
- human element aspects in maritime transport,
- preparation of ICT applications,
- better security measures etc.

Feasibility studies, R&D or market studies are **NOT** eligible for funding under CEF-T.
These actions are co-financed at a rate up to 50% of the eligible costs. The objective of these projects is to introduce new and innovative concepts and technologies (no R&D though) in the pre-implementation phase and test them in real operational conditions. They can address a wide spectrum of needs in maritime sector, notably:

- alternative fuels and emission abatement technologies
- actions aiming at reducing the administrative burden by setting up single windows for MOS services, cargo tracking and tracing systems within the entire MOS chain,
- validation of the operational benefits of new ro-ro ship prototypes or of innovative, environmentally friendly ship propulsions/engines for MOS services,
- innovative logistics concepts accelerating intermodal operations in terminals.

The pilot actions should have notions of innovation in the sectors and/or be related to market uptake exercises. A Pilot is NOT a Work......
1. Background
2. Evolution 2001-2011
3. MOS Programmes
4. MOS Projects
5. MOS & CNC
6. Prospective 2020+
More than 30 TEN-T MOS projects have been already implemented between 2007 – 2013, representing a total investment of over €1.000 MM. They demonstrate that the MOS framework constitutes a strong platform for the implementation of technical concepts aimed at improving the quality of maritime operations and their integration in the global transport chain.

The promotion of MOS has further boosted the development of many small actions that have improved port infrastructure, information systems and the efficiency of maritime operations, as well as the development of better infrastructure connections between ports. MOS has been the precursor for identifying and promoting innovative issues with practical solutions, e.g. intelligent infrastructure and LNG technologies.
4.2 MOS projects: West Med Corridors 2006

**Member States involved:**
Italy, Spain, France, Malta

**Implementation schedule**
*Start date:* October 2006  
*End date:* December 2010

**Implementing bodies:**
Rete Autostrade Mediterranee, Puertos del Estado, Ministère de l'Écologie, de l'Energie, du Développement durable et de l'Aménagement du territoire; Malta Maritime Authority

**Budget:**
*Total project cost covered by this Decision:* €1,682,238.42  
*EU contribution:* €800,877.96

Source: TEN-T Executive Agency
4.3 MOS projects: MOS Esbjerg – Zeebrugge 2008

**TEN-T Multi-Annual Programme**

**Member States involved:**
Belgium, Denmark

**Implementation schedule**
- Start date: January 2008
- End date: December 2012

**Budget:**
- State budget: €14,152,000
- Action promoter: €4,880,000
- Total project cost covered by this Decision: €23,790,000
- EU contribution: €4,758,000
- Percentage of EU support: Works: 20%

**Additional information:**
Coordinator’s Report of the Priority Project:

*Source: TEN-T Executive Agency*
4.4 MOS projects: Nordic Corridor Königslinie 2008

**TEN-T Multi-Annual Programme**

**Member States involved:**
Sweden, Germany

**Implementation schedule**
Start date: January 2008
End date: December 2011

**Budget:**
Action promoter: €20,608,846
Other contributions: €19,540,154

Total project cost covered by this Decision: €50,349,000

EU contribution: €10,200,000

Percentage of EU support:
Studies & Works: 20.26%

**Additional information:**
Coordinator’s Report of the Priority Project:

**High Quality Rail and Intermodal Nordic Corridor Königslinie**

2008-EU-21010-P
Part of Priority Project 21

Source: TEN-T Executive Agency
4.5 MOS projects: MOS Klaipeda - Karlshamn 2008

**TEN-T Multi-Annual Programme**

**Member States involved:**
Sweden, Lithuania

**Implementation schedule**
Start date: August 2008
End date: December 2014

**Budget:**
National budget: €17,689,400
Total project cost covered by this Decision: €22,153,000
EU contribution: €4,463,600

**Percentage of EU support:**
Studies: 50%
Works: 20%

**Additional information:**
Coordinator's Report of the Priority Project:

Source: TEN-T Executive Agency
4.6 MOS projects: MOS Gdynia - Karlskrona 2009

**TEN-T Multi-Annual Programme**

**Member States involved:**
Sweden, Poland

**Implementation schedule**
- **Start date:** January 2009
- **End date:** October 2013

**Budget:**
- National budget: €68,363,200
- Total project cost covered by this Decision: €85,454,000
- EU contribution: €17,090,800
- Percentage of EU support: Works: 20%

**Additional information:**
4.7 MOS projects: MONALISA – 1 Maritime transport safety 2010

**TEN-T Multi-Annual Programme**

**Member States involved:**
Denmark, Finland, Sweden,

**Implementation schedule**
Start date: September 2010
End date: December 2013

**Budget:**
Action promoter: €11,234,003
Total project cost covered by this Decision: €22,486,006
EU contribution: €11,234,003
Percentage of EU support:
Studies: 50%

**Additional information:**
Coordinator’s Report of the Priority Project:

**MonaLisa**

2010-EU-21109-S
Part of Priority Project 21
4.8 MOS projects: LNG for MOS ships 2010

TEN-T Multi-Annual Programme

Member States involved:
Denmark, Belgium

Implementation schedule
Start date: January 2010
End date: December 2013

Budget:
Action promoter: €17,219,500
Total project cost covered by this Decision: €26,789,000
EU contribution: €9,569,500
Percentage of EU support: Studies: 35.72%

Additional information:
Coordinator’s Report of the Priority Project:
European Commission, DG MOVE
http://ec.europa.eu/transport

LNG infrastructure of filling stations and deployment in ships

2010-EU-21112-S
Part of Priority Project 21

Source: TEN-T Executive Agency
4.9 MOS projects: MOS Rostock – Gedser 2010

**TEN-T Multi-Annual Programme**

**Member States involved:**
Germany, Denmark

**Implementation schedule**
- Start date: January 2010
- End date: December 2013

**Budget:**
- National budget: €22,176,151
- Action promoter: €67,261,711
- Total project cost covered by this Decision: €111,797,328
- EU contribution: €22,359,466
- Percentage of EU support: Studies & Works: 20%

**Additional information:**
Coordinator’s Report of the Priority Project:
http://ec.europa.eu/transport/infrastructure/ten-t-implementation/priority-projects/european-coordinators/luis-
4.10 MOS projects: ICT Solutions for Adriatic Ports 2010

**TEN-T Annual Programme**

**Member States involved:**
Italy, Slovenia

**Implementation schedule**
Start date: April 2010
End date: June 2013

**Budget:**
Action promoter: €1,442,500
Total project cost covered by this Decision: €2,885,000
EU contribution: €1,442,500
Percentage of EU support:
Studies: 50%

**Additional information:**
European Commission, DG MOVE
http://ec.europa.eu/transport/index_en.html
4.11  MOS projects : Port Single Window and Community Systems  2010

TEN-T Multi-Annual Programme

Member States involved:
Italy, Spain, Portugal, Germany, Cyprus

Implementation schedule
Start date: September 2010
End date: December 2013

Budget:
National budget: €1,592,550
Action promoter: €11,234,003

Total project cost covered by this Decision: €15,958,060
EU contribution: €7,979,030

Percentage of EU support:
Studies: 50%

Additional information:
Coordinator’s Report of the Priority Project:
http://ec.europa.eu/transport/infrastructure/ten-t-implementation/priority-
4.12  MOS projects : MOS 4 MOS  2010

**TEN-T Multi-Annual Programme**

**Member States involved:**
Spain, Italy, Greece, Slovenia

**Implementation schedule**
- Start date: March 2011
- End date: May 2012

**Budget:**
- Action promoter: €2,821,860
- Total project cost covered by this Decision: €5,643,720
- EU contribution: €2,821,860
- Percentage of EU support:
  - Studies: 50%

**Additional information:**
Coordinator's Report of the Priority Project:
4.13  MOS projects : MOS 24 : Corridor Rotterdam – Genova  2010

TEN-T Multi-Annual Programme

Member States involved:
Italy, France, Belgium, Malta

Implementation schedule
Start date: February 2011
End date: December 2013

Budget:
Total project cost covered by this Decision: €4,905,000
EU contribution: €2,452,500
Percentage of EU support: Studies: 50%

Additional information:
Coordinator’s Report of the Priority Project:

European Commission, DG MOVE
http://ec.europa.eu/transport/index_en.html
4.14 MOS projects: MOS support to Baltic Sea Region Strategy 2010

The Baltic Sea Hub and Spokes Project

2010-EU-21108-P
Part of Priority Project 21

Member States involved:
Sweden, Denmark, Estonia

Implementation schedule
Start date: January 2010
End date: December 2013

Budget:
Total project cost covered by this Decision: €172,637,133
EU contribution: €15,804,764
Percentage of EU support:
Average: 9.15%

Additional information:
Coordinator’s Report of the Priority Project:
European Commission, DG MOVE
http://ec.europa.eu/transport/
4.15  MOS projects: Spain – England Intermodal Corridor 2011

**TEN-T Multi-Annual Programme**

**Member States involved:**
Spain, United Kingdom

**Implementation schedule**
Start date: October 2011  
End date: December 2014

**Budget:**
Action promoter: €24,690,000

Total project cost covered by this Decision: €31,989,000

EU contribution: €7,299,000

**Percentage of EU support:**
Works: 20%  
Studies: 50%

**Additional information:**
Coordinator’s Report of the Priority Project:
4.16 MOS projects: Train MOS 1 2011

TEN-T Multi-Annual Programme

Member States involved:
Greece, Spain, Portugal, Italy, Sweden, Germany, United Kingdom

Implementation schedule
Start date: January 2011
End date: September 2013

Budget:
Action promoter: €1,254,554
Total project cost covered by this Decision: €2,509,108
EU contribution: €1,254,554
Percentage of EU support:
Studies: 50%

Additional information:
Coordinator’s Report of the Priority Project:
http://ec.europa.eu/transport/infrastructure/tent-implementation/priority-projects/european-coordinators/luis-
4.17 MOS projects: LNG in Baltic Sea Ports 2011

TEN-T Multi-Annual Programme

Member States involved:
Denmark, Sweden, Finland, Estonia

Implementation schedule
Start date: January 2012
End date: December 2014

Budget:
Action promoter: €1,697,020
Total project cost covered by this Decision: €3,394,040
EU contribution: €1,697,020
Percentage of EU support:
Studies: 50%

Additional information:
Coordinator’s Report of the Priority Project:
4.18 MOS projects: LNG Master plan for SSS in the EU 2011

**TEN-T Multi-Annual Programme**

**Member States involved:**
Spain, Portugal, Italy, Greece

**Implementation schedule**
Start date: February 2012
End date: April 2014

**Budget:**
Action promoter: €1,521,291
Total project cost covered by this Decision: €3,042,582
EU contribution: €1,521,291
Percentage of EU support:
Studies: 50%

**Additional information:**
Coordinator’s Report of the Priority Project:
4.19 MOS projects: Clean technologies in the Baltic Sea 2011

TEN-T Multi-Annual Programme

**Member States involved:**
Germany, Sweden

**Implementation schedule**
- **Start date:** January 2011
- **End date:** December 2014

**Budget:**
- **National budget:** €11,592,700
- **Action promoter:** €35,950,663
- **Other loans:** €17,268,170
- **Total project cost covered by this Decision:** €84,640,830
- **EU contribution:** €19,829,297
- **Percentage of EU support:**
  - Studies and Works: 23.4%

**Additional information:**
Coordinator’s Report of the Priority Project:
http://ec.europa.eu/transport/themes/infrastructure/ten-t-policy/priority-
4.20 MOS projects: Adriatic Motorways of the Sea 2011

**TEN-T Multi-Annual Programme**

**Member States involved:**
Italy, Greece

**Implementation schedule**
- Start date: January 2011
- End date: December 2014

**Budget:**
- Action promoter: €44,490,000
- Total project cost covered by this Decision: €56,700,000
- EU contribution: €12,210,000
- Percentage of EU support:
  - Studies: 50%
  - Works: 20%

**Additional information:**
Coordinator’s Report of the Priority Project:

Source: TEN-T Executive Agency
4.21 MOS projects: Clean technologies in the Baltic sea 2012

Sustainable Traffic Machines - On the way to greener shipping

2012-EU-21023-S
Part of Priority Project 21

Member States involved:
Denmark, Germany

Implementation schedule
Start date: January 2012
End date: December 2015

Budget:
Action promoter: €6,458,000
Total project cost covered by this Decision: €12,916,000
EU contribution: €6,458,000
Percentage of EU support:
Studies: 50%

Additional information:
Coordinator’s Report of the Priority Project:
4.22 MOS projects: Wider MOS 2012

TEN-T Multi-Annual Programme

**Member States involved:**
Germany, Italy, Portugal, Spain

**Implementation schedule**
Start date: June 2013
End date: December 2015

**Budget:**
Action promoter: €2,970,000
Total project cost covered by this Decision: €5,940,000
EU contribution: €2,970,000
Percentage of EU support:
Studies: 50%

**Additional information:**
Coordinator’s Report of the Priority Project:

Source: TEN-T Executive Agency
4.23 MOS projects: B2MOS 2012

**TEN-T Multi-Annual Programme**

**Member States involved:**
United Kingdom, Greece, Spain, Italy, Slovenia, Germany

**Implementation schedule**
Start date: July 2012
End date: December 2015

**Budget:**
Action promoter: €5,697,000
Total project cost covered by this Decision: €11,394,000
EU contribution: €5,697,000
Percentage of EU support: Studies: 50%

**Additional information:**
Coordinator’s Report of the Priority Project:
http://ec.europa.eu/transport/themes/infrastructure/ten-t-policy/priority-
4.24  MOS projects : ANNA  2012

**TEN-T Multi-Annual Programme**

**Member States involved:**
Netherlands, UK, Belgium, Bulgaria, Sweden, Greece, Spain, Portugal, Latvia, France, Italy, Slovenia, Romania, Cyprus

**Implementation schedule**
- Start date: January 2012
- End date: December 2015

**Budget:**
- Action promoter: €18,538,000
- Total project cost covered by this Decision: €37,076,000
- EU contribution: €18,538,000
- Percentage of EU support:
  - Studies: 50%

**Additional information:**
Coordinator’s Report of the Priority Project:

Eurosce Consulting, DG MOVE
4.25 MOS projects: METHANOL Gothenburg - Kiel 2012

TEN-T Multi-Annual Programme

Member States involved:
Sweden, Germany, Finland

Implementation schedule
Start date: January 2013
End date: December 2015

Budget:
Action promoter: €11,251,000
Total project cost covered by this Decision: €22,502,000
EU contribution: €11,251,000

Percentage of EU support:
Studies: 50%

Additional information:
Coordinator’s Report of the Priority Project:

Methanol: the marine fuel of the future

2012-EU-21017-S
Part of Priority Project 21
4.26 MOS projects: Kvarken multimodal link 2012

**TEN-T Multi-Annual Programme**

**Member States involved:**
Sweden, Finland

**Implementation schedule**
Start date: January 2012
End date: December 2015

**Budget:**
Action promoter: €14,445,000
Total project cost covered by this Decision: €20,574,000
EU contribution: €6,129,000

**Percentage of EU support:**
Studies: 50%
Start-up aid: 30%
Works: 20%

**Additional information:**
Coordinator’s Report of the Priority Project:

Source: TEN-T Executive Agency
TEN-T Multi-Annual Programme

**Member States involved:**
Estonia, Finland

**Implementation schedule**
Start date: January 2012  
End date: December 2015

**Budget:**
Action promoter: €45,040,000

Total project cost covered by this Decision: €56,300,000
EU contribution: €11,260,000

**Percentage of EU support:**
Works and studies: 20%

**Additional information:**
Coordinator’s Report of the Priority Project:

**TWIN-PORT**

2012-EU-21011-P  
Part of Priority Project 21
4.28 MOS projects: Pilot Scrubber 2012

**TEN-T Multi-Annual Programme**

**Member States involved:**
Finland, Netherlands, Sweden

**Implementation schedule**
*Start date: January 2012*
*End date: December 2015*

**Budget:**
*Action promoter: €6,791,000*
*Total project cost covered by this Decision: €13,582,000*
*EU contribution: €6,791,000*
*Percentage of EU support: Studies: 50%*

**Additional information:**
Coordinator’s Report of the Priority Project:

European Commission, DG MOVE
http://ec.europa.eu/transport/index_en.html

**PILOT SCRUBBER - New Generation**
Lightweight Pilot Scrubber Solution installed on a Ro-Ro Ship operating on the Motorway of the Baltic Sea

2012-EU-21010-S
Part of Priority Project 21

Source: TEN-T Executive Agency
4.29 MOS projects: LNG bunkering in the Baltic Sea 2012

**TEN-T Multi-Annual Programme**

**Member States involved:**
Sweden, France, The Netherlands, United Kingdom

**Implementation schedule**
Start date: January 2012
End date: December 2015

**Budget:**
Action promoter: €51,454,500
Total project cost covered by this Decision: €74,557,500
EU contribution: €23,103,000

**Percentage of EU support:**
Studies: 50%
Works: 20%

**Additional information:**
European Commission, DG MOVE
http://ec.europa.eu/transport/index_en.html

Innovation and Networks Executive Agency (INEA)
http://inea.ec.europa.eu

Source: TEN-T Executive Agency

**TEN-T Multi-Annual Programme**

**Member States involved:**
Sweden, Estonia, Finland

**Implementation schedule**
- Start date: January 2012
- End date: December 2015

**Budget:**
- Action promoter: €97,709,060
- Total project cost covered by this Decision: €139,169,296
- EU contribution: €29,677,000

**Percentage of EU support:**
- Studies: 50%
- Works: 20%

**Additional information:**
Coordinator’s Report of the Priority Project:

Winter Navigation Motorways of the Sea, WINMOS

2012-EU-21008-M
Part of Priority Project 21

Map of the region showing the network of motorways and sea routes.
4.31  MOS projects: MONALISA 2.0 Maritime transport safety 2012

TEN-T Multi-Annual Programme

Member States involved:
Sweden, Germany, Greece, Spain, United Kingdom, Denmark, Malta, Finland, Italy

Implementation schedule
Start date: January 2012
End date: December 2015

Budget:
Action promoter: €12,158,000
Total project cost covered by this Decision: €24,316,000
EU contribution: €12,158,000
Percentage of EU support:
Studies: 50%

Additional information:
Coordinator’s Report of the Priority Project:
http://ec.europa.eu/transport/themes/infrastructure/ten-t-policy/priority-projects/european-
4.32 MOS projects: SEAGAS Santander - Roscoff 2012

**SEAGAS**

2012-EU-21006-S
Part of Priority Project 21

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**TEN-T Multi-Annual Programme**

**Member States involved:**
France, Spain

**Implementation schedule**
Start date: January 2012
End date: December 2015

**Budget:**
Action promoter: €1,041,000
Total project cost covered by this Decision: €2,082,000
EU contribution: €1,041,000
Percentage of EU support:
Studies: 50%

**Additional information:**
Coordinator’s Report of the Priority Project:

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Source: TEN-T Executive Agency
4.33 MOS projects: LNG Rotterdam – Gothenburg 2012

**TEN-T Multi-Annual Programme**

**Member States involved:**
The Netherlands, Sweden

**Implementation schedule**
Start date: January 2012
End date: December 2015

**Budget:**
Action promoter: €137,088,000
Total project cost covered by this Decision: €171,360,000
EU contribution: €34,272,000
Percentage of EU support:
Works: 20%

**Additional information:**
Coordinator’s Report of the Priority Project:

LNG Rotterdam Gothenburg

2012-EU-21003-P
Part of Priority Project 21
4.34 MOS projects: BRIDGE Dover – Calais 2013

**TEN-T Multi-Annual Programme**

**Member States involved:**
France, United Kingdom

**Implementation schedule**
Start date: January 2013
End date: December 2015

**Budget:**
Project promoters: €57,766,424
Total project cost covered by this Decision: €72,027,960
EU contribution: €14,261,536
Percentage of EU support: Works: 19.8%

**Additional information:**
Coordinator’s Report of the Priority Project:
European Commission, DG MOVE
http://ec.europa.eu/transport

Source: INEA
**4.35 MOS projects: Baltic SO2lution – Clean Technologies 2013**

**TEN-T Multi-Annual Programme**

**Member States involved:**
Denmark, Finland, Sweden

**Implementation schedule**
*Start date:* October 2013
*End date:* December 2015

**Budget:**
Project Promoter: €3,629,540
Total project cost covered by this Decision: €7,259,080
EU contribution: €3,629,540

**Percentage of EU support:**
Studies: 50%

**Additional information:**
Coordinator’s Report of the Priority Project:

**Into the future - Baltic So2lution**

2013-EU-21003-S
Part of Priority Project 21

Source: INFA
4.36 MOS projects: MOS Trelleborg – Świnoujście 2013

TEN-T Multi-Annual Programme

Member States involved:
Poland, Sweden

Implementation schedule
Start date: January 2013
End date: December 2015

Budget:
Project promoter: €3,850,000
Total project cost covered by this Decision: €10,933,090
EU contribution: €2,238,518

Percentage of EU support:
Studies: 20%
Works: 50%

Additional information:
Coordinator’s Report of the Priority Project:

European Commission, DG MOVE
http://ec.europa.eu/transport
4.37 MOS projects: Channel LNG MOS Zeebrugge - Portsmouth 2013

TEN-T Multi-Annual Programme

Member States involved:
Belgium, France, United Kingdom

Implementation schedule
Start date: January 2013
End date: December 2015

Budget:
Project promoter: €21,316,944
Total project cost covered by this Decision: €26,646,180
EU contribution: €5,329,236
Percentage of EU support:
Works: 20%

Additional information:
Coordinator’s Report of the Priority Project:

Channel LNG

2013-EU-21005-P
Part of Priority Project 21
4.38 MOS projects: Atlantica OPTIMOS Vigo - Montoir 2013

**TEN-T Multi-Annual Programme**

**Member States involved:**
France, Spain

**Implementation schedule**
Start date: April 2014
End date: December 2015

**Budget:**
Project promoter: €14,551,534
Total project cost covered by this Decision: €18,189,417
EU contribution: €3,637,883
Percentage of EU support: Works: 20%

**Additional information:**
Coordinator’s Report of the Priority Project:
**Sustainable Traffic Machines II – The green link between Scandinavia and Continental Europe**

**2013-EU-21010-P**
Part of Priority Project 21

**Member States involved:**
Denmark, Germany

**Implementation schedule**
*Start date:* January 2013
*End date:* December 2015

**Budget:**
*Project promoter:* €9,110,640
*Total project cost covered by this Decision:* €11,388,300
*EU contribution:* €2,277,660
*Percentage of EU support:* Works: 20%

**Additional information:**

Source: INEA
TEN-T Multi-Annual Programme

Member States involved:
Greece, Italy, Portugal, Spain, United Kingdom

Implementation schedule
Start date: August 2014
End date: December 2015

Budget:
Project Promoters: €1,409,240
Total project cost covered by this Decision: €2,818,480
EU contribution: €1,409,240
Percentage of EU support:
Studies: 50%

Additional information:
Coordinator’s Report of the Priority Project:
http://ec.europa.eu/transport/themes/infrastructure/ten-t-policy/priority-projects/european-
Sustainable Motorway of the Sea Ghent–Gothenburg through environmental upgrade and compliance while maintaining competitiveness of short sea shipping

2013-EU-21015-P

Member States involved:
Belgium, Sweden, Denmark

Implementation schedule
Start date: January 2013
End date: December 2015

Budget:
Project promoter: €15,204,000
Total project cost covered by this Decision: €19,005,000
EU contribution: €3,801,000
Percentage of EU support:
Works: 20%

Additional information:
Coordinator’s Report of the Priority Project:

European Commission, DG MOVE
http://ec.europa.eu/transport
4.42  MOS projects: MOS Immingham–Gothenburg  2013

TEN-T Multi-Annual Programme

Member States involved:
Sweden, United Kingdom, Denmark

Implementation schedule
Start date: January 2013
End date: December 2015

Budget:
Project promoter: €10,156,000
Total project cost covered by this Decision: €12,695,000
EU contribution: €2,539,000
Percentage of EU support:
Works: 20%

Additional information:
Coordinator's Report of the Priority Project:
European Commission, DG MOVE
http://ec.europa.eu/transport
Innovation and Networks Executive Agency (INEA)
4.43 MOS projects: Adriatic MOS and Core Network Corridors 2013

TEN-T Multi-Annual Programme

Member States involved:
Croatia, Italy, Slovenia

Implementation schedule
Start date: July 2013
End date: December 2015

Budget:
Project Promoters: €2,815,000
Total project cost covered by this Decision: €5,630,000
EU contribution: €2,815,000
Percentage of EU support:
Studies: 50%

Additional information:
Coordinator’s Report of the Priority Project:
European Commission, DG MOVE http://ec.europa.eu/transport

Development of North Adriatic ports multimodal connections and their efficient integration into the Core Network (NAPA STUDIES)

2013-EU-21017-S
TEN-T Multi-Annual Programme

Member States involved:
Germany, Netherlands

Implementation schedule
Start date: January 2013
End date: December 2015

Budget:
Project promoter: €3,070,000
Total project cost covered by this Decision: €6,140,000
EU contribution: €3,070,000
Percentage of EU support:
Studies: 50%

Additional information:
Coordinator’s Report of the Priority Project:

Pilot Implementation of a LNG-Propulsion System on a MoS Test Track in the Environmental Model Region ‘Wadden Sea’

2013-EU-21018-S
Part of Priority Project 21

Source: INEA
4.45 MOS projects: COSTA II East PoseidonMed 2013

**TEN-T Multi-Annual Programme**

**Member States involved:**
Croatia, Cyprus, Greece, Italy, Slovenia

**Implementation schedule**
Start date: December 2013  
End date: December 2015

**Budget:**
Project promoter: €2,563,125
Total project cost covered by this Decision: €5,126,250  
EU contribution: €2,563,125

**Percentage of EU support:**
Studies: 50%

**Additional information:**
Coordinator’s Report of the Priority Project:  

European Commission, DG MOVE  
http://ec.europa.eu/transport

**Costa II East - Poseidon Med**

2013-EU-21019-S  
Part of Priority Project 21

**Source:** INEA
### MOS projects: MOS & LNG project approved 1st CEF-T Call 2014

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<td>Mix</td>
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<td>3 Clean Port</td>
<td>Alternative fuels and solutions for Ports cold ironing</td>
<td>6.3</td>
<td>3.1</td>
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<tr>
<td>4 LNG RORO</td>
<td>Pilot LNG powered multipurpose RoRo Ship</td>
<td>7.4</td>
<td>3.7</td>
<td>Mix</td>
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<td>5 CONECT 2 LNG</td>
<td>Pilot LNG powered road haulage on CN Corridors</td>
<td>9.4</td>
<td>4.5</td>
<td>Mix</td>
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<tr>
<td>6 BestWay</td>
<td>Boosting energy sustainable fuels for freight transport</td>
<td>7.7</td>
<td>3.8</td>
<td>Mix</td>
</tr>
<tr>
<td>7 CORE LNGas hive</td>
<td>Core Network corridors and Liquefied natural gas</td>
<td>33.3</td>
<td>16.6</td>
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<td>8 LNG IWT</td>
<td>Deploy of 4 LNG stations and 40 fluvial vessels</td>
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<td>36</td>
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<td>Deploy of 2 LNG supply stations for road transport</td>
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<td>0.5</td>
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<td>10 LNG UK</td>
<td>Deploy of 10 LNG Supply stations in sea containers</td>
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<tr>
<td>11 REAL LNG</td>
<td>LNG bunkering in Rotterdam &amp; Lubbeck + 6 LNG Vessels</td>
<td>39</td>
<td>13</td>
<td>Works</td>
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<tr>
<td>12 HEKLA</td>
<td>Helsingborg &amp; Klaipeda LNG Infrastructure Facility</td>
<td>28</td>
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<td>13 POSEIDON Med-II</td>
<td>Adoption of LNG as marine fuel in the East Mediterranean</td>
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<td>26</td>
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<td>14 Gain 4 MOS</td>
<td>Sustainable LNG Operations Ports &amp; Shipping in CNC MED</td>
<td>41</td>
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<td>15 CORE LNGas hive</td>
<td>Fostering the inland waterway traffic with LNG</td>
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<td>5</td>
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<td>16 PAN LNG</td>
<td>Deploy of 5 LNG/CNG supply stations and national legislation</td>
<td>17</td>
<td>14.4</td>
<td>Mix</td>
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<td>17 LNG-CNG Poland</td>
<td>Deploy of 1 LNG supply stations for road transport</td>
<td>1.7</td>
<td>1.5</td>
<td>Mix</td>
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<td>18 Gain 4 MOS</td>
<td>Sustainable LNG Operations Ports &amp; Shipping in CNC MED</td>
<td>1.5</td>
<td>1.3</td>
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<td>LNG Ferry in Helsinki &amp; Tallin ports</td>
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<td>20 LNG-CNG Finland</td>
<td>Deploy of 4 LNG/CNG supply stations for road transport</td>
<td>5.2</td>
<td>2.6</td>
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</table>
1. Background
2. Evolution 2001-2011
3. MOS Programmes
4. MOS Projects
5. MOS & CNC
6. Prospective 2020+
### 5.1 Core Network Corridors

<table>
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<tr>
<th>N</th>
<th>EU-Regions</th>
<th>MS</th>
<th>City references</th>
<th>KM</th>
<th>MM€</th>
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<td>1</td>
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<td>PL-CZ-SK-AT-IT</td>
<td>Gdansk - Venice</td>
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<td>DE-CZ-HU-GR-CY</td>
<td>Frankfurt - Constanta</td>
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<td>NL-BE-CH-DE-IT</td>
<td>Rotterdam - Genoa</td>
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<td>Atlantic</td>
<td>PT-SP-FR-DE</td>
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<td>17.170</td>
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<td>FR-DE-AT-HU-RO</td>
<td>Strasbourg - Constanta</td>
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<td>15.940</td>
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**Total: 17.150**

**Versión Nov-2013**
### 5.2 Core and Comprehensive networks planned for 2030 - 2050

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<td>3. Seaports</td>
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<td>4. Inland ports</td>
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<td>5. RR Terminals</td>
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<td>6. Border cross</td>
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- The core network 9 corridors

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<th>Comprehensive Network</th>
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<td>2020</td>
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<td>2025</td>
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5.3 Core Network and the 9 Core Network Corridors
5.4 Core Network Corridors: common sections and nodes

Figure 3: Atlantic Corridor alignment and connection /common sections with other corridors
### 5.5 Core Network Corridors common technologies

<table>
<thead>
<tr>
<th></th>
<th>MC1</th>
<th>MC2</th>
<th>MC3</th>
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<td>CT2: ITS</td>
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<td>VTMIS, RIS, ERTMS</td>
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<td>CT3: CN-Ports &amp; MOS</td>
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**Geographic Multimodal Corridors**

- Poland
- Finland
- Spain
- Germany
- Finland
- Netherlands
- Germany
- Ireland
- France
- Italy
- Belgium
- Hungary
- Greece
- Malta
- Italy
- Portugal
- France
- Romania
5.6 Core Network Corridors and Motorways of the Sea network
### 5.7 Core Network Corridors and Motorways of the Sea crossings

<table>
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<tr>
<th>MOS</th>
<th>CNC1</th>
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<td>East Med</td>
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<td>Alpine</td>
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<td>EAST MED</td>
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</tbody>
</table>
1. Background
2. Evolution 2001-2011
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4. MOS Projects
5. MOS & CNC
6. Prospective 2020+
TEN-T Priority Project 21 Motorways of the Sea (MOS) builds on the EU’s "2020" goal of achieving a clean, safe and efficient transport system by transforming shipping into a genuine alternative to overcrowded land transport.

The MOS concept aims at introducing new inter-modal maritime logistics chains to bring about a structural change to transport organization: door-to-door integrated transport chains.

Provides more clarity in the MOS concept and describes the foundation of the new MOS TEN-T guidelines;
MoS Prospective study:

After involving major MOS Stakeholders, the project will develop a MOS Prospective study in 2015. The aim is to deliver a MOS Prospective Study setting up the main strategic line of directions for MOS between 2015 and 2020, linked to the new governance corridors dimensions and assessing the potential of MOS as the 10th Corridor and the maritime dimension of TEN-T.

It will specifically cover some MOS deployment issues as underlined in the 2012 EU Coordinator report on MOS: application of ICT, clustering of ports and development of corridors paying attention to the regional aspect, European internal market and logistic chains, as well as external trade.
The current TEN-T guidelines foresee that "within 2 years after being designated [...], the European Coordinator for MOS shall present a MOS Implementation Plan based on experiences and developments relating to Union maritime transport as well as the forecast traffic on motorways of the sea".

This implies that such a plan shall be presented early in 2016 to the European Parliament and Member States.

This Work Plan OF May-2015 is a first outline that shall help guide the work towards the establishment of this Plan.
Motorways of the Sea 2

University of Strathclyde
National Technical University of Athens
Universidad Politecnica de Madrid
Oceanfinance
UniGe

Circle
CIMNE
Regione Liguria
Magellan
Universidade Nova De Lisboa