



## PROJECT PROPOSAL TEMPLATE<sup>1</sup>

<b>Proposal date &amp; version</b>	<b>27/01/2016</b> <b>Version for the Senior Officials</b>
<b>Title</b>	<b>OPTIMED IMPLEMENTATION-</b> Implementing a new Mediterranean Corridor: from South-Eastern to North-Western ports
<b>Area</b>	Maritime Transport
<b>Name of Promoter</b>	Autonomous Region of Sardinia (Italy)
<b>Geographical scope</b>	Mediterranean
<b>Location</b>	Mediterranean area: specifically, countries of the north-western Mediterranean shore and countries of the south-eastern Mediterranean shore.
<b>Countries involved</b>	Spain, France, Italy, Lebanon, Egypt, Turkey, Cyprus
<b>Proposed starting date</b>	June 2016
<b>Project duration</b>	36 months
<b>Total Cost (€)</b>	€ 37.350.000
<b>I. PROJECT SCOPE</b> <i>Include a short summary of 5-6 lines of the project explaining what are the main objectives and activities</i>	The main objective of the project is the optimization of trade relations in the Mediterranean Basin through the improvement of commercial connections between public and private operators in maritime transport and logistics sector. In order to achieve this goal, the six organizations which are part of the project propose an innovative hub-based Mediterranean transport option characterised by scheduled and reliable services, new hub-based port facilities and a virtual logistics platform able to enable users to plan shipping.

<sup>1</sup> The first project proposal should not exceed 15 pages (annexes not included)

## CONTENT

- I. Project Scope
- II. Background and Rationale
- III. Objectives and Expected Results
- IV. Management and Implementation
- V. Monitoring and Evaluation
- VI. Budget and Financial Plan
- VII. Declaration
- VIII. Contact details
- IX. Annexes

CONTACT UfM Secretariat: *Please return the proposal to: [projects.info@ufmsecretariat.org](mailto:projects.info@ufmsecretariat.org)*

*Project proposals are treated as confidential. For further information, please refer to our [confidentiality policy](http://ufmsecretariat.org/how-to-submit-a-project/) or visit us at.: <http://ufmsecretariat.org/how-to-submit-a-project/>*

## II. Background and Rationale

**LOCATION** | Geographical location of the project implementation (country(ies), region, city as relevant)

---

The project aims to strengthen the trade connections among the ports of the Mediterranean area by promoting new opportunities, facilities, tools and skills that can lead to the enhancement of commercial connections amongst public and private operators of the countries lying in the north-western Mediterranean shore (Spain, France and Italy) and the countries of the south-eastern Mediterranean shore (Lebanon, Egypt, Turkey and Cyprus).

More specifically, the project involves the following ports:

- Porto Torres (Italy) and Beirut (Lebanon) as new ro-ro hub-ports;
- Valencia, Tarragona, Barcelona, Marseille, Sète, Toulon, Civitavecchia, Savona, Genoa, La Spezia, Livorno, Naples and Salerno, for the High-Tyrrhenian arc;
- Mersin, Lattakia, Tartous, Tripoli, Damietta, Alexandria, Port Said and Limassol, for the eastern shore.

## BACKGROUND | sectorial, social, economic, political<sup>2</sup>

The development of maritime transport and logistics sector in the Mediterranean area still needs to be improved in order to ensure more efficient and sustainable trade relations between the north-western and south-eastern shores of the Mediterranean basin.

The flow of exported-imported goods between the countries involved is estimated in around 38.000 thousand tons (2012), of which more than the 90% is transported by inefficient maritime routes (see Annex 4). The existing Mediterranean maritime transport supply presents several and well known problems that make the land transport option still preferable on several routes. From the perspective of logistics operators such problems typically concern the high uncertainty and low reliability of delivery times together with very long shipping times and the related high logistics costs that all these factors entail. From the perspective of a port operator main problems concern instead the congestion of the Ro-Ro yards at the port side, because of the high number of waiting trucks, and the unproductive use of large port areas as parking areas for trucks.

Looking at the existing East-West Mediterranean services today there exists a limited number of regular and scheduled ro-ro services connecting the two Mediterranean shores. Besides, in the majority of cases such services appear fragmented, not integrated and characterized by high service's time and low frequencies. In addition to these services based on scheduled departures and established itineraries, it is possible to resort to on-demand maritime services in which departures and itineraries depend on the specific transport requests of the period. On-demand services start only when the demand of transport reaches a level that justifies the cost-effectiveness of the service provided. Because of their nature, they are typically characterized by not scheduled boarding times, uncertainty and low reliability of delivery times and consequent high logistics costs. On the other side, land transport mode continues to appear attractive on several itineraries because of the reliability of its door to door services and the temporal continuity of its links. However, the dependence of several Mediterranean areas from the road transport brings a number of well-known problems related to high carbon emissions, road congestion and safety issues.

In order to overcome such issues the existing maritime transport service needs to be re-thought and rationalized. This can be done by transforming the logic of distribution of goods by sea: from spot connections to an innovative integrated network option based on the hub and spoke paradigm and characterized by scheduled, regular and reliable frequencies and more competitive delivery times.

---

<sup>2</sup> This section should not exceed one page

Considering the above context, by means of new port layouts and a web-based logistics platform, the project proposes a new Ro-Ro hub-based multimodal (land/sea) network in the mentioned Mediterranean test-area and promotes its implementation. The new network, based on the hub-based concept, is composed by two hub ports: the port of Porto Torres, located in Italy, serving the European area and the port of Beirut, located in Lebanon, serving the Southern Mediterranean region (see Fig. 1).

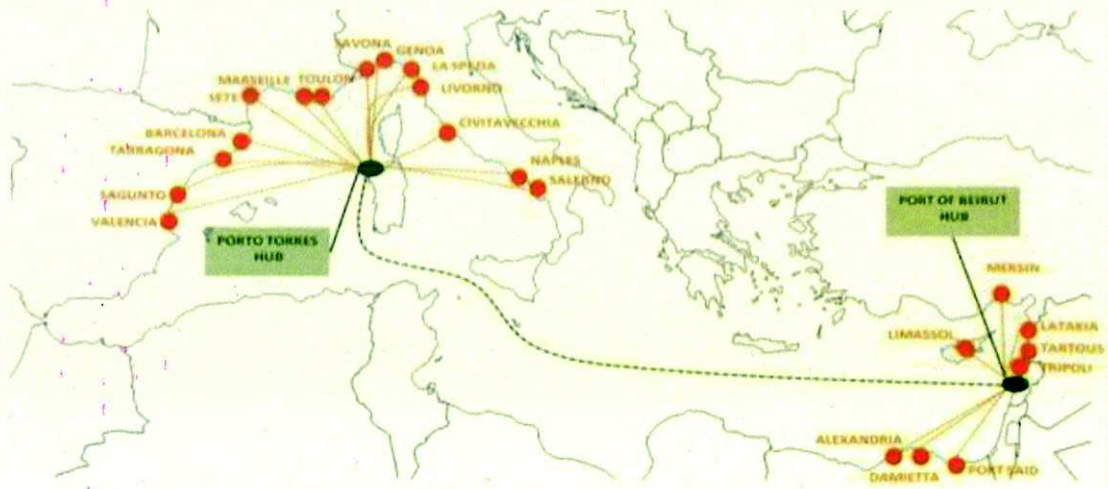


Fig. 1: new network structure

The proposed project is composed of two main phases: the Conception phase and the Implementation phase. The Conception phase has been already completed under the 2007/2013 ENPI CBC MED, European multilateral Cross Border Cooperation Programme. It has concerned the feasibility analysis concerning the new Mediterranean hub-based transport network. The next phase of the OPTIMED Project, as natural continuation of the Conception, will concern the project Implementation.

### ***The Conception Phase***

The **Conception Phase**, delivered at the end of 2015, developed the Feasibility Studies aimed at:

- defining the new network structure and its characteristics;
- evaluating preliminary considerations for a reorganization of the two hub-ports;
- designing a web-based logistics platform, as a support tool for the new network, to enable users to plan shipping.

<sup>3</sup> This section should not exceed two pages

On the basis of a preliminary data collection and data analysis process (see Annex 4) a new optimized Mediterranean transport option has been defined by means of a two-step optimization approach (see Annex 5). In order to support the new optimized network a virtual logistics platform has been designed to enable users to plan shipping and evaluate the best transport option (see Annex 7). Furthermore, preliminary design of new hub-based port facilities of Porto Torres (Italy) and Beirut (Lebanon) have been developed in order to propose a reorganization of the port-area structure and improve their performance as Ro-Ro hubs in the framework of the freight shipping network (see Annex 6).

### ***The Implementation Phase***

The ***Implementation Phase***, which represents the natural continuation of the previous one, will consist of the following activities:

- *Promotion of the new transport services(network and platform) among the operators of the Mediterranean basin.*

Shipping companies will be asked whether they would be willing to introduce the new inter-hub connection from the port of Porto Torres to the port of Beirut into their network. These tests, performed by the use of the web-based platform (developed in the conception phase), will provide network performances, economic and environmental parameters to be compared with the simulated ones coming from the feasibility studies of the Conception Phase.

- *Executive design of the two hub-port facilities.*

A new equipment structure and re-organization of the two port areas will be drawn up at the executive stage in order to reduce idle times for mooring operations, cargo loading and unloading, yard handling as well as to optimize housekeeping.

- *Draft design of a new Con-Ro (Container and Ro-Ro) "ideal-vessel" to perform the inter-hub service Porto Torres-Beirut.*

The new-generation vessel will have to be designed on the basis of new environment-friendly criteria in order to reduce the vessel's burden on the environment.

Moreover, the new vessel, capable of carrying both Ro-Ro and container units, has to be designed so as to allow loading/unloading operations in a safe, quick and easy manner.

According to the aforesaid considerations, the project aims to a direct economic and commercial between the involved areas by creating new transport opportunities finalized at the matching between supply and demand of services. Through the different phases of analysis, design, testing, promotion and implementation, the project wants to contribute to achieve a better competitiveness of the

Mediterranean transport and logistics sector, and therefore of trade in general. In the coming years, the project results and the capitalization of them will give the opportunity to operators to take advantages and rewards of intermodal transport through the promotion of Ro-Ro hub-based networks, short sea shipping, Motorways of the Sea and e-freight, as the basis for the development of sustainable logistics within Mediterranean transport systems.

RELEVANCE TO UFM | UfM priority areas, Mediterranean strategies

---

The project contributes to make maritime transport connections between the north-western and the south-eastern shores of the Mediterranean basin more efficient and more reliable by creating a new optimized sea transport corridor. It lies in the main field of "Motorways of the Sea" which represents one of the flagship priorities of the Union for the Mediterranean, acting as a catalyst for economic and social development.

The Union for the Mediterranean works towards the development of logistic platforms and motorways of the sea in the Mediterranean region in order to improve relations, enhance regional trade and ensure the prosperity and development of the involved countries.

Moreover, in accordance with the UfM strategic objectives, the project aims at boosting inter-regional integration and stimulating the long-term growth of the concerned area.

Furthermore, the project complies with the implementation of similar projects aimed at developing the Motorways of the Sea concept within the Mediterranean basin. In particular, the project *Design of "Motorway of the Sea" services between the Ports of Mersin and Izmir (Turkey), the Ports of Bari, Brindisi and Taranto (Italy) and the Ports of Tunes and Rades (Tunisia)* aims at developing a new transversal Mediterranean transport corridor which could be complementary with the proposed longitudinal one.

### III. Objectives and Expected Results

OBJECTIVES | Relevance according to UFM projects or activities

---

#### 1. Long-term objectives

The project aims at promoting new opportunities, facilities, tools and skills to improve the trade network between the north-western and the south-eastern shores of the Mediterranean sea, thus improving commercial connections and relationships between public and private operators in maritime transport and logistics sector of Italy, Spain, France, Lebanon, Egypt, Turkey and Cyprus.

#### 2. Project specific objectives

- Design, promotion and implementation of a new rationalized maritime trade network option, based on the hub and spoke paradigm, connecting the northern shores of the high Tyrrhenian arc with the south-eastern shores of the Mediterranean sea;
- Design, test and implementation of an innovative virtual logistics platform supporting the aforementioned new optimized maritime trade network;
- Executive design of new hub-based port facilities for the two hub ports of Beirut and Porto Torres in order to improve their performance as Ro-Ro hubs in the framework of the freight shipping network;
- Design of a new environment-friendly **Con-Ro** vessel to perform the shuttle connection service between the two hub ports. It has to be designed so as to allow loading/unloading operations in a safe, quick and easy manner;
- Promotion of business relationships based on the opportunities of the new optimized maritime trade network through Business to Business (B2B) meetings involving target groups and selected stakeholders.

### 3. Cross cutting issues

- Lower environmental impacts consequent to the shift of the flows of goods to more efficient maritime transportation options.

## BENEFICIARIES |

---

Through the different phases of analysis, testing, promotion, training and implementation the project wants to contribute to achieve a better competitiveness of the Mediterranean transport and logistics sector, and therefore trade in general.

The **Target groups** are:

- public institutions in the field of maritime transport;
- shipping companies;
- business operators;
- ship brokers.

In the coming years, the project results and the capitalization of them will give the opportunity to operators to take advantages and rewards of intermodal transport through the promotion of ro-ro hub-based network, short sea shipping and motorways of the sea, as the basis for the development of sustainable logistics within the Mediterranean area.

---

The **Final beneficiaries** of the start-up of the new network will be the consumers of European and Mediterranean partner countries that will take advantage of the faster and better efficient trade services between the two shores of the Mediterranean basin.

#### EXPECTED RESULTS | Impact

The main expected results of the project can be summarized as follows:

- Target groups and beneficiaries of involved regions and countries informed about the project expected results, activities and outputs;
- Target groups and beneficiaries of other regions and countries at Euro-Mediterranean level aware about the opportunities of Short Sea Shipping and interested to spread the results and outputs of the project;
- Identification of new opportunities for economic operators and institutions resulting from the optimization of the maritime trade network between the north-western and the south-eastern shores of the Mediterranean basin;
- Executive design of port infrastructures of Porto Torres and Beirut planned in order to improve their performance as ro-ro hubs in the framework of the freight shipping network. The availability of the two executive projects can facilitate an eventual future funding request for the implementation of the planned interventions.
- Process of shifting freight from current modes of transportation to more efficient ones started by the implementation of the virtual platform supporting the new optimized maritime trade network;
- Target groups and stakeholders stimulated to develop new business relationships based on the opportunities of new optimized maritime trade network.

The following table shows the various result indicators and their respective quantifiable targets, to be reached by the end of the project.

Description of the indicator	Target Implementation phase
Communication Plan	1
Project web site	Updating of the OPTIMED website
Project Newsletter	4
Project Leaflets	1000
Project Press conference	2
Project Logo and corporate image	Updating of the OPTIMED logo
N. of participants at Launch and Final conferences	200
N. of participants from Euro-Mediterranean regions per N. 2 capitalization events	100
N. of approved and signed MoU	1

N. of copies of the "Report on implementation of the new system" distributed to Euro-Med Institutions and operators of involved regions	300
N. of copies of the "Report on implementation of the new system" downloaded by project website	500
N. of "Executive design of Porto Torres port new layout"	1
N. of "Executive design of Beirut port new layout"	1
N. of European companies testing the new transport system	up to 5
N. of Mediterranean partner countries companies testing the new transport system	up to 5

## IV. Project Management and Implementation

### ACTIVITIES and WORK PLAN | Main actions<sup>4</sup>

The project implementation will be composed by eight main activities corresponding to 8 Work Packages:

#### **WP1 - Management and Coordination**

The WP1 will run for the whole duration of the project and will concern the coordination among the various partners. Official management issues and project's results reporting to UfM will be also managed under this WP.

##### *A.1.1 Management and coordination of activities*

Under the coordination of the applicant (Sardinia Region), all the partners will participate to kick-off, Steering Committees and Management Group meetings. The meetings will allow all the partners to discuss, plan and monitor all the implementing actions.

##### *A.1.2 Technical coordination*

The University of Cagliari, in charge of this task, will coordinate all the partners involved in the technical activities:

- companies selection for the test of the new system;
- test of the new system;
- development of the Terms of References (TORs) defining all the requirements for subcontracting the developing of the executive design stage of the two hub ports;

<sup>4</sup> This section should not exceed three pages

- development of the TORs for the design of the new generation vessel.

## **WP2: Communication**

The communication strategy will aim at creating visibility through the media in the involved countries. It will include the elaboration of tools that can allow the best visibility of the project activities and outputs, and the organization of two conferences (Launching and Final Conferences) during which the project staff will present to a large auditorium the project objectives, activities and results.

## **WP3: Capitalization of the results**

### *A.3.1 Promotion of the Short Sea Shipping Euro-Mediterranean Network*

The partners will participate at annual international events in the field of maritime transport and logistics with the aim of spreading project's results and potential development at a Mediterranean level.

### *A.3.2 Signature of the MoU "Short Sea Shipping Euro-Mediterranean Network"*

An event will be organized in Egypt to present and spread the project results and to sign the "Short Sea Shipping Euro-Mediterranean Network" Memorandum of Understanding. The MoU will represent a starting point for the enlarged network of public and private transport operators in order to exploit the opportunities arising from the new maritime trade connections between the northern shores of the High Tyrrhenian arc and the south-eastern shores of the Mediterranean sea.

## **WP4: Promotion and test of the new transport services**

### *A.4.1 Trading companies selection*

A number of shipping companies will be selected in order to test the new transport service. The companies will be asked whether they would be willing to introduce the new inter-hub connection from the port of Porto Torres to the port of Beirut into their network.

### *A.4.2 Testing phase*

After a first instruction phase on the use of the platform, each company taking part in the test will be asked to simulate a series of freight shipment requests for different network arrangements and demand

volumes. For each simulation, the system will provide network performances, economic and environmental parameters. On the basis of these parameters, the company will indicate its degree of satisfaction compared to current transport conditions.

#### *A.4.3 Report of the testing phase*

At the end of the testing phase, a final report containing the results of the performed simulations and tests will be produced.

### **WP5: Executive design of new hub-based port facilities**

#### *A.5.1 Executive design of new layout of Porto Torres port – Italy*

#### *A.5.2 Executive design of new layout of Beirut port – Lebanon*

The port design activity will consist of the Definition of the Terms of Reference of the two hub port layouts. Two public tenders will be launched in order to select the best technical and economical offer for the executive design of the port layouts. The technical offer has to include the definitive design, the executive design as well as the work management.

For each port, a new equipment structure and a reorganization of the port will be drawn up at the executive stage in order to reduce idle times for mooring operations, cargo loading and unloading, yard handling as well as to optimize housekeeping. The executive project will define, among the others: (i) turning basins features, (ii) water depth, (iii) number of mother and feeder berths, (iv) state of occupancy of the yard areas, (v) distance from berths to the Ro-Ro parking areas, (vi) area and characteristics of the free trade zone and so on.

### **WP6: Definition of the web-based logistics platform governance**

The WP6 will include the activities finalized at identifying the subject(s) who will manage the web based logistics platform.

### **WP7: Draft design of a new “ideal-vessel”**

The draft design activity will consist of the Definition of the Terms of Reference of the new generation Con-Ro vessel. Such vessel will have to be designed to efficiently perform the inter-hub service between Porto Torres and Beirut on the basis of new environment-friendly criteria. A public tender will be

launched in order to select the best technical and economical offer for the draft design of the new vessel.

**WP8: “Business to Business” meetings between economic operators**

A number of Business to Business meetings will be held in with the purpose of developing contacts between transport and logistics operators of the two shores of the Mediterranean basin and to stimulate them to a higher level of commercial/industrial agreements.

The aim is to create the conditions for stronger relationships among companies and SMEs that usually operate through Lebanon ports and the SMEs that operates through European ports.

**DURATION &TIMELINE|**

---

Duration: 36 months.

The calendar of activities is detailed in the *annexed table* (Annex 2: Calendar of activities)

**PROMOTER(S)| Description<sup>5</sup>**

---

**Autonomous Region of Sardinia (Italy, Sardinia)**

The Autonomous Region of Sardinia fosters the economic growth and sustainable development on the area, including planning and financial management of the interventions for the development and requalification of an integrated transport system.

**PROJECT GOVERNANCE| Management and coordination mechanisms<sup>6</sup>**

---

**Partnership**

**1. PP1: University of Cagliari - CIREM (Italy, Sardinia)**

CIREM (PP1) has collaborated with the Applicant in formulating the project idea and in the project design, especially as concerns the technical Work Packages. PP1 will be in charge of the technical coordination of the project and it will play a key role in:

---

<sup>5</sup> This section should not exceed one page

<sup>6</sup> This section should not exceed one page

- WP4 - Promotion and test of the new transport services;
- WP5 - Executive design of new hub-based port facilities;
- WP7 - Draft design of a new "ideal-vessel".

## **2. PP2: North Sardinia Port Authority (Italy, Sardinia)**

The North Sardinia port Authority (PP2) has collaborated with the Applicant and the other partners for developing the project idea and it will collaborate with the technical coordination for WP4 and WP6. It will implement technical parts related to WP6 in coordination with the CIREM.

With the support of PP1, PP2 will prepare and manage the tender to acquire technical consulting for the development of the executive design of Porto Torres port (WP5). It will be in charge of the management and testing of virtual platform related to Porto Torres port (WP4, WP6).

## **3. PP3: ASCAME - Association of Mediterranean Chambers of Commerce (Spain, Cataluña)**

ASCAME (PP3) has collaborated in each phase of ideation and elaboration of the proposal. It will give its contribution to the implementation of WP2 and WP3, related to the visibility of the project and the capitalization of the results at Euro-Mediterranean level. PP3 will promote and organise campaigns addressed to businesses, government bodies and representatives of international and local institutions at the European and Mediterranean levels. Furthermore, PP3 will be the coordinator of WP7 and it will be in charge for the organization of B2B meetings in the EU side (Italy, Spain and France), by the involvement of Chambers of Commerce and other organization of its network.

## **4. PP4: European Short Sea Shipping School (Spain, Cataluña)**

PP4 has collaborated in each phase of ideation and elaboration of the proposal. In particular, PP4 will give its contribution to the elaboration of WP3, related to the capitalization of the results at Euro-Mediterranean level.

## **5. PP5: Chamber of Commerce, Industry and Agriculture of Beirut and Mount Lebanon (Lebanon)**

PP5 has collaborated with the Applicant and other partners for preparing the project. In particular, PP5 will have an important role in the implementation of technical phases (WP4, WP5, WP7) and in the elaboration of Capitalization of results (WP3) and B2B meetings (WP8).

## V. Monitoring and Evaluation

### RISKS and ASSUMPTIONS<sup>7</sup> |

---

Since the project will be implemented in the framework of a world economic crisis then the risk of financial incapacity of the partners should be taken into account in the event of low level of contributions.

### MONITORING AND SUSTAINIBILITY<sup>8</sup> |

---

The sustainability of the project will be guaranteed by:

**Financial sustainability:** the clear identification of key success factors of the new optimized network, the new virtual logistics platform and the direct involvement of companies by the B2B meetings will stimulate the match between the demand and the offer of transport services between the 2 shores of the Mediterranean. It will be then the proper functioning of the market to guarantee the economic and financial sustainability after the end of the project.

**Institutional sustainability:** the direct participation of national authorities and their interest to promote the development of RO-RO traffic will be formalised by the signature of the *Short Sea Shipping Euro-Mediterranean Network Memorandum Of Understanding (MOU)*. The document will assure that the project results will be in place after the end of the project. The MOU will be signed between the partners of the project and at least other 15 stakeholders coming from public and private bodies of the shipping and port logistics sectors of the Euro-Mediterranean area.

**Environmental sustainability:** the environmental sustainability is assured by the fact that the project has a positive environmental balance since the shift of the flows of goods to a more efficient transportation system will imply lower environmental impacts.

### EVALUATION |

---

---

<sup>7</sup> This section should not exceed one page

<sup>8</sup> This section should not exceed one page

All partners will be committed to present every 6 months a monitoring report to the management structure of the project. On the basis of this reporting activity, the interim and final reports of the project will be produced.

Specific activities of reporting templates, questionnaires, timesheets will be implemented in order to:

- verify differences between what has been planned and the real project implementation;
- check effective expenditures and partners' needs concerning financial resources management;
- verify the implementation and administrative procedures and control the production of related documents;
- evaluate activities on the external side and start to have the perception of what the project could develop outside its direct action.

## **VI. Budget and Financial Plan**

**BUDGET** | Cost and expenses

---

€ 37.350.000

*See the Annex 3 with the project budget.*

## **VII. Declaration**

By submitting this Project Proposal, I acknowledge that I have read I understand and agree with the implications of the UfM label (see Annex 1) and that the information exchanged during the appraisal phase has a restricted distribution and may be used only for the labelling process.

## VIII. Contact details

Contact and signature:			
Promoter	Project Manager	Phone	Email
Ms. Gabriella Massidda	Ms. Gabriella Massidda	+390706067506	trasporti@regione.sardegna.it
Date		Legal representative <sup>9</sup>	
		Ms. Gabriella Massidda	
		Signature	

---

<sup>9</sup> Authorized signatory of the Promoter (as an individual legal entity or as leader or member of a consortium submitting the Project Proposal).

## IX. Annexes

### ANNEX 1

#### UfM label implications

---

This Project Proposal template has been prepared for use by and internal assessment of the Secretariat of the Union for the Mediterranean (UfMS). In completing and sending the Project Proposal, the Project Promoter agrees to have read the information included in the:

- **Project Guidelines of the UfM** available at <http://ufmsecretariat.org/how-to-submit-a-project/>. Project Promoters are advised to comprehend the criteria mentioned in the Project Guidelines, based on which the current Proposal will be assessed by the UfMS.
- In order to obtain and retain the UfM label, the Promoter shall agree to, and comply with the following:
  - a. **Nature of the UfM label:** The UfM label is attributed by the unanimous endorsement of the 43 Member Countries of the Union for the Mediterranean (UfM), providing a political recognition and support to a project with a regional impact, facilitating access to finance for its implementation and contributing to provide solutions in the case of complex regional projects. The UfM label does not entail that either the UfM or the UfMS has any financial commitment towards the Promoter and, vice versa, the Promoter has no financial commitment towards either the UfM or the UfMS with regard to the Project.
  - b. **UfMS involvement:** The UfMS contributes to facilitate the promotion and the implementation of the Project, in collaboration and agreement with the Promoter. In the project template, the Promoter has to establish a financial plan with potential donors with whom preliminary discussions have started. Thus, the UfMS may assist the Promoter in approaching donors throughout the course of the project.
  - c. **Reporting:** The Promoter shall fulfil its engagement of implementing all activities encompassed by the Project in due course and shall inform the UfMS on its state of play by sending monitoring reports (template to be provided by the UfMS) on a regular basis. The Promoter shall submit the reporting as per the intervals described in the letter of labelling notification.
  - d. **Records:** The Promoter shall ensure that all required records necessary to demonstrate implementation and operation of the Project are made readily available for the UfMS, in order to complete any assessment that may be required.
  - e. **Visibility:** The Promoter shall ensure that the mention of the UfM label and, as appropriate, the UfM logo, are included in any communication related to the Project. The Promoter must

use the logo and make mention of the UfM label in accordance with the UfMS visibility guidelines.

- f. **Labelling:** The Senior Officials of the UfM retain sole responsibility and authority for the decisions to approve, extend and remove the UfM label.

The Project Proposal should be completed in either **English or French** using this Project Proposal template.

All documents should be filled in according to the following text specifications (format):

- *Fonts: Calibri, Font Size: 11, Spacing: 1.5 lines*

The Project Proposal shall address adequately and succinctly all those issues that are listed in the Project Proposal template. All supplementary data should be attached as annexes to the Proposal.

Neither the UfMS nor any person acting on behalf of the UfMS is responsible for unauthorized use which might be made of the information provided.

For further information, you can contact the **Projects Directorate**, e-mail: [projects.info@ufmsecretariat.org](mailto:projects.info@ufmsecretariat.org)



### ANNEX 3 : Budget and Financial Plan

#### Budget (€)

WP1 (€)	WP2 (€)	WP3 (€)	WP4 (€)	WP5(€)	WP6 (€)	WP7 (€)	WP8 (€)	Contingency reserve (€)	Administrative costs (€)
300.000	200.000	230.000	150.000	33.000.000	150.000	3.000.000	150.000	20.000	150.000

## Financial Plan

	Name Organisation	Type of financial instrument/Nature of Funding	Timeframe			% of Total	Total
			Year 1	Year 2	Year 3		
1. Financial Contribution from Project Partnership (Own resources)	Project partners		100.000	100.000	100.000	0,8	300.000
2.1 In-Kind contribution from Partnership	Project partners		220.000	220.000	217.500	1,8	657.500
2.2 Administrative costs and contingency reserve	Project partners		57.000	57.000	56.000	0,4	170.000
3. Revenues generated by the project	N/A						-
4. Contributions from third parties/Funders (commitment or firm pledge)							-
5. Potential Contributions from third Parties (Funders already approached)	EU	EU programs	3.200.000	5.060.000	3.200.000	30,7	11.460.000
6. Envisaged Contributions from third Parties (Funders yet to be approached)	Private maritime and port operators		75.000	75.000	75.000	0,6	225.000
7. Requested fund- raising from UfM	UfM		7.000.000	10.562.500	7.000.000	65,7	24.562.500
<b>Total sources of funding</b>						<b>100</b>	<b>37.350.000</b>

**Source and percentage of financial contribution for each Work Package**

WP	WP name	Own resources <sup>10</sup>	UFM	UE	Private resources
WP1	Management and coordination of activities	100%	-	-	-
WP2	Communication	70%	-	30%	-
WP3	Capitalisation of results	25%	75%	-	-
WP4	Promotion and test of the new transport services	-	10%	40%	50% <sup>11</sup>
WP5 -- A. 5.1	Executive design of the Porto Torres port facilities	2%	35%	63%	-
WP5 -- A. 5.2	Executive design of the Beirut port facilities	-	100%	-	-
WP6	Definition of the web-based logistics platform governance	20%	30%	-	50%
WP7	Draft design of a new "ideal-vesse"	-	100%	-	-
WP8	"Business to Business" meetings	30%	20%	-	50%

<sup>10</sup> Financial undertaking from the whole partnership.

<sup>11</sup> Costs borne by the maritime operator(s) performing the testing at sea of the transport service.



#### ANNEX 4: Trading volumes between the two shores

General trading volumes between the two areas under study are provided in order to offer a general view of the market in the involved shores (Figure 4.1 and Figure 4.2). Furthermore, specific information on the trade goods volumes decomposed by transport mode (road and maritime) are given (Table 4.1 and Table 4.2) with the main goal of underlying the percentage of volumes carried by sea to the total carried among the analyzed countries (Table 4.3).

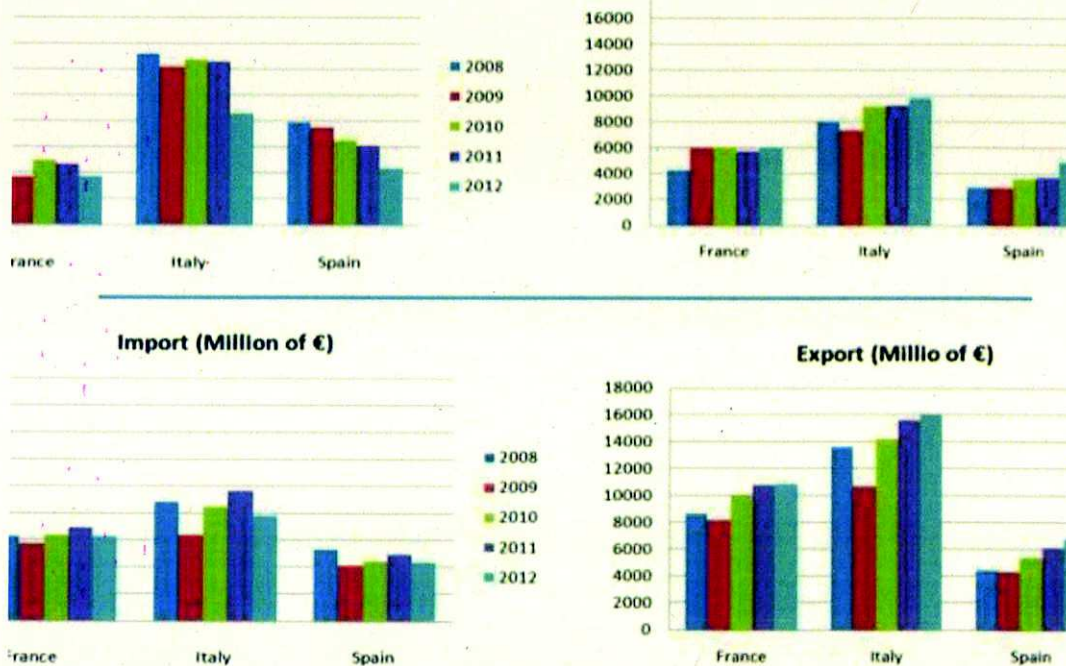


Figure 4.1: Import/Export commercial trades from EU countries to the South-Eastern Mediterranean analysed shore.

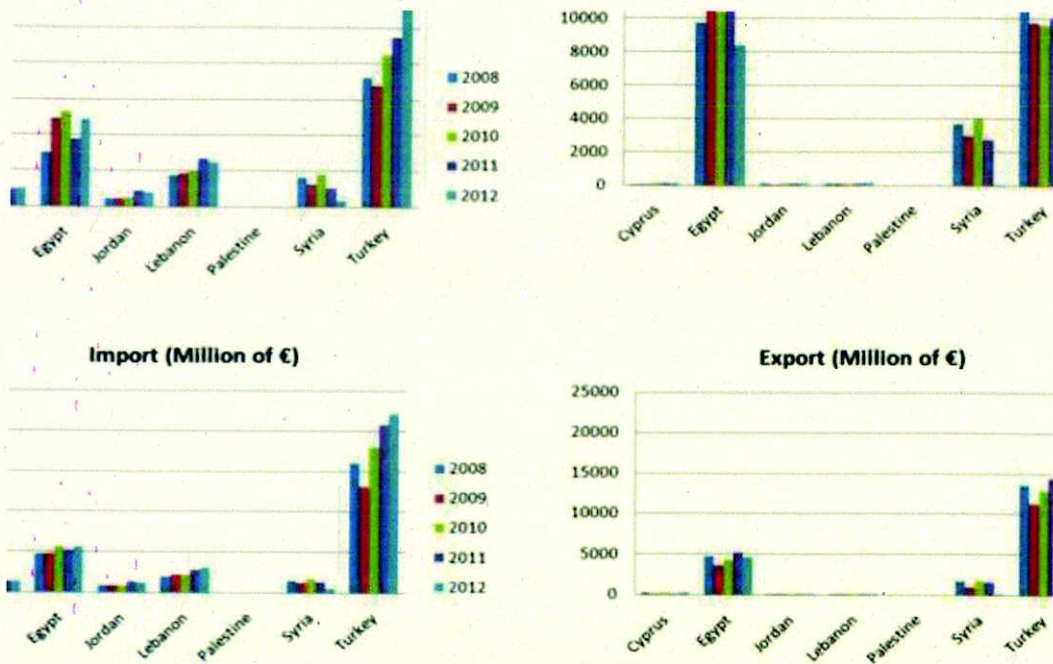


Figure 4.2: Import/Export commercial trades from MENA countries to the North-Western Mediterranean analysed shore.

Table 4.1: annual origin/destination matrix - road - all product categories (2012)

O/D	FRANCE	ITALY	SPAIN	CYPRUS	EGYPT	JORDAN	LEBANON	PALESTINE	SYRIA	TURKEY	
FRANCE	/	/	/	0,66	18,85	7,89	6,91	0,07	2,22	459,64	495,58
ITALY	/	/	/	41,27	6,76	1,25	2,93	0,00	0,82	373,40	385,16
SPAIN	/	/	/	0,72	0,36	0,40	0,43	0,00	0,24	125,34	126,76
CYPRUS	0,13	1,90	0,05	/	/	/	/	/	/	/	2,08
EGYPT	9,37	2,21	1,76	/	/	/	/	/	/	/	13,34
JORDAN	0,01	0,10	0,00	/	/	/	/	/	/	/	0,10
LEBANON	0,07	0,08	0,01	/	/	/	/	/	/	/	0,16
PALESTINE	0,00	0,00	0,00	/	/	/	/	/	/	/	0,00
SYRIA	0,78	1,42	0,03	/	/	/	/	/	/	/	2,23
TURKEY	335,83	134,52	100,10	/	/	/	/	/	/	/	570,45
	346,06	138,33	101,91	42,65	25,96	9,55	10,27	0,07	3,27	958,38	

\* thousands of tons

Table 4.2: annual origin/destination matrix - maritime - all product categories (2012)

O/D	FRANCE	ITALY	SPAIN	CYPRUS	EGYPT	JORDAN	LEBANON	PALESTINE	SYRIA	TURKEY	
FRANCE	/	/	/	436,89	1801,28	88,54	926,83	3,11	78,97	2126,18	5024,92
ITALY	/	/	/	196,01	2156,34	374,15	1120,30	1,26	127,94	5379,37	9159,37
SPAIN	/	/	/	85,89	896,63	304,20	389,90	2,24	128,71	2862,27	4583,94
CYPRUS	17,34	15,52	12,48	/	/	/	/	/	/	/	45,34
EGYPT	2398,94	3864,60	2097,49	/	/	/	/	/	/	/	8361,03
JORDAN	2,42	32,47	58,40	/	/	/	/	/	/	/	93,29
LEBANON	11,80	56,28	72,64	/	/	/	/	/	/	/	140,72
PALESTINE	0,35	0,29	0,00	/	/	/	/	/	/	/	0,63
SYRIA	3,72	46,38	7,66	/	/	/	/	/	/	/	57,76
TURKEY	911,30	4461,82	1933,22	/	/	/	/	/	/	/	7306,35
	3328,52	8461,83	4169,42	718,79	4854,25	766,89	2437,03	6,62	335,62	10367,82	

\* thousands of tons

Table 4.3: percentage of volumes carried by sea to the total carried in 2012

O/D	FRANCE	ITALY	SPAIN	CYPRUS	EGYPT	JORDAN	LEBANON	PALESTINE	SYRIA	TURKEY	Tot
FRANCE	/	/	/	85,70%	98,63%	90,03%	98,78%	96,97%	96,77%	81,32%	82,75%
ITALY	/	/	/	63,65%	99,57%	99,52%	99,63%	99,60%	99,23%	93,38%	92,85%
SPAIN	/	/	/	53,37%	98,99%	98,71%	99,45%	99,85%	99,65%	95,56%	93,67%
CYPRUS	31,33%	65,01%	69,64%	/	/	/	/	/	/	/	51,68%
EGYPT	99,14%	99,92%	98,83%	/	/	/	/	/	/	/	99,42%
JORDAN	79,37%	99,30%	99,97%	/	/	/	/	/	/	/	99,07%
LEBANON	94,27%	99,80%	99,95%	/	/	/	/	/	/	/	99,39%
PALESTINE	96,31%	99,86%	/	/	/	/	/	/	/	/	97,89%
SYRIA	75,12%	96,66%	98,15%	/	/	/	/	/	/	/	95,10%
TURKEY	70,34%	97,02%	92,18%	/	/	/	/	/	/	/	91,42%
Tot	87,79%	98,08%	95,27%	63,02%	99,11%	98,00%	99,28%	98,43%	98,80%	91,18%	

## **ANNEX 5: The new OPTIMED network**

In order to characterize the new designed transport network in terms of optimal services frequencies, capacities and schedules a two-step optimization approach has been defined:

1. the first step defines the optimal frequencies and capacities of connection services along the various routes by means of a specially designed Mixed Integer Linear Programming Model. The developed model has been designed in order to meet two conflicting goals:

- the maximisation of the service quality for transporters, i.e. the maximisation of services frequencies, in order to guarantee the availability of the transport service;
- the maximisation of the load coefficient for each service, in order to ensure the economic convenience of the system for those companies that will operate the various services.

2. The second step defines an optimal timetable for the organization of the various OPTIMED services, both mother and feeder, identified by the previous step. The definition of the services' timetable is performed by means of a specially designed Mixed Integer Linear Programming model that tries to maximise the weekly coverage of each port while minimising waiting times for connection in the two hub ports.

The designed two-step optimisation approach has been tested on different scenarios of demand and different configurations of vessels capacity and speed.

Among the various demand scenarios tested, the scenario corresponding to 100% of existing ro-ro volumes and 10% of container volumes has been selected as more representative of the demand of transport that will likely characterize the new OPTIMED network in the coming years.

The resulting services frequencies of feeder and mother services are shown respectively in Table 5.1 and 5.2, while table 5.3 shows the final weekly time schedule.

Figure 5.1 graphically displays the resulting services frequencies.

Table 5.1 Feeder services.

FEEDER SERVICE NAME WESTERN SIDE	FEEDER VESSEL CATEGORY			WEEKLY FREQUENCY	WEEKLY CAPACITY (lm)
	1350	2520	3320		
Barcelona – Porto Torres - Barcelona	0	1	0	1	2.520
Genoa – Porto Torres - Genoa	2	0	0	2	2.700
La Spezia – Porto Torres – La Spezia	1	0	0	1	1.350
Marseille – Porto Torres - Marseille	5	1	0	6	9.270
Naples – Porto Torres - Naples	1	0	0	1	1.350
Sète – Porto Torres - Sète	1	0	0 </td <td>1</td> <td>1.350</td>	1	1.350
Valencia – Porto Torres - Valencia	1	0	1	2	4.670

FEEDER SERVICE NAME EASTERN SIDE	FEEDER VESSEL CATEGORY			WEEKLY FREQUENCY	WEEKLY CAPACITY (lm)
	1350	2520	3320		
Mersin – Beirut - Mersin	1	4	1	6	14.750
Lattakia – Beirut - Lattakia	1	0	0	1	1.350
Damietta – Beirut - Damietta	0	1	0	1	2.520
Alexandria – Beirut - Alexandria	1	0	0	1	1.350
Port Said – Beirut – Port Said	1	0	0	1	1.350
Limassol – Beirut - Limassol	1	0	0	1	1.350

Table 5.2 Inter-hub mother services.

MOTHER SERVICE NAME	VESSEL CATEGORY			WEEKLY FREQUENCY	WEEKLY CAPACITY (lm)
	4600	6350	7700		
Porto Torres – Beirut – Porto Torres	5	0	0	5	23.000

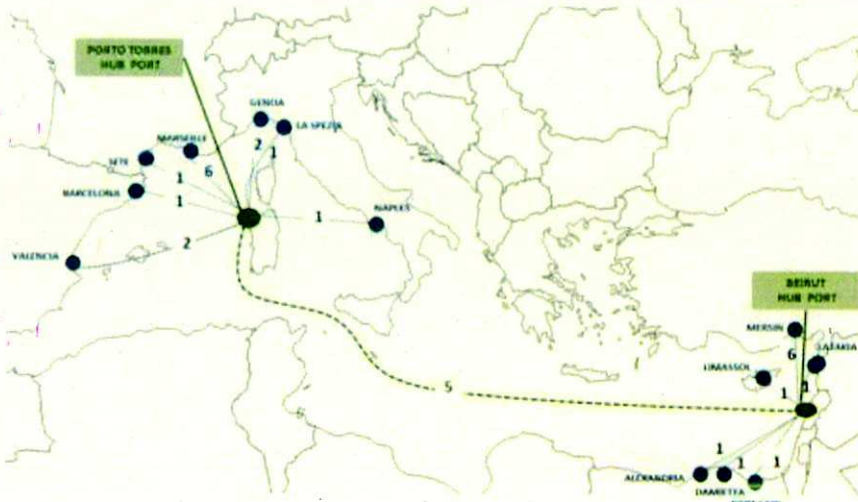


Figure 5.1 Network Frequencies.

**Table 5.3 Weekly Time Schedule.**

FROM	TO	VESSEL TYPE	OUTWARD				RETURN			
			DEPARTURE	ARRIVAL	DEPARTURE	ARRIVAL				
Valencia	Porto Torres	Small feeder	FRI	00:00	FRI	23:30	SAT	12:00	SUN	11:30
Valencia	Porto Torres	Big feeder	MON	00:00	MON	23:30	TUE	12:00	WED	13:30
Barcelona	Porto Torres	Medium feeder	THU	00:00	THU	16:30	FRI	07:00	SAT	23:30
Marseille	Porto Torres	Small feeder	MON	00:00	MON	11:45	TUE	00:00	TUE	11:45
Marseille	Porto Torres	Small feeder	TUE	00:00	TUE	11:45	WED	00:00	WED	11:45
Marseille	Porto Torres	Small feeder	WED	00:00	WED	11:45	THU	00:00	THU	11:45
Marseille	Porto Torres	Small feeder	THU	00:00	THU	11:45	FRI	00:00	FRI	11:45
Marseille	Porto Torres	Small feeder	SAT	00:00	SAT	11:45	SUN	00:00	SUN	11:45
Marseille	Porto Torres	Medium feeder	SUN	00:00	SUN	11:45	MON	00:00	MON	11:45
Sete	Porto Torres	Small feeder	FRI	20:00	SAT	11:15	SUN	00:00	SUN	15:15
Genoa	Porto Torres	Small feeder	TUE	23:00	WED	11:00	WED	23:00	THU	11:00
Genoa	Porto Torres	Small feeder	THU	0:00	THU	12:00	FRI	00:00	FRI	12:00
La Spezia	Porto Torres	Small feeder	SAT	12:00	SUN	00:00	SUN	12:00	MON	00:00
Naples	Porto Torres	Small feeder	WED	0:00	WED	15:45	THU	06:00	THU	21:45
Porto Torres	Beirut	Small mother	TUE	23:00	FRI	19:45	SAT	11:00	TUE	05:45
Porto Torres	Beirut	Small mother	THU	00:00	SAT	20:45	SUN	12:00	WED	06:45
Porto Torres	Beirut	Small mother	FRI	00:00	SUN	20:45	MON	12:00	THU	06:45
Porto Torres	Beirut	Small mother	SAT	23:00	TUE	19:45	WED	11:00	SAT	05:45
Porto Torres	Beirut	Small mother	MON	23:00	THU	19:45	FRI	11:00	MON	05:45
Beirut	Mersin	Small feeder	SAT	06:00	SAT	16:00	SUN	05:00	SUN	15:00
Beirut	Mersin	Medium feeder	FRI	12:00	FRI	22:00	SAT	10:00	SAT	20:00
Beirut	Mersin	Medium feeder	THU	0:00	THU	10:00	THU	22:00	FRI	08:00
Beirut	Mersin	Medium feeder	SUN	12:00	SUN	22:00	MON	10:00	MON	20:00
Beirut	Mersin	Medium feeder	MON	0:00	MON	10:00	MON	22:00	TUE	08:00
Beirut	Mersin	Big feeder	TUE	00:00	TUE	10:00	WED	00:00	WED	10:00
Beirut	Lattakia	Small feeder	TUE	0:00	TUE	05:40	TUE	18:00	WED	23:40
Beirut	Damietta	Medium feeder	MON	17:00	TUE	06:20	TUE	18:30	WED	07:50
Beirut	Alexandria	Small feeder	WED	12:00	THU	7:00	THU	19:00	FRI	14:00
Beirut	Port Said	Small feeder	FRI	20:00	SAT	08:45	THU	21:00	FRI	09:45
Beirut	Limassol	Small feeder	SAT	22:00	SUN	05:15	SUN	17:00	MON	00:15



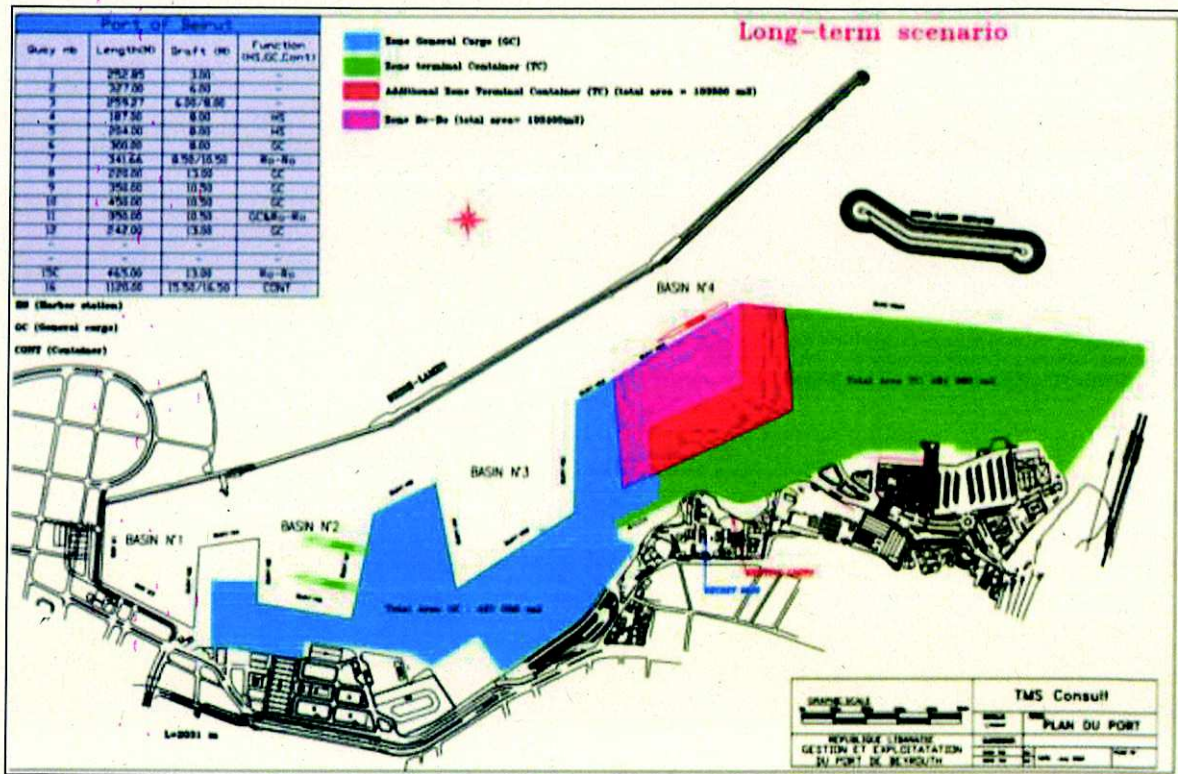


Figure 6.2 Preliminary design of the Beirut port.

## ANNEX 7: The new web-based platform

A new web-based logistics platform has been created in order to support the new optimized trade network and to enable users to plan shipping a virtual platform has been implemented.

Thought the platform users can identify and evaluate the best transport option considering different itineraries, departure dates, travel times, service frequencies, transportation costs and so on.

The platform is available at the following link: [www.optimed.imet.gr](http://www.optimed.imet.gr) .

Services offered by the platform are shown in Table7.1.

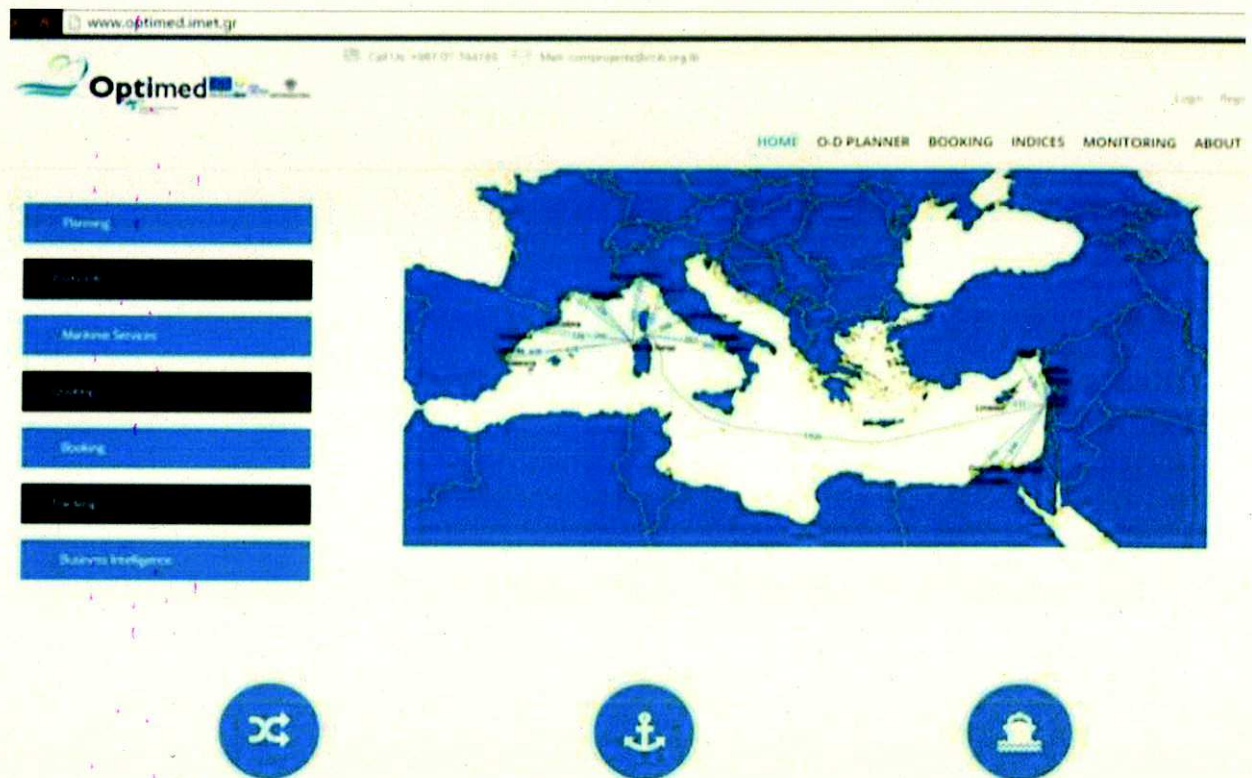


Figure7.1 Virtual logistics platform screenshot.

## **ANNEX 8: Cost-Benefit analysis**

A cost-benefit analysis has been performed in order to calculate and compare benefits and costs coming from the proposed new network transport option assuming different scenarios.

The financial and economic efficiency have been assessed by means of the indicators net present value (NPV) and economic net present value (ENPV) calculated on the total costs for each scenario examined.

For the proposed network structure the NPV have been calculated as the difference at the base year between the sum of capital and operating costs and the sum of revenue and economic benefits for the user over the useful lifespan of the intervention (25 years).

In particular, the financial analysis (Table 8.2) does not account for the monetised time savings and the infrastructure costs, while the economic analysis does (Table 8.5).

### **Specific determination of costs and benefits and performance indicators**

#### ***Capital costs***

Capital costs are computed as the amount of resources and costs needed to build infrastructure, purchase ships and equipment and provide new services suitable for accomplishing the project scenario. With regard to **infrastructure costs**, the costs of expanding the two Beirut and Porto Torres have been considered. These amount to a total of 490 M€ (320 M€ for Porto Torres and 170 M€ for Beirut). Assuming the work will be completed in three years, the investment has been divided equally over the construction period obtaining an annual investment of around 163 M€.

As for the **purchase of vessels**, five mother ships are required to ensure 5 inter-hub services a week, at an estimated cost of 80 M€ per ship, if purchased within the European Union. For ships purchased outside the EU a saving of 30% is estimated (56 M€ per ship).

It has also been assumed that 55% of the cost of vessel acquisition will be borne by the owner and paid in 3 years, while the remaining 45% will be covered by a loan repayable over 13 years at an interest rate of 3%.

#### ***Chartering costs***

Some scenarios envisage that the mother ship fleet comprises a certain number of chartered vessels. The cost of chartering a single vessel is estimated at 5.475.000 M € a year

### ***Ro-Ro cassettes***

In the analysis the costs of purchasing ro-ro cassettes for handling containers, estimated at 8 M€ per vessel has also been taken into account. Clearly this is a one-off cost borne at the beginning of the useful life of the vessel.

### ***Calculation of operating costs***

Operating expenses for the sea leg concern those costs directly associated with the navigation management and operations. The following are generally taken into account: cost of crew, costs of fuel and lubricants, additional costs (port charges, insurance, maintenance). RO-RO services operating costs have been estimated at around 173 €/nm<sup>12</sup>.

### ***Economic benefits***

The following positive and negative effects have been included in the cost-benefit analysis, evaluated and monetised differently for the current situation and project scenario:

- Calculation of sales revenue;
- Variation of transit times on shipping route;
- Residual value of the vessel.

For calculating the indicators, traffic demand in 2012 for the ports examined was used.

### ***Calculation of sales revenue***

Sales revenue has been calculated considering a charge per linear metre per nautical mile for RO-RO shipping.

Specifically, for a RO-RO truck, a tariff of 0.19 € per linear metre has been set for the feeder routes reduced to 0.12 € on the mother ship routes<sup>13</sup>.

As for the sales revenue from container traffic, tariffs are set at 0.063 € /lm on the feeder routes and 0.04 €/lm on the mother ship routes.

This revenue has been obtained for the system operating at full capacity, that is when it succeeds in attracting current levels of demand (RO- RO and 10% TEU). It is assumed that this will be achieved from the 7th year of useful life onwards.

For the first years demand is considered to gradually increase, at different rates for RO- RO and TEU (Table 8.1)

---

<sup>12</sup>"Elaboration of the East Mediterranean Motorways of the Sea master plan", December 2009

<sup>13</sup>East Mediterranean Motorways of the Sea master plan", December 2009

**Table 8.1 – Variation of RO-RO and TEU demand**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7 onwards
<b>Ro-Ro</b> (100% of the actual demand)	30%	50%	60%	70%	80%	90%	100%
<b>TEU</b> (100% of the actual demand)	5%	15%	30%	45%	60%	80%	100%

***Residual Value***

The residual value of a mother ship after 25 years has been estimated at 30 M€ .

***Reduction of transit times***

Savings in total journey times is one of the most important parameters in project assessment in the transportation sector. Time savings are without doubt the most significant “benefit” in any project aimed at improving transport systems. Journey time is intended here as the sum of transit time, turnaround time and freight waiting time.

In order to be able to evaluate the reduction in total journey time in economic terms, the concept of Value of Time (VoT) needs to be defined, i.e. the willingness on the part of the customer to pay for any improvements in the transport supply characteristics. The VoT has been taken as 27 €/RO-RO heavy vehicle/h (excluding the hourly cost of the driver and for a vehicle with load of over 12 t). The monetised time savings for TEU have not been taken into account.

***Discount rate***

The discount rate has been taken as 3.5%.



Table 8.2 Financial Analysis scenarios.

FINANCIAL ANALYSIS										
SCENARIO	Net Present Value (year25)	Costs					Benefits			Vessel Residual Value
		Mother vessels to purchase	Mother vessels to rent	Mother vessels already owned	Ro-Ro cassettes to purchase	Revenues coming from Ro-Ro	Revenues coming from container			
SCENARIO 1	-471.400.335 €	No	5 vessels	No	Yes	Yes	Yes	Yes	No	
SCENARIO 2	-426.250.066 €	3 vessels (to be ordered at year 11 and entering in service from year 13)	5 vessels (from year 1 to 12) 2 vessels (from year 13 to 25)	No	Yes	Yes	Yes	Yes	Yes	
SCENARIO 3	-11.523.221 €	No	No	Yes	Yes	Yes	Yes	Yes	No	



Table 8.3 details the annual values of the NPV for the Scenario N.3.

Table 8.4 shows the annual values of the NPV assuming a European contribution of 250 M€.

Table 8.3 Detailed NPV for the Scenario N.3.

Year	Annual NPV	NPV
1	-€144.101.565	
2	-€96.826.694	-€240.928.260
3	-€69.685.953	-€310.614.213
4	-€44.270.091	-€354.884.304
5	-€20.493.487	-€375.377.790
6	€3.251.034	-€372.126.756
7	€25.413.081	-€346.713.675
8	€24.553.702	-€322.159.973
9	€23.723.383	-€298.436.590
10	€22.921.143	-€275.515.446
11	€22.146.032	-€253.369.414
12	€21.397.133	-€231.972.282
13	€20.673.558	-€211.298.724
14	€19.974.452	-€191.324.271
15	€19.298.988	-€172.025.284
16	€18.646.365	-€153.378.919
17	€18.015.811	-€135.363.107
18	€17.406.581	-€117.956.526
19	€16.817.953	-€101.138.574
20	€16.249.230	-€84.889.344
21	€15.699.739	-€69.189.605
22	€15.168.830	-€54.020.775
23	€14.655.874	-€39.364.901
24	€14.160.265	-€25.204.636
25	€13.681.415	-€11.523.221

Table 8.4 Detailed NPV for the scenario N.3 with an EU contribution.

Year	Annual NPV	NPV
1	€105.898.435	
2	-€96.826.694	€9.071.740
3	-€69.685.953	-€60.614.213
4	-€44.270.091	-€104.884.304
5	-€20.493.487	-€125.377.790
6	€3.251.034	-€122.126.756
7	€25.413.081	-€96.713.675
8	€24.553.702	-€72.159.973
9	€23.723.383	-€48.436.590
10	€22.921.143	-€25.515.446
11	€22.146.032	-€3.369.414
12	€21.397.133	€18.027.718
13	€20.673.558	€38.701.276
14	€19.974.452	€58.675.729
15	€19.298.988	€77.974.716
16	€18.646.365	€96.621.081
17	€18.015.811	€114.636.893
18	€17.406.581	€132.043.474
19	€16.817.953	€148.861.426
20	€16.249.230	€165.110.656
21	€15.699.739	€180.810.395
22	€15.168.830	€195.979.225
23	€14.655.874	€210.635.099
24	€14.160.265	€224.795.364
25	€13.681.415	€238.476.779



Table 8.5 Economic Analysis scenarios.

SCENARIO	NPV (year25)	ECONOMIC ANALYSIS						Vessel Residual Value		
		Costs			Benefits					
		Mother vessels to purchase	Mother vessels to rent	Mother vessels already owned	Ro-Ro cassettes to purchase	Port Infrastructure	Revenue coming from saved travel time	Revenue coming from Ro-Ro	Revenue coming from container	
SCENARIO 1	6.817.453.135	No	5 vessels	No	Yes	Yes	Yes	Yes	Yes	No
SCENARIO 2	6.862.603.405	3 vessels (to be ordered at year 11 and entering in service from year 13)	5 vessels (from year 1 to 12) 2 vessels (from year 13 to 25)	No	Yes	Yes	Yes	Yes	Yes	Yes
SCENARIO 3	7.277.330.250	No	5 vessels	Yes	No	Yes	Yes	Yes	Yes	No