



**PRIORITY 6  
SUSTAINABLE SURFACE TRANSPORT**

**MTCP**

Maritime Transport Coordination Platform  
Contract: 506328  
Start: 13<sup>th</sup> April 2004  
End: 12<sup>th</sup> April 2007

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**WORK PACKAGE 2.1  
QUALITY & EFFICIENCY**

**TERMS OF REFERENCE COMPARATIVE BENCHMARKING OF  
PERFORMANCE FOR FREIGHT TRANSPORT ACROSS THE  
MODES FROM THE PERSPECTIVE OF TRANSPORT USERS:  
SHORT SEA SHIPPING VIS-À-VIS RAIL, ROAD AND  
INLAND WATERWAYS**

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*Document ID:* **M21.00.19.052.001/ToR**

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*Contributing to WP/ Task:* **2.1**

*Circulation:* **Public**

***Working Structure (Structure is based on the TERMS OF REFERENCE (MTCP) given by DG TREN - dated Brussels 22/04/05)***

**I. Introduction**

The first aim is to answer three questions:

1. Is it feasible to benchmark transport performance across modes?
2. What could be the tools or performance indicators that would allow such a comparison?
3. Are these tools available and are they practicable?

While it is expected that these questions can be answered it is also intended to create a set of indicators for being applied on selected transport routes.

The requirements of these TOR respectively answers to the questions could be met by five working steps or main chapters as described below.

**II. Inventory of existing approaches and tools**

An inventory of existing approaches and tools for benchmarking different modes from a multi-modal and uni-modal perspective will be performed. This is mainly done by desk research on existing literature, studies and projects and by contacting persons and organisations involved in similar exercises. Special emphasis will be laid on the recommended work done by the European Shippers' Council and the UK Freight Trade Association. Modes to be included are

- short sea shipping (SSS) including pre-haulage and delivery with subdivision
  - ro-ro transport
  - container transport
- inland water transport (IWT)
- rail transport
- road transport
- combined transport with subdivision
  - road/rail
  - road/IWT
  - SSS/rail

Some essential projects among the number of different projects and studies that are to be considered are the REALISE and ADVANCE projects. Both are dealing with indicators along the supply chains in intermodal transports.

### **III. Extraction of main service performance indicators (SPI)**

An extraction of main service performance indicators (SPI) or key performance indicators will be done in this part of the study. This chapter will start using the eight SPI finally chosen in the FTA Study "Service Performance Indicators for Short Sea Shipping (2001)", because there is a detailed description of the SPI and the findings of the study had the agreement by many users and other participants of working groups and the steering committee. The eight SPI for SSS are:

- The booking
- Pick-up shipment
- Deliver shipment to terminal
- Terminal handling and the voyage I
- Terminal handling and the voyage II
- Collect shipment from terminal and deliver to consignee I
- Collect shipment from terminal and deliver to consignee II
- Collect shipment from terminal and deliver to consignee III

Presumably these SPIs apply also to IWT and rail transport, only direct door-to door road transport avoids all steps linked to the terminal. Main task of the chapter is to prove if the SPI are fully applicable and if the same standards can be used. Otherwise, differences have to be elaborated and other standards proposed.

### **IV. Comparison of performance between modes**

Because the scope of this study is widened to a comparison of performance with other modes additional SPIs have to be added. While the eight SPI mentioned above could be clustered as quality indicators the additional belong to different clusters like

- Economical indicators
- Environmental indicators
- Safety indicators
- Security indicators
- further clusters may arise during the work

Besides the quality indicators also the economic and environmental indicators seem to be the most important. The extraction of these SPI needs a specification of the characteristics of relevant modes like ro-ro, container sea transport, block trains etc.

Regarding the required comparison of modes a weighting of the SPI is necessary.

### **V. Small-scale demonstration**

The TOR also require a small-scale demonstration comparing the modal performance of door-to-door SSS with rail, road and IWT. This is to be done by defining transport routes to apply and validate the practicability and feasibility of the indicators – according to

- mode-specific characteristics (as mentioned before)
- regional characteristics
  - Baltic Sea/Eastern Europe
  - North Sea/River Rhine

- South Europe/Mediterranean
- good-specific characteristics
  - high value general cargo
  - dry bulk
  - liquids and dangerous cargo

The three regions mentioned indicate the desire to include different environments regarding reliability of service providers, security, safety etc.. A more detailed definition of routes is necessary during the study work.

## **VI. Conclusions**

The main conclusions of the study will focus on the role of SSS:

- What would be, in such a benchmarking, the relative position of door-to-door short sea shipping in relation to other multi-modal or uni-modal modes door-to door?
- What are the areas where short sea shipping might need to increase its performance and what could be done for short sea shipping to allow it to perform better in the comparison?

The restricted time for conducting the study will not allow to organise so many working group meetings as carried through in the FTA Study. Using the results of this study as a valuable base will reduce the number of meetings in the current study. Nevertheless, the authors will discuss the findings and results with in-house<sup>1</sup> and external experts in smaller working groups.

## **VII. Costs and Time Schedule**

The total costs for carrying out the study will amount to 50.000 € (incl. personnel cost, travel & accommodation and possible subcontracts).

Delivery of final report until end of December 2005

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<sup>1</sup> ISL is subdivided in four different departments which means that longtime experiences for all modes as well as for all indicators clusters are available.