



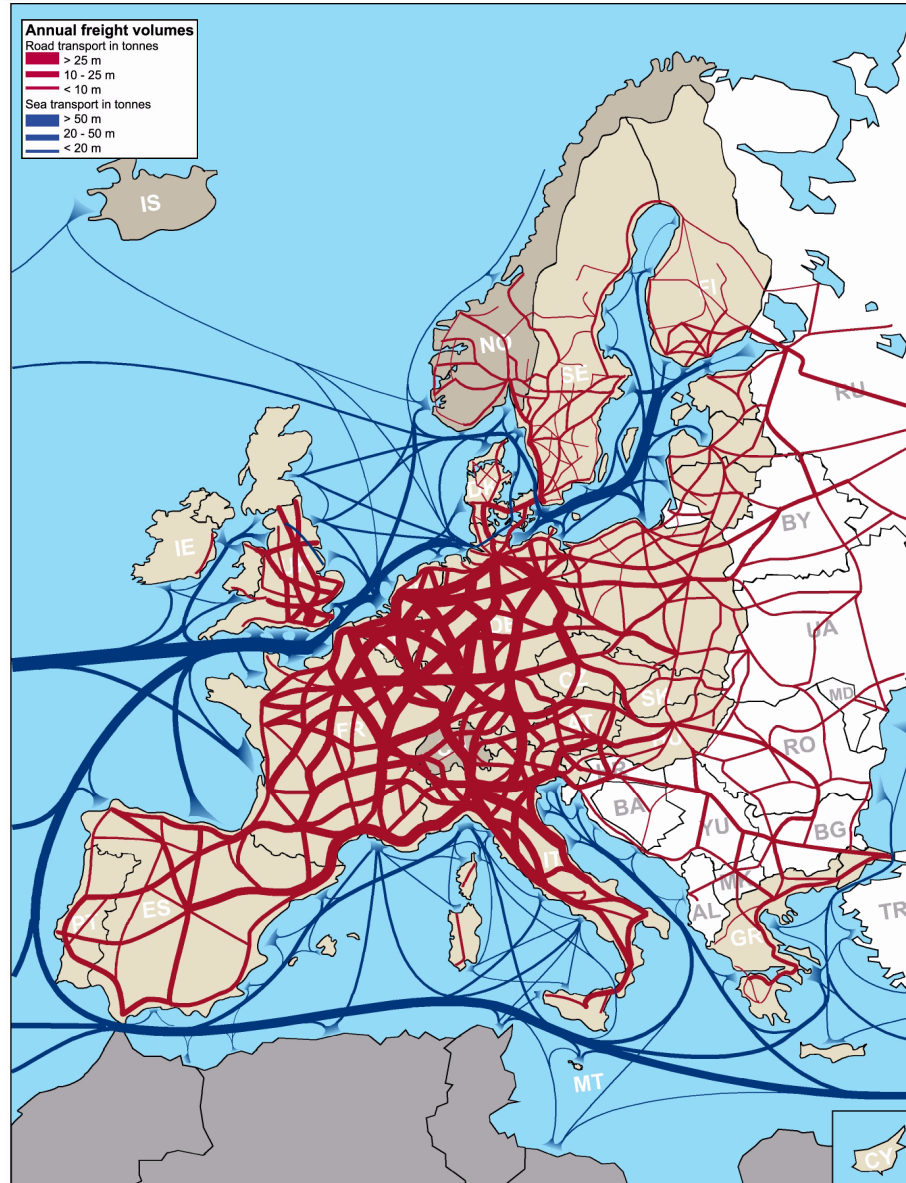
# **The realisation of Motorways of the Sea**

**A project within the MTCP  
network**

**Introduction**



# European road and sea corridors





# Methodological remarks 1

## Scope:

- To simulate roughly a potential for additional inserted MOS links between different port regions

## Set-up:

- Link additionally to the existing land and sea links selected port regions with RoRo and LoLo lines which have a higher (daily) frequency.
- Not any port capacity restrictions applied.
- The transport demand consists of international good flows excluding oil.

## Measured effects:

- Transport demand for the MOS and possible modal shift effects on road transport



# Methodological remarks 2

Explanatory remarks to results with high volumes on the MOS links but limited modal shift potential in a European perspective.

Percentage changes in total European tonne kilometres are calculated by a simple division of all road tonne km in all EU25 countries (including also the new neighbouring countries) before and after the insertion of the MOS. This can result in low values for peripheral regions with low overall transport demand - and in rather high values where the MOS have an impact on e.g. Germany, the Benelux countries and northern France.

While some Mediterranean flows show a quite big demand for the MOS, their impact on the overall European modal shift appears to be quite limited. This is because they substitute shorter distances (km) and have less influence on the areas with the most transport work (tonnes).

Also it has to be noticed that the MOS with their very attractive set-up of frequencies and capacity are a very strong competitor to sea links of less frequency and less density. In areas like the Baltic Sea many existing sea links already supply such a high quality. There the MOS are an improvement, but also their competitors can partly hold their volumes.

However, in the Mediterranean the MOS are of such a striking better quality, that they win a major part of their volumes from the already existing sea links.



# Methodological remarks 3

## Limits and benefits of the applied EFM- STAN model

- The simulation was carried out on a strategic level.
- Linking whole coastal regions with highly efficient sea links is a rough interference into the balanced and calibrated model which causes large modal and route choice effects
- The EFM Stan model is able to both simulate the route and modal choice simultaneously.
- The model is based o three components.
  - trade matrices on a NUTS 2 level,
  - the infrastructure network of major land and sea links as well as the transfers between them and
  - the cost functions on the links and transfers, which enables the EFM STAN model to simulate the whole European transport system in a cost optimised scenario.
- The year of the trade volumes tested is 2003. All goods are included except crude oil.
- All simulated flows represent the potential for all trade relations able to use the specific links. E.g. Baltic States volumes include large Russian transit volumes, Ireland also includes UK transit, French volumes also include Belgian and Dutch transit volumes etc.