

# Technological Infrastructure for the Motorways of the Sea

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# Purpose of talk

- View Motorways of the Sea from 'infrastructure' viewpoint
- Raise related issues within the same general context

# WHITE PAPER "European transport policy for 2010 : time to decide "



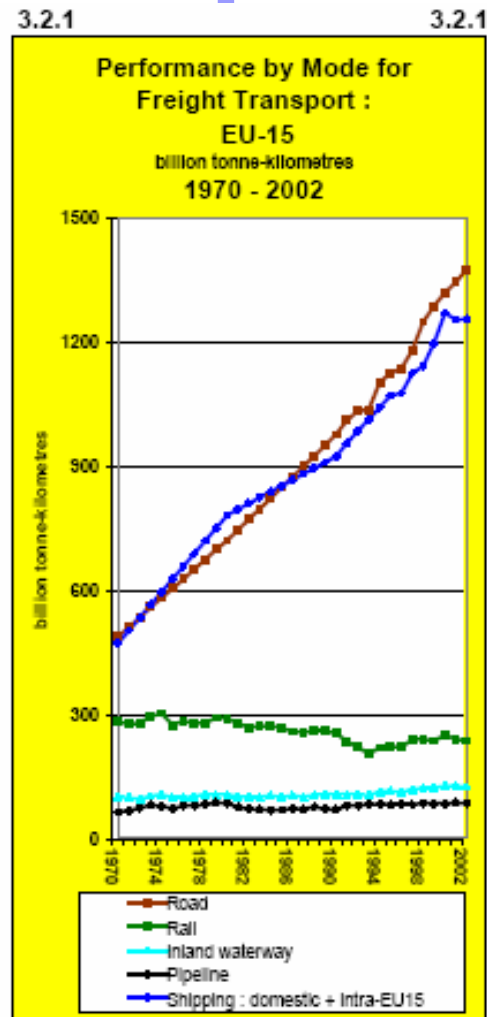
- COM (2001) 0370
- Major policy document of EU
- Outlines EU transport policy for 2010
- All modes
- 4 parts

# White paper cont'd



- Policy guidelines
- Part 1: shifting the balance between modes of transport
- Part 2: eliminating bottlenecks
- Part 3: placing users at the heart of transport policy
- Part 4: managing the globalisation of transport
- Conclusions: time to decide
- Annexes

# EU-15 modal split



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May 31, 2005



# Short sea shipping (SSS)

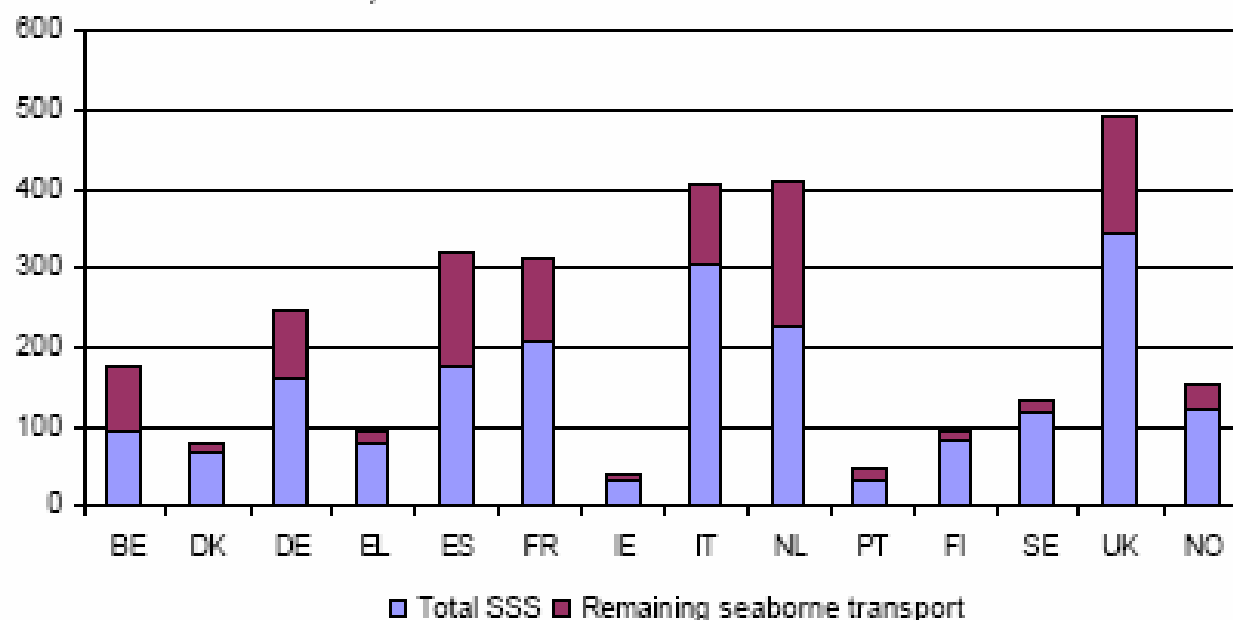
- Central pillar of EU transport policy:  
**SHIFT CARGO FROM LAND TO SEA**
- Goal: reduce transport 'external costs'  
Congestion/noise/pollution/accidents
- 2001: 0,5% of EU GDP
- 2010: rise by 142% to 1% of EU GDP  
(80 billion euros a year) if no action is taken



*In 2003, Short Sea Shipping within the EU-15 accounted for 1.6 billion tonnes of goods, of which almost a third concerned the ports on the Mediterranean sea.*



Figure 1: Share of Short Sea Shipping (SSS) in total annual turnover of tonnage - million tonnes, 2003





## Short Sea Shipping by Reporting Country and Sea Region

Map 1: EU-15 SSS by sea region and SSS by reporting country – million tonnes, 2003



# SSS bulk

Figure 6: Share of SSS in liquid bulk handled – 1000 tonnes, 2003

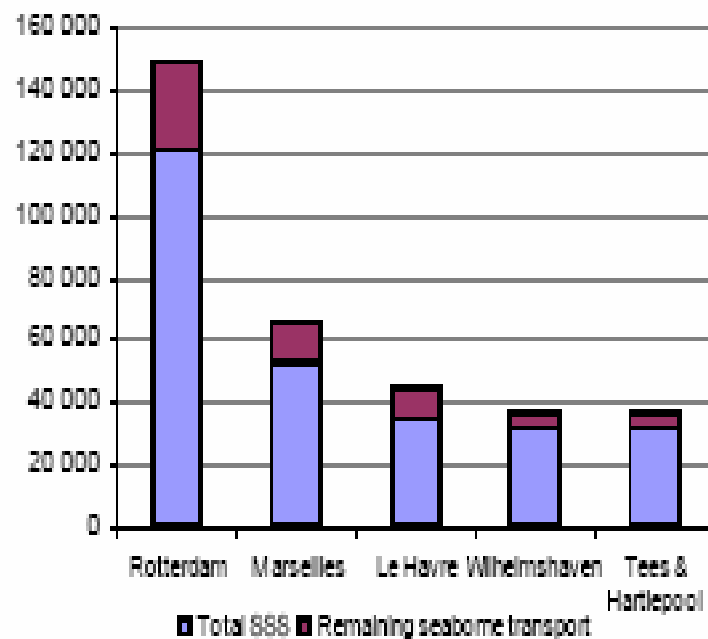
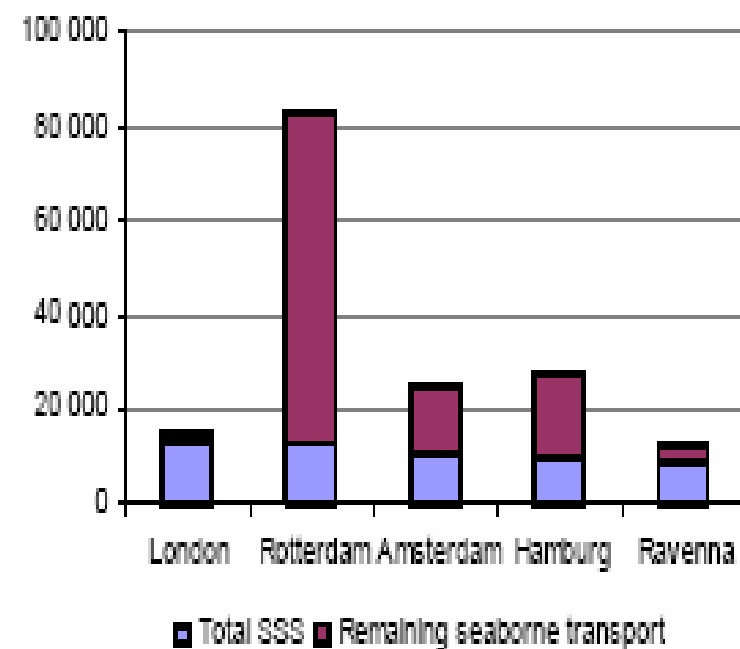


Figure 7: Share of SSS in dry bulk handled – 1000 tonnes, 2003



# SSS unitized

Figure 8: Share of SSS in containers handled – 1000 tonnes, 2003

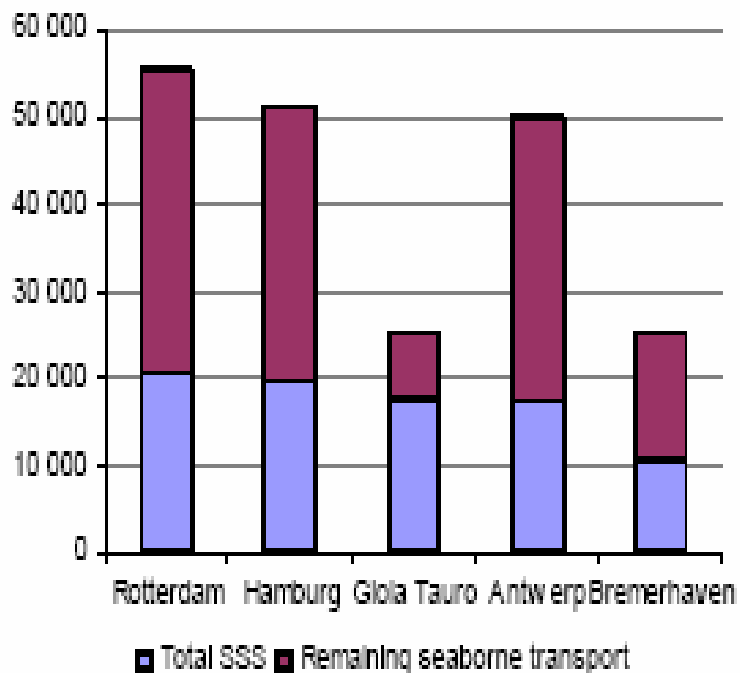
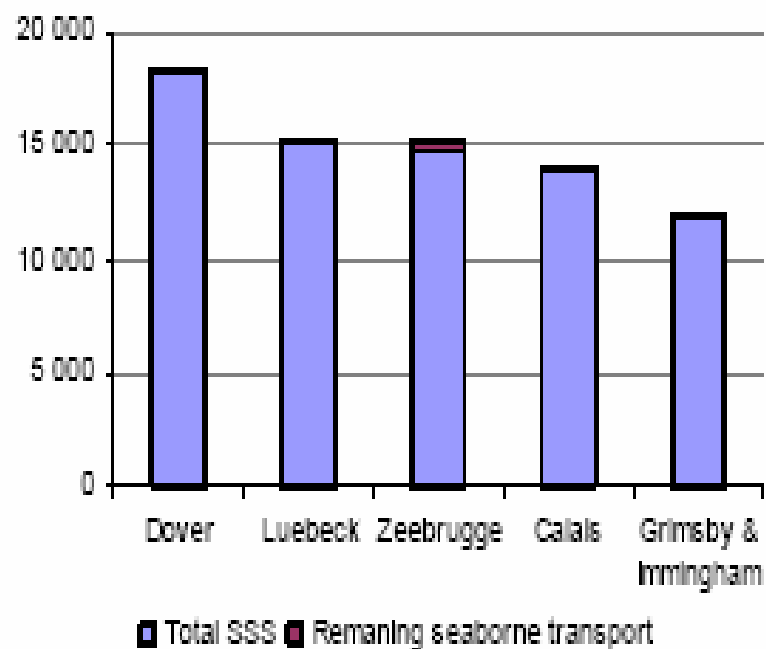


Figure 9: Share of SSS in ro-ro units handled – 1000 tonnes, 2003





# SSS obstacles (some)

- Has not yet fully shed its past image as an **old-fashioned industry**;
- Involves **complex administrative and documentary procedures**;
- Requires **enhanced port efficiency**;
- Needs new **advanced technological** solutions for ships, ports, loading units and telematicsnetworks.



# EU: Actions to promote SSS

- Adoption of a Directive **standardising certain reporting formalities** for ships to arrive in and/or depart from ports;
- New support programme **“Marco Polo”**;
- Proposal for a Directive on **Intermodal Loading Units**;
- Introduction of the **“Motorways of the Sea”** approach;
- Proposal for a **Directive on market access to port services (“port package”)**.



# Action framework: substantial

Question: Does future look bright as regards EU ports, SSS and intermodality?

Answer:

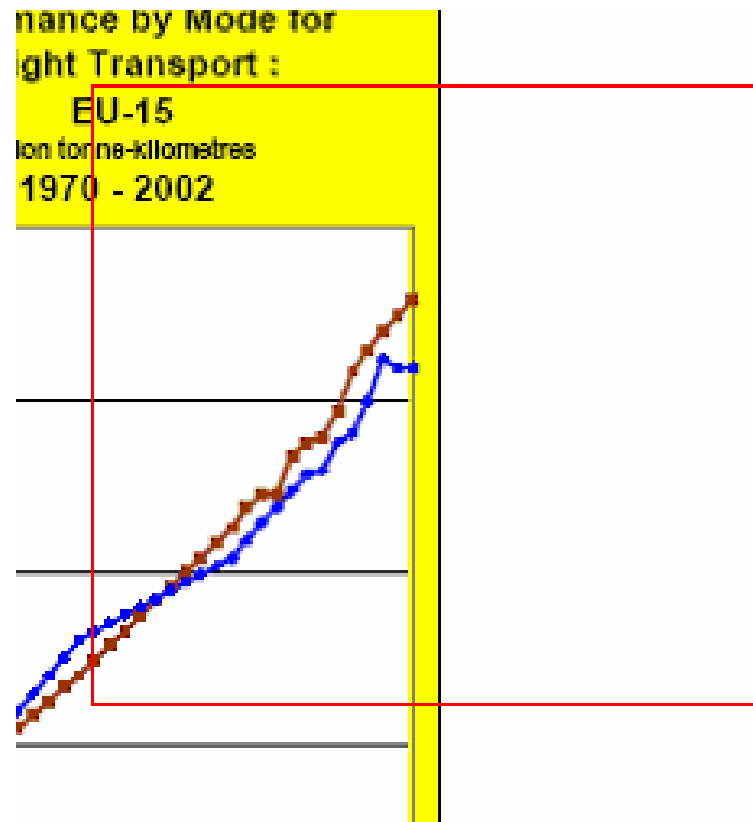
- we still have a long way to go

# The not-so-good news...

- SSS grew considerably between 1990 and 2002 (36%),
- But road transport grew even faster (41%)
- Inland navigation growth almost stagnant (<17% in 12 years)



# Focus after 1985



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# Declining shares

## Modal split

%

	Road	Rail	Inland Water-ways	Pipe-lines	Sea
1970	34.7	20.0	7.3	4.5	33.5
1980	36.3	14.6	5.3	4.3	39.4
1990	41.9	10.9	4.6	3.0	39.6
1991	42.3	9.8	4.5	3.3	40.0
1995	43.0	8.5	4.4	3.1	41.0
2000	43.2	8.2	4.2	2.8	41.6
2001	44.0	7.9	4.1	2.8	41.1
2002	44.7	7.7	4.1	2.8	40.8

# Not-so-good news cont'd

- in 1985 road surpassed SSS as the top transporter in intra-EC trades in ton-km,
- a position that it will continue to hold if no serious action is taken
- Recent trends disturbing





## And more...

- Marco Polo got much lower funding than expected (100 million euros for 2003-2006)
- 1<sup>st</sup> call (Dec. 2003): 15 million euros
- 13 projects retained
- 2<sup>nd</sup> call (Dec. 2004): 20,3 million euros
- Compare with 80 **billion** euros of annual external costs!



## Yet more...

- Serious fleet modernization problems in both SSS and IW
- EILU Directive: lack of enthusiasm from industry
- Port package: defeated in EP (November 2003)
- Big setback for EU port industry
- By extension, serious setback for EU intermodal transport

# TEN-Ts (Trans-european transport networks)



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 1.10.2003  
COM(2003) 564 final

2001/0229 (COD)

Proposal for a

**DECISION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**amending the amended proposal for a**

**DECISION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**amending Decision No 1692/96/EC on Community guidelines for the development of the  
trans-European transport network**

(presented by the Commission pursuant to Article 250(2) of the EC Treaty)

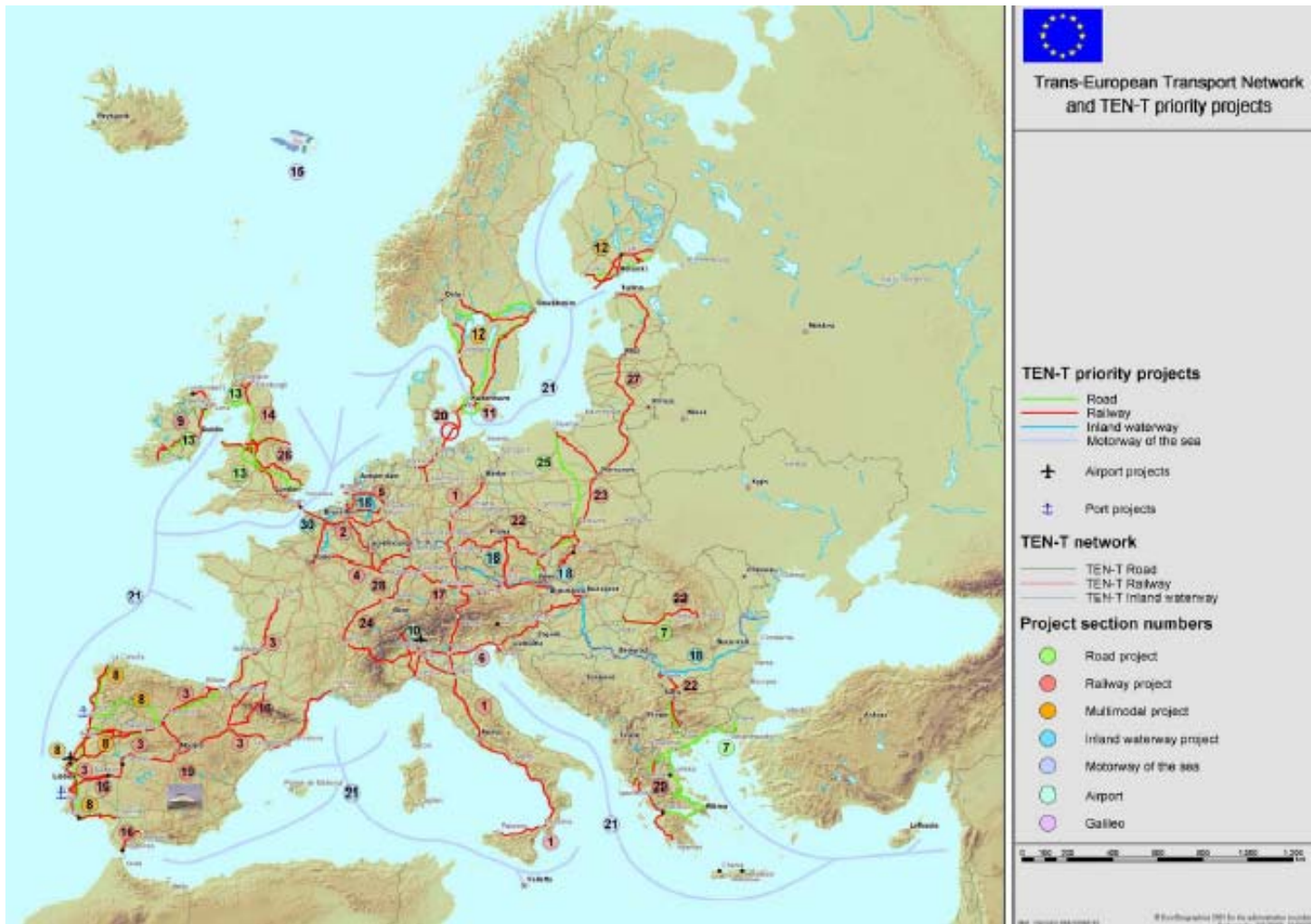
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# Basic concept

- High-level group chaired by K. van Miert
- 29 high priority projects across EU
- Funding up to 220 billion EUR by 2020
- Introducing 'Motorways of the Sea'

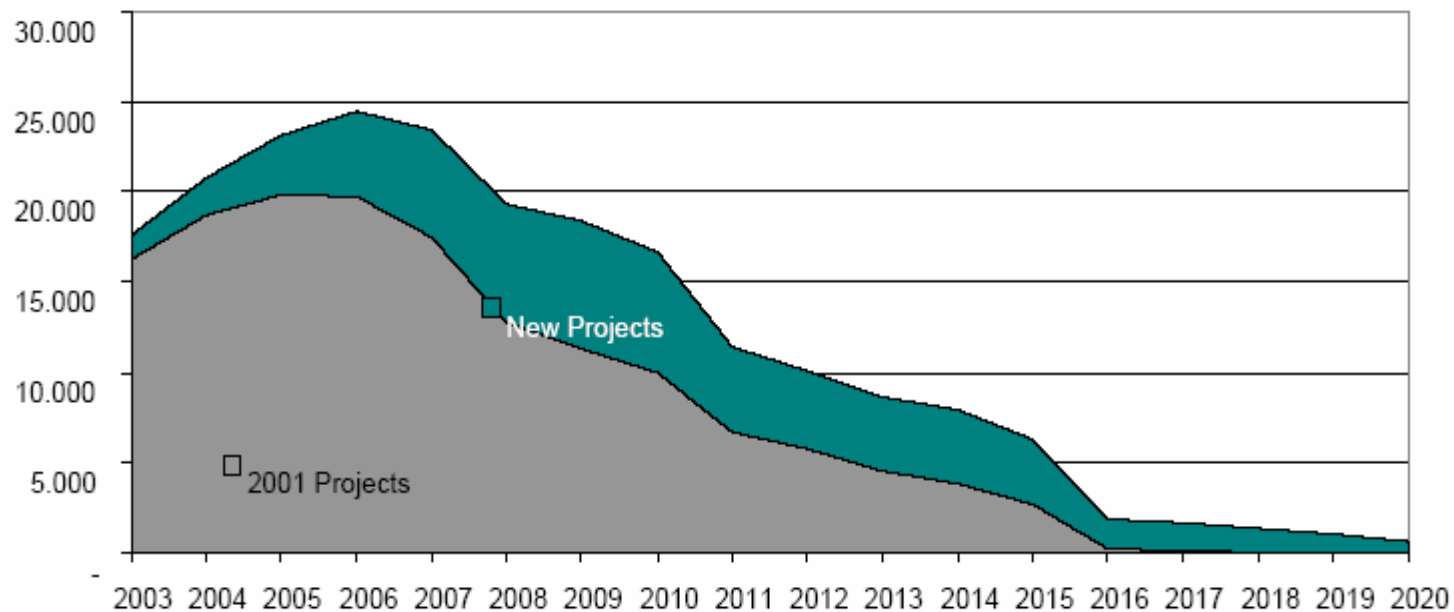
# TEN-T priority projects



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# Funding for TEN-Ts

**Remaining Investment -  
Projects proposed in 2001 and New Projects  
(2003-2020, Meuro)**



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# Motorways of the Sea (MoS- project No. 21)

- Motorway of the Baltic Sea
- Motorway of the Sea of Western Europe
- Motorway of the Sea of South-West Europe
- Motorway of the Sea of South-East Europe





## Article 12a TEN-T guidelines

- Concentration of freight flows on sea routes to reduce congestion and increase cohesion
- On one or several of the four mentioned Motorways of the Sea corridors
- Proposed by at least two Member States.



# Article 12a conditions & criteria

- Improvement of existing maritime links or establishment of new, viable, regular and frequent maritime links for the transport of goods between member states;
- Reduction of road congestion and/or improvement of access to peripheral and island regions and States. Freight should be predominant, but not exclude the combined transport of persons and goods (Contribution to modal shift and/or cohesion);
- Focus on facilities and infrastructure, which make up the network of motorways of the sea;
- May include start-up aid limited to two years in support of duly justified capital costs;
- May also include activities with wider benefits and which are not linked to specific ports
- Shall in general involve both the public and the private sectors
- Quality aspects;
- Effects on competition



# Project selection criteria

- Economical viability
- Financial profitability at the time of application is deemed insufficient
- Maturity of the project
- Stimulative effect of the community intervention on public and private finance
- Soundness of the financial package
- Direct or indirect socio-economic effects, in particular on employment
- Environmental consequences
- Especially in the case of cross-border-projects: coordination of the timing of different parts of the project

## Annex 2: funding possibilities for Motorways of the sea projects

	<b>TEN-T Guidelines</b>	<b>Marco Polo</b>	<b>ERDF</b>	<b>INTERREG</b>	<b>Cohesion fund</b>	<b>State Aid</b>
<b>Applicant</b>	Member State	Companies	MS/Regions	MS/Regions	Member States	Companies
<b>Funding focuses on</b>	Infrastructure Start-up aid for capital costs	Start-up aid for services and “ancillary” infrastructures	Large-scale infrastructure and related equipments  DOCUP <sup>18</sup> items	Large-scale infrastructure and related equipments  DOCUP items	Large-scale infrastructure (more than 10 million EUR) + related studies; DOCUP items	Infrastructure Equipment Services
<b>Objective of programme</b>	Modal shift – cohesion	Modal shift	Regional development	Cross border, trans-national and inter-regional co-operation	Cohesion between MS with the help of actions in transport and environment	Development of short sea shipping and intermodal transport
<b>Funding intensity</b>	max. 20% for projects; 50% for studies	Up to 35%	Up to 85% in ultra-peripheral regions; 80% in cohesion MS; 75% in Obj. 1 regions; 50% in Obj. 2 regions;	Up to 85% in ultra-peripheral regions; up to 75% in Obj. 1 regions; 50% in the other regions	Up to 80% of public costs (85% for ultra-peripheral regions); up to 100% for studies	30% for services and 10% for transshipment equipment External cost differential
<b>Duration</b>	Until 2010 – 2 years for start up	Max. 4 years	No formal limit, in practice 2 years	No formal limit, in practice 2 years	No formal limit	Max. 3 years
<b>Further information</b>	Webpage <sup>19</sup>	Webpage <sup>20</sup>	Webpage <sup>21</sup>	Webpage <sup>22</sup>	Webpage <sup>23</sup>	Webpage <sup>24</sup>



# Eligible for MoS funding

- **Facilities and infrastructure** open to all users on a non-discriminatory basis
- Ways of ensuring year-round navigability
- Spectrum of infrastructure is very broad!

# Infrastructure spectrum (1)

- dikes, breakwaters, locks and other high water protection measures



# Infrastructure spectrum (2)

- lights, buoys, beacons, floating pontoon ramps in tidal areas



# Infrastructure spectrum (3)

- infrastructure for utilities up to the terminal site



# Infrastructure spectrum (4)

- direct land and sea access to port, including short connecting links to the national transport networks or TEN-T Guidelines



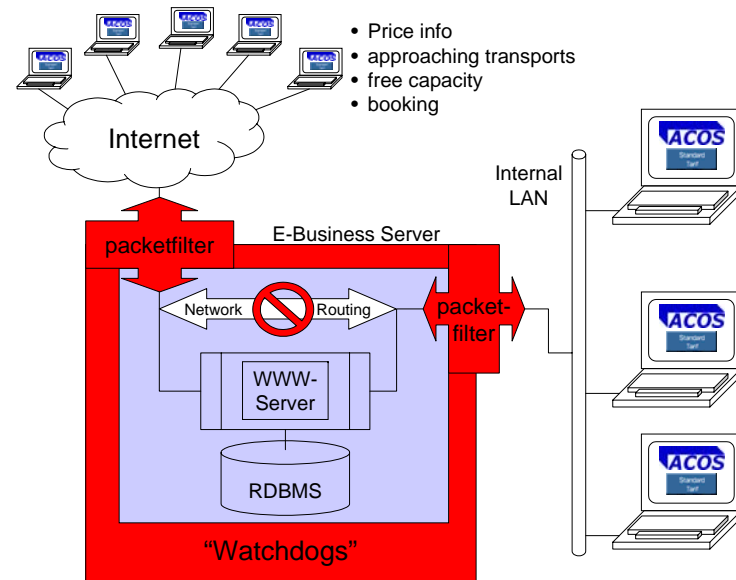
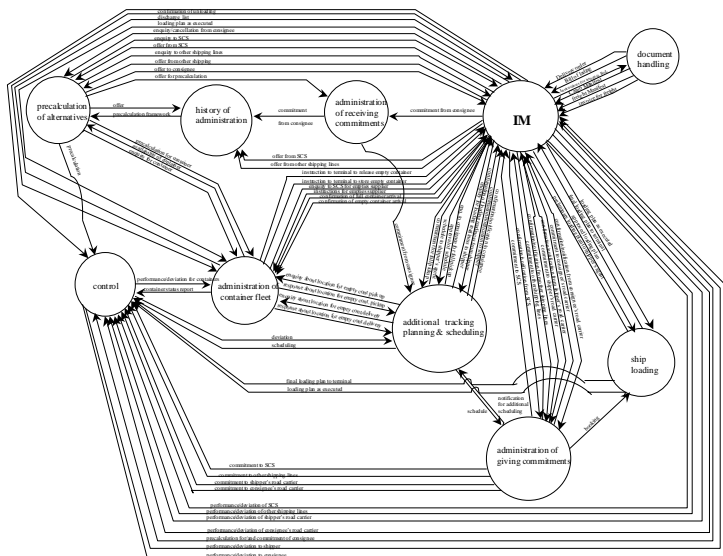
# Infrastructure spectrum (5)

- port facilities, e.g. equipment available to all users



# Infrastructure spectrum (6)

## ■ electronic logistics management systems



# Infrastructure spectrum (7)

- information systems, including traffic management (VTMIS) and electronic reporting systems
- (very important, given traffic concentration)



# Infrastructure spectrum (8)

- safety and security measures



# Infrastructure spectrum (9)

- administration and customs



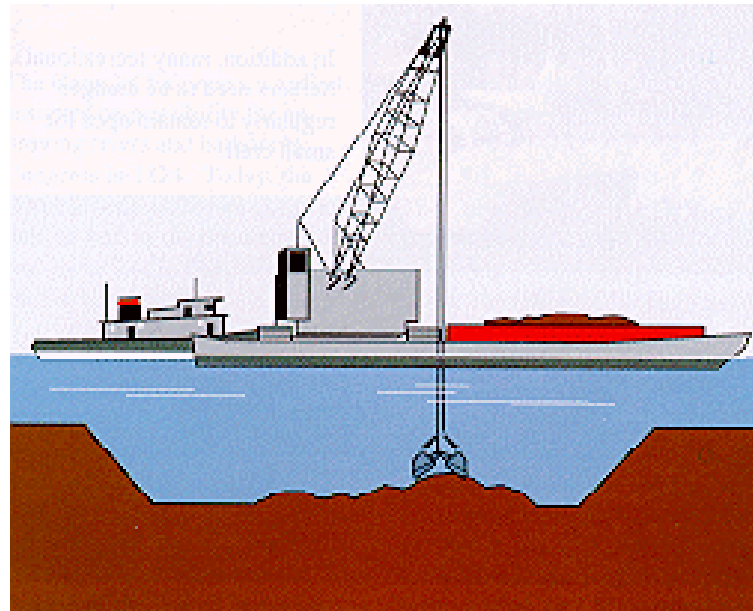
# Infrastructure spectrum (10)

- waterways and canals linking two EU MoS



# Infrastructure spectrum (11)

- facilities for dredging



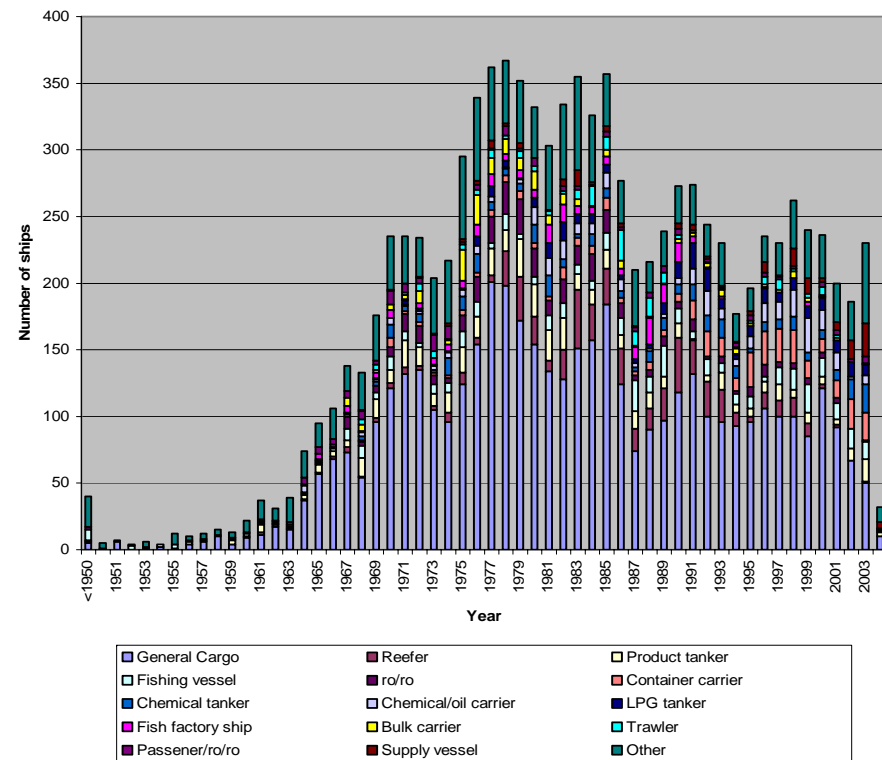
# Infrastructure spectrum (12)

- icebreakers and facilities for icebreaking for winter access



# SSS fleet ageing (source: Wijnolst & Waals, 2005)

- ships between 500 and 10,000 GRT
- ~10,000 ships in Europe
- ~460,000 port calls (2003)
- 38% of fleet over 25 years
- 21% of fleet over 30 years
- 10% of fleet over 35 years!
- Q: How will fleet be replaced?
- Q: What will happen to SSS?





# Challenges

- Urgent need to reverse trend (road vs sea)
- Need of significant private capital
- Awareness of possible distortions of competition
- Demanding regulatory environment  
(+safety+security+environmental protection)
- Coordination aspect (many players)
- Focus on a few things that would make a difference (do not spread too thin)
- Allocate resources to most cost-effective solutions



# Thank you very much!



## Coordinates

- [hnpсар@deslab.ntua.gr](mailto:hnpсар@deslab.ntua.gr)
- [www.martrans.org](http://www.martrans.org)