

Challenges in International Seaborne Transport

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Move straight to main conclusion

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- **THERE ARE MANY SERIOUS CHALLENGES IN INTERNATIONAL SHIPPING**
- **CHALLENGE NUMBER ONE:**
- **Being a keynote speaker in IAME 2007**

TYPES OF CHALLENGES

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- **FOCUS ON 2 CONTEXTS**
- **Logistics-intermodality (mainly in Europe)**
- **Safety- environment (more globally)**

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- **MAIN CHALLENGES:**
- **Develop a global maritime-intermodal transport system that is efficient and competitive**
- **Integrate Short Sea Shipping (SSS) within intermodal logistics chains**
- **Formulate efficient and effective port policies**

In Europe: White Paper on Common Transport Policy to 2010: Time to Decide

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- **SSS: Central pillar of EU transport policy:**
GOAL: “SHIFT CARGO FROM LAND TO SEA”
- **Objective: 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

Parenthesis: In the US

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- **STONE-AGE SITUATION**
- **Jones Act:**
- **Intra-US trade: only by ships that**
 - Fly the US flag
 - Are manned by US crew
 - Are built in the US!
- **+ Enormous lobbying power of trucking industry, ... →**
- **Situation as regards SSS: hopeless**

In Europe: a series of measures to promote SSS and intermodality

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- **Marco Polo programme launched in 2003**
- **Successor to “PACT”**
- **Goal: shift 12 billion ton-kilometers a year from road to non-road modes**
- **~1% of the traffic**
- **Marco Polo II: shift 140 billion ton-kilometers**
- **~10% of traffic!**

Motorways of the Sea (TEN-T project No. 21)

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- **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**



The not-so-good news...

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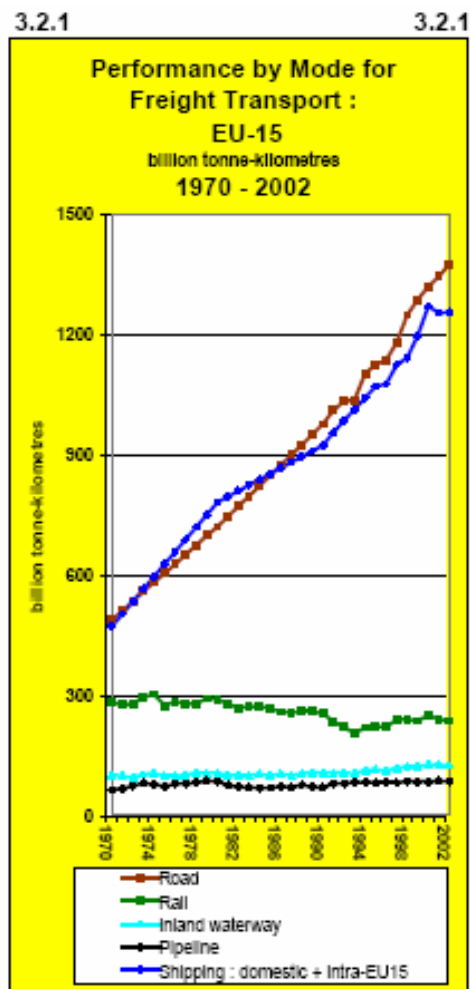
- **SSS grew considerably between 1990 and 2002 (36%),**
- **But road transport grew even faster (41%)**
- **Inland navigation growth almost stagnant (<17% in 12 years)**



EU-15 modal split

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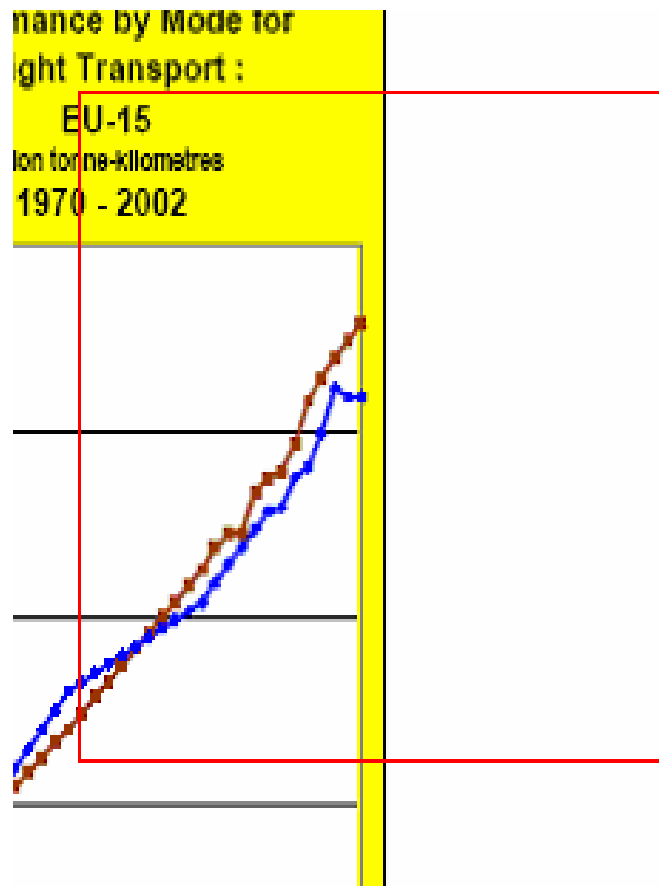
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Focus after 1985

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In fact..

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



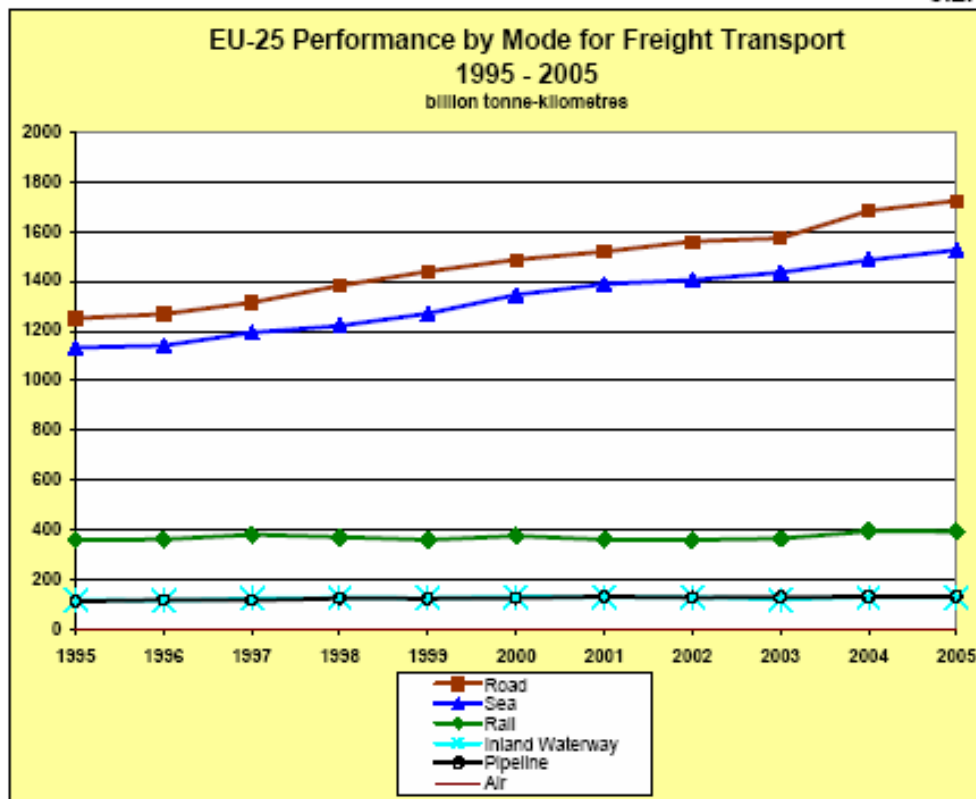
EU-25 (already 27) better?

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3.2.1



Source: tables 3.2.4 to 3.2.7, estimates

Other problems: (1) Customs procedures at ports

- **One stop shop??**



(2) SSS fleet ageing

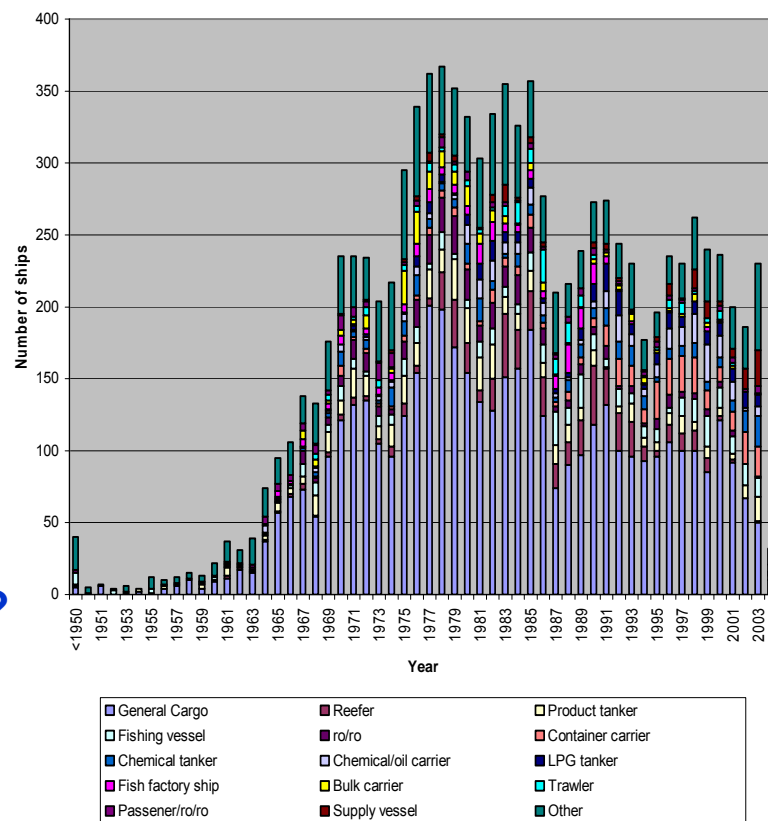
(source: Wijnolst & Waals, 2005)

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- ships between 500 and 10,000 GRT
- ~10,000 ships in Europe
- 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?



(3) the impact of environmental protection

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LIST OF EU ENVIRONMENTAL DIRECTIVES THAT AFFECT PORTS

- **The Health and Safety in the Workplace Directive,**
- **The Waste Reception Facilities Directive,**
- **The Wild Birds Directive,**
- **The Habitats Directive,**
- **The Bathing Water Directive,**
- **The Dangerous Substances Directive,**
- **The Urban Waste Water Treatment Directive,**
- **The Shellfish Directive,**
- **The Water Framework Directive,**
- **The Environmental Impact Assessment Directive,**
- **The Strategic Environmental Assessment Directive, and**
- **The Environmental Liability Directive.**



(4) yet more: the burden of security

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- **EU Regulation on ship and port security, (transposes the ISPS code into EU law)**
- **EU Directive on port security**
- **plan for an EU Directive on *supply chain security***
- **EU-US agreements (bilateral and global)**
- **Container Security Initiative**
- **CTPAT**
- **Etc, etc**

- **Failure of port package (Jan. 2006)**
- **Back to square one after 8 years of talks**
- **EU port industry still trying to regroup**



Logistics-intermodality challenge

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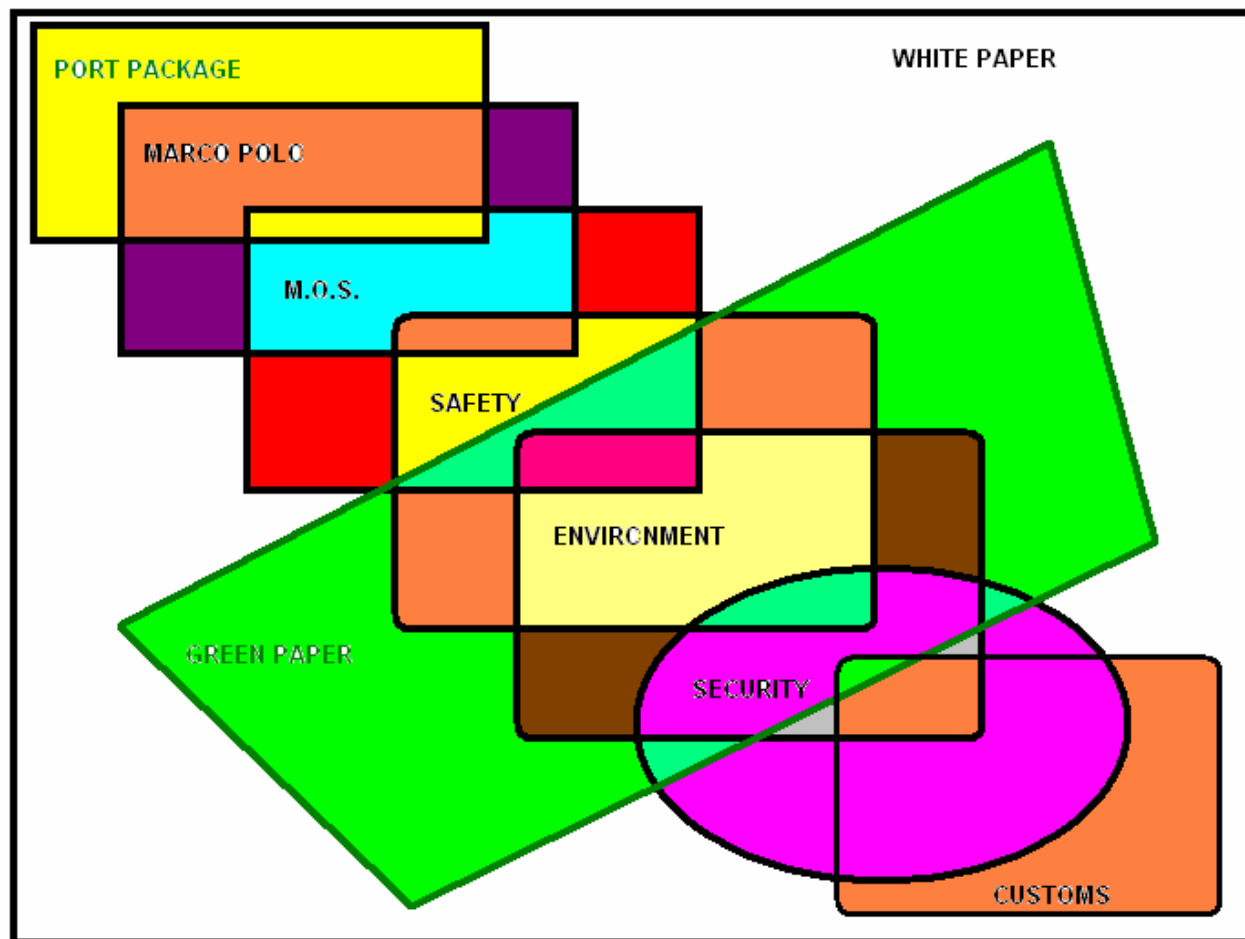
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- **Impressive regulatory framework on many fronts**
- **But policies may not converge**
- **If an over-regulated system is handed a maze of additional requirements, logistics and intermodality will suffer**
- **That will help road transport increase its share even further**
- **Central goal of shifting cargo from land to sea: down the drain.**

To be avoided..

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- **GLOBAL CHALLENGES:**
- **How to build and maintain ships that are:**
 - safe and environment-friendly
 - economically viable and competitive
- **How to attract and train seafarers who are able to cope with the ever increasing demands of the profession**
- **How to formulate efficient and effective regulation to achieve the above goals**

Regulation coverage

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- **Training requirements for seafarers**
- **Certification of seafarers**
- **Fitness for work, use of alcohol and drugs, fatigue**
- **Working and living conditions onboard**
- **Common working language between crew members**
- **Ship equipment and human-machine interface**
- **Ship-to-ship and ship-to-shore communication**
- **Vessel traffic services and vessel traffic management information services**
- **Ballast water management**
- **Global maritime distress and safety systems**
- **Ship reporting systems**
- **Port and harbor safety regulations**
- **Navigation and pilotage**
- **Loading, stowage and discharging**
- **Fire-fighting**
- **Search and rescue**
- **Environmental protection**
- **Design of ships**
- **Construction of ships**
- **Maintenance of ships**
- **Recycling of ships**
- **Survival capability of ships**
- **Emergency and evacuation procedures**
- **Maritime security**

Players in the regulation game

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- **MAIN PLAYER:**

- **IMO**

- SOLAS
- STCW
- ISM Code
- HSC Code
- ISPS Code
- FSA
- GBS
- Etc etc

- **OTHER PLAYERS:**

- European Union
- Flag states
- Port states
- Shipping companies
- Ports
- IACS and classification societies
- ILO and labor organizations
- Shippers
- Shipyards
- P&I clubs
- Environment groups
- Etc, etc, etc!

- **Too many policies**



- **Too many players**



Potential problems

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- **Over-regulation**
- **Patchwork regulation**
- **Overlaps in regulation**
- **Gaps in regulation**
- **Inconsistencies in regulation**

Criticism by shipping industry

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- **Reduction of competitiveness**
 - **Non-level playing field**
 - **Lack of comprehensive safety regime**
-
- **Dilemma: Develop new rules or enforce old ones?**

An example

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- **New Common Structural Rules (CSR) for Tankers and Bulk Carriers**
- **IACS: Safety will increase**
- **UGS: Safety will go down!**
 - and more CO₂ will be produced
- **Issue wide open (but new rules apply!)**
- **Environmental impact of new rules unknown**

More examples

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- **HOW SAFE IS SAFE ENOUGH?**
- **WHAT PRICE SAFETY?**

(incredible as it may seem)

- **neither the IMO, nor any other rule-making body has yet answered these questions**

From IMO's FSA guidelines

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Maximum annual tolerable risk of death

- **For crew members: 1/1,000**
- **For passengers: 1/10,000**
- **For third parties or public ashore: 1/10,000**

Negligible risk: 1/1,000,000

THESE ARE INDICATIVE FIGURES ONLY

Comparison to air transport

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- **Chance of being involved in a fatal air crash: 1 in 8 million per flight on 1st world airlines (Barnett, 2006)**
- **Take a flight every day: expected time until death: 22,000 years**
- **Take 8 flights a year: annual risk of death is 1/1,000,000**
- **Why is a ship passenger allowed an annual risk 100 times higher? (1/10,000)**
- **Are maritime transport travelers second class citizens?**

Goal Based Standards

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- **Proposed by Greece-Bahamas-IACS (2004)**
- **Move from ‘prescriptive’ to ‘goal based’ regulation**
- **Discussion currently under way at IMO**
- **Big challenge: how GBS should proceed so that new ‘goal based’ rules are better than old ones**

Putting a price on things

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- **ON HUMAN LIFE:**
- **\$3 million (IMO)**
- **ON OIL POLLUTION DAMAGE:**
- **Issue wide open (under discussion at IMO and elsewhere)**
- **IACS circles suggest \$60,000/tonne**

What \$60,000/tonne means

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- **Prestige 4.9 billion dollars** (1,633)*
- **Braer 6 billion dollars** (2,000)*
- **Torrey Canyon 8.5 billion dollars** (2,833)*
- **Haven 9.9 billion dollars** (3,300)*
- **Amoco Cadiz 16 billion dollars** (5,333)*
- **Castillo de Bellver 17.8 billion dollars** (5,933)*
- **Atlantic Empress 19.7 billion dollars!** (6,567)*

***equivalent deaths (assuming \$3 million/fatality)**

In conclusion

- **Should some maritime policy makers reformat their disk?**



My personal opinion

- **Not a bad idea!**
- **And that's the biggest challenge of them all**

Thank you very much!

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